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Titel | Title

osint AND "war"

Bellingcat's Contribution to the Documentation, Attribution and Prosecution of War Crimes and Crimes against Humanity in the First Year of the Escalation of the International Armed Conflict in Ukraine

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Michael Leopold Sailer

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ABSTRACT

This thesis explores Bellingcat's role within the broader open source investigative community and how it contributes to documenting, attributing and prosecuting war crimes and crimes against humanity.

The opening chapter, "WAR", examines the international armed conflict between the Russian Federation and Ukraine, which escalated to a full-scale invasion on 24th February 2022, through the lens of international criminal law, emphasizing international humanitarian law (IHL) and international human rights law (IHRL).

The second chapter, "OSINT", delves into relevant terms such as open source intelligence (OSINT), open source research and investigation, highlighting their development into an essential tool and method for investigating crimes, especially regarding atrocity crimes that arise as a consequence of armed conflicts. To reach a clear conception of OSINT/open source research from both an applied-professional and an academic-methodological standpoint, *The Berkeley Protocol on Digital Open Source Investigations* is closely analysed and compared with Bellingcat's work and its publications.

The third chapter, "BELLINGCAT", focuses on the nature and past impact of Bellingcat as one of the most widely known open source investigative collectives in the field. The chapter details how Bellingcat has gone from being a mere member of the community to actively transforming it through its exposing of numerous violations, including atrocity crimes committed by individuals, some of whom acting on behalf of state agencies. Consequently, cases related to Russia, Ukraine, and the ongoing armed conflict are examined using diverse sources, including Bellingcat, media reports and official reports by public institutions and international organisations.

"BELLINGCAT, OSINT AND WAR" is the final and core chapter that builds upon the findings of the previous ones. It examines information about Bellingcat's Justice and Accountability (J&A) Unit, the corresponding J&A Methodology, and incidents published on the publicly available *Civilian Harm TimeMap*. The chapter scrutinizes several cases that potentially qualify as war crimes or crimes against humanity (e.g. the usage of cluster munition in densely populated areas, attacks on cultural heritage and water infrastructure, etc.), disinformation operations, and instances where multiple violations could potentially be attributed to individual perpetrators. In addition to investigations offering potential open source evidence of violations of IHL and IHRL, the thesis covers a selection of reports and articles that provide more contextual information about the respective international armed conflict and explores OSINT/open source research tools and methods that Bellingcat has applied and developed during the considered time period.

In the CONCLUSION, the central research question probes into Bellingcat's role within the broader open source investigative community, specifically examining how this open source investigative collective contributes to documenting, attributing, and eventually prosecuting war crimes and crimes against humanity, with a focus on the first year since the escalation of the international armed conflict in Ukraine.

Disclaimer: This thesis acknowledges certain thematic and temporal constraints and limitations. Due to the temporal focus adhered in this work, spanning from February 2022 to February 2023, and the fact that the main part of the research, including primary and secondary sources, has been compiled within this period, some findings and conclusions may become outdated by the time of the completion of this thesis.

ZUSAMMENFASSUNG

Diese Masterarbeit befasst sich mit Bellingcats Rolle innerhalb der Open-Source-Investigativcommunity (engl. open source investigative community) und dessen Beitrag zur Dokumentation, Attribution und Strafverfolgung von Kriegsverbrechen und Verbrechen gegen die Menschlichkeit.

Das erste Kapitel – "WAR" – untersucht den internationalen bewaffneten Konflikt zwischen der Russischen Föderation und der Ukraine, der am 24. Februar 2022 eskalierte, aus Sicht des internationalen Völkerstrafrechts. Die Schwerpunkte liegen auf dem internationalen humanitären Völkerrecht sowie der Menschenrechte.

Das zweite Hauptkapitel – "OSINT" – erörtert Begriffe wie Open Source Intelligence (OSINT), Open Source Research und Investigation und hebt dabei deren Entwicklung zu einem wesentlichen Instrument zur Untersuchung von Verbrechen, insbesondere solche die im Zusammenhang mit Gräueltaten als Folge bewaffneter Konflikte stehen, hervor. Um das Konzept von OSINT/Open Source Research sowohl aus der Perspektive professioneller Anwender als auch aus akademisch-methodologischer Sicht zu erschließen, wird das *Berkeley Protocol on Digital Open Source Investigations*, welches mittlerweile als maßgeblicher Standard in diesem Bereich gilt, behandelt und anschließend mit der Arbeit und den Bellingcats Veröffentlichungen in Bezug gesetzt.

Das dritte Kapitel – "BELLINGCAT" – konzentriert sich auf Bellingcats bisheriges Wesen und Wirken als eines der bekanntesten Open-Source-Ermittlerkollektive. Es erläutert wie Bellingcat nicht nur ein bloßer Teil der breiteren Community wurde, sondern diese auch aktiv mitgestaltet hat. Zu den bekanntesten Beispielen gehören die Aufdeckung von Straf- und Gräueltaten, die von im Auftrag staatlicher Stellen handelnder Personen begangen wurden. Hierzu werden insbesondere jene Fälle untersucht, die im Zusammenhang mit Russland, der Ukraine und dem noch andauernden bewaffneten Konflikt stehen. Für die Analyse werden verschiedene Quellen herangezogen, darunter Bellingcat selbst, Medienberichte, sowie Publikationen von internationalen Organisationen und öffentlicher Einrichtungen.

Das abschließende und zentrale Kapitel – "BELLINGCAT, OSINT AND WAR" – baut auf den vorangegangenen Erkenntnissen auf. Es untersucht Informationen über Bellingcats Justice and Accountability (J&A) Unit, die damit in Zusammenhang stehende J&A-Methodologie, die gemeinsam mit einer Partnerorganisation entwickelt wurde, sowie Vorfälle, die auf der online zugänglichen *Civilian Harm TimeMap* veröffentlicht wurden. Das Kapitel befasst sich mit jenen Falluntersuchungen die auf Vorfälle hindeuten die als potenzielle Kriegsverbrechen oder Verbrechen gegen die Menschlichkeit gelten können (zum Beispiel der Einsatz von Streumunition in dicht besiedelten Gebieten, Angriffe auf Kulturerbe und Wasserinfrastruktureinrichtungen, etc.) sowie Desinformationsoperationen und Fälle in denen Personen Verbrechen zugeordnet werden konnten. Neben Untersuchungen die potenzielle Open-Source-Beweise für Verstöße gegen das humanitäre Völkerrecht oder Menschenrechtsverletzungen liefern, behandelt die Arbeit auch ausgewählte Berichte und Artikel die zusätzliche Kontextinformationen zum gegenwärtigen internationalen bewaffneten Konflikt liefern. Darüber hinaus werden OSINT/Open-Source-Forschungswerkzeuge und Methoden dargestellt die Bellingcat während des betrachteten Zeitraums selbst angewendet und entwickelt hat.

Abschließend soll in der CONCLUSIO auf die zentrale Forschungsfrage, also auf die Rolle von Bellingcat in der weiteren Open-Source-Investigativcommunity, eingegangen werden. Der Fokus liegt darauf wie das Open-Source-Investigativkollektiv zur Dokumentation, Attribution und Strafverfolgung von Kriegsverbrechen und Verbrechen gegen die Menschlichkeit beigetragen hat, mit dem Fokus auf das erste Jahr nach der Eskalation des internationalen bewaffneten Konflikts in der Ukraine.

Einschränkung: Da sich die vorliegende Arbeit auf den Zeitraum zwischen Februar 2022 und Februar 2023 fokussiert und der Großteil der Recherche und Analyse, einschließlich der verwendeten Quellen, ebenfalls in diesem Zeitraum durchgeführt wurde, ist nicht auszuschließen, dass einige Schlussfolgerungen bis zur Fertigstellung der vorliegenden Arbeit veraltet sein könnten.

АННОТАЦІЯ

Об’єктом дослідження нашої магістерської роботи є роль Bellingcat (вебсайт і спільнота журналістських розслідувань на основі аналізу відкритих джерел) в рамках ширшої спільноти дослідників відкритих джерел (engl. open source investigative community) і її внесок в документацію, атрибуцію та притягнення до відповідальності за військові злочини та злочини проти людства.

У першому розділі “WAR” ми досліджуємо міжнародний збройний конфлікт між Російською Федерацією і Україною, ескалація якого, з точки зору міжнародного кримінального права з фокусом на міжнародне гуманітарне право та права людини, відбулася 24-го лютого 2022 року.

Другий розділ "OSINT" пояснює такі терміни, як Open Source Intelligence (OSINT), Open Source Research and Investigation та вказує на те, що вони розвинулися до значних інструментів та стали одним з методів досліджень злочинів, особливо тих, які пов’язані з наслідками збройних конфліктів. Щоб висвітлити концепцію OSINT також як з перспективи професійного користувача, так і з академічно-методологічного погляду, ми співставимо Berkeley Protocol on Digital Open Source Investigations (Протокол Берклі з ведення розслідувань з використанням відкритих цифрових даних), який є авторитетним стандартом у цій царині, з роботою і оприлюдненням спільноти Bellingcat.

У третьому розділі "BELLINGCAT" увага концентрується на особливостях Bellingcat і його впливу як однієї з найвідоміших спільнот досліджень відкритих джерел. Розділ показує, як Bellingcat став не лише частиною широкої спільноти, а й активно вплинув на її становлення, викриваючи численні порушення, у тому числі і тяжкі злочини, скоєні особами, що у деяких випадках діяли за вказівкою державних установ. У цьому контексті наводяться приклади з різноманітних джерел (Bellingcat, повідомлення ЗМІ, офіційні звіти держустанов і міжнародних організацій), що пов’язані з Росією, Україною і збройним конфліктом, який зараз триває.

Завершальним і ключовим розділом є "BELLINGCAT, OSINT AND WAR", який базується на висновках з попередніх розділів і досліджує інформацію про Bellingcat Justice and Accountability Unit (відділ з питань правосуддя і притягнення до відповідальності), пов’язану з ним методологію J&A, яку розроблено однією з партнерських організацій, а також інцидентах, що оприлюднені на загальнодоступній платформі Civilian Harm TimeMap. У розділі досліджено декілька справ, які вказують на інциденти, що можуть розглядатися як військові злочини або як злочини проти людства (наприклад, використання касетних засобів ураження у населених районах, ураження об’єктів культурної спадщини, інфраструктури, водопостачання тощо), а також операції з дезінформування та випадки, коли у порушеннях можуть звинувачувати окремих злочинців. Поряд з дослідженнями потенційних доказів порушення міжнародного гуманітарного права і міжнародного права людини, отриманих з відкритих джерел, наша робота охоплює також вибрані доповіді та статті, що розширюють контекстну інформацію щодо міжнародного збройного конфлікту, а також вивчає засоби і методи досліджень відкритих джерел (OSINT), які застосовувалися платформою Bellingcat у період, який ми аналізуємо у нашому дослідженні.

У висновках ми знову звертаємося до ключового питання нашого дослідження: ролі Bellingcat у інших спільнотах досліджень відкритих джерел з наголосом на тому, яким чином ця спільнота сприяє документуванню, ідентифікації винних та кримінальному переслідуванню військових злочинів та злочинів проти людства (фокус на першому році з моменту ескалації міжнародного збройного конфлікту в Україні).

Обмеження. Оскільки наша робота сфокусована на періоді між лютим 2022-го і лютим 2023-го років, а більша частина досліджень і аналізу, включно з використаними джерелами, також була здійснена у цей проміжок часу, ми припускаємо, що на момент завершення роботи, деякі висновки можуть бути неактуальними.

АННОТАЦИЯ

Данная магистерская диссертация исследует роль Bellingcat в рамках более широкого сообщества расследователей открытых источников, а также то, каким образом эта организация способствует документированию, установлению виновных и судебному преследованию военных преступлений и преступлений против человечности.

Первая глава, "WAR", рассматривает международный вооруженный конфликт между Российской Федерацией и Украиной, который перерос в полномасштабное вторжение 24 февраля 2022 года, через призму международного уголовного права, с особым акцентом на международном гуманитарном праве и международном праве в области прав человека.

Вторая глава, "OSINT", углубляется в такие актуальные понятия, как разведка по открытым источникам (open source intelligence - OSINT), исследование и расследование по открытым источникам, подчеркивая их превращение в важный инструмент и метод расследования преступлений, особенно военных преступлений, возникающих в результате вооруженных конфликтов. Для формирования четкого представления об OSINT/исследовании открытых источников как с прикладной профессиональной, так и с академической методологической точки зрения, *Протокол Беркли по ведению расследований с использованием открытых цифровых данных* тщательно анализируется и сравнивается с работой Bellingcat и ее публикациями.

Третья глава, "BELLINGCAT", фокусируется на особенностях и прошлом влиянии Bellingcat как одной из самых известных групп расследователей открытых источников в данной области. Глава подробно описывает, как Bellingcat из простого члена сообщества превратилась в активного его преобразователя, разоблачая многочисленные нарушения, включая тяжкие преступления, совершенные отдельными лицами, некоторые из которых действовали по поручению государственных органов. Вследствие этого, рассматриваются случаи, связанные с Россией, Украиной и с текущим вооруженным конфликтом, используя разнообразные источники, включая Bellingcat, сообщения СМИ и официальные отчеты государственных учреждений и международных организаций.

"BELLINGCAT, OSINT AND WAR" - заключительная и ключевая глава, которая опирается на результаты предыдущих глав. Она исследует информацию об Отделе Bellingcat по вопросам отправления правосудия и привлечения к ответственности (Justice and Accountability Unit - J&A Unit), соответствующей методологии J&A и инцидентах, опубликованных на общедоступной Civilian Harm TimeMap. Глава тщательно изучает несколько дел, которые потенциально могут квалифицироваться как военные преступления или преступления против человечности (например, использование кассетных боеприпасов в густонаселенных районах, нападения на объекты культурного наследия и водопроводную инфраструктуру и т.д.), дезинформационные операции и случаи, когда множество нарушений потенциально могут быть приписаны отдельным преступникам. Помимо расследований, предлагающих потенциальные доказательства нарушений международного гуманитарного права и международного права в области прав человека, полученные из открытых источников, диссертация охватывает ряд докладов и статей, которые предоставляют более контекстную информацию о соответствующем международном вооруженном конфликте и изучают инструменты и методы OSINT/исследования открытых источников, которые Bellingcat применяла и разрабатывала в рассматриваемый период.

В заключении, центральный исследовательский вопрос рассматривает роль Bellingcat в рамках более широкого сообщества расследователей открытых источников, в частности, каким образом этот коллектив расследователей открытых источников способствует документированию, установлению виновных и судебному преследованию военных преступлений и преступлений против человечности, с особым фокусом на первом годе с момента эскалации международного вооруженного конфликта в Украине.

Ограничения: Данная диссертация признает наличие определенных тематических и временных ограничений. В связи с временными рамками данной работы, охватывающими период с февраля 2022 года по февраль 2023 года, а также тем фактом, что основная часть исследования, включая первичные и вторичные источники, была собрана в этот период, некоторые выводы и заключения могут устареть к моменту завершения данной диссертации.

INDEX

ABBREVIATIONS

aka.	also known as
AP	Additional Protocol
Art./Arts.	article/articles
BC	Bellingcat
cf.	confer, conferatur (compare)
CAAC	crimes against and affecting children
CCTV	closed-circuit television
CIA	Central Intelligence Agency
CIHL	customary international humanitarian law
CSCE	Conference on Security and Co-operation in Europe (later OSCE)
Def.	definition
et al.	et alia (and others)
etc.	et cetera
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
engl.	English (language)
EU	European Union
EUROPOL	European Union Agency for Law Enforcement Cooperation
e.g.	exempli gratia (for example)
FSB (rus. ФСБ)	Federal Security Service of the Russian Federation (rus. Федеральная Служба Безопасности - Federal'naya Sluzhba Bezopasnosti)
GC	Geneva Convention
GDPR	General Data Protection Regulation
GEOINT	geospatial intelligence
germ.	German (language)
GRU (rus. ГРУ)	Main Directorate of the General Staff of the Armed Forces of the Russian Federation aka. Russia's military intelligence agency (rus. Главное Разведывательное Управление - Glavnoye Razvedyvatel'noye Upravleniye)
HC	Hague Conventions
HTML	hypertext markup language
HUMINT	human intelligence
ibid.	ibidem (in the same place)
IAC	international armed conflict
IC	Intelligence Community
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
IHL	international humanitarian law
IHRL	international human rights law
INGO	international non-governmental organization
INTs	intelligence disciplines, intelligence collection/gathering disciplines
IO	international organization
IP	Internet protocol
IT	information technology
i.a.	inter alia (among other)
i.e.	id est (that means)
JIT	Joint Investigation Team
J&A	Justice and Accountability (e.g. J&A Methodology, J&A Unit, J&A work)
MASINT	measurement and signature intelligence
MENA	Middle East and North Africa (region)
MFA	Ministry of Foreign Affairs
MH17	Malaysian Airlines Flight 17
MLRS	multiple launch rocket system
MOD	Ministry of Defence
NGO	non-governmental organization
NATO	North Atlantic Treaty Organization

No.	number
n.d.	no date
OAVC	online audiovisual content
OSCE	Organization for Security and Co-operation in Europe
OSI	open source information
OSINT	open source intelligence
OSS	Office of Strategic Services
para./paras.	paragraph/paragraphs
PMC	private military company
POW	prisoner of war
p./pp.	page/pages (from this page on)
WW	World War
rus.	Russian (language)
SGBC	sexual and gender based crimes
SIGINT	signals intelligence
UDHR	Universal Declaration of Human Rights
UGC	user generated content
UK	United Kingdom of Great Britain and Northern Ireland
ukr.	Ukrainian (language)
UN	United Nations
UNSC	United Nations Security Council
UNSCR	United Nations Security Council Resolution
URL/URI	uniform resource locator/ uniform resource identifier
US, USA	United States, United States of America
USSR	Union of Soviet Socialist Republics
UXO	unexploded ordnance
VK	VKontakte (rus. ВКонтакте)
Vol.	Volume
vs.	versus
”DPR” or ”DNR” (rus. “ДНР“)	”Donetsk People's Republic”, so-called (rus. Донецкая Народная Республика)
”LPR” or ”LNR” (rus. “ЛНР“)	”Luhansk People's Republic”, so-called (rus. Луганская Народная Республика)

A. INTRODUCTION

> *"According @googlemaps, there is a "traffic jam" at 3:15 in the morning on the road from Belgorod, Russia to the Ukrainian border.* (…) *Someone's on the move."*

On 24th February 2022, Jeffrey Lewis, an academic and open source researcher, posted this observation on Twitter (now X)[1] mere hours before the Russian President declared "*a special military operation*"[2] and the first Russian troops officially entered Ukraine. While the majority of intellectuals, security analysts, political decision-makers, and even intelligence services were baffled by the Russian Federation's eventual initiation of a full-scale invasion[3], a number of open source researchers were not surprised at all[4]. For a long time it had seemed well-resourced intelligence agencies possessed the necessary means to assess complex, covert military operations, such as the build-up of an entire invading army. The various manifestations of both conventional and unconventional modern warfare deployed in Russia's ongoing invasion of Ukraine since 2014, has made this war more visible to the public and more transparent than any other in history.[5] Based on this development, the open source investigative community has access to an unprecedented amount of data, a process that is further facilitated by the community itself, which not only consumes online content but also actively preserves, analyses, verifies and disseminates the acquired information. This phenomenon is not contained to its online sphere but has far-reaching repercussions on the immediate military courses of action, and ultimately on tactical and strategic aspects of warfare. Bellingcat, which describes itself as "(…) *an independent international collective of researchers, investigators and citizen journalists using open source and social media investigation to probe a variety of subjects* (…)"[6], is only one of many actors in an open network of individuals who dedicate their professional work and free time to the disclosure and analysis of

[1] In addition to other social media networks, X, formerly known as Twitter and hereinafter referred to as Twitter/X, was already the most visited platform within the open source community for timely information exchange on the development of the armed conflict in Ukraine before the 24th February 2022. Cf. i.a. BC/FIORELLA (2021), BC/O´CONNOR (2022), ZARLEY (2022), VICK (2022), VENDEGRIFT (2022), VERMA (2022), IIPC (2024): 02:50, footnote 295 and 344. For the original Tweet of Jeffrey Lewis(link: https://www.bellingcat.com/about/ - visited on 18th February 2024) see Appendix a.

[2] Cf. PUTIN (2022).

[3] Cf. i.a. GARDNER (2022), YILMAZ (2022), ULLMAN (2022), HARRIS et al. (2022), CANCIAN (2022), DATAWAR (2022), DOBRYNIN (2022), NIEDERNDORFER/MANGOTT (2024), and others.

[4] Cf. i.a. HOCKENHULL (2022), MALLICK (2022) or ZARLEY (2022), BC/TOLER (2022a), BYRON (2023), DARRACH/GROZEV (2022), P+M101/BC (2022): 08:00 and 18:00, and others.

[5] Cf. i.a. BLOCK (2022), SMITH-BOYLE (2022), SYNERGIA (2023), BYRON (2023), BC (2023a): p. 9, and others.

[6] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - visited on 29th April 2022).

online information that would otherwise likely be overlooked or distorted in popular discourse and even by national and international law enforcement agencies as well as judicial bodies. In this context the terms ”open source research”, ”open source investigation”, ”open source data”, ”open source information”, and ”open source intelligence” (OSINT) are often interchangeably used.[7] As with any new phenomenon, the question arises how to classify and describe it. Is it merely another fashionable byword for just googling something on the internet, a specialized technique of investigative journalism, an alternative method of academic research, or should those collecting, processing, and disseminating open source-based information be considered as activists driven by one agenda or another? The latter point raises the question of whether anyone who consciously helps transform simple data into complex information or even intelligence[8] is not already acting in an activist manner anyway, i.e. aiming to alter the state of the real world.

Considering the multiple phenomena that arise with the advent of the information age on the battlefield (e.g., open source information affecting the operational command of belligerent parties, influencing the individuals' ability to shape conflict-related narratives, etc.), this thesis aims to explore the legal dimensions of armed conflict. This is due to the author’s understanding that, despite all the horrors of the war ongoing at the time of writing, every conflict eventually ceases one day. In addition to repairing physical damage, the restoration of interstate and international relations, and, above all, the clarification of guilt and associated atonement process will be necessary for all involved, including victims and perpetrators alike, in order to establish a lasting *Positive Peace*[9].

The German term ”Vergangenheitsbewältigung”[10], which may be translated as ”*overcoming the past*”, ”*accounting for the past*”, ”*coping with the past*” or ”*coming*

[7] Cf. i.a. BC/FIORELLA (2021), HAUTER (2021): p. 88, LENTZOS/WILSON (2021): pp. 171, GEIGER (2022): p. 2.

[8] The distinction between ”data”, ”information” and ”intelligence” will be discussed in chapter B.2. See also footnote 134.

[9] In contrast to *Negative Peace*, which is defined only by the absence of violence, *Positive Peace* goes further by containing a more comprehensive concept where the resurgence of violence is prevented by ”(…) *positive content such as restoration of relationships, the creation of social systems that serve the needs of the whole population and the constructive resolution of conflict*”. The terms were coined by Johann Galtung. Cf. DIJKEMA (2007).

[10] Vergangenheitsbewältigung (link: https://www.dw.com/en/vergangenheitsbew%C3%A4ltigung/a-6614103 - visited on 30th June 2023)

to terms with the past"[11] describes the particular process of how to deal with, and to overcome the darkest aspects of one's own history. Although *Vergangenheitsbewältigung* primarily refers to the period of National Socialism in the German national context, the notion's meaning has gradually broadened[12]. It now encompasses the process of confronting one's personal and collective past, including admission, restitution, reconciliation and, of course, prosecution – a process applicable to any post-conflict state and society.[13] The violent disintegration of Yugoslavia in the 1990s serves as an example of incomplete *Vergangenheitsbewältigung*; in particular, the handling of questions related to individual and collective guilt has had, and continues to have, long-lasting effects on the post-conflict settlement and the establishment of peaceful coexistence between former belligerents and the local population in general.[14]

Although German-Polish, German-French and other bilateral relations were characterized by numerous wars, controversies and mutual distrust for centuries – culminating in the horrors of World War II (WW II) – these nations managed, from the second half of the 20th century onwards, not only to normalize their relations, but even to establish a political union and friendship among their nations.[15] By contrast, this integrative process has been stagnating in most Western Balkan countries for more than a quarter-century already. In this thesis it is assumed that incomplete *Vergangenheitsbewältigung* is at the root of this. Historical narratives and ethno-nationalism still play a decisive and divisive role in countries such as Croatia, Bosnia and Herzegovina, Serbia and Kosovo. This often results directly

[11] While in German language there are several similar concepts in the context of *Vergangenheitsbewältigung* (e.g. *Vergangenheitsverarbeitung*, *Vergangenheitsaufarbeitung*, *Erinnerungskultur*), there is no literal translation into the English language. Cf. NEIMAN (2019): p. 18 and CONSTANZE (2016). Analogous-semantic translations, see dict.cc (link: https://www.dict.cc/?s=Vergangenheitsbew%C3%A4ltigung - visited on 30th December 2022) and dict.leo.org (link: https://dict.leo.org/german-english/Vergangenheitsbew%C3%A4ltigung - visited on 30th December 2022). For this reason, the German term will be used in the following.

[12] Over time, the concept of *Vergangenheitsbewältigung* has diverged from its historical context – namely, its ethical and moral conception of dealing with National Socialism and its associated atrocity crimes – into a more generic term. It is contemporary often referenced in the field of political and social sciences to analyse the transformation process from authoritarian to democratic-liberal governance. Cf. VON BAER (2004): pp. 33, KÖNIG et al. (1998): p. 7 and JESSE (2006): pp. 449.

[13] Eckhart Jesse defines that *Vergangenheitsbewältigung* presupposes, firstly, the existence of crimes; secondly, their termination; and thirdly, democratization. Only when these three aspects are accomplished together can *Verangenheitsbewältigung,* that is worthy to be named as such, exist. Jesse also lists the sub-areas of *Verangenheitsbewältigung*; legal prosecution ("*juristische Aufarbeitung*") and conviction of the perpetrators, financial compensation, public debate and historical analysis. Cf. VON BAER (2004): p. 35 referring to JESSE (1991): p. 716.

[14] Cf. ASIMOVIC AKYOL (2022).

[15] Cf. GARDNER FELDMAN (1999), KIEPUSZEWSKI (2011) or HUBER (2020).

from not coming to terms with recent past atrocities.[16] While not wishing to equivocate the human atrocities of WW II, the violent disintegration process of Yugoslavia, and the current armed conflict in Ukraine, the author of this thesis argues that, to overcome guilt, which inevitably occurs with any eruption of violence, alongside interpersonal and individual-psychological admission (self-confession), collective responsibility – the institutionalized attribution and prosecution of misdeeds (legal conviction) – is imperative.

But what exactly is guilt? Is it simply a consequence of crime? And what about atonement, which should accompany the aforementioned process; is it merely a consequence of punishment? Unlike in Dostoevsky's *Crime and Punishment*[17], the author refrains from taking a moralistic or philosophising approach. Instead, individual and collective human misconduct is classified and defined using a legal positivist approach[18] in accordance with the applicable framework of international law, particularly international humanitarian law (IHL) and international human rights law (IHRL). Interpreting the current armed conflict through IHL/IHRL is useful not only from an academic point of view for describing controversial issues intersubjectively (e.g. determining when it is legitimate to kill or accept the killing of civilians/non-combatants), but also for analysing a complex phenomenon such as open source investigation, its methods, the actors involved, and the impact it has on the offline world.

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[16] Cf. ASIMOVIC AKYOL (2022), HADZIC (2022) or VUKOVIĆ (2021).

[17] Crime and Punishment (link: https://standardebooks.org/ebooks/fyodor-dostoevsky/crime-and-punishment/constance-garnett/text/single-page#chapter-6-8 - visited on 28th October 2022) (rus. Преступление и Наказание (link: https://imwerden.de/pdf/dostoevsky_prestuplenie_i_nakazanie.pdf - visited on 28th October 2022)) is a novel by Fyodor M. Dostoevsky published in 1866. It follows the story of Raskolnikov, a student in 19th-century Saint Petersburg, who murders a despised pawnbroker. He justifies the act with his theory, comparing himself to Napoleon, believing he has the right to eliminate lesser beings for a higher goal. However, guilt consumes him, leading to delirium and fear of discovery by law enforcement. Despite some kind actions, guilt drives him to confess to the police, who already suspected him. The novel explores the question of whether human conscience can be silenced by rational thought and whether a "just murder," involving taking a life for the benefit of a higher purpose, truly exists.

[18] According to *legal positivism*, law (legality) and morality (legitimacy) must be strictly separated. The emergence, enforcement and effectiveness of legal norms are based exclusively on human-made codifications, such as laws, statutes, etc. It stands therefore in stark contrast to the idea of natural law that believes that law derives from generally accepted pre-state, moral, religious, ideological or any other seemingly timeless regulations. Normative legal positivism is therefore based on codified law, may it be a national criminal code, a state's constitution, an international treaty or the statute of a transnational court, if adopted as such by an authorized legislator in the prescribed procedure according to rule of law. Cf. ALEXY et al. (2019): pp. 212 and GREEN/ADAMS (2019).

A.1. Methodology, Main Sources and Structure

Before delving directly into the content (cf. MAIN BODY), it is necessary to outline what this thesis is about and what it excludes (limitations), how it is organized (structure), how knowledge is acquired (methodology), what it is based on (sources), and, of course, the ultimate insights to be gained (research question). By exploring the typical five W-questions, the thesis title succinctly unveils the essence of the forthcoming content.

1.	***Who*** does	- Bellingcat (as part of the open source investigative community)
2.	***what***,	- contributing to the documentation, attribution and prosecution of war crimes and crimes against humanity
3.	***where***,	- in Ukraine
4.	***when*** and	- in the first year of the international armed conflict's escalation
5.	***how*** ?	- through OSINT (open source intelligence/research/investigations)

The additional sixth w-question – *why?* – was implicitly addressed in the introduction chapter by the author's assumption that coming to terms with the past (germ. *Vergangenheitsbewältigung*) will be inevitable for the respective post-conflict societies to establish and maintain a sustainable *Positive Peace*.

Since the present text aims to be more than just a mere compilation of subjectivities but aspires to adhere to the standards of the scientific process, the fifth W-question – *how?* – encompasses an additional meta-dimension, i.e. it involves the process of knowledge acquisition itself and, consequently, the methodological considerations applied to analyze the research topic adequately. In this regard, the research was based on a cyclical cognitive process. First, the contemporary state of research, primary and secondary literature has been collected and critically reviewed[19] within the framework of qualitative content analysis[20] and qualitative hermeneutics.[21] Once compiled, every finding and newly

[19] Andrea Felbinger and Regina Mikula discuss "Kritisches Lesen" (critical reading) as comprising three main aspects. Firstly, maintaining critical distance by questioning the author's position, references, coherence of reasoning, and use of terms, as well as considering opposing viewpoints. Secondly, paying attention to signal words/phrases and verifying source integrity and reliability. Lastly, reflecting on emotional responses, personal predispositions, alignment with one's position, and the ability to alter established conclusions during the reading process. Cf. FELBINGER/MIKULA (2005): pp. 27.

[20] According to Mayring (cf. DIEKMANN (2013): pp. 578 and pp. 608 and FLICK (2016): pp. 93), tools of qualitative content analysis are a three-step process (recap, explication and structuring) or text reception by employing the SQ3R-method. Cf. WERDER (1993): pp. 150.

[21] Qualitative hermeneutics, in this context, is understood as employing the hermeneutic circle. The hermeneutic circle is based on the idea that understanding, construction and interpretation are never presuppositionless. This implies that coherence not only generates sense in its respective context but is moreover influenced by prior knowledge and subjective appreciation. Cf. FELBINGER/MIKULA (2005): p. 29. In this sense, hermeneutic interpretation renews itself with every reading, in interaction with one's

formulated or adapted working hypothesis had to be critically compared with the research and professional publications available at that time until theoretical sampling[22] occurred (feedback process).

Apart from methodological considerations, the description of the assigned research point of view is essential for the reader to understand the context in which specific circumstances are interpreted. Thus, accurate usage of terminology is a prerequisite for the respective research area; e.g. what is a ”war crime” and can such a crime even exist if war itself has not been officially declared? What defines who is a civilian, a combatant or a prisoner of war? Likewise, in the discourse surrounding Bellingcat and OSINT in general, it is important to apply the correct concepts and terminology to the issues in question. Therefore, in the first three chapters of the main body, the reader is given a thorough introduction to the respective subject areas as a foundation for the fourth chapter, which eventually carries out the core empirical analysis. These four chapters contain the following.

B.1/First Chapter – WAR: The conduct and direct consequences of the armed conflict, in colloquial speech commonly referred to with the byword ”war”, between the armed forces of the Russian Federation, including affiliated armed groups, and Ukraine, will be viewed from the perspective of international criminal law (ICL), particularly within the framework of IHL (jus in bello) and, to a lesser extent, IHRL. Given this legal research perspective, historical, moral-philosophical and (geo)political implications and considerations are deliberately avoided as far as possible and reasonable within the respective context. The main sources regarding IHL are international treaties (i.a. the four Geneva Conventions (GC) and their three Additional Protocols (AP)[23], the Hague Conventions (HC)[24], the

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individual preconception. Raising awareness of one’s own preconceptions is central in theory of science. Cf. KLAFKI (1971): p. 134. The circular cognitive process, where parts refer to the whole and the whole refers to its parts, comprises the focal methodological idea of how a textual corpus, according to the hermeneutic circle, should be received (cf. DANNER (1998): pp. 59).

[22] *Theoretical Sampling* (germ. *Theoretische Sättigung*) is the point beyond which additional cases, data or analyses no longer yields significant additional theoretical knowledge or counterarguments. Cf. FLICK (2016): pp. 93 or p. 313 based on GLASER/STRAUSS (1967/2005): p. 53 or BRÜSEMEISTER (2008): pp. 155.

[23] Cf. GC-I (1949), GC-II (1949), GC-III (1949), GC-IV (1949), AP-II (1977), AP-II (1977) and AP-III (1977). ”*The Geneva Conventions and their Additional Protocols are international treaties that contain the most important rules limiting the barbarity of war. They protect people who do not take part in the fighting (civilians, medics, aid workers) and those who can no longer fight (wounded, sick and ship-wrecked troops, prisoners of war).*” Cf. ICRC (2014a).

[24] Cf. HC-IV (1907). The Hague Conventions of 1899 and 1907 are along the Geneva Conventions the first formal international treaties to regulate the practical conduct of war, e.g. ”(…) *the rights and duties*

Rome Statute of the International Criminal Court (ICC)[25], a number of conventions regulating certain types of weapons[26], etc.) and customary international humanitarian law (CIHL)[27]. Within IHRL, the most central documents are the Universal Declaration of Human Rights (UDHR), including its two optional protocols, the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR)[28] as well as the European Convention on Human Rights (ECHR)[29]. For a pre-litigation overview regarding the classification of alleged war crimes and crimes against humanity, some of the earliest reports published after the 24th February 2022 by international organizations (IOs) such as the Organization for Security and Co-operation in Europe (OSCE)[30] or the United Nations Office of the High Commissioner of Human Rights (UN/OHCHR)[31] are reviewed. For the latter reports, much of the information provided comes from publicly available information – a circumstance that is the subject of contemporary research.

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of the belligerents in their conduct of operations; the limitations and prohibitions in the choice of methods and means of warfare; the rules regarding occupation and neutrality", etc. Cf. ICRC (2002): p. 23

[25] Cf. ICC (1998). The ICC is a "(…) *permanent judicial body established by the Rome Statute of the International Criminal Court (1998) to investigate, prosecute, and try individuals accused of genocide, war crimes, and crimes against humanity and to impose prison sentences upon individuals who are found guilty of such crimes.*" Cf. DUIGNAN (2022).

[26] Weapons regulated by IHL treaties include, for example, explosive projectiles weighing less than 400 grams; bullets that expand or flatten in the human body; poison and poisoned weapons; chemical weapons; biological weapons; weapons that injure by fragments which, in the human body, escape detection by X-rays; incendiary weapons; blinding laser weapons; mines, booby traps and "other devices"; explosive remnants of war; cluster ammunitions, etc. Cf. ICRC webpage (link: https://www.icrc.org/en/document/weapons - visited on 30th January 2023); Article published on 30th November 2011) and UN (2020): p.20/footnote 46.

[27] Cf. HENCKAERTS/DOSWALD-BECK (2005). "*Customary international law is made up of rules that come from "a general practice accepted as law" and that exist independent of treaty law. Customary international humanitarian law (CIHL) is of crucial importance in today's armed conflicts because it fills gaps left by treaty law in both international and non-international conflicts and so strengthens the protection offered to victims.*" Cf. ICRC (2010).

[28] After WW II, in 1948, for the first time in history, "(…) *countries agreed on a comprehensive list of inalienable human rights* [the UDHR] (…)*, a milestone that would profoundly influence the development of international human rights law. In December 1966, the UN General Assembly adopted two international treaties that would further shape international human rights* (…)", namely, the ICESCR and the ICCPR. "*Together, the UDHR and these two Covenants are known as the International Bill of Human Rights.*" Cf. UN/OHCHR (n.d.). Even though, the UDHR is as an international treaty itself not binding, "[n]*umerous countries, United Nations officials and scholars have stated that the majority of the articles* (…), *if not all of them, constitute customary international law. Specifically, the prohibitions against slavery, arbitrary deprivation of life, torture, arbitrary detention and racial discrimination* (…)". Cf. UN (2020): p.21 referring to HANNUM (1996): pp. 322-332 and 341-346.

[29] Cf. ECHR (1950). "*The Convention for the Protection of Human Rights and Fundamental Freedoms, better known as the "European Convention on Human Rights"* (…) *entered into force on 3 September 1953. The Convention gave effect to certain of the rights stated in the Universal Declaration of Human Rights and established an international judicial organ* [ECtHR] *with jurisdiction to find against States that do not fulfil their undertakings.*" Cf. ECtHR (2021).

[30] Cf. BENEDEK et al. (2022) and BILKOVÁ et al. (2022).

[31] Cf. UN/OHCHR (2022).

B.2/Second Chapter – OSINT: Over the past decades, OSINT has repeatedly proven useful for the prosecution of various types of crime, including war crimes and crimes against humanity. However, what actually is OSINT and how does it work? While the term OSINT was initially associated with the realm of intelligence agencies, its usage and meaning has significantly widened – a process directly related to the proliferation of digital means of communication. To avoid confusion of terms and concepts in subsequent research steps, it is essential to use the associated terminology precisely. In this regard, the *Berkeley Protocol on Digital Open Source Investigations*[32] serves as a benchmark in the open source investigative community as one the most well-known collection of methodology. Another useful source to classify and evaluate the conduct of international criminal investigations, is the ICRC's *Guidelines on Investigating Violations of International Humanitarian Law: Law, Policy, and Good Practice*[33]. Also Bellingcat contributes actively to improve open source investigation methods by offering workshops[34] and developing and providing resources[35] on its webpage[36].

B.3/Third Chapter – BELLINGCAT: Since this thesis paradigmatically explores the nature and work of Bellingcat, this section focuses on elaborating how this open source investigative collective[37] has become what it is today. The emphasis is on investigations Bellingcat has participated in to disclose of a wide range of misdeeds, including war crimes and crimes against humanity. This is not only to make them visible to a broader public, but also to attribute factual findings to the perpetrators responsible for them. It is not a mere coincidence that many cases are related to Russia, Ukraine, and the armed conflict between these two subjects of international law and their respective proxies since 2014. Sources include not only Bellingcat itself but also various media reports and publications by national and international courts, commissions of inquiry, and others.

B.4/Fourth Chapter – BELLINGCAT, OSINT AND WAR: Building upon the findings of the previous three chapters, the fourth and final one analyzes the

[32] Cf. UN (2020).
[33] Cf. LUBELL ET AL. (2019).
[34] workshops (link: https://www.bellingcat.com/workshops/ - visited on 30th January 2023)
[35] resources (link: https://www.bellingcat.com/category/resources/ - visited on 30th January 2023)
[36] Examples of resources and guides provided by Bellingcat on its webpage cf. footnote 345.
[37] Hereafter, the designation '"open source investigative collective" is used synonymously with Bellingcat. This is based on the nature of the organization (cf. subchapter B.3) and aligns with its self-understanding (cf. GLAN/BC (2022a): Annex I/para. 29).

specific role of Bellingcat in contributing to the documentation, attribution and anticipated prosecution of alleged war crimes and crimes against humanity committed in Ukraine during the escalation of the international armed conflict, with the ultimate aim of answering the research question. Similar to the previous chapters, the research incorporates publications by Bellingcat itself, secondary literature from online media, IOs and fact-finding mission reports, as well as input from experts from various areas of the respective topic.

A.2. Limitations, Working Hypotheses and Research Question

Each research endeavor requires clear limitations. Due to the quantitative restrictions imposed by the format of a master's thesis and with the goal of addressing the research question sufficiently, the author has defined the following thematic and temporal limitations.

Thematic limitation of the research regarding the investigating actors	
1 **main focus**:	**Bellingcat**
2 of contextual interest:	other open source researchers or institutions using open source investigation techniques (e.g. individuals, journalists, courts, academics, IOs, (I)NGOs, etc.)

Thematic limitation of the research regarding the investigated issues	
1 **main focus**:	**war crimes** and **crimes against humanity**
2 of contextual interest:	non-warfare related misdeeds, disinformation, the role of open source information for civil society and for the legitimation of violence (jus ad bellum)

Temporal limitation of the research	
1 **main focus**:	**February 2022 – February 2023**
2 of contextual interest:	2014 - End of 2023

Every research process involves cognitive elements, relying on initial assumptions that form the basis for subsequent literature reviews, analysis, and critical thinking. Therefore, the author presents the following preliminary assumptions.

Working hypotheses

1. Due to the international armed conflict between the Russian Federation and Ukraine, ongoing de facto since 2014 and on a far larger scale since 24th February 2022 (escalation), numerous war crimes and crimes against humanity have been committed in the territory of Ukraine. These categories of crimes fall under the legal jurisdictions of various national and international courts. The legal foundation for international criminal prosecution regarding the international armed conflict is primarily IHL, to a lesser extent IHRL, and, where applicable, the national legislations of the two parties to the conflict.
2. Individuals and institutions of the so-called ”open source (investigative) community” have repeatedly proven in the past that they are, alongside official investigators of law enforcement agencies, prosecutor offices, courts, national and international commissions of inquiry, investigative journalists, etc., indeed capable of providing additional means of evidence. In several cases their work was even able to attribute previously unknown perpetrators to criminal acts.
3. Bellingcat, which has dedicated a significant portion of its resources to investigations related to Russia, Ukraine, and particularly the war in the Donbas for over nine years, has repeatedly tracked individuals associated with the Russian security apparatus, including domestic and foreign intelligence services, armed forces, and affiliated armed groups. Through this, Bellingcat has gained considerable field experience and technical know-how, making it capable of supporting the work of various law enforcement and judicial authorities and bodies.
4. Due to the nature of judicial formalization, limited resources and the fact that many law enforcement and juridical authorities are obliged to comply with complex legal restrictions, official investigations and the processes of eventually bringing legal action often proceed relatively slowly. This is much less the case with individuals or independent acting collectives such as Bellingcat. Moreover, the unprecedented amount of digital open source information available in the current armed conflict in Ukraine – a circumstance that Bellingcat specializes in due to its extensive experience in collecting, preserving and analysing digital items in this particular information domain in the past – offers the open source investigative collective the opportunity to play a significant role. This includes not only providing additional, otherwise marginalized material but also accelerating the formal investigative work of conventional legal institutions. To what extent Bellingcat ultimately matters is not yet known and is one of the issues that will be pursued in the course of this thesis.

These preliminary working hypotheses will be critically questioned in each respective chapter, with the aim of sufficiently answering the core question by the end of this research. In this regard, three distinct subject areas closely related to the working hypotheses and the structure of this thesis are presented. Each subject area needs to be comprehended by the reader as its content and

reasoning serve as prerequisites for the fourth chapter and central part of this thesis, which answers the research question.

Prior subject areas to understand

1. Understand the juridical frame and terminology applicable to *jus in bello* (”law of war”), such as war crimes (IHL) and crimes against humanity (IHRL), and how these crimes are internationally indictable (ICL). Cf. B.1.
2. Understand the terms OSINT, open source research, open source investigation, and the standards, protocols and good practices that exist to investigate violations of IHL/IHRL. Cf. B.2.
3. Understand Bellingcat – what it is, how it works, how it has shaped the open source investigative community, and the capacity in which it has been relevant in contributing to the documentation, attribution and prosecution of criminal acts. Cf. B.3.

Once the contextual subject areas and preliminary chapters (B.1, B.2 and B.3) have been laid out and critically examined, the actual research question can finally be addressed in the fourth and final chapter (B.4).

Research question

What is Bellingcat’s contribution as part of the open source investigative community to the documentation, attribution and prosecution of war crimes and crimes against humanity in the first year following the escalation of the international armed conflict in Ukraine?

B. MAIN BODY

B.1. WAR

The headline "*War in Europe*"[38] was omnipresent on that last Thursday of February 2022. Whether one turned on the television, browsed through any daily newspaper, or used whichever digital media, even in conversations with that random person who was never interested in security policy or foreign affair, it was all about it – the war! But what does it actually mean – war? Most Europeans only know about WW II from history books, documentaries or movies, and many have had the privilege of witnessing the violent disintegration of the former Yugoslavia from a safe distance of their TV screens. Suddenly, war had returned to Europe.[39] To emphasise Ukraine's proximity to Central Europe, Austrian state media and politicians remarked on several occasions the fact that Ukraine is geographically closer to Vienna than the west Austrian province of Vorarlberg.[40]

However, not everyone was talking about war. Indeed, even after two years of uninterrupted warfare, one of the belligerent parties' head of state, along with government institutions and affiliated media, insists on labeling it a "*special military operation*" (rus. специальная военная операция), a euphemism created to minimize the true meaning of the full-fledged war.[41] On the other side, many academics, international law scholars, diplomats, etc. spoke of an armed conflict rather than using the more colloquial term for the military hostilities between Ukraine and Russia. Unlike the Russian President's term however, the latter group's denotation is not a political euphemism, but merely a technical term under international law.

B.1.1. War, Special Military Operation or International Armed Conflict?

In international law (e.g. treaties, legal documents, literature, etc.), the term "armed conflict" is usually preferred over "war". One reason is that the latter should

[38] War in Europe (link: https://www.google.at/search?q=%22war+in+europe%22+OR+%22Krieg+in+Europa%22+OR+%22querre+en+europe%22+OR+%22querra+en+europa%22&biw=1920&bih=969&tbs=cdr%3A1%2Ccd_min%3A2%2F24%2F2022%2Ccd_max%3A2%2F24%2F2022&tbm=nws&ei=DjYYY5ugIs75kwWrw7KIBw&ved=0ahUKEwib3972goL6AhXO_KQKHauhDHEQ4dUDCA0&oq=%22war+in+europe%22+OR+%22Krieg+in+Europa%22+OR+%22querre+en+europe%22+OR+%22querra+en+europa%22&gs_lcp=Cgxnd3Mtd2I6LW5Id3MQDFDpKljtZ2DmkAFoAHAAeACAAWKIAZICkgEBM5gBAKABAcABAQ&sclient=gws-wiz-news - visited on 4th February 2023)

[39] At this point, the author expressly points out that the interstate hostilities in Ukraine and the subsequent occupation of certain parts of its territory by Russia began already in early 2014. However, a significant portion of the European population and political decision-makers did not perceive and address this event until February as what it actually was – an international armed conflict between two subjects of international law 2022. Cf. i.a. WALKER (2022), WESOLOWSKI/PENKE (2022), KRASTEV/ LEONARD (2022), KRUK (2019), ANTELAVA (2022), etc.

[40] JUNGWIRTH (2022) or HEIDEGGER (2022).

[41] Cf. KALMYKOVA (2023) and ADISTI et al. (2022) as well as PUTIN (2024a, 2024b and 2024c).

no longer exist as such according to the UN Charter.[42] Legally speaking, there are only two exceptional situations in which the use of force in international relations is admissible – self-defense[43], and in accordance with a United Nations Security Council Resolution (UNSCR)[44]. Furthermore, it also does not matter how the use of force is designated – whether a state of war has been formally declared or not, whether it is unilaterally defined as "humanitarian intervention", "liberation assistance" or likewise a "special military operation", etc. – the moment an armed conflict materializes, the rules of IHL, also known as law of armed conflict or law of war (jus in bello), apply to all sides, regardless of who began hostilities or why.[45] While in the eight decades after WW II, the number of conventional interstate wars, became a rare exception, in Europe especially[46], due to the increase of blurred categories between war and peace (e.g. ”hybrid wars”, ”unconventional wars”, ”asymmetric wars”, ”new wars”, etc.), the classification of Russia’s full-scale invasion of Ukraine is unambiguous; it is an international armed conflict (IAC)[47]. Aside from Ukraine and the Russian Federation, the involvement of other states in the hostilities, and thus their legal definition, is less clear-cut. In this context, the author adopts the view of an early OSCE report, assuming that, with regard to a 2020 Commentary to the GC-III[48], neither Belarus (which allowed Russia to use its territory for military purposes against Ukraine) nor certain NATO member states (which supplied Ukraine with weapons, ammunition, equipment, intelligence, etc.) are considered as official parties to the IAC. However, the report also emphasizes that these states ”(…) *have a heightened responsibility to ”ensure respect” of IHL by the parties they support*”.[49] The situation is different for certain armed formations within the two de facto entities inside Ukrainian territory, which Russia first recognized as sovereign states, the so-called ”Donetsk People's Republic”

[42] Cf. DÜLFFER (2016) and ICRC (2002): p. 10.
[43] ”*Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations* (…)”. Cf. UN (1945): Chapter VII/Art. 51.
[44] Cf. ICRC (2002): p. 10 and UN (1945): Chapter VII/Art. 43-48.
[45] Cf. ICRC (2002): p. 10, ICRC (2015): pp. 8, GC-I/II/III/IV (1949): Art. 2 and SCHINDLER (1979): p. 131.
[46] Cf. MÜNKLER (2015) or DÜLFFER (2016).
[47] Cf. i.a. ICRC (2002): p. 10, VERRI (1992): p. 35, MARCHUK/WANIGASURIYA (2022): p. 3, BENEDEK et al. (2022): pp. 5 and 89, BILKOVÁ et al. (2022): p. 9, 20 and 48, DROEGE (2022), Cf. MCLAUGHLIN (2022), etc.
[48] Cf. ICRC (2020a): para. 278 considering GC-III (1949): Art 2 and ICRC (2020b): paras. 186-206 considering GC-III (1949): Art 1.
[49] Cf. BENEDEK et al. (2022): p. 5.

(”DPR” or ”DNR”) and ”Luhansk People's Republic” (”LPR” or ”LNR”)[50], and later unilaterally incorporated/annexed into its state territory[51]. Since ”DPR” and ”LPR” are de facto under overall Russian control, ”[t]*he latter is therefore responsible for their conduct and IHL of international armed conflict* (…). *This would anyway also be the case if those ”republics” were actually independent States, as Russia claims, and simply co-belligerents of Russia*”[52]. Since this thesis does not focus on war crimes or crimes against humanity committed by any particular faction of the international armed conflict, but on the implications of open source research on the documentation, attribution and legal prosecution of criminal acts, and for the sake of easier readability, certain armed formations of ”DPR” and ”LPR” are hereafter subsumed under armed groups affiliated to the Russian Federation where terminological distinction is not cogent for the specific circumstance. Thus, in this context, ”Russian”/”Russians” or ”Ukrainian”/”Ukrainians” refer to armed personnel under the command and control of the respective nation state or de facto entity and does not necessarily reflect on ethnic, cultural or national affiliation.[53] Under the abstract realm of states is the individual, personal level of engagement in warfare – spanning from the individual front-line soldier[54] to the tactical or operational decision-maker[55]. Criminal law enters in at this individual level, where personal action or inaction proclaims one’s individual innocence or guilt. However, before addressing violations of IHL, and war crimes in particular, an important

[50] Cf. RF (2022).
[51] Cf. i.a. RUS-IND EMB (n.d.) or DICKSON/MORROW (2022).
[52] Cf. HENCKAERTS/DOSWALD-BECK (2005): pp. 495/Rule 139 or BENEDEK et al. (2022): p. 5 referring to ICTY (1999): paras. 116-144 and ICRC (2020c): para. 443 in relation with GC-III (1949): Art. 3.
[53] This fact is noteworthy, because on both sides citizens are fighting for the respective ”other” side. Cf. SAUER (2022a and 2022b), FERRIS-ROTMAN (2022), MILAKOVSKY (2022), BALL (2022), LOW (2022), and others. The reader is encouraged to interpret ethnonyms in the respective context.
[54] While violations of IHL/IHRL are commonly attributed to state responsibility, international criminal law (ICL) imposes ”(…) *criminal liability on individuals who commit crimes under international law, including war crimes, crimes against humanity and genocide.*” Cf. UN (2020): p.23 referring to CRYER et al. (2019). Aside from national criminal courts or (international) ad-hoc criminal tribunals, the ICC is the primary international institution to prosecute ”[a] *person who commits a crime within the jurisdiction of the Court* (…)”. Cf. ICC (1998): Art. 25[8](2). To which extent the ICC has jurisdiction over certain crimes committed in the 2022 IAC in Ukraine will be specified in subchapter B.1.4.
[55] Referring to treaty IHL (cf. i.a. CG-I (1949): Art. 49, CG-II (1949): Art. 50, CG-III (1949): Art. 129, CG-IV (1949): Art. 146, AP-I (1977): Art. 87 and ICC (1998): Art 28) and CIHL (cf. HENCKAERTS/DOSWALD-BECK (2005): pp. 558/Rule 153), the ICRC notes that ”[a] *military commander can be held individually criminally responsible for directly carrying out or ordering the commission of a war crime.*” Cf. LUBELL ET AL. (2019): p. 10/Art. 39. Furthermore, it specifies that a ”*commander*” is ”(…) *any person with command responsibility over subordinates in a military hierarchy, i.e. in its generic meaning. It may, in other words, denote a commander at any level.*” Cf. ibid. p.10/Art 38.

intermediate step must be taken to avoid confusion regarding the apportioning of guilt, rights and obligations in the context of war/IAC.

B.1.2. Jus ad Bellum vs. Jus in Bello

Since jurisprudence centers around the fundamental question of guilt, addressing a complex human interaction such as *war* in accordance with international law requires a rigorous distinction between the right to war - jus ad bellum, and the law in war - jus in bello. Even though with its invasion of Ukraine, the Russian Federation clearly violated international law[56], breached a number of bilateral[57] as well as multilateral agreements (i.a. the Helsinki Final Act[58], Budapest Memorandum[59], Minsk Agreements[60]) and is undoubtedly the aggressor in this particular IAC[61], this must not negatively affect the legal status, rights and duties of its armed forces under IHL.[62] This means that jus in bello applies equally to Ukraine, as the unprovoking victim, and to Russia, even though the latter justifies its illegal action (in regard of jus ad bellum) to invade on a number of insubstantial

[56] Russia's 2022 full-scale military invasion of Ukraine broke and undermined the key principle of the UN Charter, namely that "[a]*ll Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered*" (cf. UN (1945): Art. 2(3)) and that they "(…) *refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state* (…)". Cf. ibid. Art. 2(4). After Russia vetoed a UNSCR, in early March 2022, 141 out of 193 member states voted in an emergency session of the UN's General Assembly for a resolution titled "*Aggression against Ukraine*" that "(…) *deplores in the strongest terms the aggression by the Russian Federation against Ukraine* (…)" and demands that "(…) *the Russian Federation immediately cease its use of force against Ukraine* (…) [and] *immediately, completely and unconditionally withdraw all of its military forces*". Cf. BORGER (2022) and UN/GA (2022a). In addition to the UN Charter, the initiation of the IAC against Ukraine is incompatible with a number of UN Declarations and Resolutions, cf. i.a. UN/GA (1970): 2635/XXV with UN/GA (1974): 4414/XXIX, UN/GA (1965): 2131/XX, UN/GA (1981): 36/103, UN/GA (1987): 42/22, etc.

[57] Bilateral agreements between Ukraine and the Russian Federation that are incompatible with the conduct of hostilities on Ukrainian territory are i.a. about their bilateral relations (cf. UA/RF (1997)), the Ukrainian-Russian state border (cf. UA/RF (2003a)), cooperation in use of the Azov Sea and Kerch Strait (cf. UA/RF (2003b)), etc.

[58] The Helsinki Final Act was signed by the USSR and 34 participating states of the Conference on Security and Co-operation in Europe (CSCE later converted to the OSCE) in Helsinki 1975, agreeing i.a. on the "*Refraining from the threat or use of force*" (cf. CSCE (1975) pp. 4), "*Inviolability of frontiers*", "*Territorial integrity of states*" (ibid. p. 5), "*Peaceful settlement of disputes*" (ibid. pp. 5), etc.

[59] The Budapest Memorandum is a multilateral agreement signed by the Russian Federation, the UK, the US (later China and France assured individual assurances) and newly independent Ukraine in 1949 to assure the latter "(…) *security assurances in connection with Ukraine's accession to the Treaty on the Non-Proliferation of Nuclear Weapons.*" Cf. UN (1994). Russia violated the agreement already with its annexation of Crimea and covert support of "DPR" and "LPR" armed forces in 2014, but ultimately breached it in 2022.

[60] The Minsk II agreement was signed by representatives of the OSCE, "DPR", "LPR", Ukraine and the Russian Federation in 2015. Russia breached with its invasion Art. 1, 2 and 10 of Minsk II. Cf. TCG (2015), VOLKER (2021) and BORDA (2022).

[61] Cf. TRAHAN (2022), SCHEFFER (2022), CICIORA (2022), AI (2022a), PESKIN/BODUSZYŃSKI (2022), MCLAUGHLIN (2022) or HAMILTON/GOODMAN (2022). UN definition of aggression, cf. UN/GA (1974): 4414/XXIX.

[62] Cf. MCLAUGHLIN (2022), GREENWOOD (1983), MOUSSA (2008): pp. 963, DROEGE (2022) or PICTET (1952): p. 27.

claims[63], such as its right to self-defense[64], genocide/humanitarian intervention[65], whataboutisms[66], and more. "*This total separation between* (…)" jus ad bellum and jus in bello is "(…) *often difficult for public opinion to understand and for those fighting to defend their country to accept*"[67]; however, this precisely shows the methodological strength of the legal approach. Thus, it is not necessary to analyze the discourse around questions on the legitimacy of an action, which ultimately presupposes a normative positioning of the author. Instead, in the sense of legal positivism, one must consider and interpret the rules and laws recognized by all parties to the conflict. This process, by its nature, is much more technical and therefore intersubjectively comprehensible. To put it simply, for jus in bello, it does not matter at all who is responsible for an armed conflict or how unjustified it may be; it only matters what happened during the conduct of hostilities. By dealing

[63] Cf. WILMHURST (2022), PRABHASH/ANIL (2022) and BENEDEK et al. (2022): p. 5.

[64] On his Address by the President of the Russian Federation on 24th February 2022, Putin argued that the "(…) *decision to carry out a special military operation*" is "(…) *in accordance with Article 51 (Chapter VII) of the UN Charter* (…)" and that "[t]*hey did not leave us any other option for defending Russia and our people* (…) [and] *we are acting to defend ourselves*". Cf. PUTIN (2022). A vast majority of international law experts agree that Article 51 cannot be applied in the sense of the Russian President, since "(…) *the inherent right of individual or collective self-defence* (…)" occurs only "(…) *if an armed attack occurs against a Member of the United Nations*" (cf. UN (1945): Art. 51), that is clearly not the case. Cf. BELLINGER (2022), WILMHURST (2022), DWORKIN, (2022) or MILANOVIC (2022). The Kremlin's claim to defend "DPR" and "LPR" against an imminent attack from Ukraine is unfounded in the light of international law, as these two so-called republics are internationally not recognized (except by Russia, which invaded two days prior (cf. footnote 50), Syria and North Korea), and are therefore part of Ukraine's territory. Cf. BELLINGER (2022), DWORKIN (2022), NEAL (2022) or WEINER (2022).

[65] Another line of arguments of Putin is that "[w]*e had to stop that atrocity, that genocide of the millions of people who live there* [referring to "DPR" and "LPR"] *and who pinned their hopes on Russia* (…)" and that "[t]*he purpose of this operation is to protect people who, for eight years now, have been facing humiliation and genocide perpetrated by the Kiev regime. To this end, we will seek to demilitarize and denazify Ukraine*". Cf. PUTIN (2022). This was not the first time that the Russian President or other Russian officials spoke about genocide in Ukraine. Cf. GREENBERG (2022), FISHER (2022), and others. Yet, again, genocide scholars rejected the allegations that in Ukraine, and in particular in Donetsk or Luhansk Oblasts (both on governmental controlled and non-governmental controlled side), genocide had taken place prior the 24th February 2022, and that it "(…) *is an example of how genocide claims are misused for political reasons*." Cf. HINTON (2022). Cf. i.a. KERR (2022), NEAL (2022), BELLINGER (2022), WEBER et al. (2022), WILMSHURST (2022), etc. In this context, Ukraine filed an application before the International Court of Justice (ICJ) to institute proceedings concerning the dispute "(…) *relating to the interpretation, application and fulfilment of the 1948 Convention on the Prevention and Punishment of the Crime of Genocide*" and that "(…) *the Russian Federation has falsely claimed that acts of genocide have occurred in the Luhansk and Donetsk oblasts of Ukraine* (…)". Cf. ICJ (2022). See also BILKOVÁ et al. (2022): p. 111.

[66] Another attempt of justifying the Russian invasion of Ukraine was to put this armed conflict in relation with "Western" military interventions. Putin mentioned in his address from 24th February 2022 explicitly military interventions by NATO and the US in Belgrade, Iraq, Libya and Syria. Cf. PUTIN (2022). From a legal point of view, such comparisons are irrelevant, "(…) *even if true, one illegal use of force does not justify another* (…)". cf. NEAL (2022). Cf. i.a. WUERTH (2022), WILMSHURST (2022), KERR (2022), DWORKIN (2022), MILANOVIC (2022), and others.

[67] Cf. BENEDEK et al. (2022): p. 4.

particularly with guilt occurring in times of armed conflict, this thesis also follows the jus in bello approach – it is about crime and punishment.

B.1.3. IHL/IHRL/ICL and War Crimes/Crimes against Humanity

Two core prerequisites for addressing a particular crime and imposing a punishment are the existence of a legal system with respective laws that have been violated and a court responsible for the prosecution. Since the hostilities taking place on the internationally recognized territories of Ukraine and the Russian Federation qualify as an IAC, the fact that various national law enforcement agencies are either unable or unwilling to initiate appropriate criminal proceedings, and the parties to the conflict are bound by a number of international agreements, three sets of international legal standards apply, namely IHL and IHRL, which are to be understood in conjunction with ICL. These bodies of public international law have essentially the same aim, to protect life, health and human dignity. They are complementary with each other[68] and each has its own role before, during and after an armed conflict materializes. A single action or incident, attributed to the responsibility of a state, may constitute a violation of IHL, a violation of IHRL, or both. Yet the same action or incident, if attributed to a person can constitute, in the light of individual criminal responsibility, a war crime, a crime against humanity or again, both.[69] So what is the difference between IHL and IHRL, and how do they relate to each other? In short, IHL applies only in times of armed conflict, whereas IHRL applies at all times[70]. However, at a ”*time of public emergency which threatens the life of the nation* (…),”[71] e.g. an armed conflict[72], states may temporarily derogate from numerous, but certainly not all IHRL obligations[73], which is not possible with IHL[74]. While the Russian Federation

[68] Cf. ICRC (2015): p. 36.
[69] Cf. BILKOVA et al. (2022): p. 9, BENEDEK et al. (2022): pp. 8 and 54, and UN (2022): pp. 22/para. 47.
[70] CF. BENEDEK et al. (2022): pp. 50 referring i.a. to ICJ (2004): para. 106, UN/GA (2008), UN (2018): para. 11 and ECtHR (2011): II/C.
[71] Cf. ICCPR (1966): Art. 4(1).
[72] Cf. ECHR (1950): Art. 15(1).
[73] HENCKAERTS/DOSWALD-BECK (2005): pp. 299/chapter 2. Regarding IHRL, the ICCPR prohibits derogation which involve ”(…) *discrimination solely on the ground of race, colour, sex, language, religion or social origin*” (cf. Art. 4(1)) and from articles 6 (right to life), 7 (prohibition of torture, cruel, inhumane or degrading treatment), 8(1 and 2), 11, 15, 16 (right of a fair trial) and 18 (freedom of thought, conscience and religion). Cf. ibid. Art. 4(2)). By the same token, the ECHR prohibits in article 15(2) derogation of articles 2 (right to life), 3 (prohibition of torture), 4(1) (prohibition of slavery) and 7 (no punishment without law).
[74] Cf. BILKOVA et al. (2022): p. 9 and BENDEK et al. (2022): p. 50 and 61.

abstained from IHRL derogations related to the IAC with Ukraine,[75] which means that all IHRL treaties ratified by Moscow remain in force to its full extent, Kyiv has in several instances derogated some of its obligations under the ICCPR and the ECHR[76]. Before discussing the relationship between IHL and IHRL in the state of an IAC, their respective technical peculiarities must be considered. The principal foundation of IHL consists of two main branches; the Geneva Law "(…), *which protects victims of war, i.e., those who are not, or no longer, taking part in hostilities and find themselves in the hand of the other party to the conflict (wounded, sick, shipwrecked, prisoners of war, alien civilians in the territory of another party to the conflict, civilians in the occupied territories, etc.)*"; and the Hague Law (…), *which restricts means and methods of warfare, i.e., it indicates which military tactics and which weapons may be used by the parties to the conflict on the battlefield.*"[77] Additionally to Hague Law in the narrow sense, there are a number of specific treaties and conventions that regulate the usage of certain weapons and means of warfare.[78] IHL further regulates the conduct of hostilities. Regarding jus in bello, the three cardinal principles of distinction[79],

[75] As of 30th May 2023. From 04th November 2022 until 30th May 2023, the only official Depository Notification brought in by the Russian Federation (link: https://treaties.un.org/doc/Publication/CN/2022/CN.285.2022-Eng.pdf - visited on 30th May 2023) was unrelated with the IAC in Ukraine. Cf. Website of the United Nations Treaty Collection (link: https://treaties.un.org/pages/CNs.aspx?cnTab=tab2&clang=_en - visited on 30th May 2023).

[76] Ukraine derogated already in 2014 from several instances of IHRL in regard of the Autonomous Republic of Crimea, the City of Sevastopol and certain areas of Donetsk and Luhansk regions. With the declaration of the state emergency for most of its regions and the imposition of martial law on the entire territory, from 24th February 2022 onwards, Ukraine derogated from a number of IHRL obligations such as the ICCPR (Art. 2(3), 3, 8(3), 9, 12-14, 17, 19-22 and 24-27), the ECHR (Art. 4(3), 5-6, 8-11 and 13-14, the Additional Protocol to the ECHR (Art. 1-3), Protocol 4 to the ECHR (Art. 2), etc.
Cf. BENDEK et al. (2022): p. 50, BILKOVA et al. (2022): pp.11 and https://treaties.un.org/Pages/CNs.aspx?cnTab=tab2&clang=_en (link visited on 30th May 2023).

[77] Cf. BILKOVA et al. (2022): p. 9. Both Ukraine and Russia are state parties to the four Geneva Conventions of 1949 (GC-I: Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field; GC-II: Geneva Convention for the Amelioration of the Condition of the Wounded, Sick, and Shipwrecked Members of Armed Forces at Sea; GC-III: Geneva Convention Relative to the Treatment of Prisoners of War; and GC-IV: Geneva Convention Relative to the Protection of Civilian Persons in Time of War.), the Additional Protocol I of 1977 (AP-I: Relating to the Protection of Victims of International Armed Conflict) and the Hague Conventions of 1899 and 1907. Many rules of Geneva and Hague Law are considered being CIHL. Cf. BILKOVA (2022): pp.9, MERON (1987) and PAUST (2006).

[78] Cf. BILKOVA et al. (2022): pp. 9 or BENEDEK et al. (2022): p. 6 and footnote 26.

[79] This basic rule of distinction stipulates that "(…) *the Parties to the conflict shall at all time distinguish between the civilian population and combatants and between civil objects and military objectives* (…)" Cf. AP-I (1977): Art 48. If civilians not taking direct part in hostilities or civilian objects which are not military objectives are targeted deliberately, this violates IHL and constitutes a war crime. Cf. ibid. Art 85(3)a and ICC (1998): Art. 8(2)b/I and ii. This implies that civilian objects "(…) *which by their nature, location, purpose or use make an effective contribution to military action* (…)" may indeed become a military objective "(…) *in the circumstances ruling at the time, offer*[ing] *a definite military advantage*". Cf. AP-I (1977): Art. 52(2). Similarly, under IHL, civilians enjoy their protection "(…) unless and for such time as they take a direct part in hostilities." Cf. ibid. Art. 51 (3), or cf. AP-II (1977): Art. 13 (3), ICC (1998): Art.

proportionality[80] and precaution[81] must be considered, in order to "*reduc*[e] *the human suffering caused by the hostilities* [and to protect] (…) *people who do not or no longer participate in hostilities* (…)"[82] in all military operations of any party to the conflict, no matter whether executed by a common soldier or ordered by a high-ranked commander. The difficulty with violations of IHL during the conduct of hostilities is that they are much more complex and laborious to substantiate than violations of IHL that occur separately from, or even after, direct warfare (e.g. rape, abduction, torture, execution of a prisoner of war, pillaging, etc.). This is because the attribution of an attack (or a defensive operation[83]) as a violation of IHL does not necessarily depend on the outcome but may instead rely on the specific circumstances and the evaluation of the intentions and deliberations of the concerned party to the conflict. Such circumstances might require "(…) *a complex analysis of several legal factors, including the status of the targeted person or object, whether such person or object was the actual target of the attack, the actual or intended use of the targeted object, the military value to the attacker in eliminating the targeted person or object in relation to the extent (if any) of incidental effects upon civilians and whether the attacker took all feasible precautionary measures in attack to avoid or minimize incidental effects upon*

8(2)e/I and CIHL (cf. HENCKAERTS/DOSWALD-BECK (2005): Rule 6/pp. 20). Therefore, in certain circumstances it is in the light of IHL indeed "legal" to attack civilian objects (being considered temporarily military objectives) and civilians (those having temporary combatant status).

[80] Intentional attacks which are considered indiscriminate, namely when incidental loss of civilian life and damage of civilian objects may be expected to be "(…) *excessive in relation to the concrete and direct military advantage anticipated*" (cf. AP-I (1977): Art. 51(5)b) violate IHL. This means that harm to the civilian population as side effect of a military operation is unfortunate, but if a military advantage necessary under the specific circumstances has been properly determined by a respective commander, this might be an acceptable action under IHL. Only if an intentional military operation is launched "(...) *in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated* (…)", it constitutes a war crime. Cf. ICC (1998): Art 8(2)b/iv.

[81] Additionally to the principles of distinction and proportionality, "[i]*n the conduct of military operations, constant care shall be taken to spare the civil population, civilians and civilian objects.*" Cf. AP-I (1977): Art. 57(1). This means that "(…) *those who plan or decide upon an attack shall*:" verify that objectives are military objectives according to IHL (cf. ibid. Art. 57(2)a/i), choose means and methods of warfare that cause minimum harm to civilian population (cf. ibid. Art. 57(2)a/ii and Art. 57(3)), refrain from an attack that causes excessive harm to civil population in relation to military advantage anticipated (cf. ibid. Art. 57(2)a/iii and Art. 57(2)b), warn civil population before an attack which might affect them (cf. ibid. Art. 57(2)c), etc. Also the defenders bear responsibility towards civil population to endeavour to evacuate them from proximity of military objectives (cf. ibid. Art. 58(a)) or in general to "(…) *avoid locating military objectives within or near densely populated areas*". Cf. ibid. Art. 58(b). Due to state practice, the principle of precaution is part of CIHL. Cf. HENCKAERTS/DOSWALD-BECK (2005): pp. 51/Rule 15-24.

[82] Cf. DROEGE (2022). All of the above mentioned three cardinal principles are considered CIHL.

[83] Geneva Law defines "attacks" as "(…) *acts of violence against the advisory, whether in offence or in defence*". Cf. AP-I (1977): Art. 49.

civilians."[84] Still, from a legal standpoint, IHL has analytical advantages over IHRL because it is more concise and straightforward.[85] Additionally, both Russia and Ukraine are state parties to most treaties.[86] Furthermore, IHL was precisely designed for armed conflicts and is therefore more easily administrable. Because IHL applies to times of armed conflict by definition, it is often viewed as the primary applicable instrument of international law in the sense of *lex specialis* when it comes to hostilities[87]. However, although IHRL does not regulate warfare in as much detail as IHL, both must be considered depending on the concrete situation; or, as the UN Human Rights Committee stipulates, "(…) *in respect of certain* (…) *rights, more specific rules of international humanitarian law may be specially relevant for the purposes of the interpretation of* (…) *rights, both spheres of law are complementary, not mutually exclusive*".[88] This leads to the conclusion that the more effective control a certain party to the conflict establishes over a certain territory and its population, the more its actions or inactions have to be interpreted in the light of IHRL[89], or as Benedek et al. notes, "[w]*hereas the process of targeting is primarily informed by IHL rules, the fair trial guarantees need to be*

[84] Cf. BENEDEK et al. (2022): p. 25.
[85] In contrast to the main sources of IHL which consists of Geneva Law (GC-I, II, III and IV, API, II and III) and Hague Law (HC, 1907), both being considered at large already CIHL, and a limited number of conventions regulating certain types of weapons and methods of warfare (cf. footnote 26); IHRL has aside its two main sources (ICCPR and ICESCR) several regional conventions (e.g. ECHR), numerous topical treaties and also non-treaty based principles and guidelines ("soft law"). Cf. ICRC (2003) and UN (2020): p. 22.
[86] While Russia and Ukraine are either both state parties to certain IHL instruments (e.g. the four 1949 GCs and its 1977 Additional Protocol I, the 1907 HC IV, several Protocols to the 1980 Convention on Certain Conventional Weapons, etc.) or both not (e.g. the 2008 Oslo Convention on Cluster Munitions), the situation regarding applicable IHRL standards is more fragmented. Also the circumstance that Ukraine, unlike Russia, derogated, due to the imposition of a state of emergency and martial law, from many IHRL obligations, leads to a different legal framework for the two parties to the conflict. Cf. BENEDEK (2022): pp. 5 and pp. 49 and BILOKOVA et al. (2022): pp. 10 and footnote 76.
[87] *Lex specialis derogat legi generalis*, is a legal principle, meaning that specialized laws prevail over general laws. *Lex specialis* (or "special law") is law, "(…) *unique to a particular regime or applicable in specific scenarios, such as international trade law disciplines or international humanitarian law, as opposed to law generally* applicable [lex generalis] in a variety of international relations, such as general rules of treaty interpretation or state liability for wrongful acts. Cf. FELLMETH/HORWITZ (2009): p. 176 referring exemplary to "[t]*he test of what is an arbitrary deprivation of life* [during armed conflict] (…) *fails to be determined by the applicable lex specialis, namely, the law applicable in armed conflict which is designed to regulate the conduct of hostilities.*" ICJ (1996): para. 25/p. 240.
[88] Cf. UN/HRC (2004): Art. 11/p. 5. By the same token, the ICJ remarks in an advisory opinion, that regarding "(…) *the relationship between international humanitarian law and human rights law, there are thus three possible situations: some rights may be exclusively matters of international humanitarian law; others may be exclusively matters of human rights law; yet others may be matters of both these branches of international law. In order to answer the question put to it, the Court will have to take into consideration both these branches of international law, namely human rights law and, as lex specialis, international humanitarian law.*" Cf. ICJ (2004): para. 106.
[89] OHCHR/UN (2011): p.63 and UN/GA (2009): Art. 14/p.7.

interpreted in light of IHRL standards."[90] As this thesis primarily focuses on the interpretation of the immediate events of the escalation of the IAC between Ukraine and the Russian Federation after 24th February 2022 and the documentation and attribution of crimes, committed, supported or ordered by individuals, and their possible future prosecutions, IHL and ICL, both branches of public international law[91], will form the two main sets of legal standards referred to below.

In order to hold an individual person criminally accountable, the category of crime has to be defined beforehand. This thesis will deal in particular with *war crimes* and *crimes against humanity*. While the 1949 Geneva Conventions abstained from defining the term *war crime*[92], the 1977 Additional Protocol does, by defining that "(…) *grave breaches of these instruments* [GC-I, II, II, IV and AP-I] *shall be regarded as war crimes*"[93]. Whereas Geneva Law describes in several articles its understanding of *grave breaches* to the Conventions[94], the Rome Statute lists the most extensive catalogue of *war crimes* and *crimes against humanity*, which alongside the *crime of genocide* and the *crime of aggression*, comprise the four "(…) *most serious crimes of concern to the international community as a whole*"[95]. The Rome Statute, which like the Geneva Convention reflects CIHL at large[96], defines *war crimes* as "[g]*rave breaches of the Geneva Conventions*"[97] and "[o]*ther serious violations of the laws and customs applicable in international armed*

[90] BENEDEK et al. (2022): p. 53 referring to KELLENBERGER (2003).
[91] Cf. ICRC (2015): p. 4 and BILKOVA (2022): p. 12.
[92] Cf. GC (1949): p. 22.
[93] Cf. AP-I (1977): Art 85(5).
[94] Cf. i.a. GC-I (1949): Art. 50, GC-II (1949): Art. 51, GC-III (1949): Art. 130, GC-IV (1949): Art. 147, AP-I (1977): Art. 85.
[95] Due to the fact that the attribution of both crimes, the *crime of genocide* and the *crime of aggression*, concerns by its nature the highest military and political decision-makers of any party to the conflict, would go far beyond the scope of this work and is considered rather a political than legal question, this thesis concentrates on *war crimes* and *crimes against humanity*. Furthermore, the crime of aggression differs from the other three core crimes mentioned above due to the fact that an individual (i.e. a political or military leader) of a non-State Party to the Rome Statute, such as the Russian Federation, cannot be prosecuted without referral through the UNSC. Cf. SEILS (2016): pp. 12 and TRAHAN (2022) referring to ICC (1998) Art. 15bis and 15ter.
[96] Cf. BILKOVA (2022): p. 12, UN (2020): p. 23 or GUTIERREZ POSSE (2006): p. 70 or 80 and TAN (2018).
[97] Cf. ICC (1998): Art. 8(2)a. Examples are i.a. wilful killing; torture or inhuman treatment; wilfully causing great suffering or serious injury to body or health; extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly; compelling a prisoner of war (POW) or other protected person to serve in the forces of a hostile power; wilfully depriving a POW or other protected person of the rights of fair and regular trial; taking of hostages, etc. Cf. ibid.: Art. 8(2)a/i-viii.

conflict"[98]. While *war crimes* characterize the utmost violations of IHL (grave breaches, serious violations) during times of armed conflict, *crimes against humanity* refer to the most serious violations of IHRL that occur at any time. Yet, contrary to war crimes, "*crimes against humanity are not explicitly enumerated, or even mentioned, in IHRL treaties*"[99]. Again, the Rome Statute provides a comprehensive catalogue and definitions[100] which are not only used by other IHRL instruments but, above all, accepted by Ukraine and Russia[101]. *Crimes against humanity* are in this regard defined as "(…) *acts* [cf. footnote 100] *when committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack*"[102]. Therefore, the legal categories of *war crimes* and *crimes against humanity* are not mutually exclusive; one act may constitute both or either, depending not only on temporal (during times of armed conflict or not) and spatial (under which effective control) considerations, but also on the material element, i.e. the extent (wide-spread, systematic), and the mental

[98] Cf. ICC (1998): Art. 8(2)b. Examples enumerated are i.a. intentionally directing attacks against the civilian population; civilian objects; personnel, installations, material, units or vehicles involved in a humanitarian assistance or peacekeeping mission; intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated; killing or wounding treacherous individuals belonging to the hostile nation or army; pillaging; employing poison or poisoned weapons; committing rape, sexual slavery, enforced prostitution or any other form of sexual violence; intentionally using starvation of civilians as a method of warfare, etc. Cf. ibid.: Art. 8(2)b/i-xxvi.

[99] Cf. BENEDEK et al. (2022): p. 53.

[100] Cf. ICC (1998): Art. 7(1). Examples enumerated are i.a. murder; extermination; enslavement; deportation or forcible transfer of population; imprisonment or other severe deprivation of physical liberty in violation of fundamental rules of international law; torture; rape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization, or any other form of sexual violence of comparable gravity; persecution against any identifiable group or collective on political, racial, national, ethnic, cultural, religious, gender or other grounds that are universally recognized as impermissible under international law; enforced disappearance of persons; the crime of apartheid; other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health, etc. Cf. ibid. Art. 7(1)a-k. Additionally, article 7(2) defines some of terms used in the overall definition and enumeration of certain acts constituting crimes against humanity.

[101] Cf. While Ukraine implicitly expressed its support to the definition of crimes against humanity by recognizing the ICC's jurisdiction i.a. over crimes against humanity on its territory twice, in 2014 and 2015 (cf. BENEDEK et al. (2022): pp. 53), the Russian Federation's delegation on a discussion of the UN's International Law Commission stipulated that it supports "(…) *the Commission's use of* (…) *the verbatim reproduction* (…) *of the definition of crimes against humanity found in the Rome Statute*." Cf. UN/GA (2015): para. 18/pp. 4.

[102] Cf. ICC (1998): Art. 7(1). The Rome Statute specifies that an "*attack directed against any civilian population*" is *"*(…) *a course of conduct involving the multiple commission of acts* (…) *against any civilian population, pursuant to or in furtherance of a State or organizational policy to commit such attack*". Cf. ibid.: Art. 7(2)a. In reference of established case law "*widespread*" refers to "(…) *the large-scale nature of the attack and the number of targeted persons* (…)" and "*systematic*" to the *"(…) organized nature of the acts of violence and the improbability of their random occurrence*". Cf. ICTR (2011): para. 631 referring in footnote 756 to numerous other case law examples.

element[103], i.e. the intention (purposefully and knowingly) with which an act was carried out. Assuming that the relationship between violations of IHL and war crimes corresponds to the relationship between violations of IHRL and crimes against humanity, namely that ”violations” are to be held accountable by the state and that for ”crimes” individual criminal responsibility applies; and any High Contracting Party (state) has the obligation under Geneva Law not only to suppress[104] but also ”(…) *to provide effective penal sanctions for persons committing, or ordering to be committed, any of the grave breaches* (…)”[105], i.e. war crimes and crimes against humanity; in the light of the IAC between Russia and Ukraine, individual criminal prosecution is a clear legal obligation that not only the immediate parties to the conflict, but all High Contracting Parties must comply with[106].

B.1.4. Accountability Mechanisms for War Crimes and Crimes against Humanity

A court equipped with jurisdiction is the necessary means by which a person guilty of a respective war crime or crime against humanity can be legally prosecuted as an individual criminally responsible for a violation of IHL or IHRL.[107] There are essentially three possibilities for the legal prosecution of international crimes; by a nation state’s law enforcement authorities, by international courts or (ad-hoc) tribunals, or by third-party state institutions based on universal jurisdiction.[108] Notably, by virtue of the principle of complementarity, a domestic court enjoys primary jurisdiction, while an international court only has jurisdiction in certain cases.[109] The Rome Statute recalls in this regard that every state has ”(…) *the duty* (…) *to exercise its criminal jurisdiction over those responsible for international crimes*” but emphasizes also, that the ICC ”(…) *shall be complementary to national*

[103] According to the Rome Statute “(…) *a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court only if the material elements are committed with intent and knowledge.*“ ICC (1998): Art. 30(1). For a better understanding of the relation of the mental element with the material element of a crime in international criminal law, cf. ICRC (2016): Art. 50.
[104] Cf. LUBELL et al. (2019): p. 5 and GC-I (1949): Art. 49, GC-II (1949): Art. 50, GC-III (1949): Art. 129, GC-IV (1949): Art. 146 and AP-I (1977): Art. 86(1) and 87.
[105] Cf. GC-I (1949): Art. 49, GC-II (1949): Art. 50, GC-III (1949): Art. 129 and GC-IV (1949): Art. 146. Cf. Repression of breaches, AP-I (1977): Art. 85(1) and ICRC (2014b).
[106] Cf. footnotes 115 (Geneva Law) and 124 (universal jurisdiction).
[107] Cf. BENEDEK et al. (2022): p. 8.
[108] Cf. UN (2020): p. 23 or BENEDEK et al. (2022): p. 88.
[109] Cf. FREEMAN (2020): pp. 57 or SEILS (2016): pp. 37.

criminal jurisdiction"[110]. This applies in instances where a state "(…) *is unwilling or unable genuinely to carry out the investigation or prosecution*"[111]. Bearing this in mind, both parties to the armed conflict relevant to this thesis, Ukraine[112] on one side and the Russian Federation[113] along with its proxies of the former "DPR" and "LPR"[114] on the other, have filed domestic charges and in several cases already prosecuted individuals. The discernible tendency that members of the respective factions' own armed forces are either insufficiently held accountable for crimes or not at all,[115] and the occurrence of politically motivated sham trials, both, clearly violate the principles of the rule of law[116]. Assuming situational bias of national

[110] Cf. ICC (1998): Preamble/ para. 6 and 10.

[111] Cf. ibid.: Art. 17/1(a). The Rome Statute considers as "unwilling", if a state, which has jurisdiction, purposes *"(…) shielding the person concerned from criminal responsibility for crimes* [e.g. war crimes, crimes against humanity etc.]" (cf. ibid. Art. 17/2(a)), "(…) *an unjustified delay in the proceedings which in the circumstances is inconsistent with an intent to bring the person concerned to justice*" (cf. ibid. Art. 17/2(b)) or if "(…) *proceedings were not or are not being conducted independently or impartially, (…) inconsistent with an intent to bring the person concerned to justice*" (cf. ibid. Art. 17/2(b)). The Rome Statute considers "*inability*", if a state, which has jurisdiction, is*"(…) due to a total or substantial collapse or unavailability of its national judicial system,* (…) *unable to obtain the accused or the necessary evidence and testimony or otherwise unable to carry out its proceedings*". Cf. ibid. Art. 17/3.

[112] As of 25th February 2024, the Office of the Prosecutor General of Ukraine registered more than 126.000 criminal cases relating to "*crimes of aggression and war crimes*". Cf. https://gp.gov.ua/(link visited on 25th February 2024) and Appendix b. The first individual convicted of a war crime was Vadim Shishimarin, a Russian soldier. He was sentenced by the Solomyansky District Court of Kyiv, in accordance with Art. 438 of the Criminal Code of Ukraine, of violating the laws and customs of war by killing a civilian in Sumy Region. Cf. UKRINFORM (2022) and VASILIEV (2022a).

[113] According to an interview with Alexander Bastrykin, Chairmen of The Investigative Committee of Russia(link: https://treaties.un.org/pages/CNs.aspx?cnTab=tab2&clang=_en - visited on 1st February 2024), at the end of July 2022 1.300 criminal cases have been initiated relating to "*the involvement of crimes against the peace and security of mankind*" (rus. "*причастность к преступлениям против мира и безопасности человечества*"). Cf. KOZLOVA (2022). Unlike the webpage of the Office of the Prosecutor General of Ukraine (cf. footnote 112), there is no official information by the Russian Federation that lists the number of war crimes or crimes against humanity cases filed in the context of the war in Ukraine. This is also due to the fact that Russia employs a vastly different legal framework and definition of war crimes compared to international standards. Acts considered war crimes by the international community might not be classified as such under Russian law, impacting official case recording.

[114] The first convictions in non-governmental held territories of Ukraine were of two British and a Moroccan citizen for participating 2022 in the IAC in Ukraine. The so called Appellate Chamber of the Supreme Court of "DPR" sentenced all three individuals to capital punishment for "*mercenarism, forcible seizure of power, commission of a crime by a group of individuals and training for the purpose of carrying out terrorist activities*". Cf. BURNOV (2022) and ROUSHAN (2022).

[115] Cf. BENEDEK et al. (2022): p. 88 and 92 or BILKOVA et al. (2022): p. 113 and pp. 75 referring i.a. to IGNATIUS (2022). Geneva Law prescribes that the High Contracting Parties have "(…) *the obligation to search for persons alleged to have committed* (…) *grave breaches* (…) *regardless of their nationality, before its own courts* (…)". Cf. GC-I (1949): Art. 49, GC-II (1949): Art. 50, GC-III (1949): Art. 129, GC-IV and (1949): Art. 146.

[116] Another example is the above mentioned trial in the "DPR" (cf. footnote 114), in which, according to Michelle Bachelet, UN High Commissioner for Human Rights, "(…) *fair trial guarantees were not complied with, including that the defendants in the cases were not able to present a full defense* (…), *the general right to a public hearing, the principles of independence and impartiality and the right not to be compelled to testify against oneself. The deprivation of the right of prisoners of war to a fair and regular trial is prohibited under international law and may amount to a war crime*". Cf. BACHELET (2022).

legal institutions[117], it is at least questionable to what extent a warring state is in the position to prosecute any crime, especially misconduct by its own forces; since the latter's conviction might, for military and domestic political reasons, not only be detrimental but at worst even threaten the narrative of legitimacy of the nation's own courses of action. On these grounds, given the partial inability[118] of Ukraine, and the questionable willingness[119] of both parties to the conflict to carry out unbiased and impartial criminal investigations and legal proceedings, international judicial bodies or other independent courts are essential to administer criminal justice during or after times of armed conflict. However, it is particularly the time factor that is a weakness of investigations and prosecutions by an international court; due to its high degree of formalization, it often takes years before actual legal actions can commence. First responders, e.g. those from civil society, journalists or the open source (investigative) community, react quicker to reach crime scenes physically and/or collect information from a distance that might later serve as evidence.[120] The international judicial body most noted for individual prosecution of war crimes and crimes against humanity is the ICC. Although neither Russia nor Ukraine are formally State Parties to the Rome Statute[121], the ICC has jurisdiction on war crimes and crimes against humanity on the territory of Ukraine based on two declarations made by the Verkhovna Rada of Ukraine in 2014 and 2015.[122] Aside from the ICC, the European Court of Human Rights (ECtHR) has the capability to deal with cases brought forward against Ukraine, and those cases filed against Russia prior to the 16th September 2022, due to the

[117] Cf. AMBOS (2022) or VASILIEV (2022a).
[118] The question of the extent to which a state currently at war is capable of prosecuting international crimes is not only a jurisprudential one but, for Ukraine in particular, also a substantial-institutional matter. On the one hand many of the competent courts located in the occupied territories are either appropriated by the enemy or have been destroyed, with their personnel injured, killed or forced to flee. On the other hand, the work of the still-functioning courts in government-controlled territory is often severely restricted due to the ongoing hostilities. Cf. NURIDZHANIAN (2022) and KINAH (2022).
[119] Cf. footnote 111 and ICC (1998): Art. 17 with Art.18-20 and 53 and SEIL (2016): pp. 29
[120] Cf. FREEMAN (2020): p. 58 and KOENIG/FREEMAN (2020): p.331 referring i.a. to COCAN et al. (2018).
[121] After the ICC published in 2016 a report classifying Russia's annexation of Crimea as an occupation, the Russian Federation withdrew its signature from the Rome Statute and therefore does not recognize the court's authority. Cf. WALKER/BOWCOTT (2016) and SIDDIQUE (2022).
[122] Cf. UA (2014) and UA (2015) referring to ICC (1998): Art. 12(3). Due to these two declarations, the ICC has also jurisdiction over the *crime of genocide* (cf. ibid Art. 5(a) and Art. 6), but not over the *crime of aggression* (cf. ibid Art. 5(d) and Art. 8). Cf. DANNENBAUM/STEPHENSON (2022). The latter mentioned crimes are not specifically dealt with in this thesis (cf. footnote 95).

latter's withdrawal from the Council of Europe on 15th March 2022.[123] Beyond that, for certain, particularly serious crimes, the principle of universal jurisdiction applies.[124] Several European states (i.a. Estonia, France, Germany, Latvia, Lithuania, Norway, Poland, Slovakia, Spain, Sweden, Switzerland, United Kingdom) have made usage of this legal principle by initiating criminal proceedings against certain individuals.[125] However, any criminal prosecution is preceded by the selection and subsequent investigation of potential criminal acts. In this sense, a large number of IOs[126], third-party state institutions and experts[127], transnational operating NGOs[128] and of course the ICC[129,] are involved in the fact-finding

[123] Cf. ECtHR (2022a) or HILLEBRECHT (2022) and SHANKAR (2022). However, since the ECtHR has jurisdiction only over states and not individuals, for this thesis this Court will be only of marginal relevance. The same applies to the ICJ (cf. footnote 65) and other non-criminal courts.

[124] Universal jurisdiction (link: https://ijrcenter.org/cases-before-national-courts/domestic-exercise-of-universal-jurisdiction/ - visited on 4th February 2023) is a legal principle of international law *"(…) based on the notion that certain crimes are so harmful to international interests that states are entitled—and even obliged—to bring* [criminal] *proceedings against the perpetrator, regardless of the location of the crime or the nationality of the perpetrator or the victim. Human rights abuses widely considered to be subject to universal jurisdiction include genocide, crimes against humanity, war crimes and torture*." Cf. Robinson (2001): p. 16 and RANDALL (1988): pp. 785. Universal Jurisdiction is also found in Geneva Law and in CIHL (cf. HENCKAERTS/DOSWALD-BECK (2005): rule 157 and 158). Regarding "universal jurisdiction" in the light of the 2022 IAC in Ukraine cf. i.a. VASILIEV (2022b), CRAWFOED/VRUVELLIER (2022), DANNENBAUM/STEPHENSON (2022), NEISTAT (2022), ORDENTLICHER (2022) etc.

[125] Cf. i.a. KINETZ (2022), DETTMER (2022), MEICHTRY (2022), PANCEVSKI (2022), CCPCJ (2022), OGRENCHUK (2022), etc.

[126] Examples of IOs investigating violations of IHL and IHRL are the UN Human Right Council's Independent International Commission of Inquiry on Ukraine (link: https://www.ohchr.org/en/hr-bodies/hrc/iicihr-ukraine/index - visited on 4th February 2023) (cf. UN/GA (2022b) and ibid. (2022c)); the UN Human Rights Monitoring Mission in Ukraine (link: https://www.ohchr.org/en/countries/ukraine - visited on 4th February 2023); the OSCE's Moscow Mechanism missions of experts (cf. BENEDEK et al. (2022) and BILKOVA et al. (2022)), a newly established network of the EU's Justice and Home Affairs agencies including Eurojust (cf. EUROJUST (2022) and FRAS (2022)); and others.

[127] Cf. BENDEK et al. (2022): p. 92, UDENRIGSMINISTERIET (2022), BILKOVA et al. (2022): p. 113 referring to DESAI (2022) and UKRANEWS (2022).

[128] Some early public institutions and private initiatives that became active after 24th February 2022 are i.a. the Raphael Lemkin Center for Documenting Russian Crimes in Ukraine (link: https://instytutpileckiego.pl/en/instytut/aktualnosci/centrum-dokumentowania-zbrodni-rosyjskich-w-ukrainie-im) (which collects testimonies from refugees), the Platform for the Investigation of War Crimes in Ukraine – 5 AM Coalition (link: https://www.5am.in.ua/en) (which interlinks dozens of Ukrainian NGOs and experts), the Ukraine Justice Alliance (link: https://ukrainejusticealliance.com/projects) (a coalition of international based lawyers and investigators seeking i.a. compensation for individual war victims), Amnesty International, Human Rights Watch (link: https://www.amnesty.org/en/location/europe-and-central-asia/ukraine/), and of course Bellingcat (link: https://www.bellingcat.com/tag/ukraine/ - all links of this footnote visited on 4th February 2023) among others. Cf. i.a. BENEDEK et al. (2022): pp. 89, BILKOVA et al. (2022): pp.110, WALKER/KOSHIW (2022), HYDE (2022), etc.

[129] After the ICC received an unprecedented number of joint referrals of the situation in Ukraine (43 State Parties by 1st April 2022), Karim A. Khan, Prosecutor of the ICC, opened on 2nd March 2022 under article 14 of the Rome Statute full investigations regarding "(…) *allegations of war crimes, crimes against humanity or genocide committed on any part of the territory of Ukraine by any person from 21 November 2013 onwards*". Cf. ICC webpage (links: https://www.icc-cpi.int/news/statement-icc-prosecutor-karim-aa-khan-qc-situation-ukraine-receipt-referrals-39-states and https://www.icc-cpi.int/ukraine - visited on 4th February 2023) or MARCHUK/WANIGASURIYA (2022). While the ICC's budget was repeatedly reduced over the past decade, it received in consequence of the 24th February 2022 a significant increase of financial and human resources by several State Parties, allowing the Court to deploy *"(…) its largest ever team of investigators, forensic experts, and other support staff to Ukraine to investigate atrocity crimes*". Cf. DUTTON/STERIO (2022).

process. While state investigation bodies, if willing and able, may employ a variety of fact-finding instruments within their sovereign territory, external actors, particularly when the crime scene is located in a hostile environment, often lack the resources and institutional means to do so. This is one of multiple reasons[130] why the disclosure of pieces of potential evidence generated from open available sources is so significant. But what are these "open sources" exactly?

B.2. OSINT

In recent years, the concept of *open source intelligence* (OSINT), along with other corresponding terms such as *open source information, open source investigation*, and others, has been used more and more frequently in media reporting, in scientific discourse, and also in legal contexts. The exact meaning of OSINT is often dubious due to inaccurate usage or conflating of respective concepts, which can create a misleading appearance of the nature and work of the associated actors. Bellingcat is a good example; despite its repeated objection[131], it has again and again been accused by certain actors of being close to intelligence agencies or even acting as their extended arm[132]. Yet, before addressing Bellingcat and its particular role, the relevant terminology must be clarified.

First, it makes sense to differentiate between *data*, *information* and *intelligence*. While *data* is a generic depiction of a fact[133] originating usually from a primary source (e.g. a satellite image, telephone call data/metadata, dataset, survey data, photographs, audio and video recordings, etc.), information is data "(…) *that has undergone some filtering first to meet a specific criterion or need; this data can also be called a secondary source* [e.g. books about a specific subject, articles,

[130] Among the advantages of examining digital open sources are the relative simplicity, safety, affordability, and speed in obtaining substantial quantities of information from a wide spectrum of potential online sources. Additionally, historical data, information from the recent past, and real-time data can be collected. Due to their overt nature, these data are easily shared and debated within the broader open source (investigative) community. The availability of information in digital format enables machine translation and facilitates the comparison of new items with others found online. Cf. HASSAN/HIJAZI (2018): pp. 15 or DOKMAN/IVANJKO (2019): pp. 193 referring i.a. to MERCADO (2005): pp.4. For the particular advantages of open source investigation regarding violations of IHL/IHRL and ICL, cf. UN (2022): pp. 4/para. 8.

[131] Cf. BRUMFIEL (2018), PC (2021): 26:25, DW (2022): 14:40.

[132] Cf. footnote 383, 384 and 385.

[133] The term "fact" in this context does not refer to the veracity of a particular circumstance to represent objective reality, but rather that an event or situation, whose integrity is to be verified by a later validation process.

dissertations, artworks, interviews, etc.]"[134]. *Open source information* can be understood in this regard as "(…) *publicly available information that any member of the public can observe, purchase or request without requiring special legal status or unauthorized access*".[135] This includes any "(…) *information created, shared, or collated by journalists and news organizations; state agencies; political and military actors; commercial entities; international organizations; non-governmental and civil society organizations; academics and academic institutions; private individuals; and groups of individuals on the basis of their military, political, commercial, professional, and personal affiliations*".[136] While open source information has been, for most of its history, of a non-digital nature (in tangible form such as books, articles, and any type of printed media, or analogue such as television and radio broadcasts), in the last few decades, more and more information has become available in the online domain. This process has resulted in the emergence of another subcategory – *digital open source information*.[137] Due to the fact that a large quantity of the initially non-digital open source information is now available on the internet as well, and many researchers do not actively distinguish between the two concepts, this thesis also uses the common term *open source information*, being aware that most of the content concerned has actually been obtained online. Whilst *open source information* is mainly

[134] Cf. HASSAN/HIJAZI (2018): p.3 referring to NATO (2001): p. 2. Hassan and Hijazi further on compares the interrelation between data/information/intelligence and data/information/knowledge as in the following. "*Data* (…) *is a set of facts describing something without further explanation or analysis* [e.g. the current gold price]. *Information* (…) *is a kind of data that has been interpreted properly to give a useful meaning within a specific context* [e.g. the development of the gold price in a certain period]. *Knowledge* [analogous to intelligence] *is a combination of information, experience, and insight that has been learned or inferred after some experimentation. Knowledge* [intelligence] *describes* (…) *the past, and* (…) *can help* (…) *to make better decisions about the future* [e.g. when to invest in gold in order to realize maximum profit]." Cf. HASSAN/HIJAZI (2018): pp.4.

[135] Cf. UN (2020): p. 6. In line with other professional publications (cf. i.a. DUBBERLEY et al. (2020): p. 9 or BENES (2013): p. 23), the Berkeley Protocol's understanding and definition of *open source information* corresponds essentially to those of the, in the meanwhile rescinded, US' Intelligence Community Directive 301 (cf. DNI (2006): p. 8/F(3)). Because the study of intelligence as an academic subject has its roots in the US (cf. KOBI/KORNBLUTH (2019): p. 119) as well as the fact that US security authorities have a significant standardizing effect on NATO institutions and, due to the interoperability(link: https://www.nato.int/cps/en/natohq/topics_69269.htm - visited on 15th February 2023) required by this organization, also on other national armed forces, the US contributes quantitatively the largest share of material and human resources to the field of intelligence studies. Therefore, the respective scientific and professional discourse is in large part influenced by US' institutions and publications. Cf. ibid. or HASSAN/HIJAZI (2018): p.1.

[136] Cf. DUBBERLEY et al. (2020): p. 9/2.1.

[137] Examples of online open source information are online news articles; information found on blogs, forums, private and public websites; reports and digital documents; social media posts, blogs and other user-generated content such as digital imagery, video and audio recordings; user data; meta data; CCTV such as traffic, public, corporate and private cameras; satellite imagery; online maps and geospatial data; statistical information contained in internet archives and databases; dark web resources; people search engines; etc. Cf. i.a. DUBBERLEY et al. (2020): p. 9/2.2 or HASSAN/HIJAZI (2018): p. 5.

understood as a neutral and static term that only describes how a certain type of information is constituted, where it is located, and to what extent it is accessible to the public, *open source intelligence* is, in contrast, dissimilar in two ways. On the one hand, it is more procedural in its nature; on the other, it usually serves a specific purpose. In line with this, the Berkeley Protocol references OSINT as "(…) *a subcategory of open source information that is collected and used for the specific purpose of aiding policymaking and decision-making, most often in a military or political context*"[138]. This, along with the definition by the US' Intelligence Community's (IC)[139], which is also referenced outside state security organizations[140], indicates that OSINT is not merely a synonym for an advanced Google search, but rather originates from intelligence. The US' IC Directive 301 defines OSINT as "[p]*roduced from publicly available information that is collected, exploited, and disseminated in a timely manner to an appropriate audience for the purpose of addressing a specific intelligence requirement*".[141] This definition contains several points of interest in light of the key subjects to be examined in this work. First, however, the term and concept of "intelligence" in this particular context have to be reviewed, as several members of the OSINT/open source (investigative) community deliberately reject this conceptualization [142]. Eliot Higgins, founder of Bellingcat, for example writes that "(…) OSINT (…) *derives from government intelligence, whose secretive practices diverge from the open and public mission of Bellingcat. A more accurate description is 'online open source investigation'*".[143] And indeed, as the next chapter will show, OSINT,

[138] Cf. UN (2020): pp. 7.

[139] The term Intelligence Community(link: https://www.dni.gov/index.php/what-we-do/members-of-the-ic - visited on 4th February 2023) (capitalized) or IC refers to a formal format of the combined 18 US American intelligence agencies or state organizations that work in the intelligence domain. Cf. REAGAN (2014): pp. 181. The notion intelligence community (lowercased) is the more general term for informal (e.g. "Club de Berne", "the Paris Group", etc.) or formal groups (e.g. "Five Eyes"(link: https://www.dni.gov/index.php/ncsc-how-we-work/217-about/organization/icig-pages/2660-icig-fiorc - visited on 4th February 2023), Counter Terrorism Group, etc.) of state organizations or individuals that operate in the wider sense in the intelligence domain. Cf. MONROY (2016a) and (2016b) and RETTMAN (2011).

[140] Cf. i.a. UN (2020): p. 8 or DUBBERLEY et al. (2020): p. 9/2.4, HASSAN/HIJAZI (2018): p.2, DOKMAN/IVANJKO (2019): p. 191, FREEMAN (2020): p.49, etc. Over the years various definitions of OSINT have evolved in the intelligence community, yet many remain vague and vary across agencies (cf. DOUBLEDAY (2022) and HARDING (2022): pp. 6).

[141] Cf. DNI (2006): p. 8/F(4) referring in footnote to US (2006): Sec. 931/a(1).

[142] Cf. DOKMAN/IVANJKO (2019): p. 192, BC/FIORELLA (2021), EFCSN (2022): p. 24, HAUTER (2021): p. 88 referring to CLEM (2017): p. 608. The term *open source/OSINT community* is discussed in more detail below, cf. B.2.2.

[143] Cf. HIGGINS (2022): p. 7. Similarly, Aric Toler(link: https://www.bellingcat.com/author/arictoler/ - visited on 4th February 2023), an early Bellingcat contributor and now Director of Training & Research, stated in a tweet from 31st July 2020 that "(…) *OSINT is a silly term and sometimes feels like it's used by people who want to cosplay as*

alongside the other main intelligence collection disciplines such as HUMINT, GEOINT, MASINT, SIGINT[144] - often referred to as "INTs"[145], became a tried and tested tool in the intelligence community. Moreover, it is no coincidence that in the above-mentioned definition, the collection, exploitation and dissemination of information matches components of the *intelligence cycle*[146]*,* and that the purpose of OSINT is ultimately to deliver a specific intelligence requirement, i.e. to turn "*raw data* (…) *into actionable intelligence knowledge; or in other words, into an intelligence product*"[147]. In short, OSINT is not a vague expression but a key activity and product of intelligence agencies and secret services.

This thesis neither intends to judge nor to condemn individual acts of misconduct by certain actors of the latter-mentioned institutions; nevertheless, adopting a term from the world of at least partly covert-operating (state) institutions is by no means unproblematic The rationale for employing this terminology despite this will be elaborated in the following chapters. With this in mind, an overview of the emergence and development of OSINT is necessary.

B.2.1. Brief History of OSINT and the Open Source Community

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intel officers. I much prefer "digital research/investigation" or just plain "online digging"." Cf. Twitter/X post(link: https://twitter.com/AricToler/status/1288993724136136706 - visited on 4th February 2023) by Toler on 31st July 2020.

[144] Human intelligence (HUMINT) is "[a] *category of intelligence derived from information collected and provided by human sources*" (cf. REAGAN (2014): p.162); geospatial intelligence (GEOINT) is "[t]*he exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth*" (cf. ibid. p.152); measurement and signature intelligence (MASINT) is "(…) *produced by quantitative and qualitative analysis of physical attributes of targets and events in order to characterize, and identify them*" (cf. ibid. p. 212); and signals intelligence (SIGINT) is "[i]*ntelligence derived from communications, electronic, and foreign instrumentation signals*" (cf. ibid. p. 292). Cf. i.a. ÜNVER (2018): pp. 3, LOWENTHAL/CLARK (2016): pp. 1, DOKMAN/IVANJKO (2019): pp. 192 and GEARON (2020): p. 26.

[145] Cf. i.a. GEARON (2020): p. 119; PILLAR (2007): p. 158; JENSEN et al. (2023): p. 9, 101, 112, 124 and 189; REAGAN (2014): p.197 and 181, etc.

[146] The *intelligence cycle* is a model that describes the process of how intelligence is generated in (usually) six sequential phases. This phases are "*planning and direction*" → "*collection*" → "*processing and exploitation*" → "*analysis and production*" → "*dissemination*" → "*evaluation/new requirement*". Cf. JENSEN et al. (2023): pp. 185 or JOHNSON (2010): pp. 12.

[147] Cf. DOKMAN/IVANJKO (2019): p. 191. Dokman and Ivanjko further particularize that "[t]*he actionable character of an intelligence product or information is among its essential qualities*" (cf. ibid. p. 192). Often the terms *actionable knowledge*, *actionable information* and *intelligence* (in its static dimension) are used synonymously. The Author follows this, and Lindsay Freemans comment that "[a]*ctionable information is meaningful information that is useful to decision-making or problem-solving*". Cf. FREEMAN (2020): p. 49/footnote 3. While intelligence/actionable knowledge/actionable information is usually referred to as a product provided to government and military officials in order to "(…) *assist immediate policy or strategic decisions*" (ibid.), in the author's understanding, the same logic applies to prosecution authorities (to decide about pressing a charge or not), investigative authorities (to corroborate the chain of custody with *open source evidences* (cf. Def. XII and footnote 195) if a case requires so (cf. footnote 163)) and finally to consolidate the judicial decision of a court.

With the invention of the telegraph (1844) and the advent of the first modern war correspondence during the Crimean War (1853-56)[148] from the mid-19th century onwards, it suddenly became possible not only to record incidents but also to relay factual reports of war atrocities (e.g. mistreatment of POWs, neglect of the wounded, rape, indiscriminate murder, pillage, etc.) to the general public in near real-time. The next significant technological invention for documenting and sharing the horrors of war was photography, which was used on a large scale for the first time during the US American Civil War (1861-65). One consequence of the increased public awareness of crimes committed and humanitarian grievances in wartime was the adoption of the Lieber Code (1863) and the first of the Geneva Conventions (1864).[149] However, the fact that more and more timely information was made available from the battlefield or from a country at war was not only of interest to the readership of newspapers or humanitarian organizations but also to the warring parties and political decision-makers concerned. For example, during WW II, the Allied intelligence agencies used openly available information to ascertain and adjust bomb engagement areas or to determine the enemy's number of casualties.[150] Back then, William Donovan, head of the US' Office of Strategic Service (OSS) – precursor of the Central Intelligence Office (CIA) – was a crucial figure in incorporating the increasing amount of publicly available information into intelligence work. The OSS' Research and Analysis Branch, which operated on an already very similar basis as the modern OSINT investigations – albeit without computers, "(…) *collected dozens of newspapers, journals, press clippings, radio broadcasts reports from around the world, hunting for photos and articles that may give away crucial intelligence about the enemy*"[151]. An aptly famous quote of Donovan states that "(…) *even a regimented press will again and again betray their nation's interests to a painstaking observer*"[152]. Although it is

[148] While on the British side the reports of William Howard Russell, a Times of London reporter who is considered to be the first modern war correspondent, helped i.a. to convince his government to allow volunteer nurses to aid the wounded (cf. ANDREWS (2016): 5.), on the Russian side Lev N. Tolstoy published in 1855 his Sevastopol sketches (link: https://www.gutenberg.org/files/47197/47197-h/47197-h.htm - visited on 4th February 2023), an autobiographic description of the devastating consequences of warfare (cf. BRINKHOF (2022)).

[149] Cf. DUBBERLEY et al. (2020): p.vii. Since "(…) *it was the first attempt to codify existing laws and customs of war*" the Lieber Code is considered to have formed the foundation of the development of modern IHL. Cf. ICRC (2015): p. 13.

[150] Cf. KOETTL et al. (2022): p. 12 referring to GLASSMAN/KANG (2012): p. 674 and DONOVAN (1946).

[151] Cf. BC/COLQUHOUN (2016).

[152] Cf. i.a. DONOVAN (1946): p. 114, WATERS, (2018), BLOCK (2022), etc.

disputed when the term OSINT first appeared[153], its roots, as it is understood today, go back almost a century. After WW II, however, the acceleration of OSINT died down; with neither the Cold War nor 9/11 seeing much change. It almost seemed as if government agencies and the military either rated other intelligence disciplines such as HUMINT or SIGINT as more valuable, or these simply enjoyed a higher reputation due to the associated aura of clandestine or technological novelty.[154] According to Cameron Colquhoun, the 2009 Iranian "Green Revolution"[155] changed this. For the first time, anybody who had access to the internet could extract actual intelligence from local individuals in real-time whether it was a heavily funded foreign intelligence service, an NGO or any private person. The revolution may have failed in the eyes of its instigators, – but it did mark a turning point in the history of OSINT, as these events sparked a rapid development in this field. Interestingly, while "(…) *citizen journalists and lone investigators* (…) *led the development of OSINT as a discipline*[, the] (…) *monolithic worlds of academia and government* (…) *only just beg*[an] *to realise the potential riches of this data.*"[156] A possible reason for this is that independent individuals were quicker to adapt to the new emerging information space and technology due to their flexibility and creativity, unconstrained by bureaucracy or poor technical infrastructure.[157] After the unfolding events of the Arab Spring that followed shortly after Iran's Green Revolution, David Shedd, deputy director of the Defense Intelligence Agency, acknowledged the US authority's intelligence failure to accurately anticipate these events. He reasoned that they were too reliant on information from powerful elites thereby "(…) *missing a side of reporting that would have provided a better picture of how strong* [the] *opposition really was*", concluding that this has led to "(…) *a lot more discussion in the intelligence community on how to take advantage of the enormous amount of open source information that is out there, and draw inferences of where a trend may be*"[158]. By

[153] Cf. HASSAN/HIJAZI (2018): p.1.
[154] Cf. i.a. ÜNVER (2018): p. 5, GIBSON (2014): pp. 124, PALLARIS (2008): p. 1, GARICANO/POSNER (2005), HULNICK (2010): pp. 229, pp. BENES (2013): pp. 24, MERCADO (2015): pp. 1, etc.
[155] Following a significant leap of internet and mobile phone users in Iran, between 2008 and 2009 the "Green Revolution" began as a number of protests by millions, mainly young people interconnected via online applications. In the first weeks of the protest, 60% of the worldwide Twitter/X content was related to the events in Iran. Cf. BC/COLQUHOUN (2016).
[156] Cf. BC/COLQUHOUN (2016).
[157] Cf. ibid., ÜNVER (2018): p. 6 or JENSEN et al. (2023): p. 177.
[158] Cf. DILANIAN (2012).

now, some assume that over 80% of all the intelligence collected actually derives from open sources[159], thus causing the significance of traditional INTs to decrease. However, along with the US Intelligence Community, a large number of private OSINT business corporations were founded in the years after with a more serious interest in open source information.[160] In addition, the media landscape and consumption style has changed significantly as a whole. Due to a decline in paid news consumption and the trend towards online news with short, live-updated pieces of information, the number of staff dedicated to long-term and in-depth journalistic investigations has decreased, with investigative journalists having to adapt to these new conditions.[161] Aside from business and journalism, two other communities began to use open source information more frequently, namely human rights activists and human right lawyers.[162] By 2011, when the ICC marked its tenth anniversary with only a few convictions to its name, the Human Rights Center at the Berkeley University initiated a number of workshops with different academic, legal and ICL/IHRL experts to tackle this ineffectualness.[163] Nearly a decade later this process ultimately led to the publication of the, so far, most comprehensive guide in the field of digital open source investigations of war crimes, crimes against humanity and other international crimes – the Berkeley Protocol[164].

Colquhoun links the rise of modern OSINT with three technological and societal developments, namely "(…) *a critical mass of smartphones with 3G connections* (…) [, s]*econdly, those citizens used a small number of apps to share a huge amount of content* (…) [and t]*hirdly, this data was free and open for the rest of the world to access and analyse*"[165]. On a similar token Koettl et al. list satellite imagery, camera-enabled phones, digital social networks and, of course, the significant increase of publicly accessible data as the four key developments for

[159] Cf. i.a. DOKMAN/IVANJKO (2019): pp. 191 referring i.a. to RILEY at al. (2005): p. 41; PALLARIS (2008): p. 1, HULNICK (2010): p. 230, BENES (2013): p. 24, MERCADO (2015): p. 2, etc.
[160] Cf. BC/COLQUHOUN (2016).
[161] Cf. FREEMAN (2020): p. 50 or HIGGINS (2022): pp. 22.
[162] Cf. DUBBERLEY et al. (2020): p. 6 and IIPC (2023): 11:30.
[163] Researchers of the Human Rights Center reviewed hundreds of ICC records and identified that one major problem of the prosecution was the corroboration of information, i.e. "(…) *judges chastised the Office of the Prosecutor at the Court for over-reliance on NGO reports – claiming that such reports did not constitute evidence – and on witness testimony that had little or no supporting documentation.*" Cf. DUBBERLEY et al. (2020): p. 6 and KOENIG (2020): pp. 32.
[164] Cf. B.2.3.and footnote 211.
[165] Cf. BC/COLQUHOUN (2016).

Human Rights and IHL investigations in the digital age.[166] Around the same time, there has been an increased institutionalization of the use of digital open source information in human rights documentation[167], Bellingcat being one example. With non-state actors or courts using open source information to generate actionable knowledge, the question arises, whether this can be designated as OSINT. After all, "intelligence" as a term, both as process and product, initially derived from the domain of state intelligence agencies[168]. This condition is met by several (I)NGOs by simply avoiding the designation of OSINT and using instead essentially synonymous terms such as *open source research* or *open source investigation* for their conductedwork. On the other hand, many journalists and internet users who participate in digital colloquial discourse (e.g. online newspapers, Internet forums, social networks, etc.) repeatedly use the term OSINT in a much broader sense, although this, in turn, actually has little or nothing in common with the work of state intelligence agencies. Thus, not only has the term's meaning broadened[169], but according to Matey, thanks to its wide applicability in different domains, OSINT has significantly changed the traditional conception of intelligence itself[170] – a development related to the private sector's increasing prevalence in "(…) *the field of intelligence and the process of creating intelligence knowledge*"[171]. This transformation of the traditional conception of intelligence stems from the fact that conventional (state) intelligence agencies are increasingly supplied with actionable knowledge that has been collected and disseminated by a relatively new actor, the *open source community*. But what is this open source community? There is no overarching, tangible and formally definable organization, but rather an anarchic, complex and loosely interrelated network of numerous ad-hoc formed formal and informal groups of individuals who work in different manifestations together by sharing and debating data and information. Often they are associated with each other due to a common interest, such as an information requirement regarding a

[166] Cf. KOETTL et al. (2020): pp. 14-20.
[167] Cf. ibid.: p. 21.
[168] Cf. JENSEN et al. (2023): pp. 2.
[169] Akin Ünver notes that the relatively narrow definition of intelligence as "(…) *the practice of methodical collection and analysis of critical information for the purposes of security, or advantage*", often equated with military and security affairs, has not become obsolete but has rather been "(…) *broadened through the advances in technology and more importantly, through the wide availability of such technology to wider audiences* (…) [which] *is growing beyond state or corporation leadership, and is expanding to the public.*" Cf. ÜNVER (2018): p. 1 referring i.a. to JOHNSON (2010): p. 4 and 229.
[170] Cf. MATEY (2005): p. 8.
[171] Cf. DOKMAN/IVANJKO (2019): p. 193.

specific subject, the skill of one's expert knowledge necessary to verify or falsify a certain incident or situation, or sometimes simple trivial interests. The Bellingcat story, in particular, reads like a series of prime examples of how the *open source community* has been able to generate actionable knowledge for specific fields of interest. Examples range from debunking disinformation[172], uncovering the identity of clandestine intelligence operatives, to, amongst others, the attribution of war crimes and crimes against humanity. At this point it has to be emphasized that national and international courts and law enforcement agencies themselves are increasingly using digital open sources, and that they also have repeatedly referred to "information" gathered by certain actors of the open source community – Bellingcat, again, thereby serves a good example. Since such "information" already led not only to attribution and prosecution but even to the conviction of criminals, the relevant means of evidence may by all means be labeled as actionable knowledge, i.e. intelligence. For this reason, and given that OSINT has meanwhile become a common term, the author assumes that this designation is justified outside of the activities of state intelligence services, especially when it comes to online investigations by independent individuals or institutions, such as those in the fields of investigative journalism, academic research, business activity, legal prosecution and civil society.

Still, for academic studies such as this thesis, terminology matters for developing an accurate chain of reasoning. Since several terms and concepts have been discussed so far, which will also be needed in later chapters, the most important ones will be summarized, defined and related to each other in the following for a better understanding.

B.2.2. Definitions

The following definitions are an amalgam of publications from different public and academic institutions, IOs and (I)NGOs, international treaties, and others. It is in the nature of language and human comprehension that some notions are subject

[172] In public discourse, the terms *fake news*, *disinformation* and *misinformation* are often used synonymously. Based on the definitions of a 2017 report by the Council of Europe, the author distinguishes between *disinformation* as "(…) *false and deliberately created to harm a person, social group, organization or country*", in contrast to *misinformation*, which is false as well, "(…) *but not created with the intention of causing harm*". Both *disinformation* and *misinformation* can be subsumed under *fake news*. Another term in this context is *malinformation*, which *"*(…) *is based on reality, used to inflict harm on a person, organization or country* ". Cf. WARDLE/FDERAKHSHAN (2017): p. 20.

to a continuum of semantic meaning, and therefore, a number of definitions exist; some similar but not same, some widely diverse, and others even contradictory of one another.[173] The author has selected those definitions that are either the most widespread in the relevant professional discourse or, in the author's understanding, appear to be the most appropriate for the subject at hand.

First and foremost, the reader has to understand what this work is about – digital open source information. As mentioned above[174], information by itself is neither inherently immanent nor per se factually true, it is rather a product of processing and interpreting raw data, often referred to as primary sources. Information must not be confused with *actionable knowledge*, a concept that comes closest to *intelligence*[175]. So what is intelligence? The author deliberately refrains from defining intelligence, as rather than there being one single generally used term there is a whole range of partially contradictory ones used by numerous institutions.[176] Nevertheless, it is important to understand that intelligence is dual in nature, meaning it is both a process (intelligence cycle[177]) and a product (presentable to a decision-maker). Moreover, one should also not conflate the terms *information* and *intelligence* – "*they are not synonymous. Information is unprocessed material of every description that can be used to produce intelligence. It is, in essence, "raw data"*"[178]. Just as the merging and contextualization of data comprises information, information that has gone through an intelligence process can itself become an intelligence product, either in its original form, i.e. including its subcomponents (data), or in connection with other information. It is crucial, in the context of this thesis, to comprehend the concept of *information*, especially its subcategories with the prefixes *digital* and *open source*, since the final product, intelligence/actionable knowledge, derives from it.

[173] Given the complex circumstances leading up to atrocity crimes and what remains, their open source-supported investigation and international prosecution, terminological misconceptions arise even within a certain group. Since this thesis deals with such an interdisciplinary subject area, it is especially important to consider that the "(…) *understanding of the terminology and language used by lawyers and investigators working in the legal context* (…) *may differ from the vocabulary of journalists and civil society actors engaged in advocacy work*". Cf. FREEMAN (2020): p. 49.
[174] Cf. footnote 133 and second paragraph of B.2.
[175] Cf. footnote 147 and 251.
[176] Cf. JENSEN et al. (2023): pp. 3 and WARNER (2002).
[177] Cf. footnote 146.
[178] Cf. JENSEN et al. (2023): pp. 5.

Def. I: ”***Open source information*** *is information that any member of the public can observe, purchase or request, without requiring special legal status or unauthorized access.*”[179]

Def. II: ”***Digital open source information*** *is publicly available information in digital format, which is generally acquired from the Internet. Digital open source information comprises both user-generated and machine-generated data, and may include, for example: content posted on social media; documents, images, video and audio recordings on websites and information-sharing platforms; satellite imagery; and government-published data.*”[180]

While the definition of open source information is relatively simple, the definition of what it is not is quite complex. The Berkeley Protocol defines as following.

Def. III: “***Closed source information*** *is information with restricted access or access that is protected by law* [e.g. privileged information, classified information]*, but which may be obtained legally through private channels, such as judicial processes, or offered voluntarily.*”[181]

The distinction between open and closed sources is, in the digital age, somewhat difficult, as there is an increasing amount of information available on the internet that has been uploaded without the creator’s formal permission for publication[182] or is only accessible by those with specialized technical skills[183]. The Berkeley Protocol has a policy of paying for services (e.g. paywall, apps, premium accounts, etc.) in order to receive information, as long as these are “(…) *services that are available to all member of the public, but not services that limit access to certain groups, such as law enforcement personnel or licensed private investigators*”[184]. Furthermore, the question arises to what extent digital open source information really is open when data or information is exchanged, for example, between members of the open source community via private communication channels such

[179] Cf. UN (2022): p. 3 and footnote 135. All of the words set in bold and underlined in the following definition-quotations, as well as all line breaks, were added by the author and do not appear in the original texts.
[180] Cf. UN (2022): p. 3 and footnote 135.
[181] Cf. UN (2022): p. 6.
[182] Examples are data and information ”(…) *that has been hacked, leaked, exposed by security vulnerabilities or posted by a third party without proper permissions*”. While such data and information is according to the definition above indeed ”publicly available” and therefore ”(…) *technically considered open source, there may nevertheless be legal and ethical restrictions on certain types of end use*”. Cf. UN (2022): p. 6. Aside the designation of such content as *closed source information*, also the expression of *NOSINT* is used. Cf. HASSAN/HIJAZI (2018): pp. 2 or SATNO (2021). The distinction between NOSINT and OSINT is also made, in addition to the legal or lawful origin of the data in question, on the basis of who uses which source; meaning that for government authorities, in particular intelligence services, NOSINT would be acceptable, while the public should only rely on OSINT. Cf. JUHL et al. (2010): p. 5 and STÖRGER/SCHAURER (2010).
[183] Examples are breaching a website’s term of service (which is mostly not illegal), using the ”deep web/dark web”(link: https://www.kaspersky.com/resource-center/threats/deep-web - visited on 4th February 2023) or other parts of the internet that are only accessible by using special software and require advanced IT knowledge. This conduct itself is in most countries legally permitted and the Berkeley protocol accepts data and information acquired on that way as open source as ”(…) *long as there is no unauthorized access* (…)”.Cf. UN (2022): p. 6.
[184] Cf. UN (2022): p. 7/2.(b) para. 17.

as e-mails, chat groups, phone calls, messaging services, etc. In this instance the Berkeley Protocol is clear; "*The clearest distinction is that open source information does not involve interacting with or soliciting information from individual internet users. Acquiring information from other internet users through communication with those users is considered closed source.*"[185] This distinction applies until such content is not accessible to the general public. If, for example, a video or a database unknown to the public is sent from one internet user to another upon request, this process corresponds to another intelligence collection discipline – HUMINT. However, if the same content in question is later published by whomever (e.g. via social media) and then verified (e.g. by the open source community), this very content is suddenly a classic example of OSINT. This shows that a distinction has to be made not only technically, but also according to several other criteria, if necessary. While the exact point at which open source information transforms to open source intelligence is in many cases indistinct, the following definition yields demarcation that suits the scope of this thesis sufficiently.

> Def. IV: "***Open Source Intelligence****: Produced from publicly available information that is collected, exploited, and disseminated in a timely manner to an appropriate audience for the purpose of addressing a specific intelligence requirement."*[186]

While a state intelligence community's "*appropriate audience*" is usually a political decision-maker or military leader, and the "*purpose of addressing a specific intelligence requirement*" is to take a political or military action, the target groups of the open source community, in terms of this thesis, are national and international justice and accountability mechanisms. This is to facilitate the initiation and support criminal proceedings that ultimately aim to convict individuals responsible of the gravest crimes of concern to the international community. Nevertheless, before any criminal investigation can formally be initiated, the rationale of whether a potential act of crime, or an incident as defined by the ICRC, has actually taken place.

> Def. V: "*An "**incident**" is broadly speaking any event, situation, or set of circumstances that has the potential to require an investigation because it raises concern about a possible violation of international humanitarian law (…)"* or international human rights law.[187]

[185] Cf. ibid.: p. 6 and 7/para. 18.
[186] Cf. DNI (2006): p. 8/F(4) referring in footnote 1 to US (2006): Sec. 931/a(1). See also footnotes 140-142.
[187] Cf. LUBELL et al. (2019): p. 11/para. 47. The definition was extended by the author to include also crimes against humanity.

The crimes resulting from the above-mentioned violations of IHL and/or IHRL that this thesis focuses on are war crimes and crimes against humanity. In accordance with the ICL's approach, these crimes are defined according to the Rome Statute in combination with Geneva Law and CIHL.

> Def. VI: "*"**war crimes**" means: (a) Grave breaches of the Geneva Conventions of 12 August 1949, namely,* (…) *acts against persons or property protected under the provisions of the relevant Geneva Convention* (…) [and] *(b) Other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law* (…)."[188]
>
> Def. VII: "*"**crime against humanity**" means* (…) *acts when committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack* (…)."[189]

While crimes against humanity, as violations of IHRL, must be universally and at all times recognized as acts liable to legal prosecution, the framework of IHL, in which war crimes *inter alia* are enshrined, is bound to times of (international) armed conflict. However, regardless of how one party to the conflict designates the situation in Ukraine – whether as an act of aggression or self-defense, as an invasion or liberation struggle, as a war or a special military operation – from the point of view of international law, particularly IHL, it is an international armed conflict (IAC).

> Def. VIII: "*An **international armed conflict** arises when one State uses armed force against another State or States. The term also applies to all cases of total or partial military occupation, even if the occupation meets with no armed resistance. It is now irrelevant whether the States concerned consider themselves to be at war with each other or how they describe the conflict. An international armed conflict is considered to be over once active hostilities or territorial occupation have ceased.*"[190]

The assumption that war crimes and crimes against humanity are inevitably happening in the course of an armed conflict of the duration and scale, like the one on the territory of Ukraine after 2014, is reasonable. This is also supported by a large number of reports from different independent sources. While the general statement that war crimes and crimes against humanity occurred in the

[188] Cf. ICC (1998): Art. 8^2. The two subparagraphs (a) and (b) each list a finite number of corresponding grave breaches and serious violations. A list of war crimes can also be found in CIHL. Cf. HENCKAERTS/DOSWALD-BECK (2005): Rule 156. For a more detailed listing (cf. Appendix c or footnote 97 and 98) and description of war crimes and the relationship of the Rome Statute and the Geneva Conventions/Additional Protocols, cf. AP-I (1977): Art 85(5), GC-I (1949): Art. 50, GC-II (1949): Art. 51, GC-III (1949): Art. 130, GC-IV (1949): Art. 147, BILKOVA et al. (2022): p. 12, UN (2020): p. 23 or GUTIERREZ POSSE (2006): p. 70 or 80 and TAN (2018).

[189] Cf. ICC (1998): Art. 7. While para. 1 lists a finite number of examples of crimes against humanity, para. 2 defines an "*attack directed against any civilian population*" and terms of para. 1 (e.g. extermination, enslavement, torture, etc.). For a more detailed listing (cf. Appendix d or footnote 100) and description of crimes against humanity and its relationship to IHRL and IHL, cf. chapter B.1.3, BENEDEK et al. (2022): pp. 53 and footnotes 101 and 102.

[190] Cf. ICRC (2002): p. 10. In more detail, cf. chapter B.1.1.

international armed conflict in Ukraine is a mere fact, the author explicitly states that the allegation that a specific crime was committed at a specific place and time, in particular its attribution to a specific person, can only be determined by competent and independent courts. Neither the author nor this thesis claims to anticipate the investigations and legal decisions of national or international justice and accountability mechanisms exercising criminal jurisdiction over those responsible for international crimes. For this reason, it must be mentioned that in most cases, it is hardly possible to determine at an early stage whether a *war crime*, a *crime against humanity*, or both have occured until all the facts of a particular *incident* have been fully ascertained. Therefore, the more generic term *atrocity crimes* will be used where appropriate.

> Def. IX: *""**atrocity crimes**" refers to three legally defined international crimes: genocide, crimes against humanity and war crimes."*[191]

In order to avoid an explicit or implicit prejudgment of an *incident* that is either not yet legally prosecuted or the legal proceedings are ongoing, the adjective "alleged" should precede the crime in question, provided that this does not impede grammatical and syntactical understanding of the text. This work does not deal with the legal process itself but with whether and how Bellingcat and other civil society actors support and contribute to the judicial process, particularly to the documentation and attribution of atrocity crimes. To this end, it is useful to distinguish between the investigative activities of the two groups involved.

There is, on the one hand, the formal investigation of a national or international institution, which will be referred in the following as *criminal investigation*.

> Def. X: "*A **criminal investigation** is one aimed at determining the facts surrounding an incident so as to enable the establishment of possible individual criminal responsibility for conduct prohibited by law, and of the criminal sanction(s) that may be required."*[192]
> Such a *criminal investigation* is of an official character and is conducted by national or international legal and investigative *authorities.*

On the other hand, there are the rather informal open source-driven investigations executed by an individual or a group who knowingly or unknowingly act as part of the open source (investigative) community. In the following, this type of knowledge acquisition will be referred to as *open source investigation*.

> Def. XI: "***Open source investigation** refers to the use of open source information for information- and evidence-gathering functions."*[193]

[191] Cf. UN (2014): p. 1.
[192] Cf. LUBELL et al. (2019): p. 12/para. 53.
[193] Cf. UN (2022): p. 7/4. para. 20.

> Such an *open source investigation* may be conducted unofficially by independent individuals, formal or informal groups of the open source investigative community.[194]

In order to ensure that the high criminal investigative standards of a legal procedure are abided to, it is of utmost importance to distinguish between the terms "evidence" and "information"[195]. Evidence, in the judicial sense, is more than just information (in the understanding of a compilation of data[196]) but rather a "(…) *type of proof legally presented at trial (allowed by the judge) which is intended to convince the judge and/or jury of alleged facts material to the case*".[197] A subcategory of evidence of particular interest for this thesis is *linkage evidence*, i.e., the category of evidence that allows for the attribution of an alleged perpetrator to a certain crime.[198]

> Def. XII/a: "***Linkage evidence*** *is relevant and reliable information that helps prove responsibility for the crime. In other words, it helps prove "Who" committed the crime and "How" they did it (e.g. individual perpetration, conspiracy, aiding and abetting, command responsibility)."*[199]

A peculiarity of international criminal proceedings is that, depending on the specifics of the case, they tend to neglect those perpetrators who physically committed a specific crime, but focus rather on prosecuting those "(…) *who ordered their commission or were aware of their commission, had the power to stop the crimes, and/or punish their subordinates for committing those crimes, and did not exercise that power*"[200]. Questions such as who was under whose command and which sort of relationship existed between certain political and military decision-makers are particularly relevant when the resolution of an armed conflict has resulted in new forms of state organization – a process that, as can be seen in relation with WW II or the violent disintegration of Former Yugoslavia, can still be relevant even decades after the end of hostilities. Since the question of

[194] D'Alessandra et al. (2016) make, just as this thesis, in their Handbook on Civil Society Documentation of Serious Human Rights Violations, a similar terminological distinction between actors based on what kind of investigation they conduct. They designate the terms "*formal investigation*" and "*criminal investigation*" to be conducted by professionally trained legal and investigative authorities acting in their official capacity, in short, "*official investigators*". Other types of investigations, e.g. carried out by civil society actors, are termed "*unofficial investigations*" (cf. ibid. pp. 15). The author of this thesis adopts their reasoning of distinction, yet applies a slightly different terminology in order to comply with the subject in question.
[195] Cf. UN (2022): p. 7/4. para. 21 referring to D'ALESSANDRA et al. (2016): p.17.
[196] Cf. footnote 134.
[197] Cf. HILL/THOMPSON HILL (2002): p. 160.
[198] Cf. KOENIG/FREEMAN (2020): p. 332.
[199] Cf. MATHESON (2016): p. 113.
[200] Cf. FREEMAN (2020): p. 62. Regarding *commander's responsibility*, cf. footnote 55.

attribution of crimes, i.e. the contribution of linking evidence to prosecution, is central to this thesis, the above definition is to be complimented with the following.

> Def. XII/b: "***Linkage evidence*** *is material that demonstrates relationships between individuals or groups, as well as between individuals and overt acts. In the context of human rights investigations, it most commonly refers to information that implicates authorities that have compelled or directed others to commit abusive acts."*[201]

Whether evidence appears in the form of a victim's or witness' testimony, a physical item such as a suspected weapon or a TikTok video is irrelevant. In addition to traditional means of evidence, the increase of those admitted into international criminal and human rights investigations that derive from open sources, particularly user-generated content, is significant; this process can be observed not only in domestic courts but also in the ICC.[202]

> Def. XIII: "***Open source evidence*** *is open source information with evidentiary value that may be admitted in order to establish facts in legal proceedings"*[203]

From hereon, due to its character of having the purpose to address a factual statement to a specific audience, , *open source evidence* resembles the definition of *open source intelligence*. However, complete synonymy cannot be granted because the term OSINT represents not merely a result – intelligence product/actionable knowledge, but also encompasses the process –, but also the processes of collection, exploitation/processing, dissemination. Terminological distinction is moreover appropriate when considering that the term OSINT actually has its roots in military intelligence and covert operating government bodies, a proximity that raises questions regarding incompatibilities in terms of separation of powers. Two questions arise in this context.

Firstly, who exactly is this "entity" collecting and delivering (open source) evidence? This thesis will particularly deal with Bellingcat, a representative and well-known part of the so-called *open source community*. While an entire chapter is devoted to Bellingcat (cf. B.3), the subcategory it belongs is defined as follows.

[201] Cf. EDWARDS (2020): p. 92.
[202] Cf. KOENIG/MEHANDRU (2019) and FREEMAN (2020): pp.51 referring i.a. to KOENIG et al. (2018).
[203] Cf. UN (2022): p. 7/ para. 21.

Def. XIV: "***Open Source Community**: A loosely organized, ad-hoc community of contributors from all over the world who share an interest in meeting a common need, ranging from minor projects to huge developments, and carry it out using a high-performance collaborative development environment, allowing the organizational scheme and processes to emerge over time.*"[204]

- Numerous individuals or collectives that are engaged in open source investigations are in the professional discourse often referred to as to open source or OSINT researchers, open source or OSINT investigators, etc. These terms are considered as synonymous by the author.
- Regarding Bellingcat and the broader community of informal investigators/formal researchers who contribute potential open source information about alleged atrocity crimes, the author adopts the more specific designation **open source investigative community**.

The subsequent question is, how does this community actually function? Does "loosely organized" mean that everyone works somehow, headlong, anarchically, on something at will in an uncoordinated anarchic way? Or are there certain rules and standard procedures according to which open source information is gathered? These questions will be dealt with in more detail in the following.

B.2.3. Methods, Standards and Procedures – The Berkeley Protocol on Digital Open Source Investigations

The range of topics with which the open source community deals is probably as diverse as their different motives or their social, technical, linguistic and demographical backgrounds. For all these different target groups and their respective areas of interest, pertinent guidelines and manuals, that not only offer introductions to a specific subject, but also formalize principles, work procedures and best practices, have had a standardizing effect over time. While the *Handbook on Civil Society Documentation of Serious Human Rights Violations*[205] by D'Alessandra et al. serves as a useful foundation for those interested in documenting IHRL incidents, the ICRC's *Guidelines on Investigating Violations of International Humanitarian Law*[206] may better suit the purpose of investigating alleged war crimes. If one's aim is to verify digital content or debunk disinformation, the European Journalism Centre's *Verification Handbooks*[207] deliver a broad range of examples and approaches on how to do so. And for those

[204] SORIANO et al. (2008): p. 236.

[205] Cf. D'Alessandra et al. (2016). Handbook on Civil Society Documentation of Serious Human Rights Violations (link: https://static1.squarespace.com/static/5900b58e1b631bffa367167e/t/59dfab4480bd5ef9add73271/1507830600233/Handbook-on-Civil-Society-Documentation-of-Serious-Human-Rights-Violations_c.pdf - visited on 4th February 2023)

[206] Cf. LUBELL et al. (2019). Guidelines on Investigating Violations of International Humanitarian Law (link: https://www.icrc.org/en/document/guidelines-investigating-violations-ihl-law-policy-and-good-practice - visited on 4th February 2023)

[207] Cf. SILVERMAN (2014) and (2020). The Verification Handbook was also the first to set down methodologies to address the extremely fast growing field of online social media content shared on Facebook, YouTube, Twitter/X and the other platforms to appear. Cf. DUBBERLEY et al. (2020): p. 6. Verification Handbook (link: https://datajournalism.com/read/handbook/verification-3 - visited on 4th February 2023)

who want to learn more about practicing OSINT in general, Nihad A. Hassan and Rami Hijazi's *Open Source Intelligence Methods and Tools*[208], or, perhaps the most comprehensive work on this topic, Michael BAZZEL's *Open Source Intelligence Techniques*[209], are just two examples of an ever-increasing number of professional publications.[210]

However, the best known and most important work in the wider field is the *Berkeley Protocol on Digital Open Source Investigation – A Practical Guide on the Effective Use of Digital Open Source Information in Investigating Violations of International Criminal, Human Rights and Humanitarian Law*[211]. It is particularly suitable for the subject area of this thesis for two reasons. First, because Bellingcat itself states that their *"*(…) *justice and accountability work* [, including their] *methodology for verification* (…) *is consistent with the* (…) *Berkeley Protocol*"[212]. And second, because it delineates the general principles and practices that open source investigators are required to adhere to in order to enable the open source information's "(…) *potential use by accountability mechanisms* (…)" and ensuring "(…) *international justice and accountability, which broadly include: human rights documentation, preservation, evidence collection and fact-finding; investigations by commissions of inquiry and fact-finding missions;* (…) *and criminal trials, including international criminal proceedings*"[213]. The Berkeley Protocol addresses a wide audience, including aside formal and

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[208] Cf. HASSAN/HIJAZI (2018). Open Source Intelligence Methods and Tools (link: https://douran.academy/wp-content/uploads/ebooks/open-source-intelligence-methods-and-tools.pdf - visited on 4th February 2023)

[209] Cf. BAZZEL (2018). Open Source Intelligence Techniques (link: https://bigdata-ir.com/wp-content/uploads/2021/02/Open_Source_Intelligence_Techniques-Lite.pdf - visited on 4th February 2023)

[210] The titles mentioned by the author are only a selection. For an overview to other relevant publications, see BLOCKINT's OSINT Library (link: https://www.blockint.nl/the-osint-library/ - visited on 4th February 2023).

[211] The Berkeley Protocol on Digital Open Source Investigation – A Practical Guide onthe Effective Use of Digital Open Source Information in Investigating Violations of International Criminal, Human Rights and Humanitarian Law (link: https://www.ohchr.org/sites/default/files/2022-04/OHCHR_BerkeleyProtocol.pdf - visited on 4th February 2023) (Berkeley Protocol) is a joint publication of the UN Human Rights Office and the University of California/Berkeley's Human Rights Centre. The work on it began already a decade before its first release and is the result of a series of interdisciplinary workshops, collaboration of various subject matter experts and the ICC, previous UN and other international protocols, etc. Cf. UN (2022): pp. v and vii-xi, DUBBERLEY et al. (2020): pp. 6 and footnote 163. In regard of methodological questions in the open source research discourse it is often referred to the Berkeley Protocol; as did Bellingcat in several publications (cf. BC/FIORELLA (2021), BC et al. (2022), etc.) or Iryna Venediktova, former Prosecutor General of Ukraine, by mentioning it as a framework for documenting potential war crimes in Ukraine (cf. Appendix e).

[212] Cf. BC (2022c): p. 3 and subchapter B.4.1.5.

[213] Cf. UN (2022): p. 3/paras. 3. and 4.

official investigators[214] also "(…) *digital first responders, such as community-based organizations and independent researchers who are often the first to publish findings based on open source information, and whose work often plays a key role in the establishment of other formally mandated open source investigations*"[215]. Its aim is to standardize processes and provide methodological guidance, for example, in tracing and evaluating the credibility and reliability of an online source, online content verification, compliance with legal requirements and ethical norms, security considerations, and many more.[216] Although the Berkeley Protocol emphasizes on demarcating the concepts of open source information and open source investigation from OSINT[217], the process of the *open source investigation cycle* noticeably resembles the intelligence cycle[218], which in turn originates from the domain of state intelligence authorities. Here it is once again evident that the processes and methodology initially used in the realm of intelligence agencies have largely spilled over to the conduct of work of the legal, academic, journalistic, civil society and, of course, open source investigative community in the meantime– or vice versa.[219] This is another reason why the author considers that a conceptual distinction between OSINT and open source information/investigation/ research/etc. is no longer expedient. The Berkeley Protocol reflects this in the way it is structured, i.e. it aims at both target groups – those engaged in the entire range of an investigation and those involved only in specific sub-functions or phases of the cycle, such as content verification. To achieve this, the Berkeley Protocol covers six subject areas, dedicating a chapter to each; principles, legal framework, security, preparation, investigation process, and reporting on findings.

The chapter on **principles** addresses various aspects, including professional principles such as ensuring the investigator's accountability, competency, objectivity/bias, and operational/personal security awareness. It also covers

[214] E.g. "(…) *lawyers, archivists and analysts who work for international, regional and hybrid criminal tribunals; national war crimes units; commissions of inquiry; fact-finding missions; independent investigative mechanisms; international organizations; transitional justice mechanisms;* (…) *NGOs* [and others] *who could benefit are those working for diverse international and regional mechanisms that carry out judicial and quasi-judicial open source investigations into violations of international law*". Cf. UN (2022): p. 5/para. 11.
[215] Cf. ibid.
[216] Cf. Ibid.: p. 5/para. 10.
[217] Cf. Ibid.: p. 7/para. 19.
[218] For the *open source investigation cycle*, cf. UN (2022): p.1/para. 3, p.11/para. 25 and p.55/para. 140; for the *intelligence cycle*, cf. footnote 146.
[219] Cf. HAUTER (2021): pp. 88.

methodological principles such as accuracy, data minimization, preservation, and security considerations. Additionally, ethical principles such as dignity, humility, inclusivity, independence, and transparency are highlighted, emphasizing their relevance at every phase of each digital open source investigation.[220] The Berkeley Protocol goes beyond meeting only technical requirements such as legal admissibility and good scientific practice, it moreover emphasizes on the importance of addressing moral questions and civil society demands in open source investigations – considerations that some state authorities and formal investigative bodies do not always fully incorporate for various reasons.

The chapter on the **legal framework** addresses aspects, including the classification of investigations under public international law such as IHL/CIHL, IHRL, ICL, and more. It covers topics related to the applicable jurisdiction, including territorial, temporal, personal subject matter and universal jurisdiction. The chapter also discusses accountability mechanisms, investigative powers and duties, rules of procedure, and admissibility criteria of crime-based and linkage evidence. Additionally, it explores the right to privacy and data protection, as well as other relevant legal considerations such as terms of service, virtual identity, and intellectual property laws.[221] The Berkeley Protocol's view of open source investigations within the framework of ICL, its relation to IHL and IHRL and review on the chain of custody, proved particularly suitable for this thesis.

The chapter on **security** covers, i.a., the essentials of security assessment and measures for asset and information protection. It discusses physical, technological, and policy measures to be implemented to safeguard assets and information. The chapter also addresses different types of harm, such as digital, financial, legal, physical, psychosocial, and reputational harm, and provides definitions and examples. It explores threats that investigators may encounter, such as distributed denial-of-service attacks, phishing attacks, man-in-the-middle attacks, social engineering, malware, and other sources of potential vulnerabilities, including cookies, trackers, beacons, etc.[222] Unlike state-run institutions or larger organizations, individuals and informal groups whose main profession is not predominantly the conduct of open source investigations often have limited or no

[220] Cf. UN (2022): p. 11/para. 25 - p. 15/para. 38.
[221] Cf. ibid.: p. 19/para. 39 - p. 29/para. 66.
[222] Cf. ibid.: p. 33/para. 39 - p. 41/para. 107.

resources and little experience in dealing with cyber security issues. Therefore, this chapter and the annexed checklists are particularly beneficial for actors within the open source (investigative) community.

The chapter on **preparation**, however, expands further on the employment of digital threat and risk assessment, while also dealing with digital landscape assessment, online investigation plan, resilience plan and self-care, data policies and tools.[223] While the purposes of the preceding activities that are operationally related to the subject of the investigation are practicable for most OSINT practitioners, the last two points are often neglected. In particular, those investigating atrocity crimes may encounter graphic and disturbing content such as rape, torture, or images of maimed children, which can be mentally damaging and even potentially lead to secondary trauma. The Berkeley Protocol not only emphasizes the need to acknowledge this possibility but also provides a range of measures to prevent or mitigate the psychosocial effects of such exposure. Additionally, it offers guidance on how to support and assist individuals who may experience trauma in these challenging circumstances. The second point relates to considerations regarding the handling, preservation, and destruction of data. By addressing these issues one can avoid irregularities, delays, or the loss of information including potential evidence. Specifically, addressing technical aspects such as data retention, data access, and data sharing at an early stage and implementing an effective information and evidence management system enhances the overall quality of the subsequent investigative process.

The chapter on the **investigation process** deals with the six consecutive phases of the *open source investigation cycle*, namely the online inquiry, preliminary assessment, collection, preservation, verification, and investigative analysis.[224] Analogous to the *intelligence cycle*, the *open source investigation cycle* of the Berkeley Protocol is designed to ensure that the investigations are conducted in a structured, systematic and comprehensible manner.

I. The **online inquiry** is carried out either in a task-oriented manner to find relevant information on a predefined objective or research question (searching), or by following an already established source of information over time to track

[223] Cf. ibid.: p. 45/para. 108 - p. 51/para. 139.
[224] Cf. ibid.: p. 55/para. 140 - p. 67/para. 207.

changes (monitoring). Both processes require the employment of specific methods and intermediate steps, as well as conscious preparations to counterbalance an investigator's own cognitive bias and bias inherent in the available information.[225]

II. Each newly-discovered digital item demands a **preliminary assessment** in order to avoid over-collection (principle of data minimization), its irretrievable loss (e.g. removal by the source, due to technical reasons) and to ensure that the collection does not violate law, the right to privacy or ethical principles. Open source investigators should determine if a digital item appears to be relevant to the respective investigation, whether its content is reliable, its likelihood to be removed and whether the duty of preservation arises regarding the latter.[226]

III. The **collection** of online content may be performed manually or it may be automated. A digital item that is intended to qualify later as evidentiary in a judicial process must be collected according to certain minimum standards. Regarding a standard webpage, these minimum requirements are the target web link (URL/URI), the source code (e.g. HTML) and a full-page capture (e.g. a screenshot of the content including the target web address, date and time). Additionally, the evidentiary value increases by assigning a cryptographic identifier to confirm a digital item's uniqueness and non-modification by the time of collection (hash value) and by collecting, if applicable, additionally embedded media files and metadata, context data (e.g. comments, upload/uploader information, etc.), collection data (e.g. the collector's real name and used virtual identity, IP address of the machine used to collect, time stamp etc.), and more.[227]

IV. While collection is only the practice of obtaining data or information, keeping a potential evidentiary item available over an extended period of time requires **preservation**. This is especially the case with online content, because they are anything but permanent for a host of reasons.[228] In this context, the Berkeley Protocol mentions that the protection and preservation of digital properties must include its authenticity[229], availability[230], identity[231], persistence[232], renderability[233]

[225] Cf. ibid.: p. 56/para. 142 (searching), pp. 56/para. 143 (monitoring) and p. 57/para. 144-146 (bias).
[226] Cf. ibid.: p. 58/para. 148 (relevance), p. 58/para. 149 (reliability), p. 58/para. 150 (removal) and p. 58/para. 152 (subsequent duties).
[227] Cf. ibid.: p. 57/para. 157 referring to NG (2020): pp. 143.
[228] Cf. UN (2022): pp. 59/paras. 153-156.
[229] "*Authenticity refers to the ability to demonstrate that a digital item remains unchanged from when it was collected.*" Cf. UN (2022): p. 60/para. 160.
[230] "*Availability refers to the availability of a digital item in the simple sense of continually existing*

and understandability.[234] Additionally, investigators should document each acquisition, handling and storage of digital items under their custody, distinguish rigorously between evidentiary and working copies, and consider technical questions regarding their permanent storage.[235]

V. A central part of any investigation, which is particularly important determining digital open source evidence is **verification**, i.e. "(…) *the process of establishing the accuracy or validity of information that has been collected online*"[236]. The verification process in turn, consists of three separable sub-analyses; source analysis, technical analysis and content analysis. Since many sources in the online environment publish content anonymously or under a pseudonym, its reliability is often questionable, which is why *source analysis* is a prerequisite. It encompasses i.a. the determination of the actual provenance of a digital item (when and where the first copy online appeared), the source's credibility (e.g. their posting history, online activity, internet presence, etc.), their independence and impartiality (e.g. economic, professional, ideological or other particular interests), the specificity of information and claim, the time period between incident and publication, and more.[237] The *technical analysis* addresses the question of whether a digital item has been altered, manipulated or modified; this requires a digital forensic examination of an item's metadata and/or source code, that could provide background information about the original creator of a digital item, the time, date and geodata of its creation, upload data, modifications, file size, etc. This in turn may draw additional conclusions for the assessment of potential evidentiary value.[238] The verification process is only complete when in addition to source-related considerations and technical examinations, the *actual content analysis* has been carried out i.e. "(…) *the process by which the information contained within a*

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and being retrievable, as well as in the legal sense of securing the appropriate intellectual property rights to access and use the item." Cf. UN (2022): p. 60/para. 161.

[231] "*Identity refers to a digital item's ability to be referenced. The digital item must be identifiable and distinguishable from other digital items* (…)". Cf. UN (2022): p. 61/para. 162.

[232] "*Persistence refers to the integrity and viability of a digital item in technical terms. The digital item's bit sequences must be intact, processible and retrievable.*" Cf. UN (2022): p. 61/para. 163.

[233] "*Renderability refers to the ability of humans or machines to use or interact with a digital item using appropriate hardware and software*." Cf. UN (2022): p. 61/para. 164.

[234] "*Understandability refers to the ability of the intended users to interpret and understand a digital item.*" Cf. UN (2022): p. 61/para. 165.

[235] Cf. ibid.: pp. 61/paras. 166-175 referring i.a. to NG (2020).

[236] Cf. UN (2022): p. 62/para. 176.

[237] Cf. ibid.: p. 62/paras. 177-182.

[238] Cf. ibid.: pp. 63/paras. 183-186.

video, image, document or statement is assessed for its authenticity and veracity"[239]. Thereby, the investigator determines and examines distinctive identifiers (e.g. acoustic or visual content such as unique features of buildings, street signs, flora and fauna, human faces, insignia, etc.) and objectively verifiable information (e.g. weather on a specific day, name/rank of a certain person, location of a certain building, etc.); performs geolocation[240] and chronolocation[241]; reviews the completeness, internal consistency and coherence of an alleged fact; and eventually corroborates the current known information externally with other pieces of open or closed source information.[242]

VI. When all collection, preservation and verification are done, the actual work of interpreting factual information – the **investigative analysis** – can commence in order to "(…) *develop substantive findings relevant to decision-making or case-building*"[243]. The open source information based analysis of an incident might require pre-processing of a digital item such as its translation/reformatting into a language/digital format understood by the investigator/software, or the aggregation of different data sets into more efficiently interpretable units. Common techniques that are used to analyse open source information are i.a. image/video comparison and interpretation analysis[244], (geo)spatial analysis/geolocation, actor mapping and social network analysis[245], incident mapping[246], crime/violation pattern analysis[247], and more.

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[239] Cf. ibid.: pp. 64/para. 187.

[240] "*Geolocation is the identification or estimation of the location of an object, an activity or the location from which an item was generated.*" Cf. UN (2022): p. 64/para. 190.

[241] " *Chronolocation is the corroboration of the dates and times of the events depicted in a piece of information, usually visual imagery*" Cf. UN (2022): p. 64/para. 191.

[242] Cf. ibid.: pp. 64/paras. 188-194.

[243] Cf. ibid.: p. 65/para. 195.

[244] While comparison analysis "(…) *is the process of comparing features of objects, persons and/or locations to other unknown and/or known items when at least one of the items in question is an image*" or video, interpretation analysis refers to the interpretation of elements from images or videos such as "(…) *analysis of gunshots, wounds, blood, vehicles, weapons and military assets or analysis of the speed of a moving vehicle or the age of an individual* (…)". Cf. UN (2022): pp. 66/paras. 201 and 202. The same applies to audio recordings (e.g. noises of vehicles, explosions, voices, etc.).

[245] Whereas actor mapping refers solely to the understanding of key actors and the identification of power relations, social network analysis is "(…) *the mapping and measuring of relationships between people, groups, organizations, computers, URLs and other connected information/knowledge entities*". Cf. UN (2022): p. 66/paras. 204 and 205, referring i.a. to UN/OHCHR (2011): pp. 24.

[246] "*Incident mapping is an analytical technique used to establish the temporal and geographic relationships among different incidents, which in the context of international criminal and human rights violations may refer to the location of such violations or crimes, including prior and subsequent events.*" Cf. UN (2022): p. 67/para. 206.

[247] A crime/violation pattern is a group of two or more crimes/violations "(…) *that are unique because they share at least one commonality in the type of crime; behaviour of the offenders or victims; charac-*

Although the (investigative) analysis phase may appear to be the central aspect of the entire investigation process, the nature of the open source investigation cycle necessitates its repetition in its entirety, or at least episodically, with each new finding. This includes the emergence of new information, fact patterns, open or closed source information items, and the development of new lines of inquiry. This process is analogous to the above mentioned cyclical cognitive process of theoretical sampling[248], i.e., the entire process must be repeated as long, or as often, until the open source information qualifies as open source evidence. In other words, it undergoes sufficient scrutiny to be admissible to a judicial proceeding as part of the chain of custody.

The last chapter – **reporting on findings** – addresses the elements that a written report should comply with and the sections it must contain. The Berkeley Protocol stipulates that a report must ensure that all facts provided are attributed to their respective source (e.g. indicating any judgments or opinions of the investigator and distinguishing between open and closed sources). It should also be complete (indicating any data that were unavailable or deliberately excluded from the investigation), confidential (minimizing the potential risks posed to sources, witness, victims, etc.), accurately and impartially rendered (e.g. avoiding emotive or emotional language), and transparent (including information about the investigator's relationship to the subject or persons under investigation, the aims of the investigation, etc.).[249] As a bare requirement a written report should include sections on the investigative objectives and a defined research question, the methodology used, the activities performed, the underlying data and sources, remaining gaps and uncertainties left, and results and recommendations.[250]

The Berkeley Protocol also provides several thematic **templates** as annexes; an online investigation plan, a digital threat and risk assessment, a digital landscape assessment, an online data form, and considerations for validation tools.[251]

The fact that the Berkeley Protocol deliberately includes and applies to informal and unofficial investigative actors alongside state institutions and legal authorities,

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teristics of the offender(s), victims or targets; property taken; or the locations of occurrence." Cf. UN (2022): p. 67/para. 207 referring to IACA (2011): p.1.

[248] Cf. footnote 22.

[249] Cf. UN (2022): p. 71/para. 208.

[250] Cf. ibid.: pp. 71/para. 209.

[251] Cf. ibid.: pp. 83/Annexes I-V.

reflects the ever-increasing relevance of the open source investigative community. Tomislav Dokman and Tomislav Ivanjko take the same line by writing the following.

> "[I]*ntelligence activity, including open source intelligence information, is no longer only a feature belonging to the state itself. Gathering, analytical processing and the production of relevant and actionable intelligence knowledge are now typical for both the state and non-state actors*".[252]

The IAC in Ukraine and its intensification in 2022, shows evidence of this development distinctly. Never before in military history has information about warfare, along with its immediate effects, been so publicly obtainable; never before has such a vast amount of digital content from both the battlefields and the affected civilian population in occupied areas and in the peripheries been shared via openly accessible media channels.[253] Bellingcat has repeatedly demonstrated in the past that its open source investigations, often in interdependence with other partners within the open source investigative community, have not only been able to identify and expose crimes that would otherwise have remained hidden from the public but even attributed particular misdeeds to specific suspects.[254] Before we delve into the war in Ukraine and the events that followed the 24th February 2022, the nature and work of the open source investigative collective in question will be addressed.

B.3. BELLINGCAT

For many, the name "Bellingcat" is shrouded in misunderstanding and mystery[255]? Is it just a website, an ideology-driven activist group, or an idealistic charity organisation; is it an investigative journalist project or a commercial media venture, or something different entirely? This question arises because Bellingcat's characteristics are often misconstrued and, therefore, referred to quite differently in the media and in scientific discourse. Bellingcat is described with various

[252] Cf. DOKMAN/IVANJKO (2029): p. 195.
[253] Cf. i.a. BLOCK (2022), BC (2022c): p. 7, HOCKENHULL (2022), BC (2023a): p. 9, IWM (2022): 30:40 and footnote 5.
[254] Cf. ÜNVER (2018): p. 15, 18 and subchapter B.3.3
[255] The designation "Bellingcat" (sometimes stylised as bell¿ngcat) derives from a medieval fairy-tale called Belling the Cat(link: https://read.gov/aesop/003.html - visited on 4th February 2023). The tale is about a group of mice terrorized by a cat and the plan of a young mouse to hang a bell around their enemy's neck – "to bell the cat"(link: https://www.thefreedictionary.com/To+bell+the+cat - visited on 4th February 2023) or "belling the cat". This mouse's dangerous and certainly difficult-to-implement idea inspired Eliot Higgins to name his project, metaphorically suggesting that even a seemingly weak individual could make a difference against an apparently way stronger enemy by applying a creative solution. Cf. POOL (2018): 29:22 or HIGGINS (2022): p. 61.

combinations of the following adjectives and nouns; ”*crowdsourced/ independent/ non-government/ non-profit*”; ”*digital/ online/ internet/ open-source*”; ”investigation/ investigative/ research/ journalism”; ”platform/ organization/ website/ initiative/ analysts/ collective/ *OSINT outlet*”; ”*specialized in OSINT*”[256], etc. Simply classifying Bellingcat into a single category would oversimplify its specific activities, what it deals with and how, and the environments in which it operates. Elliot Higgins, founder and long-time Chief Executive of Bellingcat, outlines;

> *“*(…) *Bellingcat, [is] an independent international collective of researchers, investigators and citizen journalists using open-source and social media investigation to probe some of the world’s most pressing stories.”*[257]

On its website, Bellingcat provides an almost identical definition. However, it adds examples regarding the so-called “pressing stories”, encompassing “(…) *a variety of subjects – from Mexican drug lords and crimes against humanity, to tracking the use of chemical weapons and conflicts worldwide.*”[258] Furthermore, it describes in more detail the collective’s composition and its scope of work, *“[w]ith staff and contributors in more than 20 countries around the world,* (…) *operat*[ing] *in a unique field where advanced technology, forensic research, journalism, investigations, transparency and accountability come together.*”[259] In this light, and in addition to the above-mentioned nontriviality of classifying Bellingcat into a simple category, Higgins specifies that, “*Bellingcat finds itself in an unusual situation.*”

> “*We* [Bellingcat] *are not exactly journalists, nor human-rights activists, nor computer scientists, nor archivists, nor academic researchers, nor criminal investigators, but the nexus of all those disciplines.*”[260]

More on the official status and institutional self-perception of Bellingcat can be found in its Fundraising Policy.

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[256] Examples are i.a. “*Internet research organization*” (cf. BUMFIEL (2018)), “*open-source investigation platform*” (cf. TEN HULSEN (2019): p. 8), “investigative platform” (TREVISAN (2021): p. 4), “*open source investigative organization*” (cf. GUAY/RUDNICK (2020): p. 303), “*website that specializes in OSINT*” (cf. JENSEN et al. (2023): p.178), “*online investigation platform* (…) *OSINT outlet* (…) *initiative*“ (cf. ÜNVER (2018): p. 15), “*independent investigation collective*” (cf. VEEN (2018)), “*non-profit online journalism collective*” (cf. TONDO (2022)), “*non-governmental research collective*” (cf. ECtHR (2022b): para. 398).

[257] Cf. HIGGINS (2022): front book cover (inside). This definition corresponds in essence to that of Bellingcat's Editorial Standards & Practices; “*Bellingcat is an independent collective of researchers, investigators and citizen journalists who specialize in open source and social media investigation.*” Cf. BC (2022e): p. 1.

[258] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - visited on 29th April 2022). Besides its dedication of investigating crimes against humanity, in another document, Bellingcat explicitly includes, among other things, ”(…) *war crimes, conflicts, human rights abuses*” (cf. BC (2022c): p. 3).

[259] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - visited on 29th April 2022).

[260] Cf. HIGGINS (2022): 221.

> "*Bellingcat is an independent, nongovernmental organization which operates with help and contributions from private individuals and foundations worldwide. Bellingcat actively encourages philanthropic support, in line with its charitable status, and considers increasing such support as a key element in being able to fulfil its mission.*"[261]

Bellingcat has been legally registered since mid-2018 as a Netherlands-based foundation – *Stichting Bellingcat*[262]. The foundation is managed by an Executive Board[263], supervised by a Supervisory Board[264], and advised by an International Advisory Board[265]. In 2021 Bellingcat Productions B.V. was established as a commercial media subsidiary of *Stichting Bellingcat*.[266] Located in Amsterdam, the foundation expands its staff almost yearly[267] and collaborates with dozens of contributors worldwide. Bellingcat covers its operational costs with revenues from

[261] Cf. BC (2022f): p. 1. Regarding its beneficiaries, Bellingcat lists "(…) *scholars, practitioners, experts, media, lawyers, researchers, activists, human rights defenders, non-government and intergovernmental organizations as well as institutions from North and Latin America, Europe, Central Asia the Middle East and Australia*." Cf. BC (2022c): p. 5.

[262] Cf. BC (2022c): p. 1 and BC (2022d): p.3. Before Bellingcat gained "(…) a *status as a charitable foundation in the Netherlands* (…)" in 2020 (cf. HIGGINS (2022): p. 121), it was registered in the UK as a Private Limited Company (incorporated on 5th November 2015) which is as of 7th November 2022 dormant (Cf. Registrar of Companies for England and Wales/company number 9858798 (link: https://find-and-update.company-information.service.gov.uk/company/09858798/filing-history - visited on 4th February 2023)).

[263] The Executive Board "(…) *is responsible for the daily management of the organization.*" According to Bellingcat's last Annual Report of 2022, published in June 2023, the Executive Board consists of Dessi Damianova (who acts, as of end 2023, as business director and director of operations), Aric Toler (Director of Research & Training), Cristo Grozev and Eliot Higgins. Cf. LAMONT (2023) and BC (2023a): p. 30. Executive Board members are remunerated for their position (cf. BC (2022d): p. 7 and 23). In February 2022, Christo Grozev was appointed as new Executive Director and chairmen of the Executive Board, but has left this position again early in 2023 (cf. BC (2022t) and (2023b): p. 4 and pp. 9). Eliot Higgins remains in the Executive Board as Creative Director and acts as chairmen (cf. BC (2022d): p. 3 and BC (2022h)).

[264] The Supervisory Board "(…) *is responsible for supervising the policy of the management board* [Executive Board] *and the general conduct of business in the foundation. Additionally, it assists the management board with advice on a variety of issues (long-term strategy, security and others).*" According to Bellingcat's last published Annual Accounts for 2022, the Supervisory Board consists of Joseph Peeraer, Marietje Schaake and Yoeri Albrecht (cf. BC (2023b): p. 5). Supervisory Board members are neither directly nor indirectly remunerated for their position. Cf. BC (2022d): p. 4, 7 and 23.

[265] The International Advisory Board "(…) *advices on the work of the Foundation*." The International Advisory Board consists of Algirdas Lipstas, Anya Niestat, Francis Fukuyama, Maria Teresa Ronderos and Premesh Chandran. International Advisory Board members are not remunerated for their position. Cf. BC (2022d): p. 23.

[266] "[Stichting] *Bellingcat Foundation is a 60% shareholder in Bellingcat Productions B.V. The objectives of the company are to develop, (co-)produce, distribute and sell media productions based on the original investigations and publications of the Foundation, including productions in the form of (e-)books, television series, documentaries, podcasts and other media products.*" Cf. BC (2022d): p. 13 and BC (2023b): p. 17. Eliot Higgins is since early 2022 director of Bellingcat Productions B.V. (link: https://drimble.nl/bedrijf/amsterdam/49529846/bellingcat-productions-bv.html - visited on 4th February 2023) (cf. (BC (2022d): p. 3). By its legal form Bellingcat Productions BV is a Private Limited Liability Company, registered in Amsterdam, The Netherlands (cf. BC (2023b): p. 3).

[267] According to its website, as of 20th December 2022, Bellingcat had at this time 18 full-time employees (cf. Bellingcat Webpage/About (link: https://www.bellingcat.com/about/ - visited on 20th December 2022)). The foundation's annual accounts 2021 state that "[a]*t the end of 2021 Stichting Bellingcat had a total of 22 employees*" (cf. (2022d): p. 22) and as of 10th February 2024, Bellingcat's website lists 31 individuals in the category Meet Our Team (link: https://www.bellingcat.com/about/meet-our-team/ - visited on 10th February 2024). In its Annual Report is mentioned that Bellingcat has hired in the year 2022 a number of new staff, i.a. a new fundraiser, security officer, administrator, project coordinator, five new researchers and investigators, two investigative tech team members, etc. Cf. BC (2023a): p. 6.

workshops[268], donations[269] and grants[270]. The foundation binds itself through a rigorously defined fundraising policy[271] with the aim that "*Bellingcat is impartial and independent of any government, political ideology, company or religious belief*"[272]. In this regard, the foundation "(…) *does not solicit or accept funding and contributions directly from any national government*", yet it does so "(…) *from international or intergovernmental institutions*", such as the EU, UN, OSCE, etc.[273]. This rigor intends to "(…) *not allow any funding relationship to constrain us* [Bellingcat] *from criticising any bodies that provide funds, exposing any wrongdoing in which said bodies may be involved or impact our* [Bellingcat's] *editorial independence*."[274] Another document that underscores the foundation's editorial independence is the Editorial Standards & Practices, which defines Bellingcat's understanding of its values, impartiality, journalistic and research ethics, transparency, commitment to accuracy, and so on.[275] This document is interesting because, on the one hand, it regards the work of Bellingcat from a journalistic-ethical point of view[276], and on the other hand, it addresses certain

[268] Stichting Bellingcat conducted in 2021 more than 60 trainings and workshops, which generated (including keynotes and presentations) an income of € 642.547, which was nearly a third (29,2%) of the foundations yearly total income by this time. Cf. BC (2022d): p. 11 and 21 and BC (2022a): p. 6. In 2022 this category of income has been € 484.140, or approximately 13% of the foundations yearly total income. Cf. BC (2023b): p. 15.

[269] Stichting Bellingcat list on its Statement of Income and Expenses of its Annual Account 2021 and 2022, that it received financial contributions from lotteries (17,1% in 2021/12% in 2022, of the foundations yearly total income), other non-profit organisations (37,9% and 39%), companies (1,6% and 8%), governments (0,8% and 4,5%; cf. footnote 273) and individuals (13,1% and 23%). Cf. BC (2022d): p11 and BC (2023b). For the author it was not exactly determinable which amount of income is categorizable as donation or institutional grant (see next footnote). Additionally, Bellingcat "(…) *also receives in-kind donations of software access and platform resources*"; the foundation lists on its webpage, as of 21st December 2022, the following; Datayo(link: https://datayo.org/ - visited on 22nd December 2022), Hunchly(link: https://www.hunch.ly/), Maltego(link: https://www.maltego.com/), Mapbox(link: https://www.mapbox.com/), Planet(link: https://www.planet.com/), RiskIQ(link: https://www.riskiq.com/), Vizlegal(link: https://www.vizlegal.com/) and Yubico(link: https://www.yubico.com/ - all links of this footnote visited on 22nd December 2022).

[270] Bellingcat lists, as of 21st December 2022, on its webpage that it "(…) *currently receives grants from the following organisations:*" Adessium(link: https://www.adessium.org/), Alfred Landecker Foundation(link: https://www.alfredlandecker.org/en), Civitates(link: https://civitates-eu.org/independent-public-interest-journalism/grantees/), the EU, The Dutch Postcode Lottery(link: https://www.novamedia.com/), Sigrid Rausing Trust(link: https://www.sigrid-rausing-trust.org/), Stichting Democratie en Media(link: https://www.stdem.org/) and Swedish Postcode Foundation(link: https://postkodstiftelsen.se/en/) (cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - all links of this footnote visited on 22nd December 2022)).

[271] Cf. BC (2022d): pp. 6 and BC (2022f).

[272] BC (2022f): p. 2/3.1.

[273] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - visited on 22nd December 2022) or BC (2022d): p. 21. The Fundraising Policy regulates how donations from private foundations and lotteries (cf. BC (2022f): p.3/4.1.), individuals (ibid. pp.3/4.3.), corporations (ibid. p.4/4.4.) and particularly those from government institutions (ibid. pp. 2/3.1 and 4.2.) are handled and under which conditions they are accepted.

[274] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - visited on 22nd December 2022).

[275] Cf. BC (2022e).

[276] Examples are the emphasis on editorial independence, giving "*individuals or organisations accused of wrongdoing* (…) *the right to reply and a reasonable amount of time to respond*", taking "(…) *potential*

ideal working methods due to the open-source nature of the foundation. The latter has already run into dilemmas several times , e.g. whether or to what extent an investigation may accept information from non-open or closed sources[277]. The high standards the open-source investigative collective adheres to are not only reflected in its Fundraising Policy and Editorial Standards & Practices but also in the foundation's self-defined mission, along with its vision and strategy, found in its Policy Plan 2022-2024.

> "*Our* [Bellingcat's] *mission is to be the leader in open-source fact-finding, and our strategy is to consolidate that position by delivering top-quality investigations and training, establishing recognized standards, and providing inspiration to other media and civic organizations.* (…) *Our vision is to build and empower a global community of inventive individuals who use the latest technologies to piece together truth in a transparent way.*"[278]

Its mission and vision is further reflected in "(…) *search*[ing] *and assist*[ing] *others in developing methodologies for searching for truth and evidence to advance transparency and accountability with the purpose to encourage action for positive change (be it in the form of uncovering crimes, demanding justice for wrong-doing or building capacity of citizens to contribute meaningfully for solutions for local problems).*"[279] Thus, the activities of Bellingcat can be categorized into three main areas, namely the conduct and dissemination of investigations (usually in the form of reports on its website); training open source researchers (workshops) and providing of open source research resources (guides, tools); and establishing and advancing open source research methodologies and standards.[280] Yet, in order to fully comprehend Bellingcat today, particularly to grasp its role in the current IAC in Ukraine, it is necessary to understand how this open source investigative

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consequences of publication for vulnerable groups or individuals" (e.g. victims, survivors, relatives) into account, etc. Cf. BC (2022e): pp. 1.

[277] Although transparency is a key principle of Bellingcat and its working methods, researchers may, as an exception to the rule, "(…) *disguise their online identity in order to expose wrongdoing*" and only if the respective investigation is "(…) *targeted, in the wider public interest and not done frivolously.*" Similarly, even though anonymous sources are generally to be avoided in the light of open source research and transparency, "(…) *there may be isolated occasions when this is acceptable*." Exceptions are to be discussed with senior staff and all information gained should be corroborated with objective and reproducible methodology and based on open source information. Cf. BC (2022e): p. 2.

[278] Cf. BC (2022c): p.2. Both vision and mission can be found in a more condensed version in Stichting Bellingcat Annual Accounts 2021 and 2022 (cf. BC (2022d and 2022u): p. 3).

[279] Cf. BC (2022c): p. 5. In the same document, Bellingcat mentions that, aside from serving transparency, its aims include i.a. "(…) *to use hard evidence as the basis for forming opinions and making decisions*" (ibid. p. 3). This strive to make a difference resembles what is described above as actionable knowledge, actionable information or intelligence. By extension, it normalizes the determination of both the process and product of open source investigators as OSINT, regardless of whether one is an independent individual, a formal or informal contributor to any media, NGO, IO, academic institution, or state authority. Cf. B.2 and footnotes 147 and 175.

[280] Cf. BC (2022c): pp. 5 and (2022a): p. 3, HIGGINS (2022): p. 66.

collective developed from a single person's hobby to a highly professionalized open source investigation institution that has repeatedly proven its capability to deliver actionable knowledge, making a significant impact not only in an online niche but also in the "real world".

B.3.1. Brief History of Bellingcat

Despite having a regular office job and no particular professional or significant personal relation with the Middle East and Northern Africa (MENA) region[281], no education in journalism, weapons analysis or OSINT techniques, in the early 2010s Eliot Higgins started to follow the events of the Arab Spring[282]. Along with established media coverage, he followed various social media platforms like Facebook, YouTube, Tumblr and private blogs of numerous foreign correspondents, human rights activists and locals who provided online content directly from conflict areas such as Libya or Syria.[283] In this, he realized two things; first, that many seemingly minor events in the conflicts were often overlooked by big media outlets due to the sheer quantity of information and the quickly changing situation on the ground[284]; and second, that large amounts of online content uploaded by individuals (e.g. soldiers, bystanders, witnesses, etc.) or shared by third parties required verification, a non-trivial process. This can often be done remotely nonetheless, if one is willing to invest time, patience, and apply creative methods[285]. Higgins conducted his first geolocation, a method which later became a standard OSINT procedure, in 2011[286]. Besides analyzing then-marginalized online content and focusing on details, such as the munition used in the conflicts, Higgins acquired not only technical knowledge but also reputation inside a still relatively small but growing and vivid online community interested in these

[281] Higgins describes himself, that when he was younger, he was rather a shy and introvert character, who "*took refuge in online video games* (…) *organizing large groups of players spread across various countries*"; later his interest shifted from gaming to real world issues as a consequence of 9/11 (cf. HIGGINY (2022): p. 11). Higgins stated that he became at this time also interested "(…) *in the way American foreign policy effected the world* (…) *the first and second Iraq War* (…) *the mess America were making* (…)", etc. (cf. POOL (2018): 03:55).

[282] Cf. i.a. BOSKER (2013), SHUBERT (2013), etc. Higgins' statement that "(…) *before the Arab spring I knew no more about weapons than the average Xbox owner. I had no knowledge beyond what I'd learned from Arnold Schwarzenegger and Rambo*", which he gave in an interview to The Guardian (cf. WEAVER (2013)), was later frequently used by opponents of his blog and later Bellingcat to accuse him and the open source investigative collective of unprofessionalism (cf. POOL (2018): 27:00).

[283] Cf. HIGGINS (2022): pp. 12.

[284] Cf. ibid.: p. 23.

[285] Cf. ibid.: pp. 1-17.

[286] Higgins' first geolocation was the verification of a video released by a rebel soldier who claimed they took control of Brega (Libya). Cf. HIGGINS (2022): pp. 14 and p. 108 and BC/HIGGINS (2014a).

particular topics. While initially discussing incidents and conflict updates regarding the Libyan and later the Syrian Civil War mostly in the comment sections of online newspapers (e.g. Guardian live blog[287]), online message boards (e.g. Something Awful[288]) or on Twitter/X, in 2012 he established his own online blog, Brown Moses.[289] Higgins' digital open source-driven activity came at a time when the behavior of many media producers and consumers changed significantly due to the emergence and rapid spread of social media and smartphones. An unprecedented quantity of videos and photos accompanied the events in the MENA region, particularly the Syrian Civil War, which, according to Hadi Al-Khatib, was probably the most documented conflict in history at the time[290]. Only by monitoring and analyzing openly available online sources and applying self-taught methods and techniques – an approach that will later become known as the "Bellingcat method" – Higgins revealed a number of spectacular findings. Especially in the course of the Syrian Civil War, he managed to turn the media spotlight and, consequently, broaden international perception and political debate on topics such as the usage of cluster munition and incendiary ammunition[291], barrel bombs[292] and even chemical warfare agents[293]. All these are indiscriminate

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287 Guardian live blog (link: https://www.bellingcat.com/about/ - visited on 4th February 2023)

288 Something Awful (link: https://www.somethingawful.com/ - visited on 4th February 2023)

289 Cf. HIGGINS (2022): p. 16 and 18, BOSKER (2013) or WEAVER (2013). Brown Moses (link: http://brown-moses.blogspot.com/ - visited on 4th February 2023)

290 Cf. POOL (2018): 26:30. Al-Khadib is Managing Director of Mnemonic (link: https://mnemonic.org/en/team - visited on 5th February 2023), founder of the Syrian Archive (link: https://syrianarchive.org/ - visited on 5th February 2023) and an early Bellingcat contributor (link: https://www.bellingcat.com/author/hadyalkhatib/ - visited on 5th February 2023) (cf. HIGGINS (2022): p. 57).

291 Cf. HIGGINS (2022): pp. 32 and p. 45. Both Higgins' Brown Moses Blog (link: http://brown-moses.blogspot.com/search?q=cluster+bombs - visited on 5th February 2023) and later Bellingcat reported about the use of cluster bombs and incendiary ammunition in Syria (cf. i.a. BC/HIGGINS (2015b), BC/HIGGINS (2016a, 2016b and 2016c), BC/AL-KHATIB (2016a), BC/KOMAR (2017), BC/NAHAS (2018a)). More about the use of cluster bombs and incendiary ammunition in Syria and its legal implications according to IHL and IHRL, cf. CZUPERSKI et al. (2017): pp. 31 and pp. 37, ANDRIUKAITIS (2018): pp. 36 and pp. 44 and BOUCHET-SAULNIER (2015): Weapons.

292 Cf. HIGGINS (2022): pp. 41. Both Higgins' Brown Moses Blog (link: http://brown-moses.blogspot.com/search?q=barrel+bombs - visited on 5th February 2023) and later Bellingcat (link: https://www.bellingcat.com/?s=barrel+bomb - visited on 5th February 2023) reported about barrel bombs used in Syria. Cf. i.a. BC/HIGGINS (2015a). Regarding legal considerations of the use of barrel bombs and indiscriminate bombardments in Syria in the context of IHL and IHRL, cf. RODENHÄUSER (2014), PINHEIRO (2015) and footnote 294.

293 Higgins contributed with collecting and sharing social-media footages to the determination and geolocation of weapons used at the chemical attack of Eastern Ghouta (Syria) on 21st August 2013. Cf. HIGGINS (2022): pp. 49-56. Aside his publications on the Brown Moses Blog (link: http://brown-moses.blogspot.com/search?q=chemical - visited on 5th February 2023), later also Bellingcat released a number of investigations of the 21st August chemical attack of Ghouta (link: https://www.bellingcat.com/tag/august-21st/ - visited on 5th February 2023), and other occasions where "(…) *Sarin has been used as a chemical weapon in Syria* (…)*, often virtually unnoticed*". Cf. i.a. BC/HIGGINS (2017a).

weapons that, if employed in civilian-populated areas, constitute war crimes[294]. Higgins continued to merge his newly acquired knowledge about the ongoing armed conflicts, the parties involved and technical details about the specific types of ammunition and weapon systems used with insights from a at the time recently established informal online network comprising international experts in fields, such as arms recognition, geolocation and local languages. The interaction of this growing but still loosely connected community, which primarily interacted via Twitter/X[295], Facebook[296] or private blogs, managed to react to new findings ever faster and with increasingly better technical understanding and methodical approaches. This group, which not only shares open source information but also analyzes and debates the data and the methods applied, goes beyond what is described as the ”open source community”, which is why the author of this thesis uses instead the designation ”open source investigative community”. Over time – as Higgins' formal and informal open source investigative network significantly grew, his expertise was more frequently sought in the offline world, and his Brown Moses blog developed an ever-greater reach and impact – he decided to take the project to another level.[297] Finally, on 14th July 2014, Higgins, with the help of a Kickstarter campaign, officially launched Bellingcat as ”(…) *an open-source site for investigative journalism*”.[298] Only three days later, the Malaysian Airlines Flight 17

[294] While certain munition is only prohibited for those countries that signed the respective international treaties (cf. footnote 26), indiscriminate attacks, thus the weapons used (cf. AP-I (1977): Art. 51(4)), expressly in densely populated areas, violate the principles of precaution (cf. AP-I (1977): Art. 57 and HENCKAERTS/DOSWALD-BECK (2005): pp. 51/Rule 15-24) and distinction (cf. AP-I (1977): Art 48) and are due to the foreseeable loss of civilian life and damage of civilian objects clearly excessive (cf. AP-I (1977): Art. 51(5)b). Therefore not only the deliberate attack of civilians and civilian objects, but also violations of the above mentioned cardinal principles, are considered as war crimes (cf. ICC (1998): Art 8(2)b/ i, ii, iv, etc.). ”[W]*hen committed as part of a widespread or systematic attack directed against any civilian population, with knowledge* (…)”, such an act qualifies additionally as crime against humanity (cf. ICC (1998): Art. 7(1) and footnote 102).

[295] Especially in the early days of Higgins' open source research activity, Twitter/X became an important outlet for disseminating his findings (cf. HIGGINS (2022): p. 16). As the number of followers increased, so did his network, including journalists and freelancers present on the ground (cf. ibid. p. 24, 33) as well as ”(…) *top academics, members of think tanks, foreign policy officials*” (ibid. p. 27), etc.

[296] Higgins mentions as an example that after his Brown Moses blog revealed the usage of cluster bombs in Syria, Humans Rights Watch invited him ”(…) *to join a private Facebook group called Mystery Munitions consisting of arms experts from various organizations*” (cf. HIGGINS (2022): p. 34). By degrees, Higgins ”(…) *gained access to a range of online nodes – journalists, Syrian activists, rights advocates, arms experts – finding* [him]*self at the centre of a broadening knowledge network*.” Cf. ibid. p. 35.

[297] Cf. HIGGINS (2022): pp. 59 and IQ2 (2021): 11:00.

[298] Cf. CHIMBELU (2014). In the Kickstarter campaign, Bellingcat-to-be described its goals already as ”(…) *bring*[ing] *together both critically acclaimed and emerging citizen investigative journalists using open source information to investigate, collaborate, and report on worldwide issues that are being underreported and ignored*” by focusing on two objectives; first, to ”(…) *unite a group of citizen investigative journalists who through using open source information have transformed journalism and solidified*

(MH17) was shot down over Eastern Ukraine, causing the deaths of 298 passenger and crew members. This event would decisively shape the nature and work of the newly found Bellingcat for the coming years.[299] In the course of this particular investigation, the core team not only quickly consolidated information[300], but further formalized and systematized investigative procedures – shaping the so-called "Bellingcat method"[301]. The open source investigative collective was able to present their first results shortly after MH17 hit the ground. Over the next few months, Bellingcat came up with more and more open source-based reports about further particulars and potential pieces of linkage evidence regarding the Buk missile launcher, the weapons system used to shoot down the civil airliner. With the help of numerous direct and indirect contributors[302], a large amount of openly available online content could be identified and analyzed. This not only provided indications regarding the timeline of the day of the attack[303] and the missile system's route to and from the launch site[304] but also revealed which military unit it belonged to[305], its chain of command, and the potential involvement of a number

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themselves as experts in their fields" and second, to "(…) *be a place that will attract others to learn how to use open source tools, techniques, and processes. Bellingcat will include how-to guides, case studies, articles, and other media, which will aid others in becoming citizen investigative journalists on their own.*" Cf. Kickstarter campaign/Bellingcat(link: https://www.kickstarter.com/projects/1278239551/bellingcat - visited on 30th December 2022; page last updated on 17th October 2014).

[299] Cf. HIGGINS (2022): p. 66 and IQ2 (2021): 11:00.

[300] Cf. HIGGINS (2022): p. 66, POOL (2018): 12:10 and IIPC (2024): 00:25.

[301] The early Bellingcat motto "*Identify, Verify, Amplify*" ("*Identify issues both overlooked and discoverable online. Verify all evidence, and never indulge in speculation. Amplify what we learn while, while amplifying the field as a whole*") (cf. HIGGINS (2022): p. 60, 116), which was later slightly modified to the IVA approach – "*Investigate, Verify, Amplify*" (cf. BC (2022c): p. 3 and 7 or BC (2019q)), is regarded as the foundational principle of the Bellingcat method (cf. HIGGINS (2022) p. 221), which itself was further developed through the years (cf. BC (2022c): p. 6). While aside the principle of "Identify/Investigate-Verify-Amplify", application examples in the sense of investigations and guides, published on the Bellingcat webpage, the author has not sighted a formal document depicting "The Bellingcat Method" in the narrow sense. Yet, in the course of investigations addressing crimes, e.g. violations of IHL/IHRL, which might be relevant for justice and accountability, Bellingcat has steadily developed its methodologies, partly in collaboration with partners (cf. subchapter B.3.3).

[302] Examples of contributors played a central role in Bellingcat's early MH17 investigations and later shaped the open source investigative collective include Aric Toler (an American citizen with Russian language skills who geolocated an early picture of the Buk system to Torez (cf. BC/HIGGINS (2014b) or HIGGINS (2022): pp. 68)); Veli-Pekka Kivimäki (a Finish former Buk operator with missile-system expertise (cf. ibid. pp. 83)); Iggy Ostanin (a Netherlands-based Russian speaker who used, among others, Russian social media platforms (e.g. VKontakte (VK), Odnoklassniki etc.) to trace soldiers and military deployments (cf. ibid. pp. 85); Timmi Allen (a German former intelligence analyst and 3D video editing specialist (cf. ibid. p. 90)); Andrew Haggart (a blogger who studied military hardware and contributor for geolocations (cf. ibid. pp. 71, p.74)) and many others. Higgins, together with the mentioned individuals, formed the early Bellingcat MH17 Investigation Team. Cf. ibid. p. 94 and i.a. BC/ALLEN et al. (2014).

[303] Cf. i.a. HIGGINS (2022): p. 80 and BC (2015b): p. 1, etc.

[304] Cf. i.a. BC/ALLEN et al. (2014), BC (2015b): p. 1-11, (2015c and 2015d), etc.

[305] Less than two months after the downing of MH17, Bellingcat published its first report indicating that the Buk missile launcher belongs to the 53rd Air Defence Brigade (rus. 53-я Зенитно-ракетная Бригада) aka. military unit 32406, based outside of Kursk (Russia). Cf. i.a. OSTANIN (2014a). A number of re-

of individuals of the Russian Armed Forces and affiliated armed groups (e.g. ”DPR”, ”LPR”, PMC Wagner, etc.), Russian intelligence operatives, political decision makers, etc.[306] In other words it identified those who potentially bear the ultimate responsibility for the downing of flight MH17. The verification and amplification of open source evidence, which qualified in part later as linkage evidence in the context of individual criminal accountability for those under the direct or indirect command of the Russian Armed Forces and affiliated armed groups, and thereby state responsibility of the Russian Federation, led to significant media responses in Russia, Ukraine and other countries, as well as in academic and legal circles especially.[307] Yet Bellingcat was not only able to consistently debunk numerous Kremlin's narratives and disinformation operations[308] but also delivered its results to the Joint Investigative Team (JIT)[309], the international inquiry body in charge of the legal investigation of the downing of MH17[310]. It can be assumed that due to its at the time still new and unconventional methods, Bellingcat not only anticipated the findings of the JIT[311] but also shaped their working methodologies and conclusions significantly[312] – a process that would be repeated several times in the future[313]. In the years to follow, Bellingcat

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ports followed to substantiate this claim. Cf. i.a. HIGGINS (2014h and 2015f), BC/ALLEN et al. (2014), BC (2015b): pp. 12 and (2016a and 2017a), etc.

[306] Cf. i.a. BC/ROMEIN (2016 and 2017), BC (2017b, 2017c, 2018a, 2019, 2020a, 2020b and 2020c), BC/HUIS (2019 and 2020), etc.

[307] Cf. HAUTER (2021): p. 89 referring to SIENKIEWICZ (2015).

[308] As Russia has done in regard of Syria(link: http://brown-moses.blogspot.com/2013/10/making-sense-of-russias-evolving.html - visited on 5th February 2023) in the past (cf. HIGGINS (2014g) or (2022): p. 56), it also spread numerous alternative versions of the downing of MH17, including alleging Ukrainian or Western government involvement in this tragedy. Cf. i.a. BC (2015a), BC/HIGGINS (2014c, 2014d, 2014e, 2014f, 2015c, 2015d, 2015e, 2020a and 2020b), HIGGINS (2022): pp. 73, 93, BC/KIVIMÄKI (2014), BC/TOLER (2018a), etc.

[309] Cf. i.a. BC/ROMEIN (2016): p. 2, BC (2015b and 2017b): p. 11 and 12, VEEN/KLAASSEN (2018) and KLAASSEN (2018), DRABOK (2019), PELLEY (2020): 09:10, HOLLIGAN/VANDY (2022), HIGGINS (2022): p. 159, etc.

[310] Comprised by ”(…) *officials from the Dutch Public Prosecution Service and the Dutch police, along with police and criminal justice authorities from Australia, Belgium, Malaysia and Ukraine*”, the JIT(link: https://www.prosecutionservice.nl/topics/mh17-plane-crash/criminal-investigation-jit-mh17 - visited on 11th January 2023) was established on 7th August 2014 with the purpose to conduct a criminal investigation in order to *”(…) establish the facts of the case; determine the truth of what happened; identify those responsible for downing flight MH17;* [and] *gather criminal evidence for prosecution.*” Cf. Dutch Government webpage on MH17 criminal investigation(link: https://www.government.nl/topics/mh17-incident/achieving-justice/the-criminal-investigation - visited on 11th January 2023).

[311] Cf. i.a. BC (2019a) and BC/HUIS (2019), HAUTER (2021): p. 89 and pp. 226, HIGGINS (2022): p. 89, 103, POOL (2018): 01:09:30, TaG (2021): 05:30, 362), ECtHR (2022b): paras. 409, 464 and 474, etc.

[312] Higgins, who was in the early course of the MH17 investigations invited by JIT investigators to explain what Bellingcat has found out and how, describes this interlocution in the following; ”*The more I spoke and the more I saw and heard their reactions, the more I developed a dizzy sensation: we were the only ones doing this. The investigators realized that they had to take the open-source stuff seriously.*” Cf. i.a. HIGGINS (2022): p. 91.

[313] Cf. Subchapter B.3.3.

continually dealt with the war in Ukraine's Donbas region. Examples include cross-border artillery attacks from Russian territory[314], indiscriminate attacks in densely populated residential areas[315] and other investigations into the armed conflict in Ukraine and the role of the Russian Federation[316], its regular armed forces[317], affiliated armed groups and associated military units such as the Private Military Company (PMC) Wagner[318]. Aside from its coverage of the war in Donbass, Bellingcat has repeatedly attracted international attention with a wide range of other open source-driven investigations in various geographic and thematic areas, such as the geolocation of an ISIS training camp in Iraq and an execution site in Syria[319], summary executions in Libya[320], the use of chemical weapons in Syria[321], reporting on the Yemen conflict[322], and so on. Alongside Bellingcat's extensive work on armed conflict-related topics and incidents, often involving the identification and attribution of individuals or factions responsible for atrocity crimes, the foundation's interdisciplinary approach of investigating different non-war-related subject areas[323], in particular, enhanced its reputation worldwide and expanded its reach within the open source investigative community. Yet, it was Bellingcat's work on the two poisoning attacks on the Skripals[324] and Alexey

[314] Cf. i.a. BC/CASE et al. (2015a and 2015b), BC/CASE/ANDERS (2015), BC/HIGGINS (2023), etc.
[315] Cf. i.a. BC (2018b).
[316] Cf. i.a. BC/ASKAI (2015d), BC/ANDERS et al. (2016), BC/HIGGINS (2015g and 2015h), BC/JUBINVILLE (2014), BC/KIVIMÄKI (2015a, 2015b, 2015c and 2017a), BC/OSTANIN (2014b and 2014c), BC/TOLER (2015a, 2015b and 2019a), BC (2022i and 2022j), etc.
[317] Cf. i.a. BC/CASE/ANDERS (2015), BC/LEVIEV (2015a and 2015b), BC/ASKAI (2015a, 2015b, 2015c, 2016a, 2016b, 2016c and 2016d), etc.
[318] Cf. i.a. BC (2020d) BC/GROZEV (2021), BC/GROZEV et al. (2021), etc.
[319] Cf. NOACK (2014), BC (2014a) and BC/HIGGINS (2014i).
[320] Cf. i.a. BC (2017d) and BC/TRIEBERT (2017a and 2018a). On 15th August 2017, the ICC issued an arrest warrant for Mahmoud Mustafa Busayf Al-Werfalli, the alleged commander of the Al-Saiqa Brigade, based solely on digital open source information – particularly social media content –marking "(…) *a turning point in the history of open-source investigation.*" Cf. HIGGINS (2022): pp. 193 or POOL (2018): 1:01:00.
[321] Cf. i.a. BC/SA (2016), BC/HIGGINS (2014k, 2017b, 2017c and 2022: pp. 49-56, pp. 125), BC/AL-KHATIB (2016b and 2016c), BC/TRIEBERT (2016a), etc.
[322] Cf. i.a. BC/TRIEBERT (2016b and 2016c, 2017b), BC/TOLER (2018b), BC/WATERS (2018, 2019 and 2021a), BC/CRUICKSHANK (2018), BC/DEWAN (2018), BC/WOODS (2019), HIGGINS (2022): pp. 201, etc.
[323] Examples are Bellingcat's investigations on white supremacy (link: https://www.bellingcat.com/page/4/?s=White+supremac) and the far-right (link: https://www.bellingcat.com/page/1/?s=far-right), the Christchurch massacre (link: https://www.bellingcat.com/tag/christchurch/), Covid-19-disinformation (link: https://www.bellingcat.com/tag/covid19/) and disinformation in general (link: https://www.bellingcat.com/tag/disinformation), environment topics (link: https://www.bellingcat.com/tag/environment/), corruption in general (link: https://www.bellingcat.com/tag/corruption/ - all links of this footnote visited on 5th February 2023), and many more.
[324] On 4th March 2018, Sergey Skripal, a former Russian military officer who collaborated with British intelligence agencies, and his daughter Yulia, were poisoned in Salisbury (UK) with the Soviet-era nerve agent Novichok. British authorities soon accused Russia of being responsible for the assassination attempt. Russia has denied its responsibility.

Navalny[325] – tracing the suspected perpetrators to the Russian military intelligence service – that once again brought their organization, findings and methods into the focus of the broader interdisciplinary discourse, including the media, jurisprudence, the intelligence community, academia and international relations. The Skripal case in particular is a textbook case of the sort of matters Bellingcat has specialized in its relatively short existence. This case contained a particular combination of criminal elements: the use of chemical weapons; an authoritarian government denying responsibility; impunity of the perpetrators; a parallel disinformation campaign; official authorities struggling to solve the case; and citizen investigators stepping in by using open source information. In such cases, Bellingcat can retrieve actionable knowledge that can be used to provide linkage evidence in legal inquiries.[326] In contrast to national law enforcement agencies, and most likely also the respective intelligence agencies, the open source investigative collective not only managed to ascertain the true identities of the suspects relatively quickly[327] but did so with comparatively moderate resources[328]. Other examples that depict how Bellingcat collaborated with the open source community to quickly and accurately answer particular questions include the downing of Ukraine International Airlines Flight 752 (PS752) in Iran (2020)[329], the

[325] On 20th August 2020 Alexei Navalny, a Russian opposition politician and anti-corruption activist, was poisoned in Russia (most likely in Tomsk, before boarding a flight to Moscow). After being evacuated to Germany, The Organisation for the Prohibition of Chemical Weapons concluded that Navalny was exposed to a nerve agent that belongs to the Novichok group. Cf. OPCW (2020) and DEUTSCH (2020). Russia has denied its responsibility.

[326] Cf. HIGGINS (2022): p. 156.

[327] Cf. ibid.: p. 6 and 166 and MACKINNON (2020).

[328] Because Scotland Yard initially struggled to advance the case (cf. HIGGINS (2022): p. 3), the authorities published images of two suspects and their names six months after the attack to identify them (cf. ibid. p. 4 and 162). Through various approaches, such as the comparison of border crossing data and Russian internal databases, Bellingcat soon linked the suspects to the Russian intelligence service (cf. BC (2018c and 2018d)). Additionally, the open source investigative collective identified that they were not civilian travellers or sports-nutrition salesman they proclaimed to be, named Alexander Petrov and Ruslan Boshirov, but actually Dr. Alexander Mishkin (cf. BC (2018e)), a Russian military doctor and Colonel Anatoly Chepiga, a FSB operative (cf. BC (2018f and 2018g)). In February 2019, Bellingcat identified a third suspect Denis Sergeev, a GRU officer, who was present in the UK at the time of the crime. This identification is insofar interesting, since there are evidences that this very suspect has been involved in other extraterritorial operations, such as the poisoning of a Bulgarian entrepreneur in April 2015. Cf. BC (2019b, 2019c, 2019d and 2020m).

[329] On 8th January 2020 the civilian passenger flight PS752 was shot down shortly after it departed from Teheran, killing 167 passengers and 9 air crew members. According to Higgins, "[i]*mmediately, people start sending us photographs and links and stuff they had found online* (…). *It was almost an involuntary crowdsourcing of the information. We, as a team, got drawn into it* (…)" (cf. BUMP (2020)). Bellingcat published already on the next day an open source investigation report about the incident (cf. BC (2020h)). After initially denying its responsibility, on 11th January 2022, Iranian officials admitted that the passenger plane has been shot down accidently (cf. DW (2020)). This step taken, Higgins indicate, is

localization of ISIS sympathizers in Europe[330], or the call by the European Union Agency for Law Enforcement Cooperation (EUROPOL) to track objects related to child sexual abuse[331]. Christo Grozev, an early Bellingcat contributor who had already conducted important work on the MH17 case and later served as the central investigator in the poisonings of the Skripals and Navalny[332], became well-known to a wider public for his spectacular exposures of Russian intelligence operatives. It should be noted in this context, however, that for investigations involving intelligence operatives and their operations, such as those by the Russian GRU[333], FSB[334], etc., it became increasingly necessary to use types of data that are hardly considered to be open source according to the Berkeley protocol's definition[335]. Examples include the acquisition of closed sources and leaked databases[336], the application of HUMINT techniques, the use of expert

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related with overwhelming evidence provided by digital open source information (cf. ASADI (2020) and HIGGINS (2022): p.123).

[330] In May 2016, in a number of European cities (e.g. Münster, Amsterdam, Paris, London, etc.), ISIS supporters uploaded photographs with handwritten notes aiming to intimidate the public and to announce a propaganda speech of an ISIS spokesperson. Bellingcat and Higgins called its Twitter/X followers to participate in a geolocation challenge. This led to the identification of several terrorist supporters, sometimes even in less than an hour after publication. Not only could police check the locations in due time and chased down Bellingcat's leads, but also ISIS' social media effort dissolved. Cf. HIGGINS (2022): p.147, BC (2016b) and CAGE (2022): 21:23.

[331] Europol launched in 2017 Stop Child Abuse – Trace an Object (link: https://www.europol.europa.eu/stopchildabuse - visited on 5th February 2023), a crowdsourcing campaign depicting pictures of objects or background that are related to cases of child sexual abuse. Bellingcat supported this campaign by mobilizing its online community (cf. TRIEBERT (2017c)) and publishing its own and collaborative investigations of identified objects (cf. BC (2017d, 2017e and 2018b)), geolocations (cf. BC/ROMEIN et al. (2018 and 2019) and BC/GONZALES (2019) and BC/GONZALES et al. (2019a and 2019b)). In April 2022, Bellingcat stated that it worked on "(…) *approximately 25 cases and identified 12 places* [e.g. in Ukraine, Russia, Madagascar, Cambodia, etc.] *and objects. The rest resulted in leads for other, past or ongoing, investigations.* (…) *Bellingcat members have devoted more than 2,500 volunteer hours to the campaign*." Cf. GONZALES (2020). Moreover Bellingcat contributed in the formation of an online community (in more detail see next chapter, B.3.2) supporting the EUROPOL campaign and proposed improvements regarding open source investigation, such as the application of a hash value, using AI and deep learning techniques, digital enhancement, contextualization and grouping of images, community engagement, feedback and cooperation mechanisms, etc. Cf. ibid. The EUROPOL webpage, as of July 2022 (last update), reads that due to the Stop Child Abuse – Trace an Object campaign "(…) *23 children victim of child sexual abuse have been identified and removed from harm* [and] *5 offenders have been identified and prosecuted.*" More information, see EHE (2020): pp. 41-45.

[332] Cf. HIGGINS (2022): pp. 157 and 224 p. 163 and 182.

[333] The Main Directorate of the General Staff of the Armed Forces of the Russian Federation, aka. Russia's military intelligence agency (rus. Главное управление Генерального штаба Вооружённых сил Российской Федерации – Glavnoje upravlenije General'nyy shtab Vooruzhonnykh sil Rossiyskoy Federatsii), abbreviated as GRU (due to its former designation Главное разведывательное управление – Glavnoye razvedyvatel'noye upravleniye), is Russia's military intelligence agency.

[334] The Federal Security Service of the Russian Federation (FSB, rus. Федеральная Служба Безопасности Российской Федерации – Federal'naya Sluzhba Bezopasnosti Rossiyskoy Federatsii), is Russia's principal national security agency/intelligence service.

[335] Cf. Def. I, Def. II and Def. III (in subchapter B.2.2) with footnotes 135, 179, 180 and 181.

[336] Over time, and with the shift to specific research areas – particularly on state intelligence activities – more and more Bellingcat investigations became partially and sometimes even fully based on information provided by leaked databases (e.g. passport, travel, residential address, registration, car owner-

analyses[337], and so on. The foundation, which actually defined itself through its open source investigative approach[338] and its aspiration of maximum transparency[339], was well aware of the problematic nature of utilizing closed source information – especially that which is illegally or illegitimately appropriated[340]. After internal discussions, Bellingcat came to the conclusion that

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ship data, etc.) or were purchased by Bellingcat contributors from corrupt employees of Russian companies or civil servants of state administrations. An Example of such is the investigation into the Skripals' poisoning; Bellingcat purchased, via informal channels, several flight passenger manifests and train journey data from the Russian travel booking-data system in order to unveil the suspects' birth data and passport numbers (cf. HIGGINS (2022): pp. 164 and p. 170 and 177)).
Related to the same investigation, Bellingcat received metadata of a mobile phone number registered under the cover persona of another suspect from a "contact" employed by a Russian mobile operator. These data showed not only calls and messages, but also the phone's locations, the use of communication apps (e.g. Telegram, Viber, WhatsApp, Facebook Messenger, etc.) and data consumption in a time period of more than two years, including the day of the Skripals' poisoning. Cf. HIGGINS (2022): p. 178 and BC (2019e). In the course of other investigations, Grozev "(…) *was able to develop a small network of contacts at various Russian mobile operators who were willing to share data* (…)" allowing Bellingcat "(…) *obtain*[ing] *phone records on several more suspected GRU officers* (…)". Cf. HIGGINS (2022): p. 180.
Other examples where Bellingcat used leaked and/or purchased databases for its investigations were related to the involvement of Russian operatives in the downing of MH17 and the war in Donbass (cf. i.a. HAUTER (2021): p. 185 and BC (2019f)).
The examples given in this footnote are only a selection without claiming to be complete.

[337] In order to confirm the identity of a suspect regarding the Skripals' poisoning case, Bellingcat contacted hundreds of graduates on Russian social media networks who attended the same medical academy as the suspect. However, they did not inform them of the cause and context of the request. During the investigation, Bellingcat obtained a fifteen-year-old scanned identification document of the suspect in question from "*another source*" that requested complete anonymity; Higgins described this as a "(…) *closed source as you could get*". Cf. HIGGINS (2022): p. 173. Thereon, Bellingcat requested a forensic facial similarity analysis from a specialist in this field. Additionally, the open source investigative partner in this investigation, The Insider, sent a reporter to a remote village where the suspect grew up to inquire if someone recognizes the target person on a picture. Cf. BC (2018e).
Regarding the identity of another Skripals' poisoning suspect, Bellingcat got in contact with several sources with access to a Russian police travel-tracking database and the Russian central passport-issuing database, RosPassport, revealing nothing but the nonexistence of the identity in question. Again, Bellingcat received a scan of the suspect's passport, from another source. Cf. HIGGINS (2022): p. 176 and BC (2019d).
Another two instances where Bellingcat departed from the open source domain, both also joint investigations with The Insider, aimed to identify MH17-suspects. First, Roman Dobrokotov (The Insider) phoned under false pretences one suspect in order to obtain an audio sample; and second, this audio material was forensically voice analysed by two specialist organizations (cf. BC (2017e) and HIGGINS (2022): pp. 158). In a similar way, a second suspect was phoned, also to record a voice sample (yet this time without subsequent forensic analysis). Cf. ibid. p. 161 and BC (2018h). While Bellingcat has clearly marked these reports as joint investigations and also noted that the "(…) *Bellingcat-led investigating team used primarily open source data sources* (…)" (cf. ibid.), it is evident that such investigations can hardly be categorized as solely open source driven, i.e., according to the author's understanding, Bellingcat itself is transforming into something different, at least it is no longer a pure "open source outlet". The probably most extreme and illustrative NOSINT example of acquiring information was the phone conversation (using a spoofed number and under the pretence of being a high-ranked bureaucrat) between Navalny and Konstantin Kudryavtsev, an FSB officers who travelled to Omsk after the poisoning attempt. Cf. BC (2020e) and HIGGINS (2022): pp. 231.
The examples given in this footnote are only a selection without claiming to be complete.

[338] Cf. footnotes 257 and 278.

[339] Cf. footnotes 259, 275, 278 and 279.

[340] Cf. footnotes 182, 183, 336 and 337. Higgins describes in his book the existence of thousands of separate leaked Russian databases containing passport data, residential address data, car ownership data, etc. When outdated, these databases often end up on Russian torrent sites and could be openly

the acquisition of such content should only be accepted in exceptional cases and that insights gathered from closed sources must be corroborated by open sources.[341] Despite the various stages Bellingcat has gone through during its still relatively short history, its three main activities – conducting and publishing open source investigations, training and providing online open source research techniques and guides, and advancing methodology and standardization in this domain – remain the fundamental and driving motives, keeping it in constant relation and interaction with the broader open source investigative community. However, the question remains; what actually is this ”community”? Is it Bellingcat's community, or is the foundation rather a part of the open source investigative community? Does one shape the other? And if so, who influences whom, and how?

B.3.2. Bellingcat and the Open Source Investigative Community

Throughout its development – from the early days of Brown Moses, which was something of a slightly more professional, low traffic internet blog focusing on niche content overlooked by conventional media outlets, to its incorporation as Stichting Bellingcat, which cooperates by now with some of the best-known and most influential organizations and institutions in the field of open source research – the open source investigative collective has always maintained close interaction with its diverse community, a community that not only consumes Bellingcat products but also contributes in part to its investigations.[342] Time and again, individuals driven by different motivations have made important contributions to key investigations; some of these early contributors have continued to shape the development and profile of Bellingcat to this day.[343] As a meta-platform, Twitter/X, in particular, played a decisive role, serving as the central communication hub for networking different individuals and bringing expert skills and/or special knowledge together, along with other online social networks.[344] Alongside Bellingcat's self-

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downloaded. However, to delve deeper into the investigation of the Skripals' poisoning, it became necessary to actively purchase specific databases or personal information from the Russian black market. Cf. HIGGINS (2022): pp.163.

[341] Cf. HIGGINS (2022): p.164. The results of these discussions are also reflected in Bellingcat's Editorial Standards and Practices (cf. BC (2022e): p. 2).

[342] Cf. i.a. DICKINSON (2021), SAVAGE (2021), etc.

[343] Cf. footnote 302 or POOL (2018).

[344] That Twitter/X played an exceptional role for many open source investigations becomes clear in a number of statements of various Bellingcat contributors. They explain how they connected with other members of the open source investigative community by sharing their own results, asking questions,

conception as an open network (citizen journalism) since its inception, its special position inside the wider open source community can be attributed to the following two reasons.

Firstly, Bellingcat transparently discloses both the course of their investigations and the techniques and methods used. Aside from presenting the conclusions in a comprehensible manner, this is intended, to provide a blueprint modus operandi for those who are interested in conducting their own open source researches or investigations. On the same token, Bellingcat frequently publishes guides[345] on its website, targeting a broad section of the community, from hobbyist sleuths with no prior knowledge or background in the field to well-experienced open source investigators who seek to apply a specific online tool or deepen their knowledge in a particular subject area (e.g. archiving online content from a specific social media site). Another way in which Bellingcat goes to great efforts to share its knowledge and expertise is through conducting individual trainings and group workshops, both online and offline, for interested members of the public as well as for private institutions.[346] Of course, these trainings and workshops are instrumentally concerned with contributing to the foundation's revenues along with the particular goals of the missions themselves[347]. In addition to the different types of workshops, Bellingcat actively supports other organisations, encouraging students to use open source research techniques, or, in an example from the UK, by "(…)

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discussing methods and techniques and collaborating in certain cases. Cf. i.a. HIGGINS (2022): p. 12, 16, 27, 31, 51, 65, 73, 149, 195, 196, 197, 227, pp. 23, BC/VAN ESS (2019), SAVAGE (2021), VICK (2022), IJF/STRICK (2023): 07:00, etc.

[345] Examples of resources and guides(link: https://www.bellingcat.com/category/resources/ - visited on 5th February 2023) provided by Bellingcat on its webpage are i.a. for geolocation (c.f. BC/HIGGINS (2014a, 2014l and 2015i) or BC/SEITZ (2015a, 2015b and 2015c)), reverse image search (c.f. BC/TOLER (2019b) or BC/SEITZ (2015d)), face recognition (cf. TOLER (2019c)), chronolocation (cf. WATERS (2021b), WEIDE (2020)), object size determination (cf. BC/HANHAM (2015)), video verification (cf. BC/TOLER (2017)), social media verification (cf. BC/MOSSOU/HIGGINS (2021)), open source archiving (cf. BC/TOLER (2018c)), archiving Telegram chats (cf. BC (2022k)), TikTok investigation (cf. BC/MOSSOU/WILD (2020)), Twitter/X investigation (cf. BC/GODART (2019)), LinkedIn investigation (cf. BC/PATIN (2019)), social media activity tracker (cf. BC/SEITZ (2016d)), phone book apps investigation (cf. BC/TOLER (2019d)), flight tracking (cf. BC/FIORELLA (2019)), military and number plate tracking in Russia (cf. TOLER (2022a)), satellite time-laps (cf. BC/STRICK (2018)), fake satellite photo recognition (cf. BC/TOLER (2015c) or BC/HIGGINS (2015k)), radar interference tracker (cf. BC/BALLINGER (2022)), dark web investigation (cf. BC/SEITZ (2016a, 2016b and 2016c)), ammunition identification (cf. HIGGINS (2016d)), tank recognition (cf. BC/KIVIMÄKI (2015d)), HISTINT (cf. BC/KIVIMÄKI (2017b)), trauma prevention (cf. BC/ELLIS (2018)) and many more…

[346] In 2021 alone, Bellingcat trained more than 1200 participants from "(…) *various media organizations, technology companies, international organizations, justice mechanisms, activist groups, intergovernmental institutions and a number of universities from North and Latin America, Africa and Europe*". Cf. BC (2022d): p. 6 and 21 and BC(2022a): p. 22. In 2022, Bellingcat "(…) *trained more than 2000 individuals and over 30 organistions*". Cf. BC (2023b).

[347] Cf. footnote 268.

building a school curriculum around open source investigation, fact checking, critical thinking", etc.[348] The lengths that Bellingcat have gone to in order to standardize the functions and procedures in their community should not be understated. Certain practices, such as geolocation, chronolocation and others.[349], for which no real terminology existed only a few years ago[350], have been established as standard vocabulary in the collective intelligence discourse.

Secondly, a range of joint projects, collaborations, and the exchange of (open source) information, working methods and techniques with other actors in the field have contributed to Bellingcat's specific position within the broader open source investigative community. Examples of current and past collaborations and research/investigative partnerships include, among others, media outlets (e.g. Der Spiegel, The Insider, Tamedia, CNN, NBC, the BBC, Newsy, etc.)[351], investigative organizations (e.g. Organized Crime and Corruption Reporting Network (OCCRP), Forensic Architecture, Lighthouse Reports, Conflict Intelligence Team (CIT), Centre for Information Resilience (CIR), etc.)[352], accountability and preservation projects (e.g. Syrian Archive, Yemen Project, Global Legal Action Network (GLAN), etc.)[353], IO's (e.g. involvement in the ICC Technology Advisory Board and the UN's International, Impartial, and Independent Mechanism (IIIM) on Syria, etc.)[354], and others. Due to the associated formal and informal exchange of researchers/investigators, including their work results and methodologies, these actors in the field mutually influence each other – a process that has professionalized the work processes of the open source investigative community as a whole as well.[355] However, Bellingcat's exact role within the community is

[348] Cf. IIPC (2023): 24:30.

[349] Bellingcat states that in their workshops trainings and published guides, it teaches its "(…) *audience digital investigative techniques such as creative search techniques, optimized reverse image search practices, aircraft and naval vessel tracking methods, archiving of digital materials, digital footprint tracing for individuals and groups, applications of satellite imagery in investigations, and the verification of visual materials through geolocation and chronolocation*", etc. Cf. BC (2022a): p. 22.

[350] Cf. CAGE (2022): 03:20 and HIGGINS (2022): p. 16 and 59.

[351] Cf. BC (2022c): p. 6.

[352] Cf. ibid.: p. 6, BC/STRICK (2022) and VICK (2022). OCCRP(link: https://www.occrp.org/en), Forensic Architecture(link: https://forensic-architecture.org/), Lighthouse Reports(link: https://www.lighthousereports.nl/), CIT(link: https://citeam.org/?lang=en) and CIR(link: https://www.info-res.org/ - all links of this footnote visited on 5th February 2023)

[353] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/), HIGGINS (2022): p. 214 and pp. 203 and IPCC (2023): 31:15. Syrian Archive(link: https://syrianarchive.org/en/investigations/Medical-Facilities-Under-Fire#bellingcat), Yemen Project(link: https://yemen.bellingcat.com/), GLAN(link: https://www.glanlaw.org/online-open-source-methodology or https://www.glanlaw.org/ukraine-investigations or https://www.glanlaw.org/oosi-reports - all links of this footnote visited on 19th April 2023)

[354] Cf. Bellingcat Webpage/About(link: https://www.bellingcat.com/about/ - visited on 29th April 2022) and BC (2019g). IIIM(link: https://iiim.un.org/ - visited on 5th February 2023)

[355] Cf. MCPHERSON et al. (2020): p. 72 or HIGGINS (2022): pp. 212-221.

hard to determine; although the open source investigative collective is now one of the better-known actors in the field, its qualitative and quantitative perception in the media coverage and in specialist discourse has altered several times, often depending on the subject of its latest publications. Not surprisingly, spectacular cases such as the revelation of covert Russian intelligence operations tend to attract a lot more media attention than the less glamorous but no less important work of documenting and archiving atrocity crimes – especially when it comes to long-running and non-European conflicts, such as those in Syria or Yemen. Thus, in these conflicts precisely, an organization like Bellingcat can create added value as an active contributor, a supportive element, or just by serving as a link between civil society, media producers and media consumers, as well as national and international state and non-state criminal law investigators. In this regard, the author wants to point out Bellingcat's collaborations with the Syrian Archive[356] and the Yemeni Archive[357], Mnemonic[358], GLAN[359], and particularly the Yemen

[356] Established in 2014, the Syrian Archive(link: https://syrianarchive.org/en/about - visited on 11th February 2023 is an independent, open source platform comprising human rights investigators, lawyers, media reporters, journalists, and volunteers, among others. Its objective is to create a verified database of war crimes and human rights abuses in Syria by collecting, curating, verifying, and preserving visual content. This database should later be used to provide evidence to enforce justice and accountability. The Syrian Archive collaborates with Bellingcat(link: https://syrianarchive.org/en/investigations/Medical-Facilities-Under-Fire#bellingcat - visited on 11th February 2023), particularly when geolocation is required, by bringing together contributors that are specialized in open source and social media investigations, and compiling guides and case studies(link: https://www.bellingcat.com/author/hak/ - visited on 11th February 2023) to teach others how to do the same.

[357] Established in 2018, the Yemeni Archive(link: https://yemeniarchive.org/en/about - visited on 11th February 2023) is as a "sister project" of the Syrian Archive (see previous footnote) and operates under the umbrella of Mnemonic (see next footnote). Analogue to the Syrian Archive, its primary objective is to investigate, verify, and most important, to preserve data of human rights violations as a digital memory, thus providing valuable information for those working towards justice and accountability in the Yemeni armed conflict. As with the Syrian Archive, the Yemeni Archive collaborates with Bellingcat. Cf. HIGGINS (2022): p. 204) or i.a. BC/WATERS (2021b), YA (2019) or IIPC (2023): 16:35.

[358] Mnemonic(link: https://mnemonic.org/en/about) was established in 2017, building upon the knowledge and experiences gained from the work of the Syrian Archive. It is dedicated to geographically expand its aim of preserving digital content that are not only invaluable historical artefacts but also potentially qualify as evidence of violations of IHL/IHRL to other armed conflicts, such as in Sudan(link: https://sudanesearchive.org/) and more recently in Ukraine(link: https://ukrainianarchive.org/ - all links of this footnote visited on 11th February 2023). Bellingcat, which teamed up with Mnemonic already in past projects (cf. BC/WATERS (2021c) and WATERS (2022): pp. 21), submits all relevant digital content regarding its investigations on the armed conflict in Ukraine to Mnemonic for preservation (cf. BC/STRICK (2022) and BC (2022o)).

[359] Founded in 2015, the Global Legal Action Network (GLAN) (link: https://www.glanlaw.org/about-us - visited on 11th February 2023) describes itself as "(…) *an independent organisation made up of legal practitioners, investigative journalists and academics*" with the aim to "(…) *identify and pursue legal actions that promote accountability for human rights violations occurring overseas by working in partnership with other international and local grassroots organisations.*" One such partner is Bellingcat, with whom GLAN hosted in January 2019 a four-day, interdisciplinary hackathon in London(link: https://www.bellingcat.com/news/mena/2019/04/22/the-yemen-project-announcement/ and https://www.glanlaw.org/single-post/2019/02/03/GLAN-and-Bellingcat-run-open-source-intelligence-hackathon-on-air-strikes-in-Yemen - visited on 11th February 2023), bringing together experienced open source investigators and researchers, as well as ammunition specialists, linguists, and legal experts, in order to analyse a dataset of 100 aerial bombardments carried out by the Saudi-led Coalition. Cf. HIGGINS (2022): p. 204, BC (2019q), WATERS (2022): p. 21, GLAN/BC/ALLEN et al. (2022): p. 4 and GLAN/BC/MINOGUE et al. (2022): p. 5.

Project[360], as prominent examples of how open source information can contribute to justice and accountability during and after an armed conflict. Yet, before this thesis examines the central part of the research question – Bellingcat's contribution to the documentation, attribution and prosecution of atrocity crimes in the IAC in Ukraine after the 24th February 2022 – the initial working hypotheses ❷, ❸ and ❹ (cf. subchapter A.2) shall be critically reviewed on the basis of earlier examples and adjusted if necessary.

B.3.3. Bellingcat's prior Contributions to the Documentation, Attribution and Prosecution of Crimes

Bellingcat's substantial contributions to the JIT's criminal investigation regarding the downing of MH17 have been mentioned above, but it is the Al-Werfalli case that is renowned in legal discourse for its exemplary linkage evidence derived from open source information.[361] From a jurisprudential point of view, the case of Mahmoud M. B. Al-Werfalli – commander of an elite unit within the Libyan National Army who was indicted by the ICC for the war crimes of at least 43 extrajudicial executions[362] – is special because almost all means of evidence were based on online audiovisual content (OAVC), i.e., user-generated content (UGC) such as videos uploaded on Facebook. Relatively soon after such videos appeared, Bellingcat contributors had managed to geolocate and chronolocate the crime scene.[363] Even though Bellingcat was not fully involved in the course of this particular investigation, and the main culprit was known from the beginning, this example once again shows that the reports of the open source investigative collective are more than just journalistic products, but valid legal evidence. Higgins

[360] In the course of the preparation for the 2019 hackathon (link: https://yemen.bellingcat.com/work - visited on 11th February 2023), GLAN and Bellingcat formalized a first replicable methodology, written according to evidentiary standards for the potential use in impact-oriented investigative journalism, academia, and legal endeavours and " (…) *identified a set of basic standards which address the core evidentiary priorities of demonstrating impartiality, chain-of-custody, record-keeping and the pursuit of all reasonable lines of inquiry*" (cf. WATERS (2022): p. 20). Their methodology was first applied in the course of the Yemen Project (link: https://yemen.bellingcat.com/ - visited on 11th February 2023), which resulted in 21 in-depth reports on airstrikes in Yemen; six of these reports were forwarded to the UK Parliament to establish the fact that British weapons were used in violation of IHL in the Yemeni armed conflict. Cf. ibid. p. 29. The work on the Yemen Project marked the beginning of the practical collaboration of Bellingcat with GLAN and the continuous improvement of a formalized methodology to ensure admissibility and weight of (digital) open source information about violations of IHL/IHRL by law enforcement agencies and courts.

[361] Cf. i.a. IRVING (2017), KOETTL et al. (2020): p. 27, KOENIG/FREEMAN (2020): p. 331, TEN HULSEN (2019): p. 7, TREVISAN (2021): p. 13, GLAN/BC/ALLEN et al. (2022): p. 9/footnote 25 etc.

[362] Cf. ICC (2022a).

[363] Cf. BC (2017d), BC/TRIEBERT (2017a and 2018a), TREVISAN (2021): p. 13 and HIGGINS (2022): pp. 193.

writes in this context that they are " (…) *often the first in the world to discover it* [OAVC/UGC]*, and the only ones archiving it*"[364]. While Al-Werfalli's international jurisdiction failed due to the reality of intangibility and ultimately his sudden death[365], in another extrajudicial killing case that happened in Northern Cameroon in 2015, seven soldiers of the Cameroon Armed Forces were put on trial after the authorities initially refused to acknowledge video material and rejected it as "fake news".[366] This example also depicts how a Bellingcat workshop encouraged a traditional media producer, in this case, the BBC, to establish its own open source investigative unit – the BBC Africa Eye[367], which also employed one Bellingcat contributor. The "Cameroon execution video" is a good example of how Bellingcat, in cooperation with other actors such as the BBC and Amnesty International, was able to reveal enough substantive linkage evidence to cause a significant international reaction despite the initial assumption that the online content had insufficient information for attributing a crime to a specific location, time and actor, and despite the initial refusal by national authorities to prosecute its own military personnel. This in turn made the national prosecution of the perpetrators inevitable.[368] Beyond African conflict regions, Bellingcat investigations added key information about crimes committed by certain perpetrators in Europe too, assigning them to state authorities on the behalf of whom they committed criminal offenses. The above-mentioned Skripals' poisoning[369] in 2018 and, even more so, the Berlin Tiergarten murder[370] in 2019 are exemplary of the extraterritorial

[364] Cf. HIGGINS (2022): p. 194.

[365] Al-Werfalli was never charged for the crimes he was accused for, neither domestically, nor was he extradited to the ICC. After Al-Werfalli was assassinated in March 2021, the ICC case was terminated in mid-2022. Cf. ICC (2022b), ALJAZEERA (2021).

[366] A video, which appeared on social media, shows two women, each carrying an infant, being led at gunpoint to an execution site to be shot. Cf. BBC (2018).

[367] BBC Africa Eye (link: https://www.bbc.co.uk/programmes/n27vnqnt/episodes/guide?page=1 - visited on 19th April 2023)

[368] Cf. HIGGINS (2022): pp. 215, BC (2020o and 2020p). Before the Cameroon's government acknowledged that the video of the extrajudicial killing of two women and two children depicts indeed its soldiers, in reaction of the incident, the US reacted by withdrawing millions of funding of the Cameroon Armed Forces and the EU passed a resolution condemning "(…) *cases of torture, forced disappearances and extrajudicial killings perpetrated by the security services and armed separatists; expresses particular concern at the actions of government forces in the violence;* (…) *and calls on the Government to take immediate steps to end the violence and impunity in the country*". Cf. EU (2019) and AHMAD (2019) and BROWNE/HANSLER (2019).

[369] Cf. footnotes 324 and 328 and Bellingcat webpage (link: https://www.bellingcat.com/about/ - visited on 6th February 2023).

[370] On 23rd August 2019 Zelimkhan S. Khangoshvili, a Russian citizen of Chechen ethnicity who took part in the Second Chechen War and the Russo-Georgian War in 2008, was assassinated near a Berlin zoo (germ. "Tiergarten") by Vadim Krasikov, an FSB hitman of the so-called "Vympel Group", operating under a cover identity. Christo Grozev, who was summoned by a German court as a key witness (germ.

assassination attempts typical of operatives of the Russian Federation. Similarly to the Skripals' case in the UK a year earlier, two interesting patterns emerged during the investigation by the German authorities; firstly, neither the German police nor their intelligence agencies were able to collect information as effectively as Bellingcat[371]; and secondly, a gap in the international legal system, namely the mechanism of the request for legal assistance (germ. "Rechtshilfegesuch"), once more proved to be dysfunctional in such a case.[372] Both incidences had hampered conventional criminal investigations. The latter two cases, along with the high profile investigation into Navalny's poisoning[373] in 2020, popularized Bellingcat and most notably Christo Grozev, who became the open source investigative collective's lead Russia investigator[374]. He and his team continued to reveal open and closed source-based information about the network and composition of the FSB[375] and GRU[376], the existence and insights of extraterritorial, subversive and clandestine operations by the infamous Unit 29155[377] and Russia's secret

"Zeuge G."), identified Krasikov's real identity and FSB affiliation. Grozev shared with the German authorities his/Bellingcat's investigation results, which were at large incorporated in the suspect's indictment and mentioned in the court decision. Cf. HIGGINS (2022): pp. 240, FLADE/MASCOLO (2020), STÖBER (2021a, 2021b and 2022) and KG BERLIN (2021). Bellingcat investigations regarding the Berlin Tiergarten murder, see BC (2019h, 2019i, 2019k, 2019l, 2020f and 2021b).

[371] Grozev stated that it would be "alarming" (germ. "erschreckend") if the German authorities knew no more about the Berlin Tiergarten murder than Bellingcat did, and it is "embarrassing" (germ. "peinlich") that his investigations are forming a large part of the indictment. German investigators mentioned in this regard also that they were driven (germ. "getrieben") by Bellingcat's revelations and that deficits in their investigations have become visible. In addition, the possibilities of the German Federal Intelligence Service are limited. Cf. STÖBER (2022).

[372] Grozev explains that the Russian authorities usually are not admitting their involvement in such cases and therefore simply do not answer requests for legal assistance. He continues that Russia is responsible for most cross-border crimes in Europe, which also explains i.a. the relatively high number of Bellingcat's investigations on this country. Cf. STÖBER (2021b) and FLADE/MASCOLO (2020) and BC (2021a).

[373] Bellingcat exposed that mixed teams of Russian chemical/biological warfare experts and FSB operatives had been shadowing Navalny on at least 35 trips around Russia for nearly five years, and that Russian state officials were involved in preparing, executing and veiling the assassination attempt on the opposition figure. Cf. i.a. BC (2020g, 2020i and 2020e).

[374] Grozev's commitment of uncovering misdeeds of the Russian Federation, particularly its armed forces and intelligence agencies, brought him not only a number of journalist prices, but also endangered himself significantly of facing retaliation. In early 2023, Russia put him on a wanted list. Despite being protected by Austrian special police in his city of residence – Vienna, Grozev, who repeatedly mentioned in the past that he received threats multiple times, eventually "fled" the country for security reasons. Cf. STAUDINGER (2023), LUCE (2023) and LAMONT (2023).

[375] FSB (link: https://www.bellingcat.com/tag/fsb/ - visited on 7th February 2023)

[376] GRU (link: https://www.bellingcat.com/tag/gru/ - visited on 7th February 2023)

[377] Military Unit 29155 is a secretive sub-unit of the GRU, Russia's military intelligence agency. Bellingcat unveiled the unit's relation with at least two Russian military medical institutes researching and developing chemical weapons (including the Novichok nerve agent group), and its involvement in various "active measures" operations (e.g. assassination, espionage, sabotage, etc.) in European countries such as Bulgaria, Czechia, Montenegro, Moldova, Spain, Switzerland, the UK, Ukraine, ant others. Cf. i.a. BC (2019m, 2019n, 2020k, 2020l, 2020m, 2021c and 2021d).

chemical weapons program[378], as well as a number of successful and failed assassination attempts against Russian citizens such as Boris Nemtsov[379], Vladimir Kara-Murza[380], Dmitry Bykov[381], and others[382]. This selection of examples are demonstrative of how highly specialized Bellingcat contributors in collaboration with their online community, were able to investigate and uncover information that constitutes legal evidence in an international criminal jurisprudence. They achieved this using methods inside and outside of classic open source investigation in the narrower sense, and were able to determine whether certain incidences qualified as crimes by providing circumstantial data about the progression of an incident, and better yet, presenting linkage evidence sufficient enough to attribute a crime to a specific individual and ultimately to instigate prosecution. Given the fact that Bellingcat has quite often directly or indirectly investigated crimes committed by, or on behalf of the Russian Federation, it is not surprisingly that it has repeatedly been accused of reporting unilaterally negatively on Russia and against Russian interests. Bellingcat has further been accusing of acting, intentionally or not, as an extension or even intelligence tool of the so-

[378] Bellingcat provided evidence that Russia, in violation of the *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction* (cf. OPCW (1997): Art. 1(a.)), continued to develop and produce chemical weapons (i.a. nerve agents of the Novichok group) in several military and civil facilities, e.g. the St. Petersburg State Institute for Experimental Military Medicine of the Ministry of Defense ("GNII VM" (link: https://tass.com/russia/797714 - visited on 8th February 2023)) or the Moscow-based Scientific Center Signal ("SC Signal" (link: https://ncsignal.ru/ - visited on 8th February 2023)), both having numerous interactions with staff of the FSB Criminalistics Institute. Cf. i.a. BC (2020k and 2020i) and HIGGINS (2022): p.225.

[379] Boris Y. Nemtsov, a Russian liberal politician and harsh critic of Vladimir Putin, was assassinated on 27th February 2015 near the Kremlin by a hit squat. The instigators were never prosecuted by Russian law enforcement agencies. Bellingcat revealed that Nemtsov was tailed by the same FSB team as Vladimir Kara-Murza, Dmitry Bykov and Alexei Navalny before their suspected poisonings. Cf. BC (2022l).

[380] Vladimir Kara-Murza, a Russian opposition politician and critic of Vladimir Putin, suffered twice, in 2015 and 2017, near-lethal intoxications. Bellingcat found out that he was several times followed by mixed FSB teams (political and chemical weapons specialists), particularly in the months prior the two presumable poisonings. Cf. BC (2021e).

[381] Dmitry Bykov, a Russian intellectual, poet, opposition activist and critic of Vladimir Putin, fell on 13th April 2019, on a flight from Ufa to Ekaterinburg, suddenly severely ill, showing symptoms that resembled those of the poisonings of other opposition politicians and critical civil society actors. Bellingcat found evidence that FSB operatives, including those from the already known "poisoning team", have followed Bykov for almost a year before and around the time of the presumed poisoning itself. Cf. BC (2021f).

[382] After Bellingcat had learned in the course of several investigations to determine the main modus operandi of the FSB "poisoning teams" and to compile its own database showing which operatives travelled where and when, the open source investigative collective made these itineraries public in order to crowdsource the quest of tracking down further cases. As a consequence, Bellingcat received hundreds of tips from the wider open source community, which lead to at least three suspicious similar deaths of individuals related to journalism and the civil society – all were followed by the FSB "poisoning team". These examples are Timur Kuashev, a citizen journalist from Nalchik (found dead in mid-2014); Ruslan Magomedragimov, a Dagestani civil society activist (found dead on 24th March 2015); and Nikita Isaev, a local politician and anti-corruption activist (died on a train ride on 16th November 2019). Cf. BC (2021g).

called ”West”.[383] Such accusations often originate from the Kremlin[384] or its associated media outlets[385], who have repeatedly orchestrated propaganda campaigns against Bellingcat. After Bellingcat was designated a ”foreign agent”[386] in Russia on 8th October 2021, on 15th July 2022 the Russian Prosecutor General’s Office declared Bellingcat and its domestic investigative partner The Insider ”(…) *as undesirable on the territory of Russia* (…). *It has been established that the activities of the above-mentioned organizations pose a threat to Russia’s constitutional order and security* (…)” and that Bellingcat ”(…) *employs former intelligence officers and whose information is used to put pressure on Russia*.”[387] However, Bellingcat is by no means ”putting pressure” or only unequivocally investigating Russia – there are numerous investigations into human rights abuses[388] or military operations by “Western” powers and actors that have caused significant civilian harm[389]. There have also been investigations critical of

[383] Cf. i.a. SAVAGE (2021), HIGGINS (2022): p. 122 and IQ2 (2021): 31:00. While Bellingcat has repeatedly insisted not to be associated with Western intelligence agencies (cf. footnote 131), Marc Polymeropolous, a former CIA deputy chief of operations was less concerned with keeping distanced, noting, ”*I don’t want to be too dramatic, but we love* [Bellingcat]”. Jensen et al. specified that ”(…) *Bellingcat’s unclassified revelations allow officials and lawmakers to openly discuss important issues without revealing the sources and the methods employed by the* [US’ Intelligence Community (IC)]” and that Bellingcat can be ”(…) *quite vocal about misdeeds of modern-day Russia in a way the IC could not*”. Cf. JENSEN et al. (2023): p.178 and MACKINNON (2020). This statement has been used several times by pro-Russian media coverage to discredit Bellingcat. Cf. i.a. CGS (2023): 30:00.

[384] Examples are Dmitry Peskov, the Russian President’s Spokesman, who denied Bellingcat’s findings regarding the Skripals’ poisoning (cf. HIGGINS (2022): p. 170); Sergey Lavrov, the Russian Foreign Minister, who stated that ”*Bellingcat is closely connected with the intelligence services, which use it to channel information intended to influence public opinion*” (cf. ibid. p. 171) or Aleksander Yakovenko, Russian Ambassador in the UK, stating that Bellingcat is related to the British intelligence agencies and is a tool by the deep establishment, etc. (cf. BC (2020n): 23:30-25:46). Other examples, cf. HIGGINS (2022): p. 113.

[385] Cf. i.a. MACKINNON (2020), BRUMFIEL (2018), HIGGINS (2022): pp. 112, POOL (2018): 28:00 and 47:50 and TaG (2021): 30:30.

[386] Cf. REUTERS (2020).

[387] Cf. TASS (2022a). Bellingcat reacted to this decision (cf. BC (2022m)) and to the circumstance that its webpage was already blocked in Russia on 16th March 2022 by publishing a guide in English and Russian language on how to bypass this ban technically, e.g. by using Cloudfront mirrors, Virtual Private Networks, etc. Cf. BC (2022n).

[388] Examples are i.a. the documentation of illegal pushbacks of refugees by the European Border and Coast Guard Agency (FRONTEX) and the Greek Coast Guard (cf. i.a. BC/WATERS et al. (2020) or BC/DEEB (2020)); the export of European arms used in oppression and human rights violation (cf. BC/STRICK (2019)); US law enforcement deliberately targeting journalists during protests (cf. BC/WATERS (2020a)); etc.

[389] Examples are i.a. Bellingcat investigations on US airstrikes on a Hospital in Kunduz (Afghanistan) on 3rd October 2015, killing at least 22 civilians (cf. BC/TOLER (2015d)); on a mosque in Al-Jīnah (Syria) on 16th March 2017, killing over 50 attendees of the evening prayer (cf. BC/TRIEBERT (2017f)); several US-led Coalition airstrikes on at least five medical facilities in Deir ez-Zor Governorate (Syria) in 2018, killing dozens of civilians (cf. BC/PERLMAN/TIMERMANN (2020)); a French airstrike (in the context of a UN mission) hitting a wedding in Bounti (Mali), killing 19 civilians (cf. BC/WEIDE et al. (2022)); etc.

Ukraine's activities.[390] Indeed, one of Bellingcat's most methodologically demanding projects[391] until 2022 – the investigation and documentation of grave civilian harm caused by the Yemeni civil war – was particularly critical against "Western" states (e.g. the US, UK, several EU member states, etc.) who had substantially supported the air raids of the Saudi-led Coalition with logistics, intelligence and arms deliveries[392]. The Yemen Project is of particular relevance to the topic of this thesis because the methodology used to examine and document[393] conflict-related crimes was largely developed by Bellingcat together with GLAN.[394] The results of their joint efforts, ranging from compiling reports on violations of IHL/IHRL in Yemen[395], to the revision of their methodology[396], to even exercising a mock criminal trial[397] to test their legal work practices, prepared their approach for investigating for impending future armed conflicts[398] – a scenario that, with the escalation of the IAC in Ukraine after the 24th February 2022, materialized much earlier than many anticipated. This eventually leads to the core topic of this thesis - Bellingcat's contribution as part of the open source

[390] Bellingcat has published numerous investigations that problematize neo-Nazism and far-right movements in Ukraine, their relation to politicians, mainstreaming them in the society (e.g. in the armed forces), assaults on minorities, etc. Cf. i.a. BC/KUZMENKO (2018), BC (2019o and 2019p), BC/COLBORNE (2020); and so on(link: https://www.bellingcat.com/tag/ukraine/?fwp_tags=azov - visited on 9th February 2023).

[391] project(link: https://yemen.bellingcat.com/ - visited on 13th February 2023)

[392] Cf. i.a. BC/WATERS (2021c), BC (2019r), HIGGINS (2022): p. 202, GLAN/BC/ALLEN et al. (2022): p. 3.

[393] document(link: https://yemen.bellingcat.com/methodology/collection-protocol and https://yemen.bellingcat.com/methodology/glossary-of-terms and https://yemen.bellingcat.com/methodology/workflow and https://yemen.bellingcat.com/methodology/metadata-scheme - visited on 13th February 2023)

[394] Cf. footnote 359 and 360. The GLAN/Bellingcat collaboration on the Yemen Project is paradigmatic because it demonstrates how these two organizations efficiently combine their resources by merging their respective expertise. While Bellingcat was primarily in charge for conducting the investigations, GLAN(link: https://www.glanlaw.org/opensourceyemen - visited on 13th February 2023) focused on the legal integration and analysis of the fact finding process and the information obtained. Cf. GLAN/BC/ALLEN et al. (2022): p. 4 and 30.

[395] reports on violations of IHL/IHRL in Yemen(link: https://yemen.bellingcat.com/investigations and https://www.glanlaw.org/opensourceyemen - visited on 13th February 2023)

[396] The Yemen project consisted of two phases; firstly, the development of a replicable methodology, with which the actual investigations were then carried out (hackathon, cf. footnote 360); secondly, the subsequent comprehensive review and further improvement of this methodology(link: https://www.glanlaw.org/online-open-source-methodology - visited on 13th February 2023) to increase the likelihood of (digital) open source information being admitted as evidence in investigations of IHL violations. Cf. GLAN/BC/ALLEN et al. (2022): p. 5.

[397] mock criminal trial(link: https://www.glanlaw.org/osint-mock-trial - visited on 13th February 2023)
In February(link: https://www.youtube.com/watch?v=dq_m2POiVdw) and March(link: https://www.youtube.com/watch?v=-yVqbKTEtMM) 2021, GLAN and Bellingcat together with OSR4Rights(link: https://osr4rights.org/mock-admissibility-hearing/ - all links of this footnote visited on 14th February 2023) at Swansea University staged a mock voir dire hearing under the jurisdiction of English law in order to test the evidentiary weight of its previously developed methodology. Based on the lessons learned from the exercise, the above mentioned draft methodology (cf. footnote 396) was revised again. Cf. BC (2022o) and GLAN/BC/MINOGUE et al. (2022). While the initial GLAN/Bellingcat methodology was largely developed before the publication of the Berkeley Protocol and is therefore not based on it (cf. ibid. p. 38), the analysis of the exercise already incorporates its standards and procedures.

[398] Cf. i.a. BC (2022c): p. 4 and (2022o), HIGGINS (2022): p. 202 and 205, GLAN/BC/ALLEN et al. (2022): p. 5.

investigative community to the documentation, attribution and prosecution of atrocity crimes during and after this war.

B.4. BELLINGCAT, OSINT AND WAR

In order to address the research question, it is essential to first clarify the basis of the research material. The primary source of publication through which the open source investigative collective in question communicates its findings is their official website – www.bellingcat.com[399]. This is where their investigations, guides (sometimes called resources) and occasionally institutional statements[400] are published.

In addition to its official website, the Twitter/X accounts of Bellingcat, its sub-teams (e.g. Bellingcat Monitoring Project, Global Authentication Project, etc.), their widely-known key individuals (e.g. Eliot Higgins, Aric Toler, Christo Grozev, and others)[401], and the numerous professional and voluntary contributors are significant actors in the collective. Many of these Twitter/X interactions are directly related to Bellingcat and its ongoing investigations and projects. The mentioned actors, both those officially representing Bellingcat and associated individuals, are

[399] As of April 2023, the Bellingcat Website is basically structured in three main sections; the header section, the content compilation section and a footer section. Cf. Appendix f.
The header section is comprised of the subcategories "Investigations" (link: https://www.bellingcat.com/category/news/) (containing all Bellingcat investigations, sorted by publication date), "Guides" (link: https://www.bellingcat.com/category/resources/) (containing all Bellingcat guides and resources), "Ukraine" (link: https://www.bellingcat.com/tag/ukraine/) (contains those publications, i.e. investigations and guides, tagged with the keyword "Ukraine"), "Justice & Accountability" (link: https://www.bellingcat.com/what-is-bellingcats-ja-unit-december-2022/) (containing information about Bellingcat's Justice and Accountability Unit, as of 15th December 2022; cf. BC (2022o)), "Workshops" (link: https://www.bellingcat.com/workshops/) (containing previous and upcoming Bellingcat workshops) a search, language selection (English, Russian, French, Spanish, German and Ukrainian) and donation button. As of early 2024 this segmentation has not changed.
The content compilation section contains depictions of Bellingcat's latest investigations, temporal thematic focus publications (e.g. about geolocation(link: https://www.bellingcat.com/tag/geolocation/), the far-right(link: https://www.bellingcat.com/tag/far-right/), etc.), and "more investigations".
The footer section contains buttons that link to subpages regarding Bellingcat's self-definition ("Who We Are"), staff and contributors ("Meet Our Team" (link: https://www.bellingcat.com/about/meet-our-team/)), "General Information" (link: https://www.bellingcat.com/about/general-information/), "Funding and Support" (link: https://www.bellingcat.com/about/funding-and-how-to-support-bellingcat/), "Awards"(link: https://www.bellingcat.com/about/awards/), "Careers"(link: https://www.bellingcat.com/about/careers/), a contact form and article submission guidelines ("Contact us"(link: https://www.bellingcat.com/contact/)), "Standards & Practices"(link: https://www.bellingcat.com/about/editorial-standards-practices/), "Principles for Data Collection"(link: https://www.bellingcat.com/about/principles-for-data-collection/) and "Data Privacy"(link: https://www.bellingcat.com/about/data-privacy/ - all links of this footnote visited on 21st April 2023).

[400] Examples are reactions to the Berlin Tiergarten murder verdict (cf. BC (2019a)), of Bellingcat being designated as an "*Undesirable Organisation*" in Russia (cf. BC (2022m)), notifications of workshops(link: https://www.bellingcat.com/workshops/ - visited on 21st April 2023), hackathons(link: https://www.bellingcat.com/april-hackathon-announcement-mar-2023/ and https://www.bellingcat.com/september-hackathon-announcement-aug-2022/ - visited on 21st April 2023), etc.

[401] Bellingcat (link: https://twitter.com/bellingcat), Bellingcat Monitoring Project(link: https://twitter.com/BcatMonitoring), Global Authentication Project(link: https://twitter.com/bellingcatgap), Eliot Higgins(link: https://twitter.com/EliotHiggins), Aric Toler(link: https://twitter.com/AricToler) and Christo Grozev(link: https://twitter.com/christogrozev - all links of this footnote visited on 21st April 2023)

– unsurprisingly for members of the open source community – also present on several other social media platforms.[402]

Though not a primary means of communication and interaction within the open source investigative community, YouTube hosts numerous expert talks and discussions where prominent Bellingcat representatives share their insights[403]. These videos often contain first hand statements and information about specific aspects of the open source investigative collective's current projects. Some of the contextual information shared in these streamed or uploaded broadcasts on YouTube may not be available through other sources, making the platform a valuable resource for those interested in gaining more knowledge about Bellingcat's activities.

Finally, numerous media reports, academic articles and papers explore Bellingcat and its work. Given the challenge of quantitatively assessing content across various social media platforms and secondary literature, this work will primarily rely on Bellingcat's official publications on its website. In addition, joint publications with GLAN[404], Bellingcat's project partner in relation to the research topic, will also be taken into consideration. However, the findings and conclusions from these main sources should be supplemented with relevant statements from the sources mentioned above.

Regarding the research topic, the content on the Bellingcat website can be divided into three sub-categories.

The first category addresses Bellingcat's efforts to systematically collect, document and archive large amounts of digital items related to the IAC in Ukraine, specifically OAVC and UGC. This is done in order to provide future criminal prosecutors with content that qualifies as admissible evidence at a later stage.

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[402] As a consequence of the controversies surrounding Elon Musk's acquisition of Twitter in October 2022, later renamed to X, Bellingcat increasingly expanded its online presence on other platforms (link: https://twitter.com/bellingcat/status/1591058801481875457 and https://www.bellingcat.com/follow-bellingcat-on-social-media/) such as Facebook (link: https://www.facebook.com/bellingcat), YouTube (link: https://www.youtube.com/@bellingcat1554/videos), LinkedIn (link: https://www.linkedin.com/company/bellingcat/), Telegram (link: https://t.me/bellingcat), Twitch (link: https://www.twitch.tv/bellingcat_live), Discord (link: https://discord.com/invite/bellingcat), Bluesky (link: https://bsky.app/profile/bellingcat.com), Patreaon (link: https://www.patreon.com/bellingcat), Soundcloud (link: https://soundcloud.com/bellingcat), Github (link: https://github.com/bellingcat?utm_campaign=meetedgar&utm_medium=social&utm_source=meetedgar.com), Mastodon (link: https://mstdn.social/@Bellingcat – all links of this footnote visited on 24th April 2023), etc.

[403] Cf. i.a. SKAGEN (2023), P+M101 (2022), TRF (2022) – Eliot Higgins; IWM (2022), PLEIN PUBLIEK (2022), ASPEN (2022), RISJ (2022) – Christo Grozev; TA (2022), CSJC (2022) – Giancarlo Fiorella; NEWSY/BC (2023), TEDxVARESE (2022), GLAN (2022) – Hanna Bagdasar; GLAN/BC (2022b) – Nick WATERS; WAF (2022) – Aric Toler; and others.

[404] More information about the Global Legal Action Network (GLAN), cf. footnote 359.

This category corresponds with what can be subsumed as Bellingcat's work on justice and accountability (J&A work). It consists of five publications[405], a separate button in the header section of its website labeled Justice & Accountability[406], and a specifically developed methodology[407].

The second category includes 16 selected investigations that pertain to Bellingcat's "*wider Ukraine work*"[408] during the period under review. These investigations can be divided into two subgroups; those that point towards incidents that may qualify as potential atrocity crimes[409], and those that are related to the war but are only partially or not at all relevant from a criminal liability point of view[410]. The focus of this work is on the first group. However, as Bellingcat's past has shown, many investigations that were initially considered less significant have later turned out to contain relevant elements, such as the identification of individuals involved in an incident or contextual information surrounding it.[411] Therefore, though the second group cannot be entirely excluded, it will have minor relevance to this thesis.

The third category of publications considered is Guides. For the time period under investigation, the Bellingcat website lists four such guides tagged with the keyword "Ukraine"[412]. In addition to these, the author selected ten more guides either for their direct relevance to the IAC in Ukraine or their exemplary illustrative quality for this category in this thesis.[413]

In summary, this chapter will focus on a primary text corpus of at least 37 publications, which are weighted differently. For instance, investigations or guides that are only peripherally or distantly related to the documentation, attribution and prosecution of possible atrocity crimes will be of minor importance, while the methodology, on the other hand, requires a much more detailed analysis.

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[405] Cf. BC/STRICK (2022 and 2023), BC et al. (2022), BC/GODIN (2023) and BC/EDWARDS (2023).
[406] Cf. BC (2022o) - Justice & Accountability(link: https://www.bellingcat.com/what-is-bellingcats-ja-unit-december-2022/ - visited on 24th April 2023).
[407] Cf. GLAN/BC (2022a).
[408] Cf. BC/GODIN (2023).
[409] Cf. BC (2022p and 2022r), BC/HIGGINS (2022a and 2022b), BC/SHELDON (2022a, 2022b and 2023), BC/EDWARDS (2022), BC/GROZEV et al. (2022) and BC/GROZEV (2022).
[410] Cf. BC/DREGER (2022), BC (2022j), BC/WATERS (2022), BC/SHELDON (2022a), BC/TOLER (2023) and BC/HIGGINS (2023c).
[411] Cf. content of footnotes 673, 674, 675, 676 and 677.
[412] Cf. BC/TOLER (2022c), BC (2022k), BC/O'CONNOR (2022) and BC/HIGGINS (2023).
[413] Cf. BC (2022n), BC/WILD (2022), BC/RAMALHO (2022), BC/GONZALES (2022), BC/TOLER (2022b), BC/FIORELLA (2022 and 2023), BC/BAGDASAR (2023), BC/BALLINGER (2023a) and BC/GILES (2023).

B.4.1. Bellingcat's Justice and Accountability Work on Ukraine after 24th February 2022

During the period under review, Bellingcat released seven publications (including a methodology, a joint production with GLAN) and one website entry specifically related to the open source investigative collective's work on justice and accountability (J&A) concerning the escalation of the IAC in Ukraine. Despite Bellingcat's considerable experience with justice and accountability in the context of other armed conflicts in the past, the Ukraine project had to be started ad hoc due to the sudden invasion.[414] Consequently, the specific operating procedures, the organizational structures, and legal requirements of the final product had to be developed organically over the course of the first year. For comprehensibility, the following analysis is expounded in chronological order as far as is possible.

The first two official Bellingcat publications appeared on 27th February 2022 – day three of Russia's full-scale invasion of Ukraine. One focused on the usage of cluster munitions in residential areas (this will be discussed in more detail in a later chapter[415]), while the other detailed Bellingcat's initial joint activities to systematically record online open source information[416].

B.4.1.1. Initial Collaboration with CIR – Russia-Ukraine Monitor Map/Eyes on Russia

The Centre for Information Resilience (CIR)[417], which describes itself as "(...) *an independent, non-profit social enterprise dedicated to exposing human rights abuses and war crimes, countering disinformation and combating online behaviour harmful to women and minorities*", had already begun tracking Russia's military build-up along and towards the Ukrainian border in December 2021[418], based on open source information. In January 2022, CIR launched the Eyes on Russia project[419]. However, with the full-scale invasion of Ukraine, the original intent of documenting troop movements had to be adjusted to covering the entire theater of war.[420] Three days later, both Bellingcat and CIR formally introduced the Russia-

[414] Cf. SKAGEN (2023): 09:45.
[415] Cf. BC (2022p) and subchapter B.4.2.1.1.
[416] Cf. SKAGEN (2023): 04:00.
[417] Centre for Information Resilience (link: https://www.info-res.org/faq - visited on 26th April 2023)
[418] Cf. IJF/STRICK (2023): 05:00 and 10:45.
[419] Eyes on Russia project (link: https://www.info-res.org/eyes-on-russia - visited on 26th April 2023)
[420] Cf. CIR/STRICK (2022 and 2023), CIR (2022): 01:25 and TRF (2022).

Ukraine Monitor Map[421] on their websites. The announcement on Bellingcat's website was authored by Benjamin Strick, CIR's Director of Investigations and a long-time Bellingcat contributor[422]. He describes the Russia-Ukraine Monitor Map as a crowdsourced effort by CIR and "*the wider open source community*"[423]. The significance of the wider open source community, which includes not only Bellingcat and CIR but also other entities like CIT, GeoConfirmed, Mnemonic[424], etc., has been consistently acknowledged by these organizations and others.[425] From the beginning, the declared aim of the Russia-Ukraine Monitor Map (later renamed to the Eyes on Russia Map) was "(…) *to provide reliable information for policymakers, journalists as well as justice and accountability bodies about the evolving situations both on-the-ground and online.*"[426] In addition to a brief description of the processes (e.g., regarding the verification work "*by open source investigators as well as the wider community*" followed by the review by CIR senior investigators, etc.) and how to use the map (e.g., categorization, filter and search function, etc.), Bellingcat's publication also included notes on the handling of graphic content.[427] It is noteworthy that many key considerations, later reflected in Bellingcat's own Justice and Accountability (J&A) work or explored more extensively in the J&A Methodology, were already taken into account at this initial phase of the project. While CIR mentioned its collaboration/partnership with Bellingcat on several occasions[428], Bellingcat, along with its associated volunteers,

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[421] Cf. BC/STRICK (2022) and CIR/BURLEY (2022a). Both publications are essentially the same, differing only in a few formulations and the order of paragraphs. The only substantive difference is one additional paragraph each. While CIR quotes Ross Burley about "[t]*he Kremlin (…) weaponising and distorting information* (…)" and "(…) *that the open source community has come together to verify and record incidents*", Bellingcat elaborates on mental health considerations regarding processing and disseminating graphic content. CIR's initial Russia-Ukraine Monitor Map (link: https://maphub.net/Cen4infoRes/russian-ukraine-monitor - visited on 26th April 2023) (by MapHub) was later replaced by a newer version, the Eyes on Russia Map (cf. CIR (2022): 00:50). Screenshots of the original version cf. Appendix g.

[422] Cf. IJF/STRICK (2023): 04:00. Bellingcat contributor (link: https://www.bellingcat.com/author/benjaminstrick/ and https://benjaminstrick.com/about/ - visited on 26th April 2023)

[423] Cf. BC/STRICK (2022).

[424] CIT (link: https://twitter.com/CITeam_en or https://citeam.org/?lang=en); GeoConfirmed (link: https://twitter.com/GeoConfirmed/status/1519046286082719748?s=20&t=5wxeMoeXjC2dOGCD8GQ81g) and Mnemonic (link: https://mnemonic.org/ , https://twitter.com/mnemonicorg or https://ukrainianarchive.org - all links of this footnote visited on 26th April 2023)

[425] Cf. C4ADS/WHEELER (2022), CIR (2022): 13:30, CIR/STRICK (2022 and 2023) and IJF/STRICK (2023): 07:20, 09:40 and 25:50.

[426] Cf. BC/STRICK (2022) and CIR/BURLEY (2022a).

[427] Cf. footnote 421.

[428] CIR stated i.a. to have *"(…) a partnership with Bellingcat* [and others]" (cf. CIR/STRICK (2022)), or to "(…) *have partnered with* (…) *groups such as Bellingcat*" (cf. CIR/STRICK (2023)). Additionally, CIR referred in several tweets (link: i.a. https://twitter.com/Cen4infoRes/status/1501147511800705024, https://twitter.com/Cen4infoRes/status/1600837444194037762, https://twitter.com/Cen4infoRes/status/1562377532644634625, https://twitter.com/Cen4infoRes/status/1510631474088841225, https://twitter.com/Cen4infoRes/status/1497859618227249154,

continued to contribute to CIR's Eyes on Russia project[429]. Simultaneously, Bellingcat increasingly pursued its own Ukraine-related project. This became most evident when Bellingcat presented its own interactive map, the *Civilian Harm in Ukraine Map*, also called the Civharm TimeMap[430], in March 2022[431], only three weeks after it "co-launched" with CIR the Russia-Ukraine Monitor Map (part of the Eyes on Russia project). While Bellingcat intensified its existing cooperation with GLAN throughout the year[432] and brought forward what is later referred to as the J&A Unit[433], CIR's Eyes on Russia project also continued to develop and grow with help from their new project partner, the C4ADS[434]. In December 2022 CIR, together with C4ADS, launched a completely revised map user interface, now calling it the Eyes on Russia Map[435]. Despite numerous similarities between the two, theses online maps[436] differ in key ways. Bellingcat, for example, focuses solely on mapping and logging incidents of potential civilian harm[437] and

https://twitter.com/Cen4infoRes/status/1595773493160906756, https://twitter.com/search?q=bellingcat%20(from%3ACen4infoRes)&src=typed_query - visited on 27th April 2023) to Bellingcat as "*our partners*" or to the support/help from Bellingcat, often in context of the (wider) OSINT/open source/verification community.

[429] Cf. BERINS (2022), BC/WILD (2022), C4ADS/WHEELER (2022), CIR/STRICK (2023) and IIPC (2024): 02:00.

[430] For the visual presentation of the Civharm TimeMap(link: https://ukraine.bellingcat.com/ - visited on 8th February 2024), Bellingcat cooperated with Forensic Architecture's TimeMap platform. Cf. BC et al. (2022) and BC (2023a): p. 26.

[431] Cf. BC et al. (2022).

[432] Cf. footnotes 359, 360, 394, 396 and 397.

[433] In a YouTube video, published by GLAN in March 2024, the J&A Unit was described as "(…) *a unique collaboration of investigators and lawyers, using our expertise to ensure there is greater accountability for international crimes*" (cf. GLAN (2024): 01:42). See in more detail the following two subchapters.

[434] The Center for Advanced Defense Studies (C4ADS(link: https://c4ads.org/news/eyes-on-russia-press-release/ - visited on 27th April 2023)) describes itself as "(…) *a non-profit digital-age think tank dedicated to providing data-driven analysis and evidence-based reporting on global conflict and transnational security issues.*" Cf. C4ADS (2021): p. 3 and 32.

[435] Cf. CIR/BURLEY (2022b), CIR (2022): 01:00 and C4ADS/WHEELER (2022). Eyes on Russia Map(link: https://eyesonrussia.org/ - visited on 27th April 2023)

[436] To cite just a few examples: Both maps are based on digital open source information, originating from an underlying database where the entries are verified before publication; both maps have similar filter functions – the categories of "*Type of area effected*" of Bellingcat's Civilian Harm in Ukraine Map and the "*Sector affected*" of CIR's Eyes on Russia Map are essentially the same; both maps does not pretend to depict comprehensive information regarding the armed conflict as a whole or individual incidents; both maps have similar publication policies regarding graphic content, source protection, privacy concerns, embedding social media links, etc. Additionally, Bellingcat's and CIR's online maps have essentially the same purposes and target groups. As for the latter, Strick states that it "(…) *is to provide reliable information for policymakers, journalists and justice and accountability bodies about the evolving situations* (…)". Cf. BC/STRICK (2023) with footnotes 448, 449 and 450.

[437] Cf. BC et al. (2022), BC/GODIN (2023) and BC/EDWARDS (2023). While "*Military*" is one of the 13 categories under "*Type of area affected*" for filtering incidents, this category is primarily used for providing contextual information and does not depict military hardware or personnel. As of 28th April 2023, there are only four out of 1117 entries in the publicly available database, making it a rather insignificant category. Cf. Appendix h.

deliberately does not differentiate between the parties to the conflict[438], whereas CIR's Eyes on Russia Map covers a broader thematic field of this armed conflict[439] and, as the project title indeed suggests, records predominantly online content related to the invading party to the conflict. In other words CIR's map also incorporates open source information of "*Military Infrastructure Damage*" and specific military categories such as "*Russian Military Presence*", "*Russian Military Losses*", "*Russian Firing Positions*" and "*Russian allies' movements' losses*".[440] Beyond creating and visualizing databases, CIR and Bellingcat are similar in their practice of conducting open source-driven investigations into specific situations and incidents. Like Bellingcat, CIR has frequently published reports and analyses pointing towards potential atrocity crimes[441]. They have revealed patterns of Russia's military warfare[442] and provided data for attributing military personnel and units responsible for such criminal acts,[443] potentially facilitating future criminal prosecutions. When comparing the work of Bellingcat and CIR, it becomes evident that they mutually benefit not only from sharing their results on their respective databases and online maps[444] but also through their continuous interaction with a dynamic and ever-changing composition of various other formal organizations, informal groups, legal institutions and numerous volunteers. This exemplifies the reciprocal enhancement effects within the broader open source investigative community. These two organizations, along with many other actors in the field, have demonstrated in the past, through their interactive online maps, their ability to provide a frame and structure to this essentially anarchic, decentralized and heterogeneous network. This enables them to generate and disseminate verified data and knowledge about certain circumstances and particular incidents that may otherwise be overlooked. The following sub-chapters aim to explore how, with the aid of this community, Bellingcat seeks to make the immense amount of data

[438] Cf. BC/EDWARDS (2023), NEWSY/BC (2023): 19:28, PLEIN PUBLIEK (2022): 01:20:50 and GLAN/BC (2022a): para. 30.
[439] STRICK contrasted in a public talk CIR's Eyes on Russia Map with Bellingcat's as "(…) *a more niche map looking at civilian harm* (…)". Cf. IJF/STRICK (2023): 35:10.
[440] Cf. Appendix i.
[441] Cf. i.a. CIR/DEN BRABER/PITTET (2022), CIR/AGAM FUSFUS/DEN BRABER (2022). CIR has frequently published reports and analyses (link: https://www.info-res.org/latest/categories/eyes-on-russia - visited on 29th April 2023)
[442] Cf. i.a. CIR/DEN BRABER (2022), CIR/SANTOS/PITET (2022), CIR/SANTOS (2022) and CIR/EL-SHERBINY (2023).
[443] Cf. i.a. CIR/STRICK (2022) and IJF/STRICK (2023): 25:20.
[444] In the first 500 days of the full-scale invasion of Ukraine, Bellingcat contributed 738 entries to the Eyes on Russia Map, which is almost 20% of CIR's own contribution of 4211 entries at that time. Cf. BC/STRICK (2023).

produced in the context of the ongoing warfare between Russia and Ukraine more useable for potential future legal exploitation.

B.4.1.2. Journalistic versus Accountability Work and the Two-Tier J&A Work Process

From the offset of the 24th February 2022, Bellingcat began collecting and geolocating incidents of civilian harm.[445] However, they soon realized that for the acquired open source material to meet the high standards required for admissibility as evidence in court, the open source investigative collective had to establish a separate internal unit specifically tasked with this responsibility. This unit was to be strictly segregated from the rest of the organization, including having its own budget[446]. It did so by delineating its accountability from its journalistic work on Ukraine.[447] This distinction also reflects two different goals of Bellingcat's work related to the IAC in Ukraine. On the one hand, it is intended "(…) *to provide the general public, scholars and anybody who wants to know about what is happening in Ukraine with a resource of verified visual evidence*"[448] to "(…) *serve as a living history of the war, with content captured by citizen journalist, and geolocated by citizen investigators*"[449] – this is primarily achieved through Bellingcat's online interactive map, the Civharm TimeMap. On the other hand, the second aim is "(…) *to make the dataset and the analysis that has been fed into the map available to justice and accountability mechanisms, who may hopefully one day begin to prosecute perpetrators of war crimes and crimes against humanity*"[450], creating a so-called "*jumping-off point for evidence*"[451]. Besides these twofold goals, and in addition to the fundamental division, Bellingcat's J&A work is further divided into two sub-processes. These work

[445] Cf. BC (2023a): p, 26
[446] Bellingcat stated in its Annual Accounts 2022, that the full-scale invasion of Ukraine also brought the organization additional individual and institutional donors, which "(…) *made it possible to establish a team to investigate incidents of civilian harm in Ukraine according to a rigourous methodology and archive the material for future use by national and international justice and accountability mechanisms. We* [Bellingcat] *decided to allocate 225.000 EUR from the received donation to a reserve fund for Ukraine, which will allow us to continue the investigative work*." Cf. BC (2023b).
[447] Cf. Appendix I/GLAN/BC (2022b): 16:20 and 22:30, BC (2022o), PLEIN PUBLIEK (2022): 01:53:10, 01:20:36 and 01:21:25, IWM (2022): 19:30 and GLAN/BC (2022a): para. 30.
[448] Cf. CSJC (2022): 44:55 (statement by Giancarlo Fiorella).
[449] Cf. TEDxVARESE (2022): 07:15 (statement by Hannah Bagdasar).
[450] Cf. CSJC (2022): 46:00 (statement by Giancarlo Fiorella).
[451] Cf. TEDxVARESE (2022): 10:25 (statement by Hannah Bagdasar). .

processes are essentially sequential[452] and differ in terms of the composition of the people involved handling just-collected digital items, the underlying methods of their work, their technical infrastructure used, as well as the classification of publication. In order to give a general overview, these two tiers are briefly outlined below; afterward, each sub-process will be scrutinized in more detail in a separate sub-chapter.

- **First Sub-process – The Semi-Public Side** (collection/identification, first triage/assessment, the GAP, the Civharm Sheet database and the Civharm TimeMap):

In the first step, large amounts of social media content – such as from Twitter/X, Telegram, Facebook, VK, TikTok, etc. – that potentially depict civilian harm incidents or provide respective contextual information are identified and collected, with the links and their OAVC preserved by Mnemonic[453]. After an initial assessment (first triage) of this quantitatively large amount of constantly produced data, the most relevant content is transferred to a database, essentially a spreadsheet known as the Civilian Harm Sheet (Civharm Sheet).[454] From this initial work dataset, the Global Authentication Project (GAP), a group of volunteers from the wider open source investigative community established by Bellingcat, conducts geolocation and, if possible, chronolocation of the social media content. This basic verification process is then double-checked once again by Bellingcat staff, and if technically approved, the status in the Civharm Sheet database is updated with that contextual analysis. Unless there are any exclusionary factors[455], this open source based incident is then uploaded on Bellingcat's Civilian Harm in Ukraine Map (Civharm TimeMap) and is thereby made available to the public.[456]

- **Second Sub-Process – Non-Public/Detached J&A Work** (second triage, the J&A Unit's in-depth investigation using the J&A Methodology, preservation, Uwazi database):

[452] Cf. Appendix k.
[453] Cf. footnote 358. Grozev mentions in an interview that at this first step all the social media content is "duplicated". Cf. RISJ (2022): 33:00.
[454] Cf. TRF (2022): 07:00 and GLAN/BC (2022a): pp. 1. The links and the information stored in the Civharm Sheet database, together with those depicted on Bellingcat's Civharm TimeMap, is sometimes colloquially referred by some Bellingcat researchers as "seed data" (cf. i.a. GLAN/BC (2022b): 04:44 or 56:30) or "*Incident Seed Data*" (cf. GLAN/BC (2022a): p. 8). The Civharm Sheet is sometimes also referred to as "*Seed Data Sheet*" (cf. Appendix l).
[455] Reasons for non-publication are i.a. protection of content creators/uploaders, privacy concerns, respect for the dead and their close ones, depiction of extreme graphic content, etc. Cf. subchapter B.4.1.3/VI. and VII. Bellingcat considers also other ethic factors that influence if a case is being published or not (cf. BC/FIORELLA (2023)).
[456] Cf. GLAN/BC (2022b): 17:00.

In the second step, the GAP-geo/chronolocated and Bellingcat-staff-reviewed Civharm Sheet dataset is triaged again. That is, open source content that appears to be the most promising for later use as open source evidence is selected for further investigation by the J&A Unit. The consequent, more elaborate open source investigations are executed based on a methodology that was specifically developed in collaboration with GLAN for this particular purpose. All relevant online content in the context of these in-depth investigations is forensically archived (Mnemonic), the entire workflow is documented by an application (Hunchly), and the results are aggregated in a specially designed evidentiary database (Uwazi). Together with the so-called Incident Assessment Reports and a number of documentation files, the entries of the Uwazi database are essentially the final products of the overall process. This database is eventually made available to the later end-users, such as justice and accountability mechanisms, to support their work.[457]

To summarize , the so-called ”seed data”, i.e., web links referring to open source content and initial context information stored on the spreadsheet of the first step (Civharm Sheet database)[458], are used for Bellingcat’s journalistic work and its further J&A work. However, with the latter’s second tier, where the actual work of the J&A Unit begins, all following activities are strictly separated from the rest of Bellingcat.[459] Furthermore, the two processes are designed to narrow down a large amount of data in a structured and comprehensible manner until only the most relevant material remains.[460]

Alongside Bellingcat’s publicly announced J&A work aims, the broader impact of this undertaking on its future accountability projects, as well as the entire open source investigative community, should also be considered. This thesis argues that one of the accompanying effects is the increasing ”normalization” of the admission of their findings and of online open source information in general in the domain of law enforcement. Since Bellingcat has repeatedly set precedents and

[457] Cf. GLAN (2022): 01:31:55, GLAN/BC (2022b): 05:00, 16:40 and 19:00, CSJC (2022): 46:00, TF (2022): 10:10. According to Bellingcat’s Annual Report 2022, published in June 2023, the data they ”(…) *have collected has been shared with 11 International Organisations and 13 NGOs who work in the accountability field. We have completed one request for information from the Organization for Security and Co-operation in Europe (OSCE) which informed their report by the mission of experts of the Moscow Mechanism.*” Cf. BC (2023a): p .27.
[458] Cf. footnote 454.
[459] Cf. Appendix l and GLAN/BC (2022b): 15:30.
[460] Cf. Appendix m and Cf. GLAN/BC (2022b): 20:35.

even standards in the discipline of open source research and investigation in the past, it does seem conceivable that the work of the open source investigative collective is also quite capable of imposing new standards for international criminal prosecution, at least in its niche of specialization. With this in mind the next two sub-chapters scrutinize the two tiers of the J&A work process individually and in more detail.

B.4.1.3. GAP, Civharm Sheet database and Civharm TimeMap

The semi-public section of Bellingcat's J&A work consists of various sub-elements, with the central one being the Civharm Sheet database. It is fed by different Bellingcat actors[461] and serves as the basis for both the Civharm TimeMap and as the starting point for further investigations[462]. Since 24th February 2022, Bellingcat researchers and staff have consistently entered datasets of user-generated OAVC indicating potential incidents of civilian harm in Ukraine into the Civharm Sheet database.[463] Besides this Bellingcat-internal database, a publicly accessible dataset is available from the Civharm TimeMap, which can be downloaded in CSV and JSON formats. These two datasets, while similar, should not be confused. The non-public Civharm Sheet database comprises all identified online content by Bellingcat, including content that has not yet been assigned to a specific incident or verified[464]. In contrast, the downloadable dataset lists only those incidents visualized on the Civharm TimeMap. Although the Civharm TimeMap dataset represents only a fraction of Bellingcat's total content collection[465], it is available to various interest groups and for different purposes. Each of these publicly available datasets include a consecutive incident number (e.g. CIV0001, CIV0002, etc.), a reported date, a location (city, region and latitude/longitude), a short narrative or description, at least one online source (usually hyperlinks), and categorisations for later filter/search functions (e.g. type of area affected, weapon system, etc.),

[461] Cf. SUAREZ (2023).
[462] Cf. BC (2022s): 08:45 and 09:40.
[463] Cf. BC et al. (2022).
[464] Due to the enormous amount of data, Bellingcat, despite including its volunteers, lacks the resources and capacity to authenticate/geolocate/chronolocate all the online content available in real-time. Fiorella mentioned in a public speech that, as of early December 2022, there was a "(…) *significant backlog with over 200 pieces of evidence at the moment*". Cf. TA (2022): 07:00.
[465] Besides some considerations of privacy concerns (source protection) and respect of the dead, which will be later mentioned in the J&A Methodology, Higgins stated also that there is a delay mechanism from verification to publishing in order to not deliver Russia with intelligence for target acquisition, etc. Cf. IIPC (2023): 08:30.

among other categories.[466] The following are examples of the datasets that were downloaded from Bellingcat's Civharm TimeMap website (https://ukraine.bellingcat.com/) on 4th May 2023.

- CIV0007; 02/24/2022; 46.22789 34.64283; Semihatka/Henichesk; [Graphic: Image shows a dead child wrapped in a blanket] Child killed by explosion; https://twitter.com/GayanaYuksel/status/1496831609902968840; https://t.me/Pravda_Gerashchenko/190; Type of area affected=Undefined; Weapon System=Unknown

- CIV0013; 02/24/2022; 48.054917 37.777822; Kievsky district of Donetsk; Apparent strike on hospital in separatist held area; https://twitter.com/City_Donetsk/status/1496877801689038859?s=20&t=o76iN01FC_pqK6l4rX_fF; Type of area affected=Healthcare; Weapon System=Unknown

- CIV1890; 02/24/2023; 49.849061 37.682183; What appears to be a double tap attack. Emergency vehicles shelled while searching for victims under the rubbles from an earlier shelling attack at the village council building; https://twitter.com/Osinttechnical/status/1629002189254402050; https://twitter.com/GwaraMedia/status/1628808603053314049; https://twitter.com/khpg/status/1629075414684676097; Type of area affected=Administrative; Weapon System=Anti-air missile

Unlike these datasets, the entries in the Civharm Sheet database include a unique identifier or ID (e.g. ATL-018G29, ATL-71MLXR, etc.) and a status designation such as "*Unclaimed*", "*In Progress*", "*Ready for Review*", "*Help Needed*", "*Completed*", and so on. Since this database is for internal use only, not much is known about it, except that the division of labor within Bellingcat is managed through the so-called ATLOS GAP Platform[467]. Efficient collaboration and division of labor are particularly crucial in the context of the IAC in Ukraine because the enormous amounts of data produced every day make it next to impossible to filter out significant and, more importantly, reliable material in real time, especially during the identification and collection process. Another challenge that Bellingcat has been dealing with since its formation is that online materialwhich purports to represent information with factual authority, does not make such information true. It has been the case and will continue to be so in the future, that OAVC of an alleged incident actually shows a scene from a completely different conflict, a

[466] Cf. Appendix n.

[467] Cf. GLAN/BC (2022b): 18:20 and 56:00, SKAGEN (2023): 08:50, IIPC (2024): 07:35 and Appendix o. ATLOS (link: https://atlos.notion.site/Platform-Overview-46d4723f22ef420fb5ad0e07feba8d79, https://atlos.notion.site/atlos/About-Atlos-2049b4c7ea2d49b4af688f11ba0ee132, and https://atlos.org/ - visited on 13th May 2023) "(…) *is an open source platform for visual investigations. It helps journalists, human rights organizations, and OSINT investigators collaborate at scale.* (…) [It] *powers Bellingcat's pioneering investigatory work in Ukraine, through their Global Authentication Project.*" Cf. Miles McCain (link: https://miles.land/portfolio/atlos/ - visited on 20th February 2024). Hanna Bagdasar, Bellingcat's Lead Investigator for GAP, stated on Twitter/X (link: https://twitter.com/HannahBagdasar/status/1620630853485076480 - visited on 13th May 2023) that "(…) *Atlos has been instrumental in @bellingcatgap* (link: https://twitter.com/bellingcatgap - visited on 13th May 2023) – (…) *Atlos is a game changer in the world of collaborative open source investigations!*" Cf. also BC (2022s): 13:30.

different time, or a different location.[468] As misinformation and disinformation[469] are particularly prevalent during times of armed conflict, it is essential for open source information to undergo a basic verification process to ensure its reliability and accuracy before it can be used as actionable knowledge or legal evidence. Bellingcat's preoccupation with Russia is, among other reasons, also related to the fact that targeted disinformation campaigns have repeatedly originated from the Russian Federation in the past.[470] Due to these two circumstances – the need to process a large amount of data and the imperative to ensure verification – Bellingcat, with its limited human resources, cannot manage this workload to the required level of quality using its own staff alone. Nevertheless, as Bellingcat has consistently identified itself as an open source investigative collective and possesses extensive experience in decentralized investigations and leveraging crowd knowledge, it has formalized its community engagement through the Global Authentication Project (GAP) to address the aforementioned enormous J&A workload.[471] While the GAP focused on the invasion of Ukraine is just one of at least three more similar projects[472], it not only represents Bellingcat's initial formalized effort but is also the most advanced and structured initiative to integrate volunteers within a formally defined framework for a larger and more extended investigative project. Alone in 2022, 32 active GAP volunteers authenticated over 1.000 incidents for the Ukraine Civharm TimeMap.[473] For clearer detail, the following paragraph will briefly discuss the evolution of the GAP and highlight

[468] Cf. i.a. RISJ (2022): 33:30, BC/MOSSOU/HIGGINS (2021), LEE (2022), BC/KOLTAI (2023), BC/MAHER (2023), KASPRAK (2023a, 2023b and 2024), and others.
[469] Differentiation between misinformation and disinformation, cf. footnote 172.
[470] Cf. i.a. ASPEN (2022): 09:30, TRF (2022): 10:40 and 11:30, SKAGEN (2023): 10:30, ADAMI (2022), footnote 372, and others. Other reasons that explain Bellingcat's indeed proportional high emphasis on crimes committed on behalf of the Russian Federation are simply that, as Giancarlo Fiorella states, "(…) *Russia uniquely has the most leaky civil service in the history of the world*" (cf. CSJC (2022): 1:23:00); this means that it is relatively modest to investigate certain crimes, such as those related to the typically covert activities of intelligence officers, compared to other countries like China.
[471] Hanna Bagdasar, lead investigator for Bellingcat's GAP, defined the GAP as "(…) *Bellingcat's formalized volunteer community* "(…) [of] *volunteers recruited, vetted, on boarded and given structured tasks that are fitting to our larger investigations. We have community guidelines, a moderator who enforces these, digital psychosocial security guidelines*[, etc.] (…) *This is a structured process*". Cf. BC (2022s): 02:15.
[472] Bagdasar stated in mid-2022 that "[w]*e currently have three Global Authentication Project investigations running: the Ukraine event timeline* [Civharm Sheet database and TimeMap] *and investigations into events in the Aegean Sea and Tajikistan. We are aiming for five assignments under the Global Authentication Project banner to be complete by the end of 2022.*" Cf. SIDN (2022). See also BC (2022s): 10:00.
[473] Cf. BC (2023a): p. 5.

Bellingcat publications that reference its involvement in Ukraine and other countries and regions.

In its Annual Report 2021, Bellingcat writes that through the course of 2021 "(…) *three pilot projects* [later referred to as "GAP"] *that allowed us to test assumptions about our potential volunteers and the resulting investigations*" were conducted. Based on the 2021 lessons learned, Bellingcat "(…) *built a volunteer platform, created research and data collection methodologies, managed recruitment strategies, and came to understand what resources would be required* (…) *in order to upscale this community.*"[474] At this early stage, it already became clear that interaction among volunteers, an internal peer-review mechanism of each other's work through "(…) *collaborative methodologies and chat spaces* (…)", as well as "(…) *guidance and moderation of Bellingcat researchers*"[475], were imperative for the efficiency of this emerging community. While the GAP on Ukraine commenced its work a month ahead of the originally planned schedule on 24th February 2022[476], Bellingcat presented the project, along with its Civharm TimeMap, to the public for the first time in a publication in mid-March.[477] Here, the main features of the GAP have already been introduced, such as its role as a "(…) a community of open source researchers assisting in Bellingcat research through structured tasks and feedback", and that "[t]*he aim of this project is to detail incidents where there is open source evidence of potential civilian harm in Ukraine, as well as attempting to clarify where and when such events took place* (…)*, particularly in situations where there are vast quantities of data. In creating a community for those interested in open source research, we are fostering Bellingcat's original aim of solving problems together, to diversify our investigations and promote the use of these skills.*"[478] This publication is particularly noteworthy because, in addition to a detailed description of the Civharm TimeMap (the public part of Bellingcat's J&A

[474] Cf. ibid.: p. 23.
[475] Cf. ibid.
[476] Bagdasar stated that the very first group of ten volunteers, who were recruited with the initial aim of monitoring Russian troop movement along the border with Ukraine, were planned to be on-boarded to the project on the afternoon of 24th February 2022; however, "(…) *when the invasion happened earlier that morning, it allowed us to work immediately on the invasion as quickly as we did* (…) *it was just a coincidence*". Cf. BC (2022s): 07:15.
[477] The Bellingcat Investigation Team published on 17th March 2022 the article "*Hospitals Bombed and Apartments Destroyed: Mapping Incidents of Civilian Harm in Ukraine*"(link: https://www.bellingcat.com/news/2022/03/17/hospitals-bombed-and-apartments-destroyed-mapping-incidents-of-civilian-harm-in-ukraine/ - visited on 28th February 2024). Cf. BC et al. (2022).
[478] Cf. ibid.

work), it also includes a methodology section providing information not only about what is depicted on the interactive map and how it functions, but also about the underlying data collection and verification procedures conducted by both the GAP members and Bellingcat staff. The methodology section elaborates on the following.

I. Scope of Research: The focus is on incidents in Ukraine resulting in potential civilian harm, including attacks on civilian areas and infrastructure, civilian injuries, and immobile civilian bodies. The collection began on 24th February 2022 and is intended to be updated. The database is not exhaustive – uncorroborated incidents are not shown on the Civharm TimeMap.

II. Open Source Footage: The incidents listed on the interactive map are embedded OAVC, based on links collected by Bellingcat researchers (staff); the subsequent geolocation is conducted by GAP volunteers. The standard resolution is 150 metres; in some cases, the ascertained coordinates are slightly obscured in order to protect the identity of the content creators. Additionally, before being published on the Civharm TimeMap, each incident's coordinates are cross-checked by Bellingcat staff to ensure their accuracy. Yet, due to the nature of open source content, Bellingcat does not confirm or verify claims related to the online content.

III. Verification Level: It is already mentioned at this early phase of the wider J&A work that – in contrast to this initial investigation process where Bellingcat researchers and GAP members verify data merely for originality, basic manipulation, and location – the later in-depth investigation process requires keeping this particular part of the overall process fully separated from the others.

IV. Descriptions: Each incident depicted on the Civharm TimeMap is to be accompanied with the original source link, the exact location and a brief description. This description should be solely based on what is visible on the content and must abstain from stating the exact numbers of casualties, the party responsible for the conflict, or any other statements that are hard to determine at this stage of the process.

V: Filters: Alongside describing ways to toggle between different categories of affected areas (e.g. residential, industrial, healthcare, military, religious, etc.), Bellingcat explicitly mentions that "(…) *these classifications are based on visual*

evidence in the footage and (…) [they] *cannot fully exclude or exhaustively search for the potential of military use in some of these areas.*"[479]

VI. Source Links/Embedding: Links to UGC, e.g. from social media platforms, are embedded on the Civharm TimeMap. If content is deleted by the platform or the creator, the link remains visible even though the content will no longer be available. Sensitive footage is anonymized to protect the content creator's identity and location.

VII. Privacy concerns and respect of the dead: To protect the identity of the people producing or uploading OAVC and out of respect for the deceased and their close ones, posts containing identifiable information or images of dead or immobile bodies are filtered out from publication on the Civharm TimeMap.

Bellingcat's mid-March publication closes by announcing the individuals responsible for the Civharm TimeMap methodology.[480]

While neither the GAP nor the Civharm TimeMap were mentioned in the publication that officially announced Bellingcat's J&A Unit in late 2022[481], a joint report and video production with Scripps News covered both and gave some more details on their general structure and workflow[482]. Another article, titled "*A Year into Russia's Invasion, Survival in Ukraine is Still "Like a Lottery Ticket"*[483], published on the first anniversary of the full-scale invasion, is a much more comprehensive investigative report that presents selected subject areas based on data accessible through the Civharm TimeMap. It encompasses attacks in civilian areas, such as bus stops ("*Heading to Work*"), playgrounds ("*Having Fun*") and post offices ("*Posting a Letter*").[484] This particular investigative report is noteworthy because it provides a paradigmatic example of how specific incidents and subject areas may be analysed based on *"(…) Bellingcat's project to map and log incidents of civilian harm in Ukraine* (…)"[485]. It shows how the dataset might be

[479] Cf. ibid.
[480] These are Charlotte Godart and Nick Waters; for the visualization, Lachlan Kermode from Forensic Architecture and Miguel Ramahlo; the team that conducted aside the GAP additional incident research includes Giancarlo Fiorella, Foeke Postma, Narine Khachatryan, Aiganysh Aidarbekova, Annique Mossou, Hannah Bagdasar, Maxim Edwards, Eoghan Macguire, Michael Colborne, Carlos Gonzales and Johanna Wild. Cf. Ibid. and BC (2023a): p. 26.
[481] Cf. BC (2022o).
[482] Cf. BC/GODIN (2023) and NEWSY/BC (2023).
[483] Cf. BC/GODIN (2023) - A Year into Russia's Invasion, Survival in Ukraine is Still "Like a Lottery Ticket" (link: https://www.bellingcat.com/news/uk-and-europe/2023/02/20/ukraine-war-anniversary-one-year/ - visited on 28th February 2024)
[484] Cf. BC/EDWARDS (2023).
[485] Cf. ibid.

used not only to examine individual cases but also to derive larger correlations, such as whether a particular attack method or the use of certain weapons or ammunition caused civilian harm to an extent that this pattern might be assessed under IHL as "(…) *a widespread or systematic attack directed against any civilian population, with knowledge of the attack*"[486]. An attack exhibiting the aforementioned characteristics may be classified as a crime against humanity.[487] The investigative report was intended to "(…) *tell the story of these key amenities and the citizens killed while using them*" through "(…) *videos and photos from Ukraine, collected and verified by Bellingcat's Global Authentication Project*"[488], and referenced in the Civharm TimeMap indicated by codes in brackets. The investigative report focuses on three subject areas; referring to four incidents in which attacks caused harm to civilians using public transport facilities (CIV1195[489], CIV0373[490], CIV1235[491] and CIV1193[492]); three incidents on post stations/facilities

[486] Cf. ICC (1998): Art. 7(1).
[487] Cf. footnote 102.
[488] Cf. BC/EDWARDS (2023).
[489] While the Civharm TimeMap and the downloadable spreadsheet entry of CIV1195, as of 7th May 2023, contains only basic information (date, location/coordinates and a brief summary ("*Multiple casualties after shelling of bus station in Kharkiv*")) but no web link to UGC/OAVC, the investigative report gives, based on media reports and authority statements, more details about the incident's casualties, time reference ("*small group was waiting outside Kharkiv's Pedagocical University* (…) *All were killed at 9:30 AM* (…)") and the possible weapon system used ("*'Uragan' multiple launch system*"). Cf. BC/EDWARDS (2023). CIV1195(link: https://ukraine.bellingcat.com/?id=CIV1195 - visited on 7th May 2023)
[490] Similar to the footnote above, the Civharm TimeMap and the downloadable spreadsheet entry of CIV0373, as of 7th May 2023, contain only basic information (date, location/coordinates and a brief summary ("*Three people caught in explosions, reportedly by a bus stop*")) but no web link to UGC/OAVC as well. Again, the investigative report gives more details and provides a link to CCTV footage(link: https://t.me/insiderUKR/26083 - visited on 7th May 2023) of the incident from a Telegram channel. Cf. BC/EDWARDS (2023). CIV0373(link: https://ukraine.bellingcat.com/?id=CIV0373 - visited on 7th May 2023)
[491] While the investigative report continues elaborating on another attack that caused civilian harm in vicinity of a bus station in Avdiivka on 4th May 2022 without referring to any CIV-identification number, another entry which should refer to "(…) *an attack on a Mykolaiv bus stop on July 29 (CIV1235)* [in which s]*even were killed* (…)" (cf. BC/EDWARDS (2023)), does neither exist on the Civharm Time Map, nor on the downloadable spreadsheet. However, information about the above- mentioned incident from 4th May 2022 has been found with the help of the Civharm TimeMap. Entry CIV1869(link: https://ukraine.bellingcat.com/?id=CIV1869) contains aside basic information (date, coordinates and a brief summary ("*Attack on bus stop at the Avdiivka coal plant, reportedly killing 9 people and injuring 19 others*")) several sources to a Telegram group of the National Police of Ukraine(link: https://t.me/UA_National_Police/3677 and https://t.me/UA_National_Police/3627) (ukr. Національна поліція України) that show the aftermath and debris of the alleged munition that caused civilian harm. Cf. Appendix p. Another incident the investigation report describes without referring to the Civharm TimeMap is CIV1878(link: https://ukraine.bellingcat.com/?id=CIV1878 – all links of this footnote visited on 7th May 2023).
[492] CIV1193(link: https://ukraine.bellingcat.com/?id=CIV1193 - visited on 7th May 2023) is an example that Bellingcat records "(…) *attacks on public transport and transport infrastructure* (…) *in territories controlled by Russia such as an attack on a Donetsk bus station on July 14* [2022]" as well. Cf. BC/EDWARDS (2023). The entry provides basic information (date, location/coordinates and a brief summary ("*Attack near the Tsentr Bus Station, resulting in at least one death and several reported injuries*")) and a weblink to a Twitter/X account(link: https://twitter.com/Cosmonaut19/status/1549438953576865793 - visited on 7th May 2023) featuring a video that shows the aftermath of the alleged attack that caused civilian harm. Cf. Appendix q.

(CIV0784[493], CIV0533[494] and CIV1858[495]); and seven incidents where children's playgrounds were hit by ammunition (CIV0448, CIV0460, CIV0266[496], CIV0754, CIV0139[497], CIV1242[498] and CIV1506[499]). While contextualizing these three subject areas, the investigative report points out that "(…) *Bellingcat's civilian harm database* [i.e. the Civharm TimeMap and the Civharm Sheet]" includes other civilian facilities that had also been struck, such as "(…) *psychiatric hospitals*

[493] The entry of CIV0784 (link: https://ukraine.bellingcat.com/?id=CIV0784 - visited on 7th May 2023) provides basic information (date, location/coordinates and a brief summary ("*Post Office logistics terminal hit by strike. Remnants of what appears to be a cruise missile recovered from scene.*")) as well as web links of two posts of a Telegram account (link: https://t.me/Vitaly_Kim_official_mykolaiv/1523 and https://t.me/Vitaly_Kim_official_Mykolaiv/1523 - visited on 7th May 2023) and three from Twitter/X (link: https://twitter.com/KyleJGlen/status/1515003899979214856?s=20&t=SZn8NIYRGwjxSjlEyCXZBA, https://twitter.com/JakeGodin/status/1515013725874540548?s=20&t=SZn8NIYRGwjxSjlEyCXZBA and https://twitter.com/JakeGodin/status/1515015192031150081?s=20&t=SZn8NIYRGwjxSjlEyCXZBA - visited on 7th May 2023) depicting the aftermath of an alleged cruise missile strike on a postal sorting centre in Mykolaiv on 15th April 2022. Cf. Appendix r. As of 7th May 2023, the Telegram accounts are nolonger available.

[494] The entry for CIV0533 (link: https://ukraine.bellingcat.com/?id=CIV0533 - visited on 7th May 2023) provides basic information (date, location/coordinates, and a brief summary) as well as web links from different social media platforms such as Twitter/X (link: https://twitter.com/maria_avdv/status/1507075098678894602, https://twitter.com/worldonalert/status/1507086794034196495?s=20&t=RZcbs2qYMz0YsRiZQ1x6rQ and https://twitter.com/cliffordlevy/status/1507330093282123778), Facebook (link: https://www.facebook.com/ICHDRR/posts/439503661306322), Telegram (link: https://t.me/nexta_live/23217 and https://t.me/truexanewsua/36265) and YouTube (link: https://www.youtube.com/watch?v=VBOxnlvod-A – all links of this footnote visited on 7th May 2023). The incident in question is an alleged rocket strike that occurred on 24th March 2022, which hit a post facility building in Kharkiv, resulting in the deaths of three people and at least eight injured. Cf. BC/EDWARDS (2023) and Appendix s.

[495] The entry of CIV1858 (link: https://ukraine.bellingcat.com/?id=CIV1858 - visited on 7th May 2023) provides basic information (date, location/coordinates and a brief summary ("*Post Office logistics terminal hit by strike. Remnants of what appears to be a cruise missile recovered from scene.*")) as well as web links of two posts of a Telegram account (link: https://t.me/huyovy_kharkiv/99325 and https://t.me/huyovy_kharkiv/99314 visited on 7th May 2023). Cf. Appendix t.

[496] The entries for CIV0448 (link: https://ukraine.bellingcat.com/?id=CIV0448), CIV0460 (link: https://ukraine.bellingcat.com/?id=CIV0460) and CIV0266 (link: https://ukraine.bellingcat.com/?id=CIV0266) provide basic information (date, location/coordinates, weapon system and brief summaries) as well as OAVC from Twitter/X (link: https://twitter.com/2022Kharkiv/status/1498313925498130436?s=20&t=msDldxTbhAxlvqhSCA68ng;%20 and https://twitter.com/2022Kharkiv/status/1498034291577610250?s=20&t=msDldxTbhAxlvqhSCA68ng) and Telegram (link: https://t.me/truexanewsua/30188 - all links of this footnote visited on 8th May 2023), of three incidents of rocket motors impacting inside children playgrounds in Kharkiv between 27th February and 6th March 2022. Cf. Appendix u.

[497] Similar to CIV0448, CIV0460, and CIV0266, the entries for CIV0754 (link: https://ukraine.bellingcat.com/?id=CIV0754) (Okhtyrka, 24th March 2022) and CIV0139 (link: https://ukraine.bellingcat.com/?id=CIV0139) (Mariupol, 1st March 2022) provide, in addition to basic information and OAVC from Telegram (link: https://t.me/mariupol/3581, https://t.me/vorposte/14610,) and Facebook (link: https://www.facebook.com/photo/?fbid=5316355715063389&set=pcb.5316355788396715, https://www.facebook.com/mariupolrada.gov.ua/posts/3177453432580777?__cft__[0]=AZV1dXzA949shp6ZXL3vKlzOeAL5a-CdSeJZzxNWQqEWAmCNHJGT1hONw1oxLR6z6cbbpxDnP7ZpZfG8w1gce_aco-03ng1eFRp_GlPesUXeTlqsugNcUSxKBN8cSdptQNklGTWDOJy2B46-HqfrtUjS&__tn__=%2CO%2CP-R and https://www.facebook.com/mariupolrada.gov.ua/posts/3178160222510098?__cft__[0]=AZX34Suv1_eEJhZ5zBCzCLbwSfj1EKFB3UYysiUe2LQvzrVqzh-9lRiJzeg4TuYnrseq6l2AXbal49_2Vb1HrScyPoeorvoFEMteh3ZQ8yFfBBAfB2E4asnmydzFqZvCuJ4bOORVbdF4SpUYtdQ6m5pq&__tn__=%2CO%2CP-R – all links of this footnote visited on 8th May 2023), the attribution of the weapon system used in all these incidents, which involved cluster ammunition. Cf. BC/EDWARDS (2023) and Appendix v.

[498] One of "(…) *13 incidents of attacks on children's playgrounds across Ukraine*" recorded from Telegram (link: https://t.me/itsdonetsk/24302 and https://t.me/itsdonetsk/24298 - visited on 8th May 2023) by Bellingcat's Civharm TimeMap database during the first year of the invasion is CIV1242 (link: https://ukraine.bellingcat.com/?id=CIV1242 - visited on 7th May 2023), a case from occupied Donetsk, on 2nd August 2022. Cf. BC/EDWARDS (2023) and Appendix w.

[499] The entry for CIV1506 (link: https://ukraine.bellingcat.com/?id=CIV1506 - visited on 7th May 2023) provides basic information (date, location/coordinates and a brief summary ("*Explosion at playground in public park*")), as well as the category of the weapon system used (cruise missile) and several OAVC web links from Twitter/X (link: https://twitter.com/ArmanSoldin/status/1579354844951121922, https://twitter.com/KyivIndependent/status/1579372117858320384, https://twitter.com/mjluxmoore/status/1579357969577545729, and https://twitter.com/KyivIndependent/status/1579413266094125056?s=20&t=tmQ0HnUWPl4GrUJtGFlQVA - visited on 8th May 2023). Cf. Appendix x.

(CIV0445), fire stations (CIV1040), religious (CIV0370) and commercial sites (CIV0894)"[500]. In conclusion, the investigative report contextualizes these sorts of incidents within the framework of IHL. It addressed concepts such as indiscriminate attacks and excessive destruction, the distinction between combatants and civilians, the principles of precaution and proportionality, the use of explosive weapons with wide-area effects in populated areas, etc.[501] While the just-mentioned investigative report is a good example of how the Civharm TimeMap may be used to analyse wider patterns of incidents in geographical or thematic areas, ultimately its primary purpose is not actually criminal prosecution but rather to provide the public with a tool for understanding the ongoing war[502]. The Civharm TimeMap is essentially the public side of Bellingcat's internal Civharm Sheet database, which, in turn, serves as the starting point for the open source investigative collective's two main divisions; its well-known journalistic branch and the relatively new J&A branch. The following focuses on the second sub-process of the two-tier justice and accountability work.

B.4.1.4. Bellingcat/GLAN's J&A Unit, the Uwazi Database and Long-term Preservation

Although the J&A Unit began its work already in March 2022[503], it was officially introduced by Bellingcat through a dedicated article/website entry published on 15th December 2022[504]. Prior to this, only a few vague allusions, such as in Bellingcat's Policy Plan 2022-2024, released in the second half of the year[505],

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[500] Cf. BC/EDWARDS (2023). In addition to revealing that Bellingcat monitors various subject areas, the mentioned examples demonstrate that content from social media platforms may disappear after being initially registered on the Civharm TimeMap. This is evident, for example, with CIV0445(link: https://ukraine.bellingcat.com/?id=CIV0445) and CIV0894(link: https://ukraine.bellingcat.com/?id=CIV0894), where the web links embedded in the Civharm TimeMap were no longer accessible to the public at a later date. However, Bellingcat and Mnemonic have preserved the respective content locally, allowing its later recovery if necessary. CIV0370(link: https://ukraine.bellingcat.com/?id=CIV0370), on the other hand, is an example where Bellingcat has chosen to hide a source due to privacy concerns. Cf. Appendix Y. CIV1040(link: https://ukraine.bellingcat.com/?id=CIV1040 – all links of this footnote visited on 7th May 2023)

[501] Cf. BC/EDWARDS (2023).
[502] Cf. CSJC (2022): 44:55, TEDxVARESE (2022): 07:15 and BC et al. (2022).
[503] BC (2022o), CSJC (2022): 44:20 and GLAN (2024): 01:10.
[504] Cf. BC (2022o).
[505] The Bellingcat Policy Plan 2022-2024 reflects on their previous collaboration with GLAN in relation to Bellingcat's Yemen Project, where they established "(…) *a methodology for archiving and investigating conflict incidents using open source evidence* (…)" – this "(…) *process was tested and refined and is now a cornerstone for our ongoing justice and accountability efforts in Ukraine.*" Cf. BC (2022c): p. 4. Chapter VII, Activities & Ambitions, reads further that "(…) *we* [Bellingcat] *have now developed an investigative methodology designed specifically for justice and accountability with the aim of using our investigative work in a legal setting. Due to the requirements of these investigations they are part of a separate research and investigation process.*" Cf. ibid. p. 6.

mentioned its work on justice and accountability in the ongoing war. In the following, the 15th December article/website entry will be referred to as the J&A Unit introduction article. It provides basic information about the J&A Unit; that it is a joint initiative by Bellingcat and GLAN[506], that their "(…) *mission is to demonstrate the viability of online open source information in judicial processes*", and that the focus is on "(…) *investigations into potential atrocity crimes* (…)"[507]. It mentions also that the J&A Unit is separated ("*firewalled*") from the rest of the organization[508] and they follow "(…) *a rigorous methodology* (…) *developed to meet evidentiary standards*"[509]. Alongside insights into the J&A Unit's composition[510], the introduction article recaps the background on how Bellingcat and GLAN began their collaboration back in 2018[511], and in which capacity these two organizations have worked together since; examples include a Hackathon and the initiation of the Yemen Project in 2019[512], further investigations on the Yemeni civil war, and the jurisprudential revision of the process and results in 2020[513].

[506] More information about the Global Legal Action Network (GLAN), see footnote 359.
[507] Cf. BC (2022o). Atrocity crimes are a hypernym for the international crimes of war crimes, crimes against humanity and genocide. Cf. Def. IX and footnote 191.
[508] E.g. "(…) *it* [the J&A Unit] *has its own communication networks and those at Bellingcat who work on J&A projects cannot work on the public-facing research or investigative side of the organisation on the same topics.*" Cf. BC (2022o). See also footnote 447.
[509] Cf. BC (2022o) and GLAN/BC (2022a).
[510] As of 15th December 2022, the J&A Unit comprises one Lead Investigator, eight Investigators (among which are also such with Russian and Ukrainian language skills), two Senior Lawyers, one Legal Officer, one Data Scientist and one Digital Archivist. The article also notes that each team member has to receive a legal briefing that includes core evidentiary principles, as well as IHL and ICL. Cf. BC (2022o).
[511] Cf. BC (2022o). At a workshop(link: https://www.glanlaw.org/yemen - visited on 14th May 2023) in July 2018, hosted by GLAN, Swansea University and Garden Court Chambers, a group of "(…) *investigative journalists, human rights researchers, technologists, open-source investigators and lawyers* [came together] *in order to understand the opportunities and obstacles for generating legal accountability*". The focus of this workshop was on "(…) *Western involvement in alleged serious violations of IHL in Yemen*" (cf. GLAN/BC/ALLEN et al. (2022): p. 4). Bellingcat, which decided around the same time "(…) to focus resources on atrocities taking place in Yemen, took part on this workshop as well. "*The two organisations thus established the Yemen Project, an exercise aimed at developing a replicable methodology for locating and preserving open source material which could be of evidentiary significance in the fight for legal accountability for atrocities in Yemen. GLAN contributed legal analysis and recommendations, while Bellingcat was to be responsible for carrying out the investigations.*" Cf. ibid. "*This resulted in the drafting of the first version of a methodology*". Cf. GLAN/BC (2022a): Foreword.
[512] "*To test the investigative workability of the methodology, GLAN and Bellingcat convened an interdisciplinary "Hackathon"*(link: https://www.glanlaw.org/single-post/2019/02/03/GLAN-and-Bellingcat-run-open-source-intelligence-hackathon-on-air-strikes-in-Yemen - visited on 14th May 2023) *event at which world-renowned open source investigators trialled the methodology to investigate alleged airstrikes in Yemen. The results of these investigations were completed by Bellingcat and subsequently published as the Yemen Project*(link: https://www.glanlaw.org/single-post/2019/04/29/launch-of-the-yemen-project-website-open-source-investigations-into-saudi-led-airstrike-c - visited on 14th May 2023)*.*" Cf. GLAN/BC (2022a): Foreword and BC (2022o). See also GLAN/BC/MINOGUE et al. (2022): p.5 footnote 360 and 394.
[513] Throughout 2019 "*GLAN and Bellingcat continued to revise the methodology while conducting further investigations into attacks causing grave civilian harm in Yemen. A project at Harvard University's Advocates for Human Rights led by GLAN's Dr Ioannis Kalpouzos scrutinised the Yemen Project investigations for their significance in assessing international humanitarian law compliance.*" Cf. GLAN/BC (2022a): Foreword and BC (2022o). See also footnote 396.

There was also a mock hearing in 2021[514], subsequent joint publications[515], and finally, their work on the Ukraine project and the compilation of the latest iteration of their joint J&A Methodology in December 2022. This methodology is noteworthy for two reasons; first, it was created based on the previous experiences of both organizations[516], and second, it represents a set of standard operating procedures for the J&A Unit's investigators working on the IAC in Ukraine. In the following, this particular methodology will be referred to as the *J&A Methodology*. Aside from publishing this methodology together with the J&A Unit introduction article, on the same day, the two organizations livestreamed an online event via YouTube titled "*Launch of GLAN/Bellingcat Justice & Accountability Methodology for Online Open Source Investigations*"[517], in which key actors[518] of both organizations explained its significance and answered questions. Before delving into the specifics of the J&A Methodology (cf. subchapter B.4.1.5), drawing from the just-mentioned GLAN/Bellingcat online event, the processes and workflow of the J&A Unit's work require closer examination. After the legal classifications, which were carried out mainly by the representatives of GLAN, the contributions of Hanna Bagdasar, Bellingcat's GAP Lead Investigator, and Nick Waters, J&A Lead Investigator/Researcher, provided insights about the practical workflow of the project.

Waters explained that, based on the pre-screened datasets from the Civharm Sheet, the J&A Unit conducts another triage with the aim of filtering out incidents that appear most relevant or have the highest probability of being used as

[514] "*To test the evidentiary aspects of the methodology, GLAN, Bellingcat and the OSR4Rights project at Swansea University designed and convened a mock hearing*(link: https://www.glanlaw.org/osint-mock-trial, https://www.youtube.com/watch?v=dq_m2POtVdw and https://www.youtube.com/watch?v=-yVgbKTEtMM - visited on 14th May 2023) *challenging the admissibility of a piece of open source evidence discovered using the methodology.* (…) *The draft methodology was then revised again to address the issues raised by the exercise.*" Cf. GLAN/BC (2022a, 2022c and 2022d): Foreword and BC (2022o). See also GLAN/BC/MINOGUE et al. (2022) and footnote 397.

[515] Based on lessons learned from their Yemen Project and the mock hearing, GLAN and Bellingcat published on 24th October 2022 two extensive reports in which they reflected on their expertise and experience in online open source investigations and on the legal admissibility of open source evidence in regard of IHL and ICL proceedings. Cf. GLAN/BC/ALLEN et al. (2022) and GLAN/BC/MINOGUE et al. (2022). The findings of these two reports were incorporated into the J&A Methodology, which was completed shortly thereafter.

[516] Cf. footnotes 360, 394, 396, 397, 511, 512, 513, 514 and 515.

[517] Cf. GLAN/BC (2022b)(link: https://www.youtube.com/watch?v=MGCKmPY6E7U - visited on 15th May 2023).

[518] The speakers were Yvonne McDermott Rees (Professor of Swansea University School of Law), Dearbhla Minogue and Siobhan Allen (both GLAN Senior Lawyers), Olga Lubiv (Bellingcat investigator at the J&A Unit), Hanna Bagdasar (Bellingcat investigator and GAP Lead Investigator) and Nick Waters (Bellingcat investigator and J&A Unit Lead Investigator).

admissible evidence in court later on.[519] The criteria for prioritizing certain incidents include factors such as the reported number of casualties, occurrence in a major city, presence of patterns in smaller incidents, the availability of sufficient open source information, and the potential for contribution from a possible open source investigation.[520] The selected incidents are then investigated in depth by the J&A Unit investigators under the principles of the J&A Methodology. All findings are filed into a standardized and especially designed database (Uwazi), which is intended to be made available to various justice and accountability mechanisms. This is reflected in the fact that Uwazi exports datasets in CSV file format, enabling integration with other databases. Additionally, Bellingcat and GLAN collaborated to arrange the layout of the Uwazi database based on consultations with other organizations, in order to facilitate the design of data schemes and streamline data export.[521] Eliot Higgins elaborated on this during a public lecture.

> ”(…) *we at Bellingcat try to continue on our accountability efforts, and we really want to expand what we are doing here, collecting this digital evidence, making it available for accountability because there are lots of organizations doing this kind of work, and they're doing it all in slightly different ways. But the problem for the ICC is, for example, and this is something that came up a lot in Syria, that we have so many different organizations and archives of digital evidence,* [that] *actually going to it is really difficult, because you've got to know who they are, who's the right person to email, you've got to ask the right questions and describe the incident you're looking for in the right way. So what we're working on now is developing a system that allows multiple archives to be indexed centrally, allowing the archive holders to have full control of their data but also make that index searchable by actors like the International Criminal Court and other accountability bodies. So this kind of data can be searchable with a few mouse clicks. My hope is that it will really make a difference in our understanding of conflicts and reaching accountability for what's happening in places like Ukraine and in other conflict zones in the future.*”[522]

Bellingcat aims to create precisely this sort of “index” or “archive” Higgins was speaking about, with the Uwazi database[523], ”(…) *an open source application, which can be searched and filtered.*”[524] By the same token, Hanna Bagdasar explained in an event hosted by GLAN in October 2022 that, ”(…) *for Ukraine* (…) *we’re* [Bellingcat/J&A Unit] *using a database called Uwazi, which we plan on*

[519] Cf. GLAN/BC (2022b): 19:15.
[520] Apart from the reported number of casualties (figure), the other four mentioned categories are binary (yes/no). The higher an incident scores, the greater its chance of being selected in the second triage process. Cf. GLAN/BC (2022b): 20:00 and Appendix z.
[521] Cf. BC/GLAN (2022b): 39:13.
[522] Cf. TRF (2022): 18:55. See also ibid. 09:20, GLAN/BC (2022b): 16:40 and 19:00 and SKAGEN (2023): 17:20.
[523] Uwazi (link: https://uwazi.io/ - visited on 16th May 2023)
[524] Cf. BC (2022o). See also IIPC (2023): 18:00 and 35:30. In the J&A Methodology, Uwazi is also specified as ”[a]*n analysis database for keeping track of and displaying incidents, media content and actors*”. Cf. GLAN/BC (2022a): I/p. 9.

giving investigators at national, regional and international levels access to, so they can also go look through themselves and see what they find relevant, rather than us telling them what's relevant."[525] So what is Uwazi exactly? According to the developer's website[526], "*Uwazi is a flexible database application designed for human rights defenders to capture and organise collections of information". This web-based platform, developed by HURIDOCS, can be customised for a variety of needs.*"[527] Bellingcat and GLAN, with the latter having prior experience with Uwazi in a previous project[528], tailored the database application to suit their specific requirements for their collaborative J&A work on the IAC in Ukraine. The composition of such a dataset is detailed in Annex IX - Uwazi Fields of the J&A Methodology[529]. The predefined fields are organized in three main sections and require/provide information about the incident itself[530], the content[531], its depiction, and the actors[532] involved. Screenshots of Uwazi fields, along with data entry instructions and samples, can be found in Appendix CC of this thesis. Like the Civharm TimeMap, certain categories in the Uwazi database can also be filtered to help identify specific patterns or regularities (systematics) in combat operations. Ultimately the final product has to qualify as open source/linkage evidence (the

[525] Cf. GLAN (2022): 01:31:55.

[526] website(link: https://huridocs.org/technology/uwazi/#:~:text=Uwazi%20is%20a%20flexible%20database,code%20is%20available%20on%20GitHub. - visited on 16th May 2023)

[527] The Human Rights Information and Documentation Systems (HURIDOCS(link: https://huridocs.org/about/ - visited on 16th May 2023)) describes itself as "(…) *an NGO that helps human rights groups gather, organise and use information to create positive change in the world. Since 1982* [HURIDOCS] *developed methodologies and tools that make it easier not only to manage collections of evidence, law and research, but also to analyse them for insights.*"

[528] GLAN utilized Uwazi for tagging, sorting, and collecting data in their Yemen Airstrike Evidence Database(link: https://www.glanlaw.org/airstrike-evidence-database-yemen - visited on 16th May 2023) as early as 2019. For this project, Bellingcat also partnered with GLAN. Cf. FINCH (2019). See also BC (2023a): p. 27.

[529] Cf. GLAN/BC (2022a): Annex IX/p. 84-89.

[530] The Uwazi database INCIDENT-section contains the Uwazi fields "*Title*", "*CIVHARM ID*", "*Date*", "*Assessed date or date*", "*Reported civilian deaths*", "*Reported civilian injuries*", "*Description*", "*Level of investigation*", "*Incident Assessment*", "*Geolocation*", "*OBLAST*", "*Type of object affected*", "*Military presence*", *Cautions*", "*Research Notes*", "*Type of attack*", "*Investigator Responsible*", "*Implicated Unit*", "*Perpetrator*", "*Victim*", "*Investigated by*", "*Ukraine Witness ID*", "*Red Flags*", "*Reason for Red Flag*", "*Generated ID*", "*Incident Group*" and "*Stage of investigation*". Cf. Appendix CC and GLAN/BC (2022a): Annex IX/p. 84-86.

[531] The Uwazi database CONTENT-sections contains the Uwazi fields "*Title*", "*UW_CATEGORY*", "*Original title on social media*", "*Generated ID*", "*Incident*", "*SITE_SIGNIFICANCE*", "*UW_ID*", "*Online link*", "*Archived_Link*", "*Graphic Content Warning*", "*POSTED_DATE*", "*POSTED_TIME*", "*FILMED_DATE*", "*Description*", "*Geolocation*", "*Content_type*", "*People visible*", "*Red Flags*", "*Reason for flagging*", "*Images and video fields*", "*DEATH_DATE*", "*SOLDIER_CAPTURED_DATE*", "*Country*", "*OBLAST*", "*Entered by*", "*BULK_SOURCE*", "*Source*", "*Linked Group of Incidents*", "*Open query?*", "*Query for*" and "*Query*". Cf. Appendix CC and GLAN/BC (2022a): Annex IX/p. 86-88.

[532] The Uwazi database ACTORS-sections contains the Uwazi fields "*Name*", "*Image*", "*Description*", "*Social media profile (1)*", "*Social media profile (2)*", "*Profile/Home Page Screenshot*", "*Type of Actor*", "*Status*" and "*Entered by*". Cf. Appendix CC and GLAN/BC (2022a): Annex IX/pp. 88.

same standard as actionable knowledge or intelligence), while the process behind its acquisition must also be able to withstand future challenges raised by criminal attorneys. The process and the end product are supposed to go hand in hand.

On that account and for the sake of replicability and comprehensibility, throughout the entire investigation process, all open source content that arises and is connected to a respective incident is preserved via Mnemonic. Bellingcat and GLAN describe Mnemonic as "*an independent third-party organisation maintaining an archive of digital content from Ukraine, as it has done for Syria, Yemen and Sudan.*"[533] Throughout the J&A Unit's investigations, any web link that the investigators considered "(…) *could amount to relevant information or evidence*" is recorded on an "*archiving sheet*" to which Mnemonic has access and archives "(…) *all of the video and photographic material*"[534]. Waters explains in this regard that "*Mnemonic takes any piece of content, downloads it, feeds it into a hashing algorithm and that algorithm generates a hash, which is a string of letters and numbers* (…). *This piece of content is placed into a vault and the hash is kept separate. So if 10 years down the line an archived video ends up in court, the hash proves the video hasn't been tampered with while it was in custody of Mnemonic.*"[535] In line with Higgins' comment above[536], Mnemonic is also an ideal project partner for Bellingcat's endeavor because, according to Hadi Al-Khatib, Managing Director of Mnemonic[537], it "(…) *archives information from a coalition of 16 Ukrainian NGOs and Amnesty International*", has established "(…) *links with the ICC and national prosecutors to inform them of its work and understand what information they might need in future*",[538] and has formalized their work under its latest program, the Ukraine Archive[539]. Just like Bellingcat and GLAN with their

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[533] Cf. BC (20220), GLAN Webpage (link: https://www.glanlaw.org/online-open-source-methodology - visited on 16th May 2023) and GLAN/BC (2022b): 05:20. Regarding Mnemonics previous projects and how they are related with each other and with Bellingcat, see footnote 357 and 358.

[534] Cf. GLAN/BC (2022a): VI/p. 14.

[535] Cf. SUAREZ (2023). The Berkeley Protocol mentions the benefit of assigning a hash value or cryptographic signature on a digital item several times. Cf. UN (2022): paras. 153, 155(h) and p. 78.

[536] Cf. footnote 522.

[537] Cf. footnote 290.

[538] Cf. CRAWFORD/PETIT (2022).

[539] According to its Website (Ukraine Archive) (link: https://ukrainianarchive.org/en/about), the *"Ukrainian Archive is a program of Mnemonic, a non-profit organization which operates globally to help human rights defenders effectively use digital documentation of human rights violations and international crimes to support advocacy, justice, and accountability.* (…) *Ukrainian Archive is a Ukrainian-led program, supported by open-source investigators, conflict analysts, investigative journalists, legal practitioners, and IT specialists. Our team preserves, analyses, and memorializes documentation of humanitarian law and human rights violations in the armed conflict in Ukraine. We do this by archiving and analyzing the digital docu-*

J&A Unit's Uwazi database, the objective of the Ukraine Archive is to facilitate a more efficient response to "(…) *requests from courts and prosecutors.*" Al-Khatib further emphasizes the challenges related to the collected material, particularly from social media platforms, in terms of the potential for it to be lost before a proper investigation can take place. On the other side, over-archiving is viewed as problematic too. Therefore, "(…) *it's really important to make sure that we* [Mnemonic] *are coordinating this work between different organizations, and that different organizations contribute to archiving materials in one place.*"[540] The importance of coordination, cooperation and collaboration among the various actors involved is reflected in the fact that GLAN, an organization that has extensive practical experience and jurisprudential knowledge in ICL, not only participated in the development of the J&A Methodology but also contributed to the subsequent work of the J&A Unit. Their involvement aims to ensure that the delivered results can be relied upon as open source evidence in legal proceedings for accountability purposes. GLAN's approach in this regard, as stated by Siobhan Allen, a GLAN senior lawyer, is to work "(…) *backwards from the point at which* [one is] *trying to admit a piece of open source material into evidence in a court,* (…) *consider*[ing] *the legal principles on admissibility, what might lawyers on the other side say to challenge the evidence,* [and] *what will the court think about in deciding whether or not to admit it."*[541] This is key to understand and shows the main difference between Bellingcat's work on justice and accountability on the IAC in Ukraine and most other rather journalistic projects or academic researches – the open source investigative collective's work is specifically intended to be admissible in criminal prosecutions, which means it must comply with the formalities and requirements to avoid being excluded beforehand. Despite Bellingcat's experience in comparable projects in the past, at this magnitude, it became obvious that it

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mentation in our database and on this website in order to support the important work of investigative journalists, human rights activists, and criminal justice practitioners on the violations of public international law and provide potential evidence used for legal case building. By preserving verifiable documentation within our archive and helping others do the same, we hope to support a challenging but important process of transitional justice for the people of Ukraine." Based on Mnemonic's proven methodology (link: https://mnemonic.org/en/about/methods#investigation-and-further-analysis) for the collection, preservation, processing, verification, investigation and further analysis, the Ukraine Archive adopts a similar sequential procedure (link: https://ukrainianarchive.org/en/about/methods-tools – all links of this footnote visited on 17th May 2023), as employed by Bellingcat and by other similar organizations. Cf. Appendix DD.

[540] Cf. CRAWFORD/PETIT (2022).

[541] Cf. GLAN/BC (2022b): 07:20.

needs the assistance of a partner such as GLAN to ensure legal accuracy. Allen further elaborates in this regard as follows.

> ”*A central tenant of the question of admissibility of evidence is fairness to the defendant,* [i.e.,] *anticipating their right to challenge any evidence put forward against them, attempts to have it excluded entirely,* [and] *their right to cross-examine witnesses against them - which of course is a difficulty with open source information where the creator is not available to speak to. So we* [GLAN] *thought about the key issues impacting on fairness to the defendant, anticipating arguments as to the impartiality of the evidence and allegations of bias in investigations; the authenticity of the evidence, including potential for evidence to have been manipulated; reliability of evidence; any accusations that an investigation was incomplete; failure to keep records of the investigation for a defendant to inspect in order to satisfy themselves that it was conducted fairly. We considered both how to ensure that information produced in an investigation is all of these things, but also how to demonstrate to a court, potentially years later, that it is all of these things. We've worked together with Bellingcat very hand in hand to create this methodology, with Bellingcat and the investigators advising how the investigation would be conducted, GLAN then reviewing that through a legal lens to see where it could be challenged later down the line and then advising from a legal perspective how to make it as robust as possible and then Bellingcat advising from the technical perspective how you go about implementing that. So the methodology addresses these evidentiary concerns by ensuring and demonstrating that an investigator is searched for content comprehensively and objectively knowing what to look for and using balanced searches, controlling for biases – both real and perceived, recording clearly the steps they've taken to be able to give comprehensive disclosure to a defendant, showing what was done and how.*”[542]

One example of this is that the J&A Methodology requires the documentation of the entire workflow throughout the investigation. This documentation is done by both the investigators themselves[543] and through an application called Hunchly[544], a Google Chrome plugin that logs every single click, text input, and page viewed in real-time during the research process.[545] Similar to the ATLOS GAP Platform[546], which is utilized in the first sub-process to facilitate coordination and to streamline the workflow between the Civharm Sheet database, GAP members and Bellingcat staff, the second sub-process of Bellingcat's J&A work employs another internally used spreadsheet (”tracking spreadsheet”)[547] to monitor and track ongoing

[542] Cf. GLAN/BC (2022b): 07:05.
[543] Waters mentions that within the file structure associated with each incident under investigation, there is a sheet called ”*Research Notes*” where ”(…) *the researcher* [investigator] *is recording every step as they go along the way*”, following the J&A Methodology. Cf. GLAN/BC (2022b): 24:20 or Appendix AA and BC/GLAN (2022a): V/ para. 3. Allen elaborates in this context that these Research Notes require the investigators to ”(…) *record any decisions they took and why, so that these can be understood by a court at a later stage but also provides contemporaneous justification of what the investigator did*”, etc. Cf. GLAN/BC (2022b): 09:45.
[544] Hunchly (link: https://www.hunch.ly/ - visited on 19th May 2023)
[545] Cf. GLAN/BC (2022a): I/p. 7 and VI/p. 14, and SUAREZ (2023).
[546] Cf. footnote 467.
[547] The author will refer to this spreadsheet in the following as the ”tracking spreadsheet”. This term is not used by Bellingcat and is therefore enclosed in quotation marks in this thesis.

investigations within the J&A Unit[548]. Yet, just as the internal Civharm Sheet database does not equate to the downloadable dataset of the online Civharm TimeMap, one should also not confuse the aforementioned internal "tracking spreadsheet" with the Uwazi database. While the internally used "tracking spreadsheet" primarily contains administrative information about the current status of an incident under investigation within the J&A Unit[549], the Uwazi database consists of datasets where aggregated information related to a specific incident is stored for use in legal proceedings by external actors.

This thesis elaborates on the various data and sub-databases, spreadsheets, organizational subgroups, and their interrelation to highlight that the mere task of reviewing a vast amount of open source material generated every day and in real-time during this armed conflict, requires an exceptionally efficient organizational structure and well-functioning workflow processes. This already challenging circumstance is further expanded by the decentralized nature of Bellingcat, the incorporation of volunteers in its workflow, and the utilization of crowd knowledge in general.[550] Finally, this overwhelmingly large dataset and the highly complex workflow need to be standardized and made comprehensive in a way that ultimately meets the rigorous criteria required for the admissibility of evidence in criminal proceedings.

Bellingcat, as an independent NGO, has undertaken a project of significant scale and ambition in the niche of open source research, while many other governmental or international organizations, despite commanding greater

[548] Waters emphasizes on the importance of having "(…) *a good bird's eye view of the actual processes* (…)" and acknowledges that working on multiple and different incidents can make it *"*(…) *very easy to lose track of which incident is where."* Therefore, he stresses that " (…) *having a way to track incidents and how it is carried out is as important as the actual methodology and investigation process itself."* Cf. GLAN/BC (2022b): 24:35.

[549] The internal "tracking spreadsheet" contains categories such as "*Incident Code*", "*Date*", "*Description*", "*1st Author*", "*In progress*", "*Editing*", "*1st draft complete*", "*KML File present*", "*Hunchly Files Presented*", "*Reviewed by*", "*Legal Review Complete*", "*UWAZI Entered*", and others. Cf. Appendix BB.

[550] Higgins explained in a public talk that Bellingcat is organized in approximately six layers, akin to an onion. The first layer consists of the main Bellingcat team (staff), which is under direct control; the second layer comprises regular contributors to Bellingcat's website and their research; and third layer is composed of a trained volunteer network (e.g. the GAPs, who uses ATLOS, for example). While Bellingcat can organize projects and plan online source investigations across these inner three layers in varying degrees of control, the outer three layers are less controllable. These outside layers include: fourth, the online community consisting of individuals and organizations that have emerged around Bellingcat, following them on Twitter or other platforms and which are known to the open source investigative collective, occasionally collaborating; fifth, the broader online community engaged in various online open source investigations and topics; and sixth, the broader internet beyond that. Cf. IIPC (2023): 36:45. In the following, the author of this thesis focuses on explaining these different layers more from a procedural than from a hierarchical point of view.

personnel, organizational, and financial resources, have not dared to embark on a similar endeavor. This thesis intends to convey that, in addition to the output Bellingcat has produced, such as publications on their website (investigations and guides), their public and legal user needs-oriented section of their J&A work on the IAC in Ukraine (Civharm TimeMap and Uwazi database), and their knowledge and skills-sharing activities, they have also established structures that may be adopted by other organizations and developed processes that are transferable to other legal and/or research contexts in the future. In this regard, the author considers it plausible that Bellingcat, in addition to its tangible output, can contribute to the advancement of online open source-based research and investigations in the field of international criminal prosecution through setting new precedents. Their aspiration to develop and contribute beyond their immediate scope is reflected, among other things, by Bellingcat and GLAN's joint publication of their self-produced methodology. For this and for assessing the relationship between the J&A Methodology and the Berkeley Protocol, GLAN and Bellingcat's joint publication will be examined in closer detail.

B.4.1.5. The J&A Methodology and its relation to the Berkeley Protocol

The Justice and Accountability (J&A) Methodology, which serves as the foundational document for the work of Bellingcat's J&A Unit, was jointly published by Bellingcat and GLAN on 15th December 2022[551] under the title "*Methodology for Online Open Source Investigations into Incidents taking place in Ukraine since 24 February 2022*"[552]. This methodology neither emerged out of the blue, nor in response to the 2022 escalation of the IAC in Ukraine alone. Instead, it is the result of years of collaboration between the two organizations, involving testing, reviewing, adapting, and continuous improvement of draft versions through real-life projects (e.g. Yemen Project[553]) and simulation exercises (e.g. mock trial)[554].

[551] jointly published by Bellingcat and GLAN on 15th December 2022(link: https://www.glanlaw.org/online-open-source-methodology - visited on 23rd May 2023)

[552] Cf. GLAN/BC (2022a), GLAN/BC (2022b) and BC (2022o). While Bellingcat and GLAN refer to this particular publication just as "*the methodology*" or "*this project*", the thesis at hand refer to it as "*J&A Methodology*" (Methodology capitalized) in order not to confuse it with other methodologies used by Bellingcat (e.g. the one used for the Civharm TimeMap, cf. subchapter B.4.1.3/I.-VII. and BC et al. (2022)) or methodologies of other organizations related to Bellingcat (e.g. CIR with their Eyes on Russia project).

[553] Yemen Project(link: https://www.glanlaw.org/single-post/2019/04/29/launch-of-the-yemen-project-website-open-source-investigations-into-saudi-led-airstrike-c - visited on 23rd May 2023)

However, it is noteworthy that the most recent iteration of this process, namely the J&A Methodology from 15th December 2022, stands out as the most comprehensive and meticulously crafted version thus far and serves not only as a practical guidebook for the investigators but also as a source for actors who are interested in retracing the J&A Unit's investigative process, including the underlying principles guiding their work. These actors may be judges, prosecutors or defense attorneys who are evaluating a certain digital item for a specific criminal proceeding, as well as individuals or organizations that seek to adopt this methodology, or parts thereof, for their own investigations[555].

Alongside GLAN and Bellingcat's multi-year collaboration and the insights derived from their practical project experiences, the J&A Methodology is also influenced by the Berkeley Protocol[556]. This symbiotic, mutual influencing is mentioned in Bellingcat's J&A Unit introduction article[557] and in the foreword of the J&A Methodology's itself.

> "*This* [J&A M]*ethodology should be thought of as a set of standard operating procedures, providing granular, practical steps for investigators to follow when searching for content online. It should therefore not be seen as an alternative to the Berkeley Protocol on Digital Open Source Investigations or other guiding principles. The Berkeley Protocol sets out high-level guidance on the effective use of OSI* [open source information] *as evidence, and anyone wishing to take it into account will need to develop their own standard operating procedures which implement the principles comprehensively articulated by the Protocol. This methodology was reviewed after the Berkeley Protocol's publication in 2020 and we consider that it complies with the principles identified by the Protocol.*"[558]

Alongside this entry statement, the J&A Methodology explicitly refers to the Berkeley Protocol at least three times[559]. Furthermore, GLAN and Bellingcat have mentioned on various occasions how their work, and particularly their J&A

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[554] Cf. footnotes 360, 394, 396, 397, 511, 512, 513, 514 and 515 and BC (2022o), GLAN/BC/MINOGUE et al. (2022): p. 5, GLAN/BC/ALLEN et al. (2022): pp. 3 and GLAN/BC (2022a): foreword/pp. 1. mock trial(link: https://www.glanlaw.org/osint-mock-trial - visited on 23rd May 2023)

[555] The J&A Methodology mentions in this regard that despite it "(…) *has been tailored to the particular context and objectives of the Justice and Accountability Unit's investigations on Ukraine,* (…) [Belling-cat/GLAN] *hope*[s] *that it may provide a helpful blueprint for other organisations working in Ukraine or other contexts.*" Cf. GLAN/BC (2022a): foreword/p. 2.

[556] Cf. subchapter B.2.3.

[557] Cf. BC (2022o).

[558] Cf. GLAN/BC (2022a): foreword/p. 2.

[559] These references pertain to the definition of technical bias (cf. GLAN/BC (2022a): Annex I/para. 10 and 3 referring to UN (2022): para. 27/p. 11), the recommendation to use alternative web browsers (cf. GLAN/BC (2022a): Annex I/para. 17) and the demarcation of open to closed source information (cf. GLAN/BC (2022a): Annex II/para. 5 referring to UN (2022): para. 14/p. 6).

Methodology, aligns with the Berkeley Protocol[560]. The following will examine what the J&A Methodology is about and outlines where it aligns with or diverges from the Berkeley Protocol.

The J&A Methodology from 15th December 2022 comprises a main body consisting of a foreword and eight chapters,[561] accompanied by numerous annexes[562] that provide additional information and specifics pertaining to the investigation of atrocity crimes committed in the IAC in Ukraine since 24th February 2022.

The **foreword** introduces the purpose of the J&A Methodology[563], provides a summary of its development history[564], elucidates its relationship with the Berkeley Protocol[565], delineates its target audience[566], clarifies its scope and identifies the areas that fall beyond its purview[567].

Chapter I: The chapter on **Systems and resources** introduces the fundamental separation of devices designated for the J&A work from those that are used in other areas of Bellingcat, as well as outlining the specific web applications (such

[560] Bellingcat mentioned already in its mid-2022 published Policy Plan 2022-2024 that their "(…) *justice and accountability work* [and their] *methodology for verification is developed in cooperation with the Global Legal Action Network (GLAN) and is consistent with the Berkeley School of Law's Berkeley Protocol.*" Cf. BC (2022c): p.3. In a Tweet(link: https://twitter.com/bellingcat/status/1603422330520313859?lang=ar - visited on 23rd May 2023) from 15th December 2022 Bellingcat commented on the launch of their "*latest J&A methodology*" that it is "*informed by the Berkeley Protocols on Digital Open Source Investigations.*" The consideration and incorporation of the principles by the Berkeley Protocol are particularly evident in the context of the mock trial(link: https://www.glanlaw.org/osint-mock-trial - visited on 23rd May 2023) held in 2021 (cf. GLAN/BC (2021a and 2021b)), its respective publication (cf. GLAN/BC/MINOGUE et al. (2022): paras. 2, 20, 37, 80/45, 97, 101, 109, 114 and 116 an Annex I/paras. 6, 10, 11 and 21) and the subsequent lessons learned, which were later integrated into the J&A Methodology. Cf. GLAN/BC (2022a): foreword/ p. 2. See also BC et al. (2022).

[561] The main section's eight chapters are systems and resources (I.), briefings (II.), categories of information (III.), preparation (IV.), investigation (V.), discovery/content gathering (VI.), verification and analysis (VII.), and roles and responsibilities (VIII.). Cf. GLAN/BC (2022a): pp. 7-19.

[562] The attachment to the main section is comprised of ten annexes; bias (Annex I), data protection, privacy and joining closed groups (Annex II), sexual and gender based crimes (Annex III), crimes against and affecting children (Annex IV), legal briefing (Annex V), factual inquiries and their relationship to the elements of crimes (Annex VI), style guide and naming conventions (Annex VII), incident assessment template (Annex VIII), Uwazi fields (Annex IX), and acknowledgements (Annex X). Cf. GLAN/BC (2022a): pp. 20-90.

[563] "*This Methodology was developed* (…) *to guide Bellingcat's court-focused investigations. Its aim is to ensure that any material discovered by Bellingcat's dedicated Justice and Accountability Unit is gathered in accordance with rules on admissibility of evidence so as to make it suitable for use in future legal proceedings and other accountability processes.*" Cf. GLAN/BC (2022a): foreword/p. 1.

[564] Cf. footnote 554.

[565] Cf. footnote 558.

[566] Cf. footnote 555 and GLAN/BC (2022a): foreword/p. 7.

[567] According to the J&A Methodology it "(…) *does not teach online investigation methods such as locating or verifying content; it assumes knowledge of these* (…)*. It also does not cover forensic preservation, since Bellingcat's preservation is carried out by* [Bellingcat's] *partners at Mnemonic.*" Cf. GLAN/BC (2022a): foreword/p. 3.

as Hunchly) and shared documents (including various Google Sheets and Google Documents) utilized within the scope of the investigation.[568]

Chapter II: The chapter, **Briefings**, emphasizes the need for investigators to receive subject-specific briefings on legal matters, including IHL and ICL, as well as practical considerations such as report writing, language usage, formatting, etc.[569] These topics are further detailed in the J&A Methodology's annexes V (legal briefing), VII (style guide and naming conventions) and VIII (incident assessment template).

Chapter III: With the **Categories of information**, online sources are differentiated into two distinct groups, namely, "*examinable or core content*" and "*descriptive content"*. The primary focus of Bellingcat's J&A work-related investigations is on the first category, which encompasses OAVC and UGC in particular, but also satellite imagery, maritime/aviation trackers, weather logs, and more. The second category comprises the wide range of secondary content, including press and online media articles as well as publications from other organizations, which provides contextual information for the investigations but are of lesser interest.[570] This categorization ensures that the J&A Unit can focus its efforts on the transient manner of online content that might disappear shortly after its release or that other actors may overlook or fail to document and preserve in a systematic way, as exemplified by Bellingcat.

Chapter IV: Preparation delves into several technical considerations (e.g. encryption, the use of separate user accounts/Hunchly/VPNs, etc.)[571], but also elaborates on the creation of virtual identities on social media platforms and research accounts, why they are necessary (access, ensuring the investigator's personal security and reduction/usage of algorithmic selection) and how to document their usage.[572] Aside from mentioning different means of internal communication and operational security consideration, e.g. "(…) *not* [to] *use personal conversation threads* (…) *to discuss the investigations*", the chapter

[568] Cf. GLAN/BC (2022a): I.
[569] Cf. ibid. II.
[570] Cf. ibid.: III.
[571] Cf. ibid.: IV/paras. 1-3.
[572] Cf. ibid.: IV/paras. 4 and 5.

makes clear that the investigators ”(…) *should never reach out to a source or make any kind of interaction with an account.*”[573]

Chapter V: The **Investigation** chapter encompasses several activities (e.g. using a VPN and Hunchly, logging in/out, creating an investigative folder, etc.) that investigators must adhere to throughout their investigations to maintain replicability, traceability, and safeguard their online identity.[574]

Chapter VI: Discovery/Content Gathering refers to the importance of conducting comprehensive and unbiased investigations by following reasonable lines of inquiry and maintaining a thorough understanding of IHL; the investigators are advised to utilize prepared templates such as the Table of Factual Inquiries and the Incident Assessment Template, as outlined in the J&A Methodology's annexes VI and VIII. Related to this is also the necessity of documenting one’s search activities through various means such as with the Research Notes document[575], via Hunchly, the Uwazi database and Mnemonic. Aside from these technical and procedural considerations, the chapter also emphasizes the significance of identifying the earliest possible online source, preferably the original source, and provides guidance on the handling of pictures, videos, and satellite imagery.[576]

Chapter VII: Verification & Analysis describes the phase of an investigation where geolocation, chronolocation, corroboration and content description is done and documented in the Research Notes and the Incident Assessment Report, which serves as the final products of an incident investigation along with the Uwazi database entry. The chapter elaborates on the need to exercise caution when quantifying casualties, to differentiate between civilians and military personnel, and generally to use a neutral and descriptive language in the reports when presenting ”facts” about an incident.[577] The layout and content of the Incident Assessment Report are further detailed in the J&A Methodology’s annex VIII; the language and style conventions are elaborated upon in annex VII.

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[573] Cf. ibid.: IV/para. 6. The particularities regarding the usage of virtual identities/research accounts is further detailed in the J&A Methodology’s annex II (data protection, privacy and joining closed groups).
[574] Cf. ibid.: V.
[575] The “*Research Notes*“ are a living document compiled by the open source investigator in parallel with the Incident Assessment Report, “(…) *for recording* [the investigator’s] *search terms and generally keeping a log of* [the investigator’s] *activity*”. Cf. ibid.: I/p.8. See also ibid. V/p.12, VI/p. 14, VII/p.16, Annex V/para. 27 and Annex VII/pp. 75 and 80.
[576] Cf. ibid.: VI.
[577] Cf. ibid. VII.

Chapter VIII: Roles and responsibilities – in the published version of the J&A Methodology, only Nick Waters, the lead investigator (also referred to as the lead researcher), is listed among the Bellingcat investigators; the names of the other investigators are withheld[578]. On the legal side, Dearbhla Minogue, Siobhan Allen and Charlotte Andrews-Briscoe, the lead lawyers provided by GLAN, are mentioned, along with the university professors Yvonne McDermott and Ioannis Kalpouzos, ad-hoc consultants specialized in IHL and ICL.[579]

While the main body comprises only about a fifth of the entire J&A Methodology and provides rather a general overview of the main procedures of the J&A Unit's work, the thematic-focused annexes delve into greater detail.

J&A Methodology/Annex I – Bias: The first annex is exemplary of how Bellingcat and GLAN seek to incorporate their practical experience (e.g. from the mock trial) and existing considerations from academic research, in particular from the Berkeley Protocol, into their legal work's layout. The overall aims of this section are raising awareness and providing measures to mitigate different sort of bias in order to collect potential means of evidence "(…) *as impartial and comprehensive as possible so as to be fair to the person against whom the evidence is ultimately used.*"[580] The J&A Methodology concentrates on three types of biases, namely *algorithmic effect*/*technical bias*, *access bias* and *human bias*.

The *algorithmic effect* poses "*a threat to the comprehensiveness of investigations*"[581] by pre-selecting online content primarily suggested to investigators based on internal algorithms of devices, web browsers, search engines, social media platforms they use. Algorithms also take into account one's individual search history, location, language, accounts followed, videos watched, cookies accepted, and other complex combinations of variables that are difficult to comprehend.[582] The J&A Methodology delivers a definition by Yvonne McDermott

[578] Generally, several details and names of the published J&A Methodology are "withheld" (cf. ibid.: p. 11, 16, 19 and 26). The author assumes that this is due to protection of personal data and the organizations' internals.
[579] Cf. ibid.: VIII.
[580] Cf. ibid.: Annex I/para. 1. The consideration of excluding potential pieces of open source evidence from the outset, that is, starting from the side of the defence, conforms the approach pursued by GLAN (cf. footnote 541 and 542).
[581] Cf. GLAN/BC (2022a): Annex I/para. 2.
[582] Cf. ibid.: Annex I/para. 4 and 5.

et al.[583] and considerations of the Berkeley Protocol, which states, among other things, that ”[o]*pen source investigators should counterbalance such biases by applying methodologies to ensure that search results are as diverse as possible*”[584]. While some negative effects of an *algorithmic bias*, such as presenting the investigator ”*results, contents that favors one party to a conflict over another*”[585], can be mitigated, if realized, by using targeted and sophisticated search terms[586], the *algorithmic effect* can also be harnessed in a positive way. For example, if an investigator consciously ”trains” the algorithm to concentrate on usually marginalized content, it will eventually give a higher priority to ”(…) *local content, small blog posts with first hand Examinable Content; partisan material on both sides, showing insider knowledge, message boards, and other material that the average searcher is not looking for.*”[587] This implies that *algorithmic bias* is indeed a double-edged sword that can be harnessed positively if one is aware of its workings.[588] The J&A Methodology reads in this regard that ”(…) *to the extent that Bellingcat's searches could be impacted by bias associated with the factors outlined in the Berkeley Protocol, we take some measures to mitigate, or at the very least to randomise, any technical bias.*”[589] The J&A Unit's approach towards addressing this controversial issue within the context of its J&A work is summarized as follows.

> ”[The J&A M]*ethodology employed by Bellingcat allows investigators to work with the reality of algorithmic selection in a controlled fashion, mitigating any potential biases and benefiting from selective delivery of search results and taking advantage of algorithms to reach niche content.*”[590]

The J&A Methodology elaborates in this context also on its approach of how to handle the use of VPNs and whether or not to delete cookies and browsing data. Both circumstances possess inherent goal conflicts between distinguishing ”positive” from ”negative” biases. They also involve overcoming problems such as accessing certain online content that is blocked in certain countries, maintaining

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[583] ”*Algorithmic bias* [is the] *bias embedded in the design of algorithms and their use, often due to already-biased training data. Algorithmic bias can impact what results users see when they conduct a search, and the order in which results are presented.*” Cf. McDERMOTT et al. (2021): p. 89 referring to GARCIA (2016): p. 111.
[584] Cf. GLAN/BC (2022a): Annex I/para. 3 referring to UN (2022): para. 27/pp. 11.
[585] Cf. GLAN/BC (2022a): Annex I/para. 6.
[586] Cf. ibid.: Annex I/para. 7.
[587] Cf. ibid.: Annex I/para. 8.
[588] Cf. ibid.: Annex I/para. 9.
[589] Cf. ibid.: Annex I/para. 10.
[590] Cf. ibid.: Annex I/para. 11.

the investigator's personal security, and preventing the risk of temporary research accounts being deleted by platforms.[591] Another point where the J&A Methodology deliberately deviates from the Berkeley Protocol is that during its investigations, due to the use of a plug-in (Hunchly) for logging the investigation's online history that is only compatible with Google Chrome, this browser is the only one utilized, rather than the protocol's recommendation of using multiple different ones. This is as an example of how a technical constraint, and the disproportionately larger workload required for overcoming it, was weighed against an already difficult-to-quantify *technical bias*.[592]

Another aspect that open source investigators have to consider during the collection of open source information is *access bias*.[593] This type of bias refers to the unequal access of social media platforms, which can be influenced by various different factors such as internet shutdowns, (Western) sanctions on (Russian) media outlets/platforms, coercion in occupied territories by the occupying forces, and other elements that can result in the suppression and silencing of certain groups' voices. Consequently, this leads to a partisan misrepresentation of available online content related to a specific incident, thereof, and/or even within a wider conflict-affected geographic area. The J&A Methodology acknowledges this challenge and proposes mitigating such biases i.a. through the deliberate use of neutral and diverse search terms, exploration of both "pro-Russian" and "pro-Ukrainian" platforms, and awareness of the limitations imposed by *access bias*.[594]

Eventually, Annex I of the J&A Methodology addresses the category of *human bias* or *cognitive bias*, which it understands as "(…) *a wide variety of inadvertent mental tendencies that can impact perception, memory, reasoning and behaviour*" and is especially delicate because "[c]*ognitive biases cannot be eliminated*". Consequently, investigators may place undue focus on some information while neglecting other information, i.e. such a "(…) *bias can be very harmful in criminal investigations, and can undermine the search for truth*".[595] This type of bias is

[591] For the use of VPNs, cf. ibid.: Annex I/paras. 12-16 and regarding the deletion/handling of cookies and browsing data, cf. ibid. paras. 22-24.
[592] Cf. ibid.: Annex I/para. 17.
[593] While the Berkeley Protocol does not explicitly use the term *access bias*, it does refer to this concept in relation to the "digital landscape assessment", which is part of the chapter on preparation. Cf. UN (2022): V./paras. 111-114.
[594] Cf. GLAN/BC (2022a): Annex I/paras. 26 and 27.
[595] Cf. ibid.: Annex I/para. 28.

particularly considerable due to the frequent accusations, especially by Russian authorities and affiliated media, that Bellingcat is a partisan organisation and has a political agenda against the interests of the Russian Federation.[596] The J&A Methodology acknowledges, that despite the fact that "*Bellingcat is not an official investigatory body,* (…) *the J&A Unit seeks to emulate standards expected of official investigators* (…)"[597]. It continues with a self-reflective statement on its relation with one particular party to the conflict of the current IAC in Ukraine.

> "*Bellingcat's work on Russia to date and Russia's engagement with Bellingcat in retaliation has led to an extremely antagonistic relationship involving public displays of hostility from both sides. Indeed, Bellingcat has been classified by Russia as a 'foreign agent' and an 'Undesirable Organisation'. This antagonistic relationship cannot be erased retrospectively and continues to be played out online today.*"[598]

The J&A Methodology recognizes this fact as a potential argument that the J&A Unit's investigators and thereby the open source evidence they uncovered as un reliable, "(…) *due to Bellingcat's inherent bias against Russia.*"[599] The J&A Methodology addresses this circumstance with the following approach.

> "*In order to mitigate against any real or perceived cognitive bias, Bellingcat takes the following steps:*
> - *Beginning an investigation with no settled hypothesis as to what happened or what party was responsible;*
> - *Actively pursuing all lines of inquiry in the case of every investigated incident, for example by searching for a military justification for each Russian attack;*
> - *Searching all platforms, including pro-Russian social media and groups;*
> - *Performing intensive verification on each piece of content whether it is posted by pro-Ukraine or pro-Russian sources;*
> - *Working through a list of questions in the methodology to ensure that no relevant lines of inquiry are skipped due to bias;*
> - *A separation of 'inducted' investigators, who work on justice and accountability (J&A) investigations, from non-inducted investigators and leadership. The latter category will not work on J&A investigations; and*
> - *Separate review of investigations by the team leader and legal team.*"[600]

The term "'inducted' investigators" refers to how each investigator, prior to working within the J&A Unit, had to undergo an induction process. This process includes undergoing specialized training, such as open source investigation and the J&A Methodology itself, as well as being legally briefed on topics encompassing IHL/ICL, sexual and gender based violence (SGBV), data protection regulations,

[596] Cf. footnotes 383, 384 and 385.
[597] Cf. GLAN/BC (2022a): Annex I/para. 29.
[598] Cf. ibid.: Annex I/para. 29.
[599] Cf. GLAN/BC (2022a): Annex I/para. 30.
[600] Cf. ibid.

and others.[601] Many of these subject areas are addressed in the annexes of the J&A Methodology. However, contrary to statements made by several Bellingcat representatives emphasizing the strict separation between those working for the J&A Unit and others for different organizational domains, such as journalistic projects,[602] the J&A Methodology acknowledges that in the context of addressing the investigators' media behavior, ”(…) *there is overlap between the personnel and the J&A investigators will also work on journalistic content*”[603]. Overall, the J&A Unit examines the different types of biases relatively extensive and deduces corresponding measures to mitigate the negative consequences on their open source based legal inquiries. The significance of this matter, which necessitates consideration throughout different phases of an investigation, is evident through its inclusion in other sections of the J&A Methodology[604] and the Berkeley Protocol[605].

J&A Methodology/Annex II – Data Protection, Privacy and joining Closed Groups: It is crucial to develop and adhere to certain guidelines regarding online users' right to privacy and data protection in general, not only to simply comply with the EU's GDPR[606], but also to not risk inadmissibility of evidence.[607] The J&A Methodology acknowledges that key first-hand information, particularly UGC, often appears inside private or closed online groups and thus provides guidance on how to deal with this matter. Bellingcat, which prefers the term ”closed”, instead of “private” group,[608] defines this category of sources[609] and specifies in this regard that for their project it ”*does not extend to joining Whatsapp or Signal groups as*

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[601] According to WATERS, the preparation phase prior to any investigation encompasses topics related to the open source training briefing, such as weapons systems and effects, basic crater analysis, presentation of information, and safe passive research. The methodology training briefing covers topics such as language, incident template, types of content, and standards of verification. Cf. ibid.: 21:15.
[602] Cf. subchapter B.4.1.2 and footnote 447.
[603] Cf. GLAN/BC (2022a): Annex I/para. 30.
[604] Cf. ibid.: VI/pp. 14, Annex III/para. 4, and V/para. 3, 4, 17 and 20.
[605] Cf. UN (2022): paras. 27, 30, 114, 118, 140, 142(b), 144-146 and 197.
[606] The 2018 implemented General Data Protection Regulation (link: https://eur-lex.europa.eu/eli/reg/2016/679/oj - visited on 27th May 2023) (GDPR) is a European Union regulation that aims to safeguard individuals' privacy and personal data. It establishes rules for collecting, processing, and protecting data, granting individuals greater control over their information. It is referred to in the Berkeley Protocol regarding legal considerations (cf. UN (2022): para. 28/footnote 27), the principle of dad minimization (cf. ibid. para. 31/footnote 29) and the general implications of Regulation 2016/679 to right to privacy and data protection considerations (cf. ibid. para. 62).
[607] Cf. GLAN/BC (2022a): Annex II/paras. 1 and 2. Also the Berkeley Protocol refers to this issue, cf. UN (2022): para. 62/footnote 94 referring to ICC (1998): Art 67(7).
[608] Cf. GLAN/BC (2022a): Annex II/para. 3.
[609] “*This project defines closed groups as groups for which there are any criteria for entry, for example where a request has to be made or where an invitation is required* (…) *and that this process is not automated or simply used to screen for bots.*“ Cf. GLAN/BC (2022a): Annex II/para. 4.

they are not considered open source"[610]. Referring to the wording of the Berkeley Protocol's definition of open source information[611] and taking national as well as supranational requirements into account[612], the J&A Methodology concludes that "*Bellingcat J&A investigators should* (…) *not gain* ***unauthorized*** *entry to closed groups.*"[613]

> "*We will be operating according to the following policy of passive research only:*
> - *No joining of groups through active deception, for example by pretending to be pro-Russian, pro Ukrainian or by otherwise lying about one's identity, affiliations, or objectives;*
> - *No engaging with individuals directly, e.g. through befriending people or exchanging messages."*[614]

However, it is possible to deviate from these operating procedures in exceptional circumstances; the J&A Methodology still concedes certain conditions that are catalogued in a list and need to be assessed on a case-by-case basis, in which joining closed groups is permitted after all (e.g. effective authorisation).[615] In addition, the project maintains an internal list of closed groups that have already been accessed[616] and is in the process of establishing a procedure for handling closed/private groups that are deemed significant for evidentiary reasons but cannot be accessed without deception; this may involve collaborating with official

[610] Cf. ibid.: Annex II/para. 4.
[611] Considering that "[o]*nline closed groups occupy a grey area in respect of the definition of open source information* (…)" as stated in the Berkeley Protocol, particularly to what is understood under concepts like "*publicly available*" and "*authorized access*", the J&A Methodology reasons that some closed groups, e.g. such as those that "(…) *are so large and undiscerning that they effectively have no authorisation requirement of entry",* "(…) *represent open source information*". Cf. ibid.: Annex II/para. 5. See also subchapter B.2.2/Def. I and II.
[612] Aside from referring to the GDPR (cf. footnote 606 and GLAN/BC (2022a): Annex II/para. 7.), the J&A Methodology considers, due to the fact that the lead investigator is based in the UK, the relevant British national laws as well, such as the Computer Misuse Act 1990, Data Protection Act 2018 or the Investigatory Powers Act 2016. In short, these national laws prohibits, among other actions, "*to join closed groups through deception*". Cf. GLAN/BC (2022a): Annex II/para. 6.
[613] Cf. ibid.: Annex II/para. 8.
[614] Cf. ibid.: Annex II/para. 9. The rejection of deception and direct information procurement from individuals is also found in the Berkeley Protocol, demarcating it as a form of social engineering. Cf. UN (2022): para. 63/footnote 96.
[615] Permissible circumstances for joining closed groups include, among others, when the invitation requirement is nothing more than, or similar to, a bot screening measure; when the group lacks clear membership criteria; when joining with a neutral account; when the used account is disclosed as a "Western-based" open source investigator interested in accountability. Another, to the opinion of the author of this thesis rather controversial course of action, involves the employment of a dummy account of an official Bellingcat-associated one, which if getting access granted, is switched subsequently to another alias account – this procedure is by the J&A Methodology not considered as "(…) *gaining 'authorisation' by deception.*" Cf. GLAN/BC (2022a): Annex II/para. 10.
[616] Cf. ibid.: Annex II/para. 11.

authorities to open an official account or facilitating their access through Bellingcat.[617]

J&A Methodology/Annex III – Sexual and gender-based crimes (SGBC) and **J&A Methodology/Annex IV – Crimes against and affecting children** (CAAC): The two chapters respectively provide definitions[618] and an overview to better understand SGBC and CAAC in the realities of armed conflict[619], along with guidelines on how to identify and properly handle digital items that suggest the occurrence of these crimes. The annexes, which are intended to be read in conjunction with each other[620], are part of the J&A Unit's aim of integrating a gender perspective and an intersectional approach into its investigations to ensure that acts of sexual gender-based violence (SGBV) and CAAC are not overlooked due to investigator's potential gender bias.[621] Despite the fact that the Berkeley Protocol brings up topics such as sexual violence and incorporates a gender perspective in open source investigations in multiple chapters[622], the two J&A Methodology's annexes do not explicitly refer to the protocol but rather to a range of academic literature and legal documents of ICL, IHL and IHRL[623]. The J&A Methodology acknowledges that the J&A Unit is neither particularly equipped and specialized, nor are open source investigations sufficient alone for investigating cases of SGBC/CAAC comprehensively[624]. Due to this, the J&A Methodology identified that raising the investigators' awareness and sharpening their focus is imperative, not only to avoid overlooking certain indices that may point towards the occurrence of such crimes[625] but also to ensure respect and dignity for the victims as much as possible. Regarding the latter, the J&A Unit employs a "do no harm"

[617] Cf. ibid.: Annex II/para. 12.
[618] The definitions, based on professional literature, encompasses the terms and concepts of gender, gender-based violence, sexual violence, gender-based crimes, sexual crimes, gender perspective, gender analysis and intersectional approach (cf. ibid.: Annex III/para. 1), as well as CAAC (cf. ibid. Annex IV/para. 1).
[619] Cf. ibid.: Annex III/paras. 2-7. The J&A Methodology reasons that *"(…) due to the nature of the conflict, it is highly likely that there will be incidents of SGBV* [sexual and gender-based violence] *encountered in the material reviewed during online open source investigations* (…)" and that "[a]*s such, a system for approaching these crimes separately and in a manner that provides dignity for the victim must be established.*" Cf. ibid. para. 3. See also GLAN/BC (2022b): 28:30.
[620] Cf. GLAN/BC (2022a): Annex IV/para. 1.
[621] Cf. ibid.: Annex III/para. 4 referring to KOENIG/EGAN (2021): pp. 62 and pp. 67.
[622] E.g. UN (2022): paras. 27,112-115, 119, 144, 146, and others.
[623] Cf. GLAN/BC (2022a): Annex III and IV/footnotes referring to ICC OTP (2014 and 2016), UN/OHCHR (2014), WIGJ et al. (2019), ICC (1998), and other sources.
[624] Cf. GLAN/BC (2022a): Annex III/para. 3 and 8. See also GLAN/BC (2022b): 28:30.
[625] Cf. GLAN/BC (2022a): Annex IV/para. 4/b and Annex III/para. 11 referring to WIGJ et al. (2019).

approach by taking ethical considerations and the sensitivities surrounding SGBC and CAAC into account,[626] and has developed a procedure for red-flagging these crimes. These red flag indications are designed, on one hand, to facilitate the work of future international/prosecutorial bodies to follow up on leads or deliver supplementary information of known cases by searching and filtering in the Uwazi database and additional tagging systems[627]; on the other hand, they aim to respect and protect the identity of potential victims and alleged perpetrators by restricting access to the database on a need-to-know basis where deemed necessary.[628] While OAVC is relatively straightforward for an investigator and later for a prosecutor to identify as such, provided SGBV is visible, the J&A Methodology asserts that this particular crime is not necessarily exclusively of a physical nature.[629] Similar to the following annex V (legal briefing), which discusses the different categories of atrocity crimes, the annexes on SGBC and CAAC provide lists of examples where and under which circumstances such incidents may occur[630], identify hints that may indicate their presence[631], and enumerate the categories based on legal documents[632].

J&A Methodology/Annex V – Legal briefing: Although investigators are instructed to refrain from legal assessments or moral commentaries in their reports[633], it is nonetheless crucial for their lines of inquiry to fully understand categories such as war crimes and crimes against humanity in the context of ICL, as well as to be aware about the specifics and the pertinent legal questions to address in a particular investigation. The briefing compiled by GLAN, which every investigator must receive before working in the J&A Unit[634], addresses, among other characteristics of IHL and IHRL, the three cardinal principles of distinction[635], proportionality[636] and precaution[637]; humane treatment of civilians and hors de

[626] Cf. GLAN/BC (2022a): Annex IV/para. 1 and Annex III/para. 3 referring to KOENIG/EGAN (2021): pp. 60 and UNPF (2020): p. 14.
[627] Cf. GLAN/BC (2022a): Annex III/para. 10 and 13 and Annex IV/para. 4.
[628] Cf. ibid.: Annex III/para. 6 and 7.
[629] Cf. GLAN/BC (2022a): Annex III/para. 12(c and d) referring to KOENIG/EGAN (2021): pp. 66 and WIGJ et al. (2019): part 2/p. 14.
[630] Cf. GLAN/BC (2022a): Annex III/para. 14 and Annex IV/para. 4(b).
[631] Cf. ibid.: Annex III/para. 11.
[632] Cf. ibid.: Annex III/para. 12 and Annex IV/paras. 2 and 3.
[633] Cf. ibid.: Annex V/para. 25 and GLAN/BC (2022b): 47:45.
[634] Cf. GLAN/BC (2022a): p.7.
[635] Cf. ibid.: Annex V/paras. 34-36 and 40 and subchapter B.1.3/footnote 97.
[636] Cf. GLAN/BC (2022a): Annex V/para. 37 and subchapter B.1.3/footnote 80.
[637] Cf. GLAN/BC (2022a): Annex V/paras. 37-39 and 46 and subchapter B.1.3/footnote 81.

combat[638]; the protection of civilians in general and those under a party to the conflict's control[639]; the prohibition on specific methods and weapons in warfare[640]; and other related subjects. References are made to explain the essentials of war crimes[641], crimes against humanity[642], and genocide[643]. This is important because understanding legal terms such as "grave breaches" and "serious violations"[644], "widespread" and "systematic attack"[645], as well as concepts such as the "mental element"[646] or "command responsibility"[647], is necessary for investigators to assess and interpret the evidential value of each digital item to conduct a more targeted open source investigation. Similar to this thesis' introduction on the characteristics of IHL/IHRL and ICL in subchapter B.1.3, the J&A Methodology's annex on the legal briefing aims to provide the open source investigators with a more in-depth understanding of this legal domain in order to "(…) *seek out information relevant whether violations of international law are taking place in Ukraine*"[648]. Supplementary to the section that addresses the material elements of a respective crime in question, the legal briefing also delves into the rules of evidence[649], i.e. it considers a defendant's opportunities to challenge the admissibility of potential open source evidence.[650] Furthermore, the legal briefing

[638] Cf. GLAN/BC (2022a): Annex V/paras. 40, 43 and 44 and subchapter B.1.3.
[639] Cf. ibid.: Annex V/para. 48 and subchapter B.1.3.
[640] Cf. ibid.: Annex V/paras. 45-47, subchapter B.1.3 and footnotes 26 and 77.
[641] Cf. GLAN/BC (2022a): Annex V/paras. 50 and 51, subchapter B.1.3/footnotes 93, 95, 97 and 98 and Def. VI/footnote 179.
[642] Cf. GLAN/BC (2022a): Annex V/para. 52, subchapter B.1.3/footnotes 99, 100 and 102 and Def. VII/footnote 189.
[643] Cf. GLAN/BC (2022a): Annex V/paras. 57-59 and subchapter B.1.3.
[644] Cf. ibid.: Annex V/para. 50 subchapter B.1.3 and footnotes 93, 94, 97 and 98.
[645] Cf. GLAN/BC (2022a): Annex V/paras. 53 and 54 and subchapter B.1.3.
[646] The J&A Methodology understands under the *mental element* the state of mind or intention of the perpetrator when committing or ordering an act that qualifies as an atrocity crime. This requires the person to have acted with intent and knowledge, purposefully carrying out the relevant conduct and actively intending or knowing that certain consequences would occur. Cf. GLAN/BC (2022a): Annex V/paras. 60-65. See also subchapter B.1.3 and footnotes 80, 84, 98 and 103.
[647] Cf. GLAN/BC (2022a): Annex V/paras. 66 and 67, subchapter B.1.3 and footnotes 55 and 200.
[648] Cf. GLAN/BC (2022a): Annex V/para. 29.
[649] Cf. ibid.: Annex V/paras. 1-13.
[650] In a future court proceeding, Bellingcat's J&A Unit investigators may be summoned as witnesses to provide testimony on how potential pieces submitted as open source evidence was obtained, processed and stored, as well as providing information regarding its impartiality, authenticity, and reliability. This may include, among other considerations, questioning the methods of discovering and processing a digital item (e.g. for bias), ensuring it has not been tampered or manipulated prior or after its collection and determining if the online material accurately represent the situation it claims (authentication) or if presents only a partial picture. Cf. GLAN/BC (2022a): Annex V/paras. 1-5. While the exclusionary rules (e.g. refusing evidence having an "*unacceptably adverse effect on the fairness of the proceedings*") are similar at the level of the ICC (cf. ibid. para. 10 and 13), the admissibility threshold is lower; the J&A Methodology notes that "[m]*uch the same analysis of authenticity and reliability will be involved, but in a slightly different procedural order*" (cf. ibid. para. 9). The Berkeley Protocol comes to similar conclusions

elaborates on a two-tier admissibility assessment, which is considered both in the context of a national court and the ICC[651], the requirement to investigate incident attribution in all possible directions (e.g. actively seeking exculpatory evidence)[652], the retention of all relevant content for disclosure purposes[653], and considerations regarding the recording[654], preservation[655], and presentation[656] of potential open source evidence.

Comparing the Berkeley Protocol's chapter II – Legal Framework, with the J&A Methodology's annex V – Legal Briefing, it becomes apparent that while they generally describe essentially the same subject matter, they emphasize different aspects. Both publications touch upon topics such as the rules of evidence and procedure, disclosure obligations, and others, in a relatively similar manner; however, the Berkeley Protocol places greater emphasis on the general classification within public international law and explains different jurisdictions; in contrast, the J&A Methodology provides a more detailed introduction to the three categories of atrocity crimes. Furthermore, certain topics that are included in the legal chapter of the Berkeley Protocol are addressed in the J&A Methodology with its own dedicated chapter, and vice versa.[657] Although both publications are about digital/online open source investigation in the context of IHL/IHRL and ICL, they are structured differently and emphasize different aspects. This corresponds to the

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regarding admissibility rules (relevance, reliability and probative value) and procedures. Cf. UN (2022): paras. 55-58.

[651] The two-stage admissibility assessment, mentioned in the J&A Methodology and based on common court practice in England and Wales, determines first the evidence's relevance based on its logical probative or disapprobative nature, and then considers whether any exclusionary rules apply. Cf. GLAN/BC (2022a): Annex V/paras. 6, 7, 10 and 11.

[652] In line with the abovementioned principles of impartiality and an unbiased investigation, the investigator has to pursue all reasonable lines of enquiry, including those that may provide evidence explaining or suggesting alternative attribution, i.e. ensuring fairness and considering exculpatory evidence irrespective of the party to the conflict concerned. Cf. GLAN/BC (2022a): Annex V/paras. 14-16.

[653] Through the use of Hunchly, which documents throughout an investigation the investigator's online activity, and Google Docs, which retains information about each change of draft documents, Bellingcat fulfils the requirement to disclose, on demand, all relevant background information during the course of an investigation that may assist the defence if doubts about the admissibility of evidence or the reliability and credibility of a witness are raised. Cf. GLAN/BC (2022a): Annex V/paras. 19-22. Also the Berkeley Protocol mentions that "[o]*pen source investigators working on any case with even the slightest chance of it ending up in court should take these disclosure obligations into consideration when conducting their work.*" Cf. UN (2022): para. 54/footnote 77.

[654] Cf. GLAN/BC (2022a): Annex V/para. 17 (Mnemonic).

[655] Cf. ibid.: Annex V/paras. 23 and 24.

[656] Cf. ibid.: Annex V/paras. 25-27. More details about reporting and applying neutral language, see J&A Methodology/Annex VII – Style guide and naming conventions.

[657] An example is the Berkeley Protocol's subchapter regarding right to privacy and data protection (cf. UN (2022): III./E), which the J&A Methodology discusses in an own annex (cf. GLAN/BC (2022a): Annex II).

Berkeley Protocol's observation that "(…) *organizations, including NGOs, often have their own internal methodologies that require them to focus on a particular area of law*"[658] and Bellingcat's manifold statements, that its J&A work and methodology is informed by the Berkeley Protocol[659]. The difference in structure and focus between the Berkeley Protocol and the J&A Methodology therefore comes as no big surprise. Whereas the Berkeley Protocol serves as a rather generic guide encompassing not only legal but also academic perspectives, with the aim of reaching a broad target audience[660], the J&A Methodology is specially designed to address predefined categories of incidents within a particular armed conflict, tailored explicitly for the open source investigators of Bellingcat's J&A Unit. This distinction is particularly evident in the following three annexes of the J&A Methodology. Although they may appear similar on the first glance in their checklist-style to those of the Berkeley Protocol, they are deliberately compiled to align the legal requirements of future accountability mechanisms with the investigative needs of Bellingcat's J&A work on the IAC in Ukraine.

J&A Methodology/Annex VI – Factual inquiries and their relationship to the elements of crimes: The Table of Factual Inquiries, which is based on the legal briefing's introduction on the fundamentals of IHL and IHRL[661], serves as a practical checklist for collecting facts. It highlights the points that, depending on the nature of the incident[662], cover the elements of crimes of war crimes, crimes against humanity, and genocide, in order to ensure the investigators do not lose track of the essential questions they need to address throughout the course of their investigations.

J&A Methodology/Annex VII – Style guide and naming conventions: This annex provides the J&A Unit investigators with semantic and terminological

[658] Cf. UN (2022): para. 40/footnote 40.
[659] Cf. footnote 560.
[660] Cf. UN (2022): paras. 11 and 12.
[661] Cf. GLAN/BC (2022a): Annex V/paras. 15, 51, 56, 58, and 68 and GLAN/BC (2022b): 35:00.
[662] Aside from the general questions that need to be answered in each incident (where and when was the incident, and who and what was present?), the list of factual inquiries provides a detailed breakdown of issues to address when an incident involves acts such as "*killing*", "*injury, serious harm*", "*rape and other sexual assault or sexual and gender-based violence (SGBV)*", "*property damage*, "*explosions/aerial attacks*", "*property appropriation*", "*creation of conditions leading to death or serious harm*", "*use of particular weapons*", and "*incidents which appear to have a lot in common or take place on a repeated basis or wider scale*". Cf. GLAN/BC (2022a): Annex VI. The list of factual inquiry also includes a column indicating the relevance of each question to IHL/IHRL/ICL or the course of the investigation in general, as well as a comments column to describe the content of the rows where necessary in more detail. Cf. Appendix EE.

guidelines in order to enter findings uniformly, particularly their incident assessment reports, which should be neutral, precise, objective and accurate. These formal demands are imperative to enhance the reports' future utilization by legal prosecutors. It encompasses standards on various aspects, including capturing information such as date, time and coordinates, addressing casualties, incorporating images, satellite imagery and graphic representations, utilizing footnotes, referencing to offline content or earlier sources, and accurately citing all relevant sources.[663]

J&A Methodology/Annex VIII – Incident assessment template and **J&A Methodology/Annex IX – Uwazi fields:** While the Uwazi database is a highly standardized set of open source investigations intended to be utilized by justice and accountability mechanisms to search and acquire open source evidence for specific incidents or patterns of incidents[664], the Incident Assessment Report is a living document that summarizes a particular incident or set of incidents in a neutral and more descriptive manner, including the investigator's verification and analysis work, based on open source research methods and techniques.[665] The compilation of the Incident Assessment Report, informed by the Table of Factual Inquiries[666] and the style guide and naming conventions[667], is incorporated into the Uwazi database along with the investigator's Research Notes[668], as well as the Hunchly background data files[669] and Mnemonic's long-term preservations of the original digital items[670].

Summarizing the findings of this subchapter thus far, it can be concluded that the J&A Methodology encompasses not only the organizational structure of Bellingcat's J&A work but also the standard operating procedures employed by the J&A Unit and its investigators. These procedures range from the acquisition of

[663] Cf. GLAN/BC (2022a): Annex VII. On the same token, the Berkeley Protocol demands that "(…) *reports should use neutral language and avoid emotive or emotional language. They should state facts clearly without overusing adjectives or emphasis.*" Cf. UN (2022): para. 208(e), and furthermore in para. 30 and chapter VII.
[664] Cf. subchapter B.4.1.4, footnotes 519, 525, 527, 528, 530, 531, 532 and 622, and Appendix CC.
[665] Cf. GLAN/BC (2022a): I/p. 8, VI/p. 13 and VII/p. 16.
[666] Cf. ibid.: VI/p. 13. The J&A Methodology's annex on the Table of Factual Inquiries (cf. ibid. Annex VI) is, in turn, based on, respectively read in connection with, the annex on the Legal Briefing. Cf. ibid. Annex V/paras. 15, 51, 56, 58, and 68.
[667] Cf. ibid.: Annex VII/p.75.
[668] Cf. footnote 575.
[669] Cf. footnote 545.
[670] Cf. subchapter B.4.1.4 and footnotes 358, 453, 539, 545 and 567.

incidents (from the Civharm Sheet) and conducting the open source investigations themselves, to reporting the results and documenting the entire process, as may be necessary for later legal accountability purposes.
Alongside establishing and formalizing the foundational framework for the whole project itself, it also enables other interested actors to comprehend and reconstruct this very process. Upon comparing this analysis of the J&A Methodology with the insights from the subchapter on the Berkeley Protocol (cf. B.2.3), the author of this thesis concludes that these two publications are neither mutually exclusive, nor is Bellingcat's and GLAN's one a mere continuation or elaboration of the Berkeley Protocol. Instead, the two manuals complement each other. Nevertheless, it is obvious that the work processes of the J&A Unit has been strongly influenced by the insights and recommendations of the Berkeley Protocol.

Before discussing the significance of this conclusion in regard of the research question, it is important to note that within the review period of this thesis, the author could neither find proper information, nor gain access to data concerning the extent to which the work or outcomes of Bellingcat's J&A Unit have contributed to the attribution and/or prosecution of war crimes or crimes against humanity in specific court proceedings. This may be due to the lengthy processes involved in international criminal accountability, which often commence long after an actual incident has occurred, and the fact that the IAC between Ukraine and the Russian Federation is still ongoing. The author considers this temporal delay as another argument in favor of the importance of Bellingcat's and GLAN's endeavors. However, the open source investigative collective had conducted and published investigations into the armed conflict in Ukraine prior to its escalation on 24th February 2022, with findings that have indeed been incorporated into international court rulings. One such example is the decision at the European Court of Human Rights (ECtHR) on the Case of Ukraine and the Netherlands v. Russia (Applications nos. 8019/16, 43800/14 and 28525/20[671]). This verdict is particularly noteworthy for several reasons. Not only is Bellingcat mentioned 31 times in the

671 Case of Ukraine and the Netherlands v. Russia (link: https://hudoc.echr.coe.int/eng#{%22itemid%22:[%22001-222889%22]} - visited on 14th February 2024) (Applications nos. 8019/16, 43800/14 and 28525/20 (link: https://hudoc.echr.coe.int/eng#{%22appno%22:[%228019/16%22]} - visited on 14th February 2024)

court's decision, alongside other national and international investigation bodies, (I)NGOs, etc., but also, several accusations by Russia's representative – "the respondent Government" – aimed at undermining open source evidence to be admitted in the case, for instance, by objecting to "(…) *dubious digital material and reports from "so-called" citizen journalists, such as Bellingcat* (…)"[672], were not granted. The Bellingcat article from 28th March 2023, titled "How Open Source Evidence was Upheld in a Human Rights Court"[673], deals with some of those accusations and debunks certain allegations, including by relying on some digital items that had been archived during another investigation[674]. This example reaffirms that the proper preservation of digital items is crucial in the course of an open source investigation and highlights the significance when such a report becomes part of a court's legal proceedings.[675] Ultimately, the ECtHR has attributed independent open source researchers and their findings a significant role in its adjudication. They based and corroborated some of their reasoning alongside conventional investigations, also with open source information provided by entities such as Bellingcat and others. This is further evident in the following statement.

> "*The respondent Government have advanced some general criticisms as to the OM* [Public Prosecution Service of the Netherlands] *and* JIT [Joint Investigation Team] *evidence* (…). *The Court does not accept the validity of these criticisms.* (…) *First, there is no evidence that the JIT has relied upon outside bodies, including Bellingcat, in its analysis of the material and the preparation of the criminal case-file. Rather, it is absolutely clear from the submissions that the JIT has conducted its own analysis in respect of all the evidence in the criminal case-file, including issues discussed in Bellingcat reports and the matters covered by the DSB* [Dutch Safety Board] *report. There is no basis whatsoever for suggesting that the OM and JIT material has not been independently gathered and authenticated. The fact that their conclusions are consistent with those of the DSB and Bellingcat merely demonstrates that there is corroboration of the conclusions reached and serves to further enhance the credibility and reliability of the findings.*"[676]

This paragraph from the ECtHR's decision emphasizes the potential role a Bellingcat report can have; even though the article in question was not originally intended to deliver linkage evidence but rather serve as a guide to exemplify the process of geolocation, with the example of a Russian soldier posting a selfie on social media[677]. The fact that Bellingcat's investigations as well as its guides do

[672] Cf. ECtHR (2022b): para. 408.
[673] Cf. BC/HIGGINS (2023).
[674] CF BC/TOLER (2015e).
[675] Cf. BC/HIGGINS (2023): para. "Checking the Archives".
[676] Cf. ECtHR (2022b): paras. 463 and 464.
[677] CF BC/TOLER (2015e).

have an impact on justice and accountability leads to the next subject of this thesis. In other words, before addressing how Bellingcat's formalized J&A work contributes to answering the research question, it is necessary to also take into account the rather journalistic aspect of the open source investigative collective's work.

B.4.2. Bellingcat's Published Investigations regarding the Escalation of the IAC in Ukraine

In the period from 24th February 2022 to 24th February 2023, Bellingcat published, aside from the four above-mentioned articles regarding its J&A work[678], a total of 15 investigations (or reports) on its website concerning the escalation of the IAC in Ukraine. Given the focus of this thesis – incidents that may qualify as war crimes or crimes against humanity – the analysis of these investigations is divided into two sub-categories. The first category encompasses investigations that specifically pertain to core international crimes (see subchapter B.4.2.1), the second comprises investigations that, even though not directly centering on atrocity crimes, provide contextual information on the IAC in Ukraine (see subchapter B.4.2.2).

B.4.2.1. Investigations pointing towards potential Atrocity Crimes

While analyzing the relevant investigations published during the first year of the escalation of the IAC in Ukraine, four key subgroups were identified. In addressing the research question this thesis has distinguished between incident documentation[679], attribution of such where the narratives of the parties to the conflict differ[680], and attribution of individuals for future criminal prosecution of atrocity crimes[681]. Although this grouping can be done differently, it appears reasonable for introducing the reader to the various subjects of Bellingcat's investigations and for outlining the nature and potential of open source investigations within this particular legal domain.

[678] Cf. also subchapter B.4.1.
[679] Cf. B.4.2.1.1 Use of Cluster Munitions in Densely Populated Areas, and B.4.2.1.2 Attacks on Cultural Heritage and Water Infrastructure.
[680] Cf. B.4.2.1.3 Incident Investigations – "Facts" versus the Evidence.
[681] Cf. B.4.2.1.4 Tracing the Individual for Accountability.

B.4.2.1.1. Use of Cluster Munitions in Densely Populated Areas

Bellingcat's first two investigations following Russia's full-scale invasion are dedicated to the nature and the use of cluster munitions in residential areas. The publications from 27th February 2022, titled "Invasion of Ukraine: Tracking use of Cluster Munitions in Civilian Areas[682]" and from 11th March 2022, titled "These are the Cluster Munitions Documented by Ukrainian Civilians[683]", explained this particular type of munition[684], why its employment is so highly problematic in the light of IHL[685], and who used these weapons before and during the ongoing armed conflict[686]. The two investigations differ in their thematic orientation; while the first addresses two specific incidents and describes how to ascertain the ammunition's trajectory with open source information, the second one places a stronger technical emphasis on the differentiation, identification, and attribution of these weapon systems.

Kharkiv City: With a video shared on Twitter/X[687] that spectacularly depicts the effects of cluster munition detonations, Bellingcat acknowledges that while "(…) *it's not possible to identify the direction of origin of this particular attack, it is possible to do so for other strikes which also hit Kharkiv*"[688]. The report proceeds to provide a step-by-step explanation, using open source information on another incident in Kharkiv, demonstrating how to determine the general direction of a rocket

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682 Invasion of Ukraine: Tracking use of Cluster Munitions in Civilian Areas (link: https://www.bellingcat.com/news/2022/02/27/ukraine-conflict-tracking-use-of-cluster-munitions-in-civilian-areas/ - visited on 9th June 2023)

683 These are the Cluster Munitions Documented by Ukrainian Civilians (link: https://www.bellingcat.com/news/rest-of-world/2022/03/11/these-are-the-cluster-munitions-documented-by-ukrainian-civilians/ - visited on 9th June 2023)

684 "*Cluster munitions* (link: https://disarmament.unoda.org/convention-on-cluster-munitions/ - visited on 10th June 2023) *are a type of weapon that deploys a large number of smaller sub-munitions over a target. These sub-munitions then spread and explode over a larger area, increasing the potential for damage and casualties.*" Cf. BC (2022a and 2022p). See also NEWSY/BC (2022b): 01:14 or footnote 291.

685 "*Due to the wide harm they can cause, cluster munitions are widely criticised as weapons that pose "an immediate threat to civilians during conflict"* (link: https://www.hrw.org/topic/arms/cluster-munitions - visited on 10th June 2023) *and for the "long-lasting"* (link: https://www.icrc.org/en/war-and-law/weapons/cluster-munitions - visited on 10th June 2023) *problems they can cause if sub-munitions do not explode upon first impact.*" Cf. BC (2022a and 2022p). See also footnote 291.

686 Despite the Convention on Cluster Munitions (link: https://www.clusterconvention.org/) being signed by over 100 countries, both Russia and Ukraine (with Ukraine initially denying its use despite a Human Rights Watch report (link: https://www.hrw.org/news/2015/03/19/ukraine-more-civilians-killed-cluster-munition-attacks)) have not banned or signed up to the agreement. Russia continues to use them in armed conflicts, such as in eastern Ukraine (link: http://www.stopclustermunitions.org/en-gb/cluster-bombs/use-of-cluster-bombs/a-timeline-of-cluster-bomb-use.aspx) in 2014 and later in Syria (link: https://www.hrw.org/news/2016/07/28/russia/syria-widespread-new-cluster-munition-use – all links of this footnote visited on 10th June 2023). Cf. BC (2022a and 2022p) and NEWSY/BC (2022b): 01:50.

687 video shared on Twitter/X (link: https://twitter.com/bichikota/status/1497264881183059970?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1497309993804222473%7Ctwgr%5Ec1b2661a54a8f3c6f16522013acd12798b6a43c8%7Ctwcon%5Es3_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2022%2F02%2F27%2Fukraine-conflict-tracking-use-of-cluster-munitions-in-civilian-areas%2F - visited on 10th June 2023)

688 Cf. BC (2022p).

launched from a BM-30[689] by geolocating and drawing a line connecting the impact sites of the cargo warhead (which contains the submunitions released mid-air), the rocket motor (which separates from the cargo warhead before the submunitions are released), and the remnants of exploded/unexploded submunitions and their detonations[690]. The report asserts, although not providing any open source information to prove its claim, that it "(…) *repeated this process for seven cargo warheads or rocket motors documented in open sources in Kharkiv and have identified that they appear to be coming from a north-north-easterly direction. In short, from the direction of the Russian border.*"[691]

Okhtyrka Kindergarten (Sumy Region): As open source information shows, on 25th February 2022, a kindergarten in Okhtyrka was struck by cluster munitions, resulting in multiple casualties, including children. Although Bellingcat could establish the approximate trajectory (north-west-west direction), identify the launching weapon (BM-27[692]) and the type of ammunition (9M27K unguided rocket) using the aforementioned method[693], it was unable to determine "(…) *with absolute certainty who fired this missile*"[694]. As of 21st June 2023, there are entries on Bellingcat's Civharm TimeMap that refer to geolocated and chronolocated open source information for both incidents that occurred on 25th February 2022 in Kharkiv (CIV0018 and CIV0019) and in Okhtyrka (CIV0024).[695] Alongside considerations regarding the principles of distinction and proportionality – "*open source evidence from Ukraine appears to suggest that the cluster munitions highlighted in this article are not being carefully targeted*" – the report concludes by

689 A BM-30 (link: https://www.armyrecognition.com/russia_russian_army_vehicles_system_artillery_uk/bm-30_smerch_9k58_300mm_multiple_rocket_launcher_system_technical_data_sheet_information_description.html and https://twitter.com/karinanguyen_/status/1497157361307316224 - visited on 9th June 2023), also known as Smerch (engl. tornado), is a multiple launch rocket system (MLRS), used by both the Russian Federation and Ukraine, that is able to launch 9M55K 300 mm rockets (link: https://en.missilery.info/missile/smerch/9m55k - visited on 9th June 2023) which contains an inert filling of fragmentation submunitions (cluster munition).

690 Cf. BC (2022p). For a visual explanation, cf. NEWSY/BC (2022b): 02:44.

691 Cf. BC (2022p).

692 A BM-27 (link: http://www.military-today.com/artillery/bm27_uragan.htm - visited on 9th June 2023), also known as Uragan (engl. Hurricane), is a MLRS, used by both the Russian Federation and Ukraine, that is able to launch 9M27K 220 mm unguided rockets (link: https://en.missilery.info/missile/uraga/9m27k - visited on 9th June 2023) which contains an inert filling of fragmentation submunitions.

693 Cf. footnote 690.

694 Cf. BC (2022p).

695 CIV0018 (link: https://ukraine.bellingcat.com/?range=2022-02-24&range=2022-02-25&id=CIV0018), CIV0019 (link: https://ukraine.bellingcat.com/?range=2022-02-24&range=2022-02-25&id=CIV0019) and CIV0024 (link: https://ukraine.bellingcat.com/?range=2022-02-24&range=2022-02-27&id=CIV0024 – all links of this footnote visited on 21st June 2023)

requesting its readership to share any sources indicating the presence of cluster munitions by replying to Bellingcat's Twitter/X thread.[696]

While the investigation published on 27th February 2022 focused more on the process of determining the approximate direction from which a rocket carrying cluster munitions was launched, the investigation from 11th March 2022 elaborates in more detail on the specific types of bombs, rockets and missiles[697] known to be used in the ongoing IAC in Ukraine, which, "(…) *in some cases, help provide clues as to who is using them*".[698]

RBK-500 Unguided Cluster Bomb[699] with **PTAB-1M Submunitions**[700]: As of 11th March 2022, Bellingcat documented at least one incident involving remnants of this type of aircraft-dropped cluster bomb and several of its high-explosive anti-tank submunitions, through a video[701] filmed in Zatoka[702] (Odesa Region)[703].

9M54 Series Missile[704] with **3B30**[705] **HEAT-FRAG (DPICM) Submunitions**[706]**:** As of 11th March 2022, Bellingcat documented the remnants of a surface-to-surface 9M54-series guided missile[707] in Pokrovsk (Donetsk Region) and of 3B30

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[696] Cf. ibid. This request is also repeated in the subsequent investigation by Bellingcat. Cf. BC/HIGGINS (2022a). Twitter/X thread(link: https://twitter.com/bellingcat/status/1497523559647920130?s=20&t=s-FJ_t4xoaQlaQxN1SwROw - visited on 9th June 2023)

[697] While "bombs" are typically dropped from aircrafts and rely on gravity for their trajectory, rockets are self-propelled, using on-board propulsion systems for flight. Missiles are a subcategory of rockets with the characteristic that they are guided projectiles which have built-in guidance systems for precision targeting.

[698] Cf. BC/HIGGINS (2022a).

[699] RBK-500 Unguided Cluster Bomb(link: https://cat-uxo.com/explosive-hazards/aircraft-bombs/rbk-500-ptab-1m-aircraft-cluster-bomb - visited on 12th June 2023)

[700] PTAB-1M Submunitions(link: https://cat-uxo.com/explosive-hazards/submunitions/ptab-1m-submunition - visited on 12th June 2023)

[701] video(link: https://www.youtube.com/watch?v=NNAN7S1pqV4 - visited on 12th June 2023)

[702] Zatoka(link: https://www.google.com/maps/place/%D0%91%D0%B5%D0%BB%D1%8B%D0%B9+%D0%B4%D0%BE%D0%BC/@45.6452576,29.6760071,9.46z/data=!4m14!1m7!3m6!1s0x40c7ebe3d20d38a1:0xfa3e3a26c46a6d4f!2z0JHQtdC70YvQuSDQtNC-0Lw!8m2!3d46.0635136!4d30.4496047!16s%2Fg%2F11jx5pqvr0!3m5!1s0x40c7ebe3d20d38a1:0xfa3e3a26c46a6d4f!8m2!3d46.0635136!4d30.4496047!16s%2Fg%2F11jx5pqvr0?entry=ttu - visited on 12th June 2023)

[703] Cf. ibid. This particular incident can also be found on Bellingcat's Civharm TimeMap under CIV0199(link: https://ukraine.bellingcat.com/?range=2021-12-10&range=2023-06-21&id=CIV0199 - visited on 21st June 2023).

[704] 9M54 Series Missile(link: https://armamentresearch.com/russian-9m54-series-cargo-missile-documented-in-ukraine-2022?utm_source=rss&utm_medium=rss&utm_campaign=russian-9m54-series-cargo-missile-documented-in-ukraine-2022 - visited on 12th June 2023)

[705] 3B30(link: https://www.youtube.com/watch?v=jB9xYG-VQrU - visited on 12th June 2023)

[706] A HEAT-FRAG submunition is a type of explosive munition that combines a high-explosive anti-tank (HEAT) warhead with fragmentation elements (FRAG). It is a type of dual-purpose (shaped charges for anti-armour and antipersonnel) improved conventional munition (DPICM) designed to burst into submunitions at a predefined altitude and distance from the target, providing a dense area of coverage. Cf. JENZEN-JONES/RANDALL (2022).

[707] surface-to-surface 9M54-series guided missile(link: https://twitter.com/Osinttechnical/status/1499737030074458114?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1499737030074458114%7Ctwgr%5Edffa521eed894809b24b0d2445b771a7124cec6a%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2Frest-of-world%2F2022%2F03%2F11%2Fthese-are-the-cluster-munitions-documented-by-ukrainian-civilians%2F and https://twitter.com/EliotHiggins/status/1501516599605575681?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1501516599605575681%7Ctwgr%

submunitions[708] in Chornomors'ke (Kherson Region). Bellingcat accentuates that the 9M54 series are guided missiles, providing a relatively high precision of seven to 15 metres, in contrast to the unguided 9M55 rockets, with an accuracy of 150 meters. The report notes that the 9M54 guided missiles are exclusively used by the Russian Armed Forces.[709]

Smerch 9M55K[710] and **Uragan 9M27K**[711] **Cluster Rockets with 9N210**[712] **or 9N235**[713] **Submunitions:** Since unguided rockets fired from BM-30 and BM-27[714] were, by that time, the most commonly documented types of cluster munition launchers used by both Ukraine and Russia[715], Bellingcat focuses on open source information about the munitions' specifics. This includes knowledge that can later aid in attributing an attack to a particular party to the conflict, such as the fact that submunitions of the types 9N210 and 9N235, manufactured after 2019, have not been exported to Ukraine and thus could only be used in this armed conflict by the Russian Armed Forces and affiliated armed groups.[716]

9M79-series Tochka Ballistic Missile[717] with a **9N123 Cluster Munition Warhead:** Aside from the above-mentioned incidents depicting shorter-range rockets and missiles, Bellingcat also refers in its investigation to a Human Rights Watch report, which depicts remnants of a longer-range Tochka ballistic missile from the 9M79 series with a 9N123 cluster munition warhead that struck an area in

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5Edffa521eed894809b24b0d2445b771a7124cec6a%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2Frest-of-world%2F2022%2F03%2F11%2Fthese-are-the-cluster-munitions-documented-by-ukrainian-civilians%2F - visited on 12th June 2023)

708 3B30 submunitions (link: https://www.youtube.com/watch?v=jB9xYG-VQrU - visited on 12th June 2023)

709 Cf. BC/HIGGINS (2022a) and NEWSY/BC (2022b): 04:00.

710 Smerch 9M55K (link: https://en.missilery.info/missile/smerch/9m55k - visited on 12th June 2023)

711 Uragan 9M27K (link: https://en.missilery.info/missile/uraga/9m27k - visited on 12th June 2023)

712 9N210 (link: https://cat-uxo.com/explosive-hazards/submunitions/9n210-submunition - visited on 12th June 2023)

713 9N235 (link: https://cat-uxo.com/explosive-hazards/submunitions/9n235-submunition - visited on 12th June 2023)

714 Cf. footnotes 689 and 692. In order to differentiate between these two types of rockets, which have a relatively similar appearance, Higgins released a Tweet (link: https://twitter.com/EliotHiggins/status/1498326152569663499?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1498326152569663499%7Ctwgr%5Edffa521eed894809b24b0d2445b771a7124cec6a%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2Frest-of-world%2F2022%2F03%2F11%2Fthese-are-the-cluster-munitions-documented-by-ukrainian-civilians%2F - visited on 12th June 2023) in late February 2022 with images and explanations on how to distinguish Uragan 9M27K rockets from Smerch 9M55K rockets based on their distinctive rocket motors, cargo, and tail sections.

715 Cf. BC/HIGGINS (2022a) referring to HRW (2015).

716 Amnesty International released on 3rd March 2022 a 3D video analysis of a rocket attack that took place on 28th February 2022 in the northern part of Kharkiv, resulting in the death of four civilians and 16 more injured. Amnesty International stated on Twitter/X (link: https://twitter.com/amnesty/status/1499357519327731716?lang=de - visited on 12th June 2023) that their "(…) *3D model is based on verified videos and witness testimonies*" and that a "(…) *verified image first acquired by @bellingcat shows the attack included Russian-manufactured 300mm Smerch rockets with 9N235 cluster munitions. The 2019 manufacture date, after Russia stopped selling these arms to Ukraine, indicates that the attack was launched by Russia.*"

717 9M79-series Tochka Ballistic Missile (link: https://www.armyrecognition.com/russia_russian_missile_system_vehicle_uk/ss-21_scarab_9m79_tochka_ground_to_ground_short_range_ballistic_missile_data_sheet_specifications_uk.html - visited on 12th June 2023)

the immediate vicinity of a hospital in Vulhedar (Donetsk Region) on the first day of the full-scale invasion, resulting in the deaths of four civilians and ten more injured.[718] As of that date, this was the first documented instance of a Tochka ballistic missile equipped with a cluster munition warhead.[719]

Iskander-M 9M723 Ballistic Missile[720]: As of 11th March 2022, Bellingcat documented the remnants of a cluster variant of an Iskander-M 9M723 missile, intercepted by Ukrainian air defence[721]. Like the example above, this was another "(…) *first documented sighting of a cluster variant of an Iskander launched missile*" – a missile type which has never been exported to Ukraine.

In addition to these two Bellingcat reports, following Russia's full-scale invasion[722], which provided essential insights into the characteristics of cluster ammunition, another investigation published almost ten months later, on 7th January 2023, titled "*Anatomy of a Shelling: How Russian Rocket Artillery Struck Mykolaiv*"[723], can be regarded as a textbook example of how an incident can be investigated through the utilization of open source information.

Mykolaiv, a port city located 60 kilometers northwest of Kherson city, experienced continuous indirect fire attacks during the spring and summer of 2022. The Bellingcat report focuses on a particular rocket artillery strike which occurred on 4th April 2022 in the afternoon. The strike caused significant damage in densely populated areas, including shopping centres[724] and a children's hospital[725],

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[718] Cf. BC/HIGGINS (2022a) referring to HRW (2022a).

[719] Cf. BC/HIGGINS (2022a). This particular incident can also be found on Bellingcat's Civharm Time-Map under CIV0004 (link: https://ukraine.bellingcat.com/?range=2021-12-01&range=2023-06-12&id=CIV0004 - visited on 12th June 2023).

[720] Iskander-M 9M723 Ballistic Missile (link: https://missilethreat.csis.org/missile/ss-26-2/ - visited on 12th June 2023)

[721] intercepted by Ukrainian air defence (link: https://dn.npu.gov.ua/news/na-kramatorskiy-rayon-bulo-vipushcheno-operativno-taktichniy-raketniy-kompleks-iskander-budte-oberezhni-z-vibukhovimi-predmetami and https://twitter.com/gumvd_don/status/1501527236205232129?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1501527236205232129%7Ctwgr%5Edffa521eed894809b24b0d2445b771a7124cec6a%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2Frest-of-world%2F2022%2F03%2F11%2Fthese-are-the-cluster-munitions-documented-by-ukrainian-civilians%2F - visited on 12th June 2023)

[722] Cf. BC (2022p) and BC/HIGGINS (2022a).

[723] Cf. BC/SHELDON (2023) (link: https://www.bellingcat.com/news/2023/01/27/anatomy-of-a-shelling-how-russian-rocket-artillery-struck-mykolaiv/ - visited on 21st June 2023).

[724] Aside a Telegram (link: https://www.bellingcat.com/news/2023/01/27/anatomy-of-a-shelling-how-russian-rocket-artillery-struck-mykolaiv/ - visited on 22nd June 2023) and a Twitter/X (link: https://twitter.com/JakeGodin/status/1511389744491642880?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1511389744491642880%7Ctwgr%5E736f88b9da108c09acd085b6583169426292baba%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2023%2F01%2F27%2Fanatomy-of-a-shelling-how-russian-rocket-artillery-struck-mykolaiv%2F - visited on 22nd June 2023) post linked in the report, one corresponding entry in Bellingcat's Civharm TimeMap was found under CIV0673 (link: https://ukraine.bellingcat.com/?range=2022-04-03&range=2022-04-05&id=CIV0673 - visited on 21st June 2023).

[725] This particular incident can also be found on Bellingcat's Civharm TimeMap under CIV0712 (link: https://ukraine.bellingcat.com/?range=2022-04-03&range=2022-04-05&id=CIV0712 - visited on 21st June 2023) and CIV0683 (link: https://ukraine.bellingcat.com/?range=2022-04-03&range=2022-04-05&id=CIV0683 - visited on 21st June 2023).

resulting in the death of 12 people and injuries to 41 others[726]. Based on the initial available open source information, Bellingcat was able to determine the time of the impacts and that cluster munitions had been used[727]. By utilizing additional open source information that depicted the impact sites of the rocket motor[728], the cargo section[729], and the submunitions[730], it was possible to approximate the trajectory of the rocket using the method described above[731], which was identified as a 9M55K type fired from a 300mm MRLS BM-30[732]. Once the time period and the approximate geographical area from which the rocket was fired had been narrowed down, the next step was to uncover open source information[733] to substantiate the occurrence of the launch. With the aid of one particular video, which was initially deleted shortly after its publication but later reposted by third parties[734], the launch site was eventually determined with a high degree of likelihood through a geolocation process involving various techniques such as satellite imagery comparison[735], 3D modeling of the area and an online application

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[726] Cf. BC/SHELDON (2023) referring to a Facebook post from the Mykolaiv regional prosecutor(link: https://www.facebook.com/mykprok/posts/279327524378101 - visited on 22nd June 2023).

[727] Cf. BC/SHELDON (2023). Aside its own image analysis, the Bellingcat investigation refers to Twitter/X posts from Doctors Without Borders Ukraine(link: https://twitter.com/MSF_Ukraine/status/1511376014278115331?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1511376014278115331%7Ctwgr%5E736f88b9da108c09acd085b6583169426292baba%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2023%2F01%2F27%2Fanatomy-of-a-shelling-how-russian-rocket-artillery-struck-mykolaiv%2F - visited on 22nd June 2023) and FARGE (2022).

[728] See an archived version of a Telegram post by Novosti Nikolayeva(link: https://twitter.com/EliotHiggins/status/1511384810077442054 - visited on 22nd June 2023) on Elliot Higgins Twitter/X account and entry CIV0713(link: https://ukraine.bellingcat.com/?range=2022-04-03&range=2022-04-05&id=CIV0713 - visited on 22nd June 2023) of Bellingcat's Civharm TimeMap.

[729] See a Telegram post by Novosti Nikolayeva(link: https://twitter.com/EliotHiggins/status/1511384810077442054 - visited on 22nd June 2023) and entry CIV0714(link: https://ukraine.bellingcat.com/?range=2022-04-03&range=2022-04-05&id=CIV0714 - visited on 22nd June 2023) of Bellingcat's Civharm TimeMap.

[730] See Telegram posts by Novosti Nikolayeva(link: https://t.me/novostiniko/13763), Suspilne Mykolaiv(link: https://t.me/suspilnemykolaiv/7181?single) and Vitaly Kim(link: https://t.me/mykolaivskaODA/977), the Prestupnosti.Net website(link: https://news.pn/ru/RussiaInvadedUkraine/270093 - all links of this footnote visited on 22nd June 2023) and entries of Bellingcat's Civharm TimeMap (cf. footnotes 724 and 725).

[731] Cf. footnote 690 and Appendix FF.

[732] Cf. footnotes 689, 709 and 714.

[733] The Bellingcat report mentions that although on the day of the attack "(…) *videos appeared online which purported to show multiple launch rocket systems in action between Russian-occupied Kherson and Mykolaiv*", most of them had been taken the previous day, and those "(…) *which appeared later in the day* (…) *were quickly deleted. These had been archived by Bellingcat before their deletion.*" Cf. BC/SHELDON (2023).

[734] At the evening of 4th April 2022, Novosti-I, a news website, posted the video on its Telegram channel(link: https://t.me/novosti_n/10693 - visited on 22nd June 2023) and referred to it in an online article(link: https://novosti-n.org/news/Poyavylos-vydeo-kak-zahvatchyky-vipuskaly-raketi-so-storoni-Hersona-v-napravlenyy-Nykolaeva-239042 - visited on 22nd June 2023), titled "There was a video of how the invaders fired rockets from Kherson in the direction of Mykolaiv" (rus. Появилось видео, как захватчики выпускали ракеты со стороны Херсона в направлении Николаева).

[735] Cf. BC/SHELDON (2023) and Appendix GG. The investigation also compared the burn marks left on the field from the rocket launch and tyre tracks with a reference video(link: https://t.me/RVvoenkor/20856 - visited on 22nd June 2023) from another BM-30 launch that took place on a comparable surface.

for chronolocation[736]. According to Liveuamap[737], at the time of the rocket launch, the area was under operational control of the Russian military. Based on this investigation, the Bellingcat investigation came to the following conclusion.

> "*Our geolocation suggests that the strike was launched by Russian forces from a location near the Inhulets River in the north of Russian-occupied Kherson Region; a chronolocation of the same videos indicates that one launch likely took place just minutes before the afternoon's explosions at the shopping precinct and children's hospital occurred.*"[738]

So, why are these three Bellingcat investigations about the usage of cluster munitions in the IAC in Ukraine relevant to IHL/IHRL and ICL? In addition to providing factual descriptions and documenting separate incidents, the reports are significant for the course of justice and accountability for several reasons. Firstly, they contribute to the understanding of how the potential use of cluster munitions can be identified and further investigated by other open source researchers, enhancing traceability. Secondly, they provide an overview and links to professional articles with technical details about different types of bombs, rockets, missiles, and the various types of submunitions they carry, which may be crucial for later attribution. It is not entirely surprising that Bellingcat's first two investigations after Russia invaded Ukraine were dedicated to cluster munitions, given the fact that the nature of this type of ammunition makes its usage prone to constitute a war crime, particularly when targeting civilian-populated areas. This is related with the subsequent legal assessment of whether a military commander[739] who authorized such use violated one or more cardinal principles of IHL, including distinction[740], proportionality[741], and precaution[742]. Depending on the extent of

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[736] With the application of SunCalc(link: https://www.suncalc.org/#/46.7813,32.8013,16/2022.04.04/15:25/1/1 - visited on 22nd June 2023) and a 3D-model to simulate shadows for comparing them with the video footage (cf. Appendix HH), the report "(…) *confirmed with certainty that the launch took place in mid-afternoon, plausibly at around the time of the impacts in Mykolaiv.*" Cf. BC/SHELDON (2023).

[737] Liveuamap.com(link: https://liveuamap.com/en/time/04.04.2022 - visited on 22nd June 2023) is "(…) *a regularly updated interactive map of the frontlines in Ukraine and other conflict zones.*" Cf. BC/SHELDON (2023).

[738] Cf. ibid.

[739] Regarding commander's responsibility, cf. footnote 55 referring to CG-I (1949): Art. 49, CG-II (1949): Art. 50, CG-III (1949): Art. 129, CG-IV (1949): Art. 146, AP-I (1977): Art. 87 and ICC (1998): Art 28), LUBELL ET AL. (2019): p. 10/Art. 38 and 39; and CIHL (cf. HENCKAERTS/DOSWALD-BECK (2005): pp. 558/Rule 153.

[740] Regarding the principle of distinction, cf. footnote 79 referring to AP-I (1977): Art 48 (civilians/civilian objects versus combatants/military objectives) and 85(3)a and ICC (1998): Art. 8(2)b/I and ii (deliberate targeting); and AP-I (1977): Art. 52(2) (definite military advantage) and ibid. Art. 51 (3), AP-II (1977): Art. 13 (3), ICC (1998): Art. 8(2)e/I and CIHL (cf. HENCKAERTS/DOSWALD-BECK (2005): Rule 6/pp. 20 (exceptions and attributions).

[741] Regarding the principle of proportionality, cf. footnote 80 referring to AP-I (1977): Art. 51(5)b) (intentional/indiscriminate attacks) and ICC (1998): Art 8(2)b/iv (knowledge of disproportionate/excessive harm to civilians relative to the anticipated military advantage).

destruction (widespread), the repetition of a pattern (systematic), and one's intention (knowledge), the use of cluster munitions, particularly considering the long-term harm to the civilian population[743] due to the expectable large number of unexploded ordnances (UXOs), may also constitute a crime against humanity.[744] It is evident that the three Bellingcat investigations from 27th February, 11th March 2022 and 27th January 2023 alone are not sufficient to substantiate the claim that the use of cluster munitions by either side constitutes a "(…) *part of a widespread or systematic attack directed against civilian population, with knowledge* (…)"[745] or *"(…) part of a plan or policy or as part of a large-scale commission* (…)"[746] as an atrocity crime. However, these reports can potentially serve as model cases for contextualization and demonstrate methods to be adopted for other or further in-depth investigations and verifications.

On the same token, but in another thematic subject area, the following two investigative reports conducted by Bellingcat focus on the destruction of specific civilian objects.

B.4.2.1.2. Attacks on Cultural Heritage and Water Infrastructure

Bellingcat's publications from 7th and 24th June 2022, titled "*Clues to the Fate of Five Damaged Cultural Heritage Sites in Ukraine*"[747] and "*How Russia's Offensive Damaged Critical Donbas Water Infrastructure*"[748], serve as examples of open source investigations into attacks on civilian objects that, in the light of IHL, are under special protection[749]. Although these two reports focus on different categories of civilian objects damaged by warfare, the collected OAVC can be utilized to either conduct a more in-depth investigation into a specific incident, such as determining individual responsibility, or to expand the quantitative

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[742] Regarding the principle of precaution, cf. footnote 81 referring to AP-I (1977): Art. 57(1) (sparing civilian population and objects), ibid. Art. 57(2)a/i (verification of military objectives prior an attack), ibid. Art. 57(2)a/ii and Art. 57(3) (choosing means of warfare that cause minimum harm to civilians), ibid. Art. 57(2)a/iii and Art. 57(2)b) (excessive harm to civil population in relation to military advantage anticipated), ibid. Art. 57(2)c) (warning civilians prior an attack), ibid. Art. 58(a) (evacuation of civilians), etc. See also HENCKAERTS/DOSWALD-BECK (2005): pp. 51/Rule 15-24.

[743] Cf. NEWSY/BC (2022b): 04:45.

[744] Cf. Def. VII/footnote 189 and footnote 102 referring i.a. to ICC (1998): Art. 7(1 and 2) and ICTR (2011): para. 631.

[745] Cf. ICC (1998): Art. 7(1) – Crimes against humanity.

[746] Cf. ibid.: Art. 8(1) – War crimes.

[747] Clues to the Fate of Five Damaged Cultural Heritage Sites in Ukraine (link: https://www.bellingcat.com/news/uk-and-europe/2022/06/07/clues-to-the-fate-of-five-damaged-cultural-heritage-sites-in-ukraine/ - visited on 15th June 2023)

[748] How Russia's Offensive Damaged Critical Donbas Water Infrastructure (link: https://www.bellingcat.com/news/2022/06/24/how-russias-offensive-damaged-critical-donbas-water-infrastructure/ - visited on 15th June 2023)

[749] Cf. footnotes 800 and 801.

documentation of a specific incident pattern to assess whether the commission of warfare meets criteria such as being widespread, systematic, conducted with knowledge, and so on.

The investigation from 7th June 2022, refers, aside from statements made by the Russian President openly questioning Ukraine's identity and statehood[750], to Olesia Ostrovska-Liuta, director of the Ukrainian Arsenal Cultural Centre, who claims, "(…) *that there is a plan to erase Ukrainian identity and culture*" and "(…) *from Kyiv it looks like a deliberate action to get rid of anything which makes Ukrainian otherness from Russia*".[751] However, the report acknowledges the difficulty "(…) *to conclusively establish intent and motivation behind incidents or attacks that have led to the damage or destruction of cultural sites – especially through open sources alone.*"[752] While spectacular incidents, such as the bombing of the Mariupol theater[753], received significant international media attention, the Bellingcat report narrows its investigation to five relatively small and local cultural sites in the country's East that were inaccessible to journalists or independent investigators due to ongoing fighting or restrictions imposed by the occupation regime, yet offered a substantial amount of open source information.

Sviatohirsk Lavra Monastery (Donetsk Region): Bellingcat collected a number of OAVC regarding military strikes occurring on various dates[754] that caused damage to several buildings of the historic cave monastery (also called Lavra), located in Sviatohirsk and affiliated with the Ukrainian Orthodox Church of the Moscow Patriarchate[755]. Additionally, there is open source information of several more attacks on other religious sites under the Lavra's jurisdiction, including the St. George's Monastery in Dolyna (7th May 2022[756]), the St. John of Shanghai Monas-

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750 Cf. PERRIGO (2022).
751 Cf. BC/EDWARDS (2022).
752 Cf. ibid.
753 Cf. HINNANT et al. (2022). See also CIV0400(link: https://ukraine.bellingcat.com/?range=2021-12-04&range=2023-06-15&id=CIV0400 - visited on 15th June 2023) of Bellingcat's Civharm TimeMap.
754 These dates are 12/13th March(link: https://www.flickr.com/photos/svlavra/sets/72177720297323061/), 4th May(link: https://www.facebook.com/don.gp.gov.ua/posts/365404762292876, https://svlavra.church.ua/2022/05/24/o-sobytiyax-v-svyatogorskoj-lavre-v-mae-2022-goda-foto/ and https://www.facebook.com/don.gp.gov.ua/posts/365404762292876), 16/17th May(link: https://www.flickr.com/photos/svlavra/albums/72177720297439797), 1st June(link: https://www.facebook.com/donbass.pravoslavniy/posts/431803478954759) and 4th June 2022(link: https://www.facebook.com/donbass.pravoslavniy/posts/432383005563473, https://twitter.com/agathaxgorski/status/1533060697382342657, https://t.me/KARACHUNua/520 and https://firms.modaps.eosdis.nasa.gov/map/#t:adv;d:2022-06-01;@37.6,49.0,14z – all links from this footnote visited on 15th June 2023).
755 Ukrainian Orthodox Church of the Moscow Patriarchate(link: https://www.rferl.org/a/orthodox-church-kirill-war-russia/31872141.html - visited on 15th June 2023)
756 7th May 2022(link: https://svlavra.church.ua/2022/05/24/k-sobytiyam-6-8-maya-v-svyatogorskoj-lavre-i-eyo-skitax-foto/?fbclid=IwAR1Y7LxfLPRZZNEQl14s5RbhbbRVlE5qJuaMjzb43MnX3z6uJALdTwqjwFo - visited on 15th June 2023)

tery in Adamivka (9th May 2022[757]), the Church of Holy Martyrs in Sviatohirsk (12th May 2022[758]) and the Bohorodychne Monastery (17th May 2022[759]). Aside from a Telegram post[760], showing "(…) *two Russian strikes against unidentified heavy vehicle near the St. George's Church in Dolyna*" and the claim by the Russian military[761] "(…) *that Ukrainian forces had placed weapons systems in the region of the monastery*", "(…) [n]*o such footage has been made available showing military equipment anywhere else near religious buildings* (…) *nor could Bellingcat discover any imagery online that would support them.*"[762] While at least two videos of this report have been geolocated (a Telegram video showing the burning All Saints Monastary of the Sviatohirsk Lavra and another one from a bridge crossing the Severskyi Donets River), this material is not included in the Civharm TimeMap[763].

Skovoroda Museum, Skovorodynivka (Kharkiv Region): The destruction of a local museum dedicated to Hryhoriy Skovoroda, a Ukrainian philosopher and theologian who is depicted on Ukraine's 500 Hryvna banknote[764], on 6th May 2022, most likely due to an airstrike, constitutes not only a significant loss of cultural heritage but also holds profound symbolism in undermining Ukrainian identity within the context of purported Russian cultural imperialism.[765] Despite the investigation pointing towards a number of sources depicting OAVC from the immediate aftermath of the explosion and the remains of the museum's interior[766], "*Bellingcat*

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757 9th May 2022(link: https://svlavra.church.ua/2022/05/24/sobytiya-9-10-maya-v-svyatogorskoj-lavre-i-adamovskom-skitu-v-chest-svt-ioanna-shanxajskogo-foto/ - visited on 15th June 2023)

758 12th May 2022(link: https://svlavra.church.ua/2022/05/24/o-sobytiyax-12-15-maya-na-territorii-lavry-i-svyatogorska-foto/ - visited on 15th June 2023)

759 17th May 2022(link: https://svlavra.church.ua/2022/05/24/sobytiya-v-skitu-v-chest-ikony-bozhiej-materi-vsex-skorbyashhix-radost-glazami-ochevidcev-foto/ - visited on 15th June 2023)

760 Telegram post(link: https://t.me/breakingmash/33261 - visited on 15th June 2023)

761 claim by the Russian military(link: https://www.interfax.ru/world/838828 - visited on 15th June 2023)

762 Cf. BC/EDWARDS (2022).

763 As of 15th June, Bellingcat's Civharm TimeMap depicts three incident in the vicinity of the Sviatohirsk Lavra Monastery; CIV1055(link: https://ukraine.bellingcat.com/?range=2021-12-04&range=2023-06-15&id=CIV1055), CIV1036(link: https://ukraine.bellingcat.com/?range=2021-12-04&range=2023-06-15&id=CIV1036) and CIV0345(link: https://ukraine.bellingcat.com/?range=2021-12-04&range=2023-06-15&id=CIV0345 – all links of this footnote visited on 15th June 2023). Only CIV0345 links to a Twitter/X post, contrary to Bellingcat's 7th June 2022 investigation, the sources are withheld.

764 The National Bank of Ukraine explains on its webpage the role of Hryhoriy Skovoroda(link: https://bank.gov.ua/banknote/500uah/en.html - visited on 15th June 2023) as the "(…) *most unique and unparalleled national thinker and teacher, whose works are among Ukraine's most important spiritual treasures. Almost three centuries ago, Skovoroda put forward a development path for the Ukrainian nation, outlining the most prominent features of its mentality – three-sun unity, work that one does naturally, and the philosophy of a wise heart. Every generation of Ukrainian intellectuals turns to Skovoroda's ideas, rediscovering their meaning*", and so on.

765 Cf. BC/EDWARDS (2022) referring to Cf. GORJUNOV (2022).

766 Open source information of the incident could be found on the Telegram channels from Харьков Life|Харків(link: https://t.me/kharkivlife/37842), Суспільне Харків(link: https://t.me/suspilnekharkiv/12309) and Харьков. Главное(link: https://t.me/KharkivPolitics/8841), as well as on the news websiteSuspilne(link: https://suspilne.media/236762-muzej-imeni-skovorodi-na-harkivsini-znisenij-vnaslidok-rosijskogo-obstrilu/), Ukrainian criminal investigators(link:

could not see munition fragments", which made it "(…) *not possible to confirm the weapons system used solely through open sources.*"[767] As of 15th June 2023, Bellingcat's Civharm TimeMap does not include an entry for Skovorodynivka.

Tarnovsky House and Library, Chernihiv (Region): On 11th March 2022, the Tarnovsky Building, named after a prominent Chernihiv citizen[768] and also serving as the city's youth library, was destroyed by an explosion. The Bellingcat report refers to several online sources, such as Telegram[769] and YouTube[770], which document the destruction; yet, it concentrates on analysing images and videos from Telegram[771] and Facebook[772] that depict impact craters near the building and compares them with satellite imageries taken before and after the attack. The presence of UXOs found after the bombings in Chernihiv, resembling the Soviet-manufactured FAB-500 bomb series[773], and the alignment of the munition's damage pattern with that of the Tarnovsky House, suggest the use of this unguided air-dropped bomb. However, the Bellingcat investigator noted that "(…) *the available open source information alone is, at this stage, not enough to establish the munition that was used for the attack on the library.*"[774] As of 15th June 2023, Bellingcat's Civharm TimeMap includes two entries[775] with three sources related to the Tarnovsky Building bombing.

Kuindzhi Museum, Mariupol (Donetsk Region): In the course of the siege of Mariupol, an art museum dedicated to Arkhip Kuindzhi, a famous landscape painter from the late 19th and early 20th century[776], was heavily damaged by an un-

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https://khar.gp.gov.ua/ua/news.html?_m=publications&_t=rec&id=313230&fp=40) and a Facebook post by the Kharkiv Region Police(link: https://www.facebook.com/police.kharkov/posts/5054019024696021 - all links of this footnote visited on 15th June 2023).

767 Cf. BC/EDWARDS (2022).

768 a prominent Chernihiv citizen(link: https://chernihiv.travel/en/post/vasil-vasilovich-tarnovskij-molodshij - visited on 15th June 2023)

769 Telegram(link: https://t.me/chernigivskaODA/370 - visited on 15th June 2023)

770 YouTube(link: https://www.youtube.com/watch?v=1wUtqgUG3Gs&t=157s - visited on 15th June 2023)

771 Telegram(link: https://t.me/dokladzakonchil/1573 - visited on 15th June 2023)

772 Facebook(link: https://www.facebook.com/photo/?fbid=5148488361880428 and https://www.facebook.com/watch/?v=1228306851032939 - visited on 15th June 2023)

773 Cf. a post on Twitter/X(link: https://twitter.com/DmytroKuleba/status/1500518858263830532) and two news websites, ABC Online(link: https://www.abc.net.au/news/2022-03-06/ukrainians-cross-under-destroyed-bridge-irpin/100886922https://www.abc.net.au/news/2022-03-06/ukrainians-cross-under-destroyed-bridge-irpin/100886922) and Euronews(link: https://www.euronews.com/video/2022/03/10/unexploded-bomb-defused-in-chernihiv - all links of this footnote visited on 15th June 2023).

774 Cf. BC/EDWARDS (2022).

775 Cf. CIV0832(link: https://ukraine.bellingcat.com/?range=2021-12-04&range=2023-06-15&id=CIV0832 - visited on 15th June 2023) and CIV0367(link: https://ukraine.bellingcat.com/?range=2021-12-04&range=2023-06-15&id=CIV0367 - visited on 15th June 2023).

776 Kuindzhi, born in today's Mariupol, was renowned for capturing ethereal light effects in his artwork, which often depicted the nature and landscapes of Ukraine. His contributions to Ukrainian cultural heritage have prompted museums worldwide to re-evaluate and reattribute artworks and artists from the former Russian Empire and the Soviet Union to acknowledge their Ukrainian origins. Cf. POGREBIN (2023), SMALL (2023) and PROFGER (2022).

known weapon system in mid-March 2022. Since Mariupol has been occupied by Russia, Ukrainian investigators and independent media were unable to provide visual information on this incident. To narrow down the timeframe and extent of destruction, Bellingcat utilized satellite imagery[777] and referenced four online sources concerning the whereabouts of several original artworks by the artist that were reportedly relocated before the attack[778]. Three of these sources also included OAVC of the extent of the destruction, both inside and outside the museum[779], which offers some indications, such as the scatter pattern on the rear side of the building "(…) *indicating an explosion at ground level nearby*", etc. Nevertheless, the Bellingcat investigation acknowledges that, because "(…) *shrapnel remains cannot be clearly seen in either of these videos, it is not possible to determine the precise weapon system used.*"[780] As of 16th June 2023, Bellingcat's Civharm TimeMap does not include an entry for the Kuindzhi Art Museum in Mariupol.

Popov's Palace Complex, Vasylivka (Zaporizhzhia Region): Similar to the aforementioned Kuindzhi Museum, the case of Popov's Palace in Vasylivka, which serves as a local history museum, follows a similar pattern. The palace was initially damaged during the military advance, and subsequently, the artifacts stored in the building were expropriated by the occupiers. Aside from two Facebook posts[781] from 7th March 2022 showing several civilian objects being damaged, less than a week later, Anna Golovko, the museum's director, stated[782] on the same social media platform that the occupiers had looted the museum. According to her, eve-

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[777] It is not exactly clear when did the attack happened, or if several attacks hit the museum. While Konstantin Chernyavsky, Head of Ukraine's Union of Artists (link: https://localhistory.org.ua/news/v-mariupoli-bulo-znishcheno-khudozhnii-muzei-imeni-arkhipa-kuyindzhi/ and https://www.facebook.com/konstantin.cernavskij/posts/4943990189012930 - visited on 16th June 2023), stated that the museum has been "*destroyed*" by a Russian airstrike on 21st March 2022, and two days later Mariupol's City Council (link: https://t.me/mariupolrada/8974 - visited on 16th June 2023) announced that it "*had been destroyed by a Russian bomb*", with satellite imagery from 24th April 2022, the Bellingcat report determined that "(…) *the building had suffered some damage but had not been completely razed*" and that "[i]*ts roof sustained less damage than buildings in the immediate vicinity which had neem entirely destroyed.*" Cf. BC/EDWARDS (2022).

[778] The sources include a Telegram post by an advisor to Mariupol's mayor (link: https://t.me/andriyshTime/513 - visited on 16th June 2023) claiming the paintings were handed over to Russian occupiers, two Russian news outlets (Izvestiya (link: https://iz.ru/1326866/2022-04-27/sotrudniki-muzeia-v-mariupole-spasli-kartiny-aivazovskogo-pri-atake-vsu - visited on 16th June 2023) and TV station Panorama (link: https://www.youtube.com/watch?v=3toH-N5UYvs - visited on 16th June 2023)) reporting that the paintings were safe and providing information about their whereabouts, and an online article by The Village (link: https://www.the-village.com.ua/village/culture/museum-at-wartime/325877-muzey-kuyinzhi - visited on 16th June 2023), stating that the paintings were transferred to the Regional Museum of Local History in Donetsk. Cf. BC/EDWARDS (2022).

[779] See prior footnote (Izvestiya, TV station Panorama and The Village).

[780] Cf. BC/EDWARDS (2022).

[781] two Facebook posts (link: https://www.facebook.com/groups/sadybapopova/posts/7295866570486091/ and https://www.facebook.com/vladmoroko/posts/4794488337255350 - visited on 16th June 2023)

[782] the museum's director, stated (link: https://www.facebook.com/groups/sadybapopova/posts/7321721807900567/ - visited on 16th June 2023)

rything that could be taken was carried away, organizational equipment was destroyed and trampled on, doors were broken, windows were smashed, and so on. The Bellingcat report admits that "[t]*he available open source evidence cannot confirm these reports of looting. However, it does indicate that Russian soldiers were present in Vasylivka by March 13.*"[783] This was achieved by contextualizing statements from Ukrainian authorities[784] with the available OAVC that indicates the presence of Russian military personnel and equipment in Vasylivka through geolocation[785] – this substantiates the claim that "(…) *there was some military activity in the immediate vicinity of the palace just days before it was reported as looted – by which time Vasylivka was widely reported as under Russian control*".[786] As of 16th June 2023, Bellingcat's Civharm TimeMap does not include an entry for the town of Vasylivka.

The 7th June 2022 investigation regarding the five incidents concludes with incorporating a gender perspective and establishing a connection between the destruction and looting of cultural heritage with the loss of thousands of civilian lives. It highlights also that due to the scale of the armed conflict, many of these sites may not be adequately restored or even lost forever because the priorities are most likely on humanitarian aspects, such as hospitals and civilian infrastructure. The report refers to Richard Kurin, a representative of the Smithsonian's Cultural Rescue Initiative[787], who states that along with the difficulty of documenting the sheer number of sites that are potentially at risk, it is especially challenging to assess, once an object has been damaged or fully destroyed, if this act was executed with intention in the legal sense. Kurin continues that "(…) *providing the data can at least offer a set of clues.*"[788] Other specialists note, in this context, that the destruction of cultural heritage as well as the appropriation of artifacts does not usu-

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[783] Cf. ibid.

[784] While Serhiy Kaliman, Mayor of Vasylivka, stated on Telegram on 28th February 2022 (link: https://t.me/onenews_zp/26091 - visited on 16th June 2023) that "*we can see military vehicles approaching Vasylivka from all sides*", the Zaporizhia Regional Defence Administration classified in a Telegram post from 7th March 2022 (link: https://t.me/zoda_gov_ua/5047 and https://www.ukrinform.net/rubric-ato/3422452-six-cities-in-zaporizhzhia-region-temporarily-occupied-administration.html - visited on 16th June 2023) Vasylicka as *"temporarily occupied*". Cf. BC/EDWARDS (2022).

[785] The OAVC used for geolocation included a Telegram video from 1st March 2022 (link: https://t.me/onenews_zp/26120) (depicting the shelling of a school), another Telegram video from 3rd March 2022 (link: https://t.me/Ugolok_Sitha/4727) (showing Russian soldiers and armour in Vasylivka) and a Twitter/X post from 8th March 2022 (link: https://twitter.com/ua_ridna_vilna/status/1501118991846330368 - all links of this footnote visited on 16th June 2023) (displaying the aftermath of fighting with remnants of presumed Russian military equipment and the body of a soldier).

[786] Cf. BC/EDWARDS (2022).

[787] Smithsonian's Cultural Rescue Initiative (link: https://hub.conflictobservatory.org/portal/apps/sites/#/home/ - visited on 16th June 2023)

[788] Cf. BC/EDWARDS (2022).

ally cease when the active phase of warfare ceases, but rather continues while a territory is under occupation. Examples of deliberate actions of identity politics and historical revisionism include the numerous documented cases of "(…) *Russia* (…) *erect*[ing] *new monuments to mark its ownership of occupied Ukrainian land – and its history*"[789]. Yet, aside from Bellingcat's and other organizations' efforts to address this particular aspect of the war and its tangible and intangible long-term consequences, the second report of this category focuses on the damage of critical water infrastructure in the Donbas region.

Bellingcat's investigation, published on 24th June 2022, addresses the importance of water infrastructure facilities along the Siverskyj Donets River and its southern channel for the civilian population in the Donbas region and analyses how claims made by the conflicting parties could potentially be supported by using open source information.

The Siverskyj Donets – A Frontline River (Luhansk Region): Besides its military-tactical significance[790], the Severskyj Donets River is one of the most important waterways in the northern Donbas, particularly for the Luhansk Region, providing drinking water for approximately one million people.[791] With references to different statements of the parties to the conflict regarding damages inflicted on water facilities near Bilohorivka during at least two attacks[792], Bellingcat analyzed several satellite images from different dates and put them into the context of a

[789] Cf. ibid. referring to KOROPECKYJ (2022).
[790] Cf. BC/SHELDON (2022b) referring to LISTER (2022).
[791] According to Sophie Lambroschini, a researcher at the Centre Marc Bloch, "(…) *these large-scale pipeline and canal networks are part of a holistic system which requires electricity and chemical treatment; any disruption can cause humanitarian consequences hundreds of miles away:* (…) *When a critical node on that journey is cut, all the settlements downstream are affected.*" Cf. BC/SHELDON (2022b).
[792] While Russkaya Vesna(link: https://rusvesna.su/news/1651769636 - visited on 16th June 2023), a pro-Russian news outlet, reported on 5th May 2022 about a Russian airstrike with unguided bombs which hit i.a. the water intake facility(link: https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/main_water_systems_151014.pdf - visited on 16th June 2023) and first lift of the Popasna Pipeline(link: http://wikimapia.org/#lang=en&lat=48.941540&lon=38.235099&z=18&m=w&show=/18683003/ru/%D0%97%D0%B0%D0%BF%D0%B0%D0%B4%D0%BD%D0%B0%D1%8F-%D1%84%D0%B8%D0%BB%D1%8C%D1%82%D1%80%D0%BE%D0%B2%D0%B0%D0%BB%D1%8C%D0%BD%D0%B0%D1%8F-%D1%81%D1%82%D0%B0%D0%BD%D1%86%D0%B8%D1%8F-1-%D0%B9-%D0%BF%D0%BE%D0%B4%D1%8A%D0%B5%D0%BC - visited on 16th June 2023), the Luhansk regional military administration announced via Telegram(link: http://wikimapia.org/#lang=en&lat=48.941540&lon=38.235099&z=18&m=w&show=/18683003/ru/%D0%97%D0%B0%D0%BF%D0%B0%D0%B4%D0%BD%D0%B0%D1%8F-%D1%84%D0%B8%D0%BB%D1%8C%D1%82%D1%80%D0%BE%D0%B2%D0%B0%D0%BB%D1%8C%D0%BD%D0%B0%D1%8F-%D1%81%D1%82%D0%B0%D0%BD%D1%86%D0%B8%D1%8F-1-%D0%B9-%D0%BF%D0%BE%D0%B4%D1%8A%D0%B5%D0%BC - visited on 16th June 2023) on 8th May 2022 that "(…) *one of the filter stations, a power substation, and open switchgear with transformers were damaged* (…) *due to shelling of the Popasna water pipeline, one million people would be without water.*" Cf. BC/SHELDON (2022b).

geolocated image[793] depicting attacks on the water intake facility near Bilohorivka.[794] However, the open source investigative collective was unable to attribute responsibility for the damages to a specific warring party.

The Southern Canals (Donetsk Region): Further upstream, the Siverskyj Donets–Donbas Canal forms a crucial network of hydro infrastructure that provides drinking water to the Donetsk Region. The Donetsk Filtration Station, a particularly important drinking water facility, has repeatedly been the subject of skirmishes between Ukrainian Government troops and Russian-backed separatists since 2014[795]. With the shift of the military front in 2022, the facilities of the South Donbas Water Way[796] in particular have experienced power outages and damage caused by warfare. Similar to the previous example of the water facilities near Bilohorivka, the Bellingcat report provides additional satellite imagery of the area of the Donetsk Filtration Station, revealing what appears to be artillery impacts; however, it could also not attribute responsibility to any party to the conflict.[797] As of 19th June 2023, Bellingcat's Civharm TimeMap neither includes an entry for the water intake facility near Bilohorivka, nor for the Donetsk Filtration Station. The 24th June 2022 investigation closes with an expert's assessment, who states that

> "(…) *the extensive water supply system that was supplying drinking water to four million people and supplying industry has stopped operating*[.] (…) *The canal and pipeline system is damaged by months of shelling. Also water can't flow without electricity to operate pumps and filters. Power lines have been cut, power stations bombed. As a result the whole region under the impact of the Russian advance into Ukrainian territory in most of Luhansk and Donetsk Oblast has been cut off from essential utilities (power, water, sewage).*"[798]

Similarly to Bellingcat's investigative report on the Civharm TimeMap from 20th February 2023[799], the reports mentioned in this subchapter do not purport to pro-

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[793] geolocated image(linkhttps://twitter.com/RedIntelPanda/status/1525525224392892416 and https://www.facebook.com/butusov.yuriy/posts/pfbid07Lz2UX6V7BipSSyRe9TjeQZdHnrJhLxV71wTnbpoXQgJthrkXNcXboB5L1GcQRtpl - visited on 16th June 2023)

[794] Comparing the two allegedly military operations in the vicinity of the water facilities with satellite imageries, Bellingcat concluded that after the 5th May 2022 attack(link: https://rusvesna.su/news/1651769636 - visited on 16th June 2023) "[o]*pen source imagery* [from 7th and 8th May 2022] *shows that the pumping station and first lift of the Popasna Water Pipeline sustained heavy damage on further occasions*" and imagery from 17th May 2022(link: https://www.bbc.com/news/world-europe-61399440 - visited on 16th June 2023) showed in regard of the 8th May 2022 attack "(…) *craters surrounding the electrical substation and open switchgear (the collection of transformers circled to the left of the building) as well as a completely destroyed pumping station (centre).*" Cf. BC/SHELDON (2022b).

[795] Cf. BC/SHELDON (2022b) referring to SHELDON (2020) and BC/ZWIJNENBURG (2017).

[796] Cf. BC/SHELDON (2022b). More about the significance of the South Donbas Water Way, cf. LAMBROSCHINI (2018).

[797] Cf. BC/SHELDON (2022b).

[798] Cf. ibid. referring to Sophie Lambroschini (cf. footnote 791).

[799] This report focused on three areas; attacks on public transport facilities, incidents regarding post stations or facilities, and instances of ammunition hitting children's playgrounds. Cf. BC/GODIN (2023) and subchapter B.4.1.3.

vide a comprehensive and definitive investigation of these subject areas. Although they do indicate responsibility for certain incidents on the part of a particular party to the conflict, definitive attributions are ultimately abstained from. This aspect is important insofar as Bellingcat's publications may indeed serve as an initial point for further investigations into specific incidents (that potentially qualify as war crimes) or for the development of legal hypotheses, e.g. concerning the systematic nature and patterns of incidents (that may qualify as potential crimes against humanity or even genocide). In this regard, it should be noted that both subject areas, namely deliberate attacks and the conscious and therefore affirmative acceptance of the destruction of cultural objects[800] or essential water infrastructure[801], violate both IHL and IHRL. In terms of command responsibility, this can result in individual criminal prosecution. However, in ICL, before the criminal prosecution of individuals – which, due to complex and elaborate court procedures and the need to respect and protect the rights of the defense, usually takes a long time – the matter of immediate political liability needs to be addressed first.

The question of legal accountability is particularly difficult in the context of an armed conflict, where states often have no intrinsic interest in admitting responsibility due to domestic and international politics. This is particularly unfortunate, as the state's involvement is crucial in both the criminal investigation and the prosecution of an accused individual before domestic or international courts can be involved, especially when it involves political officials or high-ranking officers of the nation's armed forces. This is closely connected to the understanding that modern

[800] Sites of cultural heritage, including historic monuments, buildings dedicated to religion, and similar objects, are specially protected by IHL. The Rome Statute, for example, categorizes intentionally directing attacks against such objects as war crimes (cf. ICC (1998): Art. 8(b)ix and (e)iv). Geneva Law stipulates that "(…) *it is prohibited: a) to commit any acts of hostility directed against historic monuments, works of art or places of worship which constitute the cultural or spiritual heritage of peoples; (b) to make use of such objects in support of the military effort; c) to make such objects the object of reprisals*." Cf. AP-I (1977): Art. 53 and AP-II (1977): Art. 16. Other legal sources that details on the definition of cultural heritage are the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict (cf. UNESCO (1954)) or the 1999 Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict (cf. UNESCO (1999)). See also CHARLIER/MUSTAFAYEV (2022).

[801] While both Geneva Law ("*It is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as food-stuffs,* (…) *drinking water installations and supplies* (…)" (cf. AP-I (1977): Art. 52(2) and AP-II (1977): Art. 14)) and the Rome Statute ("*Intentionally using starvation of civilians* (…) *by depriving them of objects indispensable to their survival* (…)" is a war crime (cf. ICC (1998): Art. 8(2)b/xxv)) do not explicitly mention water infrastructure, through deduction of several IHL principles, such as distinction, proportionality, precaution, as well as CIHL, it is evident that both the deliberate destruction as well as knowingly and therefore approving acceptance of the destruction of these kind of civilian infrastructure violate IHL and IHRL. Cf. GENEVA WATER HUB (2019 and 2023).

wars are fought not only on land, sea, in the air and cyberspace, but also in the information domain.[802] The subsequent subchapter will delve into this particular issue.

B.4.2.1.3. Incident investigations – ”Facts” versus the Evidence

“*The first casualty of war is truth*”, a widely used quote attributed to different sources, is often heard in regard to the IAC in Ukraine.[803] Certain Russian state institutions, which are frequently associated with their capabilities in the domain of information and hybrid warfare, have already been actively influencing the narrative about Ukraine and the armed conflict since 2014[804], a phenomenon that Bellingcat and its representatives have regularly drawn attention to[805]. Christo Grozev refers, in this regard, to the so-called "*disinformation multiverse*", i.e. Russia’s approach to intentionally disseminate a large number of often contradictory theories to manipulate and/or distort the public discourse to such a point where most media producers and consumers alike can no longer discern which version of the narrative is closest to reality or away from it.[806] These state-organized information operations are further amplified by the so-called "*counterfactual community*", a term frequently used by Eliot Higgins.[807] The ongoing war in Ukraine is by no means an exception but rather represents a new level of intensity, not only in its material manifestation through the deployment of military equipment and personnel but also in the media dimension. While Bellingcat is not a fact-checker in the narrower sense, debunking disinformation is one of its self-declared primary objectives.[808] The added value which the open source investigative collective provides lies not only in the professional utilization of open source information but also in its prompt response to events, especially when it comes to debunking deliberate disinformation.

The following three Bellingcat investigations related to the IAC in Ukraine, published between 4th April and 29th June 2022, are such examples. However, it

[802] Cf. REISNER (2022).
[803] Cf. SDO (2022) and WOJCIK (2022).
[804] Cf. i.a. SNEGOVAYA (2015), DEEN (2020), MAHAJAN (2022) and KONG/MARLER (2022).
[805] Cf. i.a. HIGGINS (2022): pp. 75, DARRACH/GROZEV (2022), TRF (2022): 10:40 and 14:00, SKA-GEN (2023): 10:30 and NEWSY/BC (2023): 13:10, BC/NAHAS (2018b), BC/GROZEV (2020), BC (2020q), and others.
[806] Cf. ASPEN (2022): 09:20, PLEIN PUBLIEK (2022): 01:05:00 and KIPERMAN (2022).
[807] Cf. i.a. HIGGINS (2022): pp. 114-122 and p. 116, KILIAN (2021) and EUvsDISINFO (2021).
[808] Cf. HIGGINS (2022): p. 3 and BC (2022d): p.7, BC (2022c): p.2 and BC (2022u): p. 3).

should be noted that these reports were released relatively shortly after the respective event in question became known to the public and therefore did not aim to deliver a comprehensive analysis but rather to focus on specific claims made by one party to the conflict, namely the Russian Federation through official representatives and state-controlled media outlets.

Russia's Bucha 'Facts' Versus the Evidence (Kyiv Region): After Russian troops pulled back from the town of Bucha in late-March/early-April, images and videos depicting widespread devastation, scattered civilian-dressed corpses on the streets of the Kyivian suburb, and indications of summary executions of unarmed residents started circulating on social media and in independent NGO and media reports.[809] Subsequently, several Russian state officials and bodies, such as the Ministry of Defence (MOD) [810] and the Ministry of Foreign Affairs (MFA)[811], the Kremlin's spokesperson[812], and federal investigators[813], released statements in which they accused the Ukrainian authorities and Western media of spreading deliberate false information or even staging a hoax concerning the alleged killings of civilians in Bucha. These statements asserted, among other

[809] Cf. BC/HIGGINS (2022b) referring to BBC (2022a), HRW (2022b) and SPIRIDONOV (2022).

[810] The Russian MFA released on 3rd April 2022 a Telegram post(link: https://t.me/MFARussia/12230 - visited on 25th June 2023), which stated i.a. that "*The Russian Defence Ministry denies accusations of Kiev regime of allegedly killing civilians in Bucha,* (…) *the photos and videos published by the Kiev regime allegedly testifying to some "crimes" committed by Russian servicemen in Bucha, Kiev region are just another provocation. During the time that the town has been under the control of the Russian armed forces, not a single local resident has suffered from any violent action.* (…) *We would like to emphasise that all Russian units withdrew completely from Bucha as early as March 30,* (…) *all the so-called "evidence of crimes" in Bucha did not emerge until the fourth day, when the Security Service of Ukraine and representatives of Ukrainian media arrived in the town. It is of particular worry that all the bodies of the people whose images have been published by the Kiev regime are not stiffened after at least four days, have no typical cadaver stains, and the wounds contain unconsumed blood.* (…) *All this confirms conclusively that the photos and video footage from Bucha are another hoax, a staged production and provocation by the Kiev regime for the Western media*". Later that day, the same text was posted by the Russian MOD on Facebook(link: https://www.facebook.com/mod.mil.rus/posts/3197015560541178 - visited on 25th June 2023).

[811] The Russian News Agency TASS published on 4th April 2022 a statement from Sergey Lavrov(link: https://tass.com/world/1432013 - visited on 25th June 2023), Russian MFA, in which he stressed that "(…) *Russian troops completely withdrew from the city* [Bucha] *on March 30* (…)" and that a "*fake attack was staged there a few days later, and it's being fomented on all channels and social media by Ukrainian representatives and their Western patrons*".

[812] The Russian News Agency TASS published on 4th April 2022 a statement from Dmitry Peskov(link: https://tass.com/politics/1432019 - visited on 25th June 2023), Russian Presidential Spokesman, in which he stressed that "[c]*harges about killings of civilians in the Ukrainian community of Bucha must be called in question, because there are signs of video fakes and other forgeries,* (…) *facts and the calendar sequence of events do not testify in favour of these allegations,* (…)" and that Moscow "*categorically denies any charges*".

[813] The Russian Investigative Committee released on 4th April 2022 a Telegram post(link: https://t.me/MFARussia/12230 - visited on 25th June 2023), in which its head, Alexander Bastrykin, instructed the investigators to take comprehensive measures to expose all individuals involved in the crimes of public dissemination of deliberately false information regarding the use of the Armed Forces of the Russian Federation in relation to the accusations of massacres of civilians in Bucha.

things, that Russian troops had already withdrawn from the town before the alleged incidents took place.[814] After questioning the accuracy of Russian claims regarding the aforementioned point[815], the Bellingcat report focuses on specific scenes from a video, published by Ukraine's Espreso.tv[816], which Russian media outlets and state officials have utilized to argue that the entire event in Bucha was staged by Ukraine. This accusation was based on alleged movements of two deceased individual's bodies after the scene was recorded by a passing vehicle.[817] Bellingcat referred in the report to several contributions from reporters and members of the open source investigative community[818], who explained the alleged hand and body movements[819], as well as contextualizing the case with earlier footage indicating that the bodies had been in that very location and position for a period of time[820] congruent with the official version. The Bellingcat

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[814] Cf. footnotes 810, 811 and 812.

[815] Contrary to Russia's official claims that all its military personnel had left Bucha by 30th March 2022, Bellingcat refers to an online article from TV Zvezda (link: https://tvzvezda.ru/news/20224151-KMqbZ.html), a Russian Media outlet, which suggests that certain troops were on 1st April 2022 still operating in the area, conducting "*search and reconnaissance operations and clean up settlements with the further task of gaining a foothold in them*". Furthermore, a Telegram post (link: https://t.me/News380/7839) from the same day quotes a representative from the Bucha City Council, who states that "[c]*urrently, the city remains under occupation,*" and that "[t]*he liberation of the city continues*". Cf. BC/HIGGINS (2022b).
Additionally, the first videos depicting deceased civilians lying along Yablunska Street in Bucha (link: https://www.google.com/maps/place/50%C2%B032'29.6%22N+30%C2%B013'44.8%22E/@50.5411506,30.2277644,1044m/data=!3m1!1e3!4m4!3m3!8m2!3d50.5415556!4d30.2291111?entry=ttu) appeared on 1st April 2022 on Telegram (link: https://t.me/informatsia_obstanovka/11742) and Twitter/X (link: https://twitter.com/KharkivKherson/status/1509984515275563014). The geolocations of these were done by GeoConfirmed's Twitter/X (link: https://twitter.com/GeoConfirmed/status/1510652312410329092 - all links of this footnote visited on 25th June 2023) account. Bellingcat notes that the fact these videos appeared already on 1st April 2022 contradicts the Russian MOD's and MFA's statements regarding the timeline (cf. footnote 810).

[816] video, published by Ukraine's Espreso.tv (link: https://www.youtube.com/watch?v=Mx9JlNu_H1Y - visited on 25th June 2023)

[817] Examples of this accusation are the Russian MOD (link: https://t.me/mod_russia_en/643 - visited on 25th June 2023) and the MFA claiming on Telegram (link: https://t.me/MFARussia/12225 - visited on 25th June 2023) that "[t]*he video of the bodies is confusing: here at the 12th second the "corpse" on the right is moving his arm. At 30th second in the rear view mirror the "corpse" sits down. The bodies in the video seem to have been deliberately laid out to create a more dramatic picture.*"

[818] Bellingcat explicitly mentions at the end of this report the fact, that "(…) *the combined efforts of online communities have helped debunk the false claims made in this story. While we cannot cite everyone's efforts, it is important to thank all involved in examining and fact checking these claims.*" Cf. BC/HIGGINS (2022b)

[819] The Bellingcat report refers to a Twitter/X post from Shayan Sardarizadeh (link: https://twitter.com/Shayan86/status/1510695095703646212 - visited on 25th June 2023), a BBC Monitoring reporter, who explains, with the aid of video inversion (done by Aurora Intel) (link: https://twitter.com/AuroraIntel/status/1510641101643919368 - visited on 25th June 2023) and deceleration, that the alleged hand movement is actually a water drop running down the car's windscreen; the body that looks like to be sitting up is actually static but appears bent due to the recorder's movement and the mirror's warped reflection.

[820] Sardarizadeh (see prior footnote) also refers to other sources in a Twitter/X post (link: https://twitter.com/Shayan86/status/1510708484320509952 - visited on 25th June 2023) that depict the same corpses at the same location on 1st and 3rd April 2023. Similarly, Benjamin Strick (link: https://twitter.com/BenDoBrown/status/1510924491412721666?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1510924491412721666%7Ctwgr%5E55ca7bd6a8ef2807273fbacad94e1fbcb1b59672%7Ctwcon%5Es1_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2022%2F04%2F04%2Frussias-bucha-facts-versus-the-evidence%2F, https://www.youtube.com/watch?v=SGwJ1lnPnHE&t=75s and https://www.youtube.com/watch?v=0zRtclA187k&t=72s - visited on 25th June 2023) discovered sources that corroborated this. See also IIPC (2023): 13:10.

report, which mainly relies on the findings of other open source researchers, is, in the author of this thesis' understanding, relevant for two reasons. Firstly, it transfers the considerations and conclusions derived from the online discourse, which is predominantly held on Twitter/X, into a formal report. Secondly, the article was published relatively quickly, i.e., only two days after the initial Russian claims were made. This, along with the significant public attention that the Bucha massacre has caused, both within and outside of Ukraine, likely contributes to the fact that this publication became one of the most-read Bellingcat articles in 2022[821]. Afterwards, several other organizations and individual members of the wider open source investigative community conducted their own, partially more comprehensive investigations into this particular incident.[822] Alongside the 4th April 2022 investigation, as of 26th July 2023, Bellingcat's Civharm TimeMap includes at least three entries[823] that provide verified OAVC about incidents that caused civilian harm in Bucha during the period under review.

Russia's Kramatorsk 'Facts' Versus the Evidence (Donetsk Region): On 8th April 2022, a Tochka-U short-range ballistic missile with a cluster munition warhead[824] struck the area of the main railway station in Kramatorsk, which was, at that time, crowded with civilians attempting to evacuate themselves from the advancing occupation troops from the east, resulting in the deaths of 60 people and 150 wounded[825]. Russian officials quickly attributed the attack to the Ukrainian side[826], primarily based on two arguments; firstly, that Russia no longer uses this

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[821] In its Annual Report 2022, Bellingcat mentions that its report on March 2022 massacre in Bucha was with 310.000 views, the fourth most popular publication of the year. Cf. BC (2023a): p. 6 and 14.

[822] Cf. articles by the International Volunteer Community InformNapalm (link: https://informnapalm.org/en/tag/bucha/ - visited on 26th June 2023) and CIR (EL-SHERBINY/DEN BRABER (2022) and BURLEY (2022)), BBC (2022b), WISE (2022), SMITH-BOYLE (2022), and more. On the same day as Bellingcat, The New York Times and the Atlantic Council's Digital Forensic Research Lab also published open source based investigative reports on the Bucha incidents, reaching largely similar conclusions. Cf. TNYT/BROWNE et al. (2022) and DFRLab/BROOKING (2022).

[823] Cf. CIV0629 (link: https://ukraine.bellingcat.com/?range=2022-03-28&range=2022-04-05&id=CIV0629 - visited on 26th June 2023), CIV0639 (link: https://ukraine.bellingcat.com/?range=2022-03-28&range=2022-04-05&id=CIV0639 - visited on 26th June 2023), and CIV0696 (link: https://ukraine.bellingcat.com/?range=2022-03-28&range=2022-04-05&id=CIV0696 - visited on 26th June 2023).

[824] The report refers to GANGULY/INWOOD (2022), an expert interviewed (cf. footnote 836), as well as its own assessment that one vehicle "(…) *was hit directly with a submunition. A clear splash mark indicating cluster munition use was visible to the south of the station building*". Cf. BC/SHELDON (2022a).

[825] While the report referred, at the time of writing, to a source claiming that "(…) *50 people, including five children, were killed* (…) *98 wounded*" (cf. VOITOVYCH/HODGE (2022)), a year later the actual number of casualties and injured persons had to be revised upwards (cf. VAKULENKO (2023)).

[826] In a revised Facebook post (link: https://www.facebook.com/mod.mil.rus/posts/3200588880183846 - visited on 28th June 2023) (cf. footnote 827), the Russian MOD claimed that the attack on the Kramatorsk railway station was carried out by a Ukrainian missile division from the area of the settlement of Dobropillya, 45 kilometres southwest of the city.

particular weapon system[827], and secondly, that the serial number found on the munition's debris can be traced to its origin from the Ukrainian Armed Forces[828]. The Bellingcat report anticipates its investigation with acknowledging that as of "(…) *the time of writing* [the report was published on 14th April 2022, six days after the incident]*, the available open source evidence remains insufficient to reveal all details about the strike, including the direction of origin of the missile. However, it does appear to debunk a central argument by the Russian state in its defence*".[829] This particular attack on Kramatorsk, which was preceded by several others on similar infrastructure facilities[830] and OAVC and statements on social media about Russian military activities that may be temporally or geographically related[831], is of interest as it exemplifies the importance of accurately identifying specific weapon systems and understanding their tactical characteristics. Through online sources, the Bellingcat report demonstrates not only that the Russian army, contrary to official claims, had not decommissioned their Tochka-U missile systems long before the invasion[832] but also that specific units, such as the 47th Missile Brigade from Koronovsk, which is engaged in the Russian invasion of Ukraine, are likely to have used this particular weapon system for a much longer time period than officially disclosed[833]. Alongside providing open source information that depicts the

[827] After the Russian mission to the UN claimed already in mid-March that "*Tochka-U tactical missiles are not in service in Russian Armed Forces*" (cf. TASS (2022b)), an hour after the 8th April 2022 air strike, the Russian MOD reiterated on Facebook(link: https://www.facebook.com/mod.mil.rus/posts/3200531196856281 - visited on 27th June 2023) "(…) *that Tochka-U tactical missiles, the wreckage of which was found near the Kramatorsk railway station and published by eyewitnesses, are used by Ukrainian Armed Forces only*." On the same token, Dmitry Steshin, from the pro-Kremlin tabloid Komsomolskaya Pravda, stated on Telegram(link: https://twitter.com/D_Steshin/status/1512368660765192193 - visited on 27th June 2023) that Tochka-Us have not been in service in the Russian military for 30 years and never has been used by "LPR" or "DPR" forces.

[828] Cf. footnote 837.

[829] Cf. BC/SHELDON (2022a).

[830] The Bellingcat investigation refers to a Telegram post by a Ukrainian railroads representative(link: https://t.me/zalizni_zminy/427 - visited on 27th June 2023) on 7th April 2022, who reported a Russian airstrike on a railway station in Kharkiv Region, hindering the evacuation of civilians from Slovyansk and Kramatorsk.

[831] The Bellingcat report refers, among other sources, to a pro-Russian Telegram channel that issued a warning to civilians a day before the attack, advising them not to use the railway to leave Slovyansk or Kramatorsk due to likely air strikes. On the following day, other Telegram channels provided military statements from the Russian MOD's(link: https://t.me/mod_russia_en/754 - visited on 27th June 2023) regarding their actions in the region, as well as visual information indicating to the chronology(link: https://twitter.com/sssmirnov/status/1512366508688785412 and https://zona.media/online/2022/04/08/44 - visited on 27th June 2023) of missiles launched(link: https://t.me/itsdonetsk/11816 and https://t.me/itsdonetsk/11815 - visited on 27th June 2023 in the Donetsk Region.

[832] The CIT pointed in a Tweet out(link: https://twitter.com/CITeam_en/status/1512425874867593221 and https://kuban24.tv/item/v-korenovskom-garnizone-v-preddverii-23-fevralya-proshel-den-otkrytyh-dverej - visited on 27th June 2023) that the Russian 47th Missile Brigade operated the Tochka-U missile system at least a year before the full-scale invasion. Tochka-U missile systems were also showed and mentioned by a moderator at a Victory day parade in Krasnodar on 9th May 2021(link: https://www.youtube.com/watch?v=9IIpj8FqL4A&t=2540s - visited on 27th June 2023).

[833] The Bellingcat report highlights the 47th Missile Brigade, which is part of Russia's 8th Combined Arms Army and, according to a Financial Times article, participated during the first months of the armed con-

presence and therefore existence of the weapon system in question deployed within as well as outside of Russia[834], the report contextualizes these findings with statements from experts on the subject[835]. Following this approach, the report also analyzes the aftermath of the missile strike itself by assessing the impact pattern and the plausibility of the available online content in relation to the Russian claims, with input from experts[836]. While another argument regarding the proximity of the missile serial numbers between the remnants found in Kramatorsk and another one fired by Ukraine neither definitively proved nor disproved any factual claim, Bellingcat challenged this reasoning that aimed to consider this circumstance as

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flict in the Donbas region (cf. RATHBONE et al. (2022)). Furthermore, the Ukrainian Military accused the 8th Combined Arms Army(link: https://www.osce.org/files/f/documents/5/0/457468.pdf - visited on 27th June 2023) of commanding the so-called "DPR" and "LPR" forces. The indication that the 47th Missile Brigade was using Tochka-U missile systems until recently is supported by an image uploaded to a Russian social media platform in October 2021, which shows two soldiers from this unit posing with a launching vehicle. Additionally, a Russian media article(link: https://vpk.name/news/573365_raketnoe_soedinenie_yuvo_poluchilo_brigadnyi_komplekt_raketnogo_kompleksa_iskander-m.html - visited on 27th June 2023) reported the delivery of Iskander-M missiles ahead of schedule by the end of January 2022, what raised doubts at the CIT(link: https://twitter.com/CITeam_en/status/1512425874867593221?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1512425881700032515%7Ctwgr%5E37461c498b97298cfbf607545e949a82b719d161%7Ctwcon%5Es2_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2022%2F04%2F14%2Frussias-kramatorsk-facts-versus-the-evidence%2F - visited on 27th June 2023) about whether it was possible for the brigade to fully complete all the necessary training and adaptation required to switch entirely from one missile system to another within the given short time frame and the fact that a full-scale war has materialized in the meanwhile. Furthermore, recent satellite imagery measurements of vehicles located at the 47th Missile Brigades garrison, as of February 2022, are consistent with the dimensions of Tochka-U launchers and loaders. Cf. BC/SHELDON (2022a).

[834] Examples are video footages of a train transport of "V-marked" Tochka-U launchers(link: http://nashi-avto.ru/ru/bzkt/s/%D0%B1%D0%B0%D0%B7-5921.html) and loader vehicles(link: http://nashi-avto.ru/ru/bzkt/s/%D0%B1%D0%B0%D0%B7-5922.html) from Homyel (Belarus) to Belgorod (Russia) in April 2022, discovered by the CIT on Twitter/X(link: https://twitter.com/CITeam_en/status/1512425874867593221?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1512425881700032515%7Ctwgr%5Ecf76f0b31c815ebcb99b21c6734b8d5e7076661f%7Ctwcon%5Es2_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2022%2F04%2F14%2Frussias-kramatorsk-facts-versus-the-evidence%2F), or other Twitter/X videos(link: https://twitter.com/666_mancer/status/1512347578922422276?ref_src=twsrc%5Etfw%7Ctwcamp%5Etweetembed%7Ctwterm%5E1512350614910558212%7Ctwgr%5Ecf76f0b31c815ebcb99b21c6734b8d5e7076661f%7Ctwcon%5Es2_&ref_url=https%3A%2F%2Fwww.bellingcat.com%2Fnews%2F2022%2F04%2F14%2Frussias-kramatorsk-facts-versus-the-evidence%2F) that depict vehicles that carry Tochka-U missiles on the move in Belarus or in Russia's Rostov Region(link: https://twitter.com/ralee85/status/1386437030574501888 - all links of this footnote visited on 27th June 2023).

[835] Even though Russia announced on its state media website Interfax(link: https://www.interfax.ru/russia/714515 - visited on 28th June 2023) already in June 2020 that the Russian military had replaced all Tochka-U with the more modern Iskander missile systems, Scott La Foy, an open source analyst and expert(link: https://twitter.com/wslafoy?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor - visited on 28th June 2023) on ballistic missiles, expresses his doubts that Russia "*throw them all in a river*" and that "[w]*e've seen legacy equipment deployed by Russia before, and Tochka-Us are valuable munitions that can offset expensive Iskander costs, allowing Russia to burn legacy inventory instead of purely new, expensive munitions*". Cf. BC/SHELDON (2022a).

[836] Contrary to the claims made by at least two pro-Russian Telegram channels(link: https://t.me/c/1265038575/33205 and https://t.me/milinfolive/80688) that the orientation of the missile after it hit the ground suggests that it was fired from a southwest direction and therefore from Ukrainian-controlled territory, two missile experts, Markus Schiller(link: https://twitter.com/rocketschiller?lang=en) and Scott La Foy(link: https://twitter.com/wslafoy?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor), argue that the orientation of the rocket booster does not support such a conclusion. Aside of that, several images indicate(link: https://www.gettyimages.at/detail/nachrichtenfoto/calcinated-cars-are-pictured-outside-a-train-station-nachrichtenfoto/1239831931, https://www.gettyimages.at/detail/nachrichtenfoto/some-volunteers-look-for-traces-to-help-identify-the-nachrichtenfoto/1239873695 and https://www.gettyimages.at/detail/nachrichtenfoto/view-of-kramatorsk-railway-station-after-the-missile-nachrichtenfoto/1239874085 - all links of this footnote visited on 28th June 2023) that the rocket comprised sub munitions.

sufficient linkage evidence to attribute responsibility for the attack to Ukraine[837]. Although, as mentioned above, this investigation does not go so far as to blame one particular party to the conflict for the missile strike that caused significant civilian harm, which is also not too surprising given the timely reporting. However, it does mention that "[l]*arge amounts of footage emerged from the separatist-held towns* (…) *on 8 April showing several missile launches in the minutes preceding the Kramatorsk hit* (…)"[838], while "(…) *no footage has emerged of a launch site located south-west of Kramatorsk, whether in Ukraine-held or in Russia-held territory. This still leaves the biggest question regarding the April 8 strike on Kramatorsk station open, exactly where the missile originated.*"[839] Aside from the 14th April 2022 investigation, as of 27th July 2023, Bellingcat's Civharm TimeMap includes one entry[840] which refers to 22 sources of verified OAVC regarding the attack on the Kramatorsk main railway station on 8th April 2022.

Russia's Kremenchuk Claims Versus the Evidence (Poltava Region): On the afternoon of the 27th June 2022, two long-range air-to-surface missiles struck Kremenchuk; one hit the Amstor shopping mall, which was open and crowded with customers at that time, resulting in the deaths of 21 people and 59 injured[841]. Unlike the Bucha massacre and the missile strike on the Kramatorsk main railway station, the Russian authorities did not deny that this air attack was carried out by their military. However, Russian representatives at the United Nations[842], the MOD

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[837] While comparing serial number ranges is often useful for attributing munitions to a specific party to the conflict, this is hardly possible with Tochka-U missiles due to the fact that the munitions of this relatively old weapon system have been distributed to various stockpiles across the former Soviet Union. An example illustrating this circumstance is open source information showing two distinct instances of this missile type being used; one by Ukraine in Snizne in 2014 (ВГ910840) (link: https://www.youtube.com/watch?v=7cV17MkoOsw) and another one by Russia in Syria in 2018 (ВГ910865) (link: https://www.youtube.com/watch?v=37ZmlfyePd4&t=1s – both links visited on 28th June 2023), with a difference of only 25 digits between them.

[838] The report refers to OAVC from Telegram groups that emerged from several non-government-held towns such as Khartsyzk (link: https://t.me/khartsyzsk_chat/51937), Zuhres (link: https://t.me/milinfolive/80651), Shakhtyorsk (link: https://t.me/shortDPR/22000 – all links of this footnote visited on 28th June 2023), and Torez. Cf. BC/SHELDON (2022a).

[839] Cf. BC/SHELDON (2022a).

[840] CIV0722 (link: https://ukraine.bellingcat.com/?range=2022-04-1&range=2022-04-18&id=CIV0722 - visited on 28th June 2023)

[841] The report referred to a French television channel (link: https://www.france24.com/en/live-news/20220628-zelensky-calls-on-un-to-visit-site-of-ukraine-mall-strike - visited on 29th June 2023) that reported, at the time of writing, 18 people had been killed due to the attack. Later, the actual number of casualties and injured persons had to be revised upwards (cf. BBC (2022c)).

[842] On the day of the attack, Dmitry Polansky, Russia's Deputy Permanent Representative to the UN, stated that "*it looks like we are dealing with a new Bucha-style provocation* (…) *there are already too many conspicuous inconsistencies. This is exactly what the Kiev regime needs to keep the focus on Ukraine before the NATO summit* (…)" (translation by the author from Russian, original cf. RIA NOVOSTI (2022a)).

and MFA[843], as well as from the "LPR"[844], promptly justified the attack with various, partly contradictory explanations. Moreover, allegations against the defender and justifications in favor of the attacker, published by self-proclaimed fact-checkers and pro-Russian media, were shared by Russian state representatives, including the Russian Embassy in the United Kingdom[845]. Since Russia admitted from the very beginning that it carried out the air strikes in Kremenchuk on 27th June 2022, Bellingcat's objective in this investigation was not to exclude or assign responsibility, but rather to assess and, if necessary, question the plausibility of the different Russian narratives. The Bellingcat report, utilizing open source investigation techniques, was able to debunk, among other things, the following justifications for the attack on a civilian object, which resulted in harm to multiple civilians.

- Contrary to the Russian MOD's claim, there was no open source evidence indicating that the Amstor shopping mall was not directly struck but instead set ablaze by explosions originating from the nearby road machinery plant, caused, for example, by ammunition stored there.[846]

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[843] On 28th June 2022, the day after the attack, Igor Konashenkov, Spokesperson of the Russian MOD, stated that Russia's air force had carried out a "*high precision air attack at hangars where armament and munitions were stored* (…) *at the Kremenchuk road machinery plant, which is a few hundred metres north of the Amstor shopping mall. The shopping mall* (…) *was non-functioning (…) it had caught fire as a result of the strikes on targets nearby.*" Cf. BC (2022r) referring to RIA NOVOSTI (2022b). Sergey Lavrov, Russian Minister of Foreign Affairs, reiterated this claim in a press statement, emphasizing that Western-supplied weapons had been destroyed in the attack. Cf. TASS (2022c).

[844] On 28th June 2022, Vitaly Kiselyev, Assistant to the Head of the self-proclaimed "LPR", compared this incident with Bucha – as an information operation by Kyiv, and claimed that the Amstor shopping mall had been used as an ammunition depot and a training and education facility for Ukrainian territorial defence units. Cf. BC (2022r) referring to NEWS.RU (2022).

[845] A post by the Telegram channel Война с фейками (link: https://t.me/warfakes/4312 - visited on 30th June 2023) (engl. War on fakes), shared by the Russian Embassy in the UK (link: https://twitter.com/RussianEmbassy/status/1541718651593695233?t=zKkoyPmck_y81qZt94ApQ&s=19 - visited on 30th June 2023), reiterates that the Amstor shopping mall facilities were used for storing military equipment from the neighbouring road machinery plant (link: https://poltavainfo.com/2014-october-20-poltava-news-03.html - visited on 30th June 2023). The post also highlights the military logistic significance of the railway station, which is located east of the mall, and presents alleged open source information, such as satellite imagery of the mall's partially empty parking lot, military personnel on the scene after the strike (link: https://t.me/voenacher/23337 - visited on 30th June 2023), and the lack of online ratings (link: https://www.google.com/search?q=%D1%82%D1%86+%D0%B0%D0%BC%D1%81%D1%82%D0%BE%D1%80+%D0%BA%D1%80%D0%B5%D0%BC%D0%B5%D0%BD%D1%87%D1%83%D0%B3+%D0%BE%D1%82%D0%B7%D1%8B%D0%B2%D1%8B&rlz=1C1CHZL_ruRU719RU723&oq=%D1%82%D1%86&aqs=chrome.0.69i59l2j69i57j46i175i199i512l2j69i61l3.2379j0j7&sourceid=chrome&ie=UTF-8 - visited on 30th June 2023) and visitor photos on social media, as evidence that the mall had not been frequented by civilians for several months, but rather by Ukrainian military personnel. More claims from other pro-Russian media, cf. footnote 850.

[846] A geolocation of the impact site of the first explosion, based on CCTV footage (link: https://twitter.com/Podolyak_M/status/1541890875520913408 - visited on 1st July 2023) and satellite imagery, indicates that the Amstor shopping mall was directly hit from a missile. Cf. BC (2022r). The second missile's impact site was geolocated 500 meters north of the first one. Besides the four buildings hit there, satellite imagery showed no destruction between the two impact sites (cf. footnote 848). None of the OAVC provided indicates that ammunition was stored either in the Amstor shopping mall, or at the road machinery plant.

- Contrary to the statement of the "LPR" representative, there was no open source evidence of multiple explosions within the Amstor shopping mall indicating the presence of ammunition stored there. The only other explosion occurred shortly after the first one, caused by another missile, which destroyed smaller objects of the adjacent industrial facility, 500 meters north of the Amstor shopping mall.[847]
- Contrary to claims made by self-proclaimed fact-checkers, there was no open source evidence that the train yard located just east of the Amstor shopping mall has been hit.[848]
- Similarly, contrary to claims made by pro-Russian fact-checkers and media, there was no reliable open source evidence indicating that the Amstor shopping mall was not operational at the time of the airstrike, nor that there were no civilians present in and around the facility.[849]
- There was no open source evidence proving either that Ukrainian troops were accommodated in the the Amstor shopping mall or that military equipment from the nearby industrial facility had been stored there.[850]

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[847] Based on several CCTV footages, including those from a park located north (link: https://twitter.com/YWNReporter/status/1541759715675340800 - visited on 1st July 2023) of both impact sites, two explosions, which occurred shortly after each another, could be chronolocated and their direction assessed.

[848] Satellite imagery from Sentinel-2 L1C (captured on 4th May and 28th June 2022) and from Planet Skysat (captured on 28th June 2022) reveals two impact sites (destroyed buildings), namely the Amstor shopping mall and 500 metres north of it, four relatively small buildings at the northern edge of the industrial area. No damage is visible in the area of the railway yard. Cf. BC (2022r).

[849] The Bellingcat report presents several online available sources that not only provide evidence that the Amstor shopping mall was open and operational on the day and at the time of the missile strike, but also demonstrate that it would have been indeed possible to ascertain this fact solely through open source information prior to the attack's commission. An example is a blog.post from the Comfy retail chain (link: https://blog.comfy.ua/ua/yak-comfy-pracyueh-10-kvitnya-58-magaziniv-dostavka-u-17-mistakh-2/). Aside from referring to several social media posts by bereaved (link: https://t.me/h_kremenchug/43267) individuals and employers (link: https://www.instagram.com/p/CfUavHfNVQr/?igshid=YmMyMTA2M2Y%3D) expressing their condolences (link: https://www.instagram.com/p/CfVxGXujZke/?igshid=YmMyMTA2M2Y%3D) to their deceased sales staff, as well as a YouTube video from the day before the attack (link: https://www.youtube.com/watch?v=dpDrt56hPX0&t=771s) that showed the mall being open and visited by numerous customers, the investigation debunked the claim that a relative small number of vehicles in the parking lot (link: https://regnum.ru/news/3630837 - all links of this footnote visited on 1st July 2023) would imply that the mall may be closed. Cf. BC (2022r).

[850] Additionally to the conclusions of self-proclaimed fact-checkers like Война с фейками (cf. footnote 845), certain pro-Russian news sites, such as LifeNews (link: https://life.ru/p/1505077), or EurasiaDaily (link: https://eadaily.com/ru/news/2022/06/28/operaciyu-kremenchug-zelenskiy-mozhet-povtorit-v-lyubom-gorode-ukrainy), included claims based, inter alia, on other Telegram channels, such as Повёрнутые на Z войне (link: https://t.me/voenacher/23337) (engl. Turned on the Z war). These claims suggested the presence of armed men in Ukrainian uniforms and the alleged absence of women in the footage shared on social networks. This implied that the shopping mall was not a civilian object but rather a military objective. The Bellingcat report refuted these claims, however, mentioning that "(…) *the presence of some men in military fatigues is not out of keeping with the aftermath of other attacks across Ukraine on civilian infrastructure behind frontlines, in which members of the territorial defence forces have been seen* (link: https://war.obozrevatel.com/v-chernigove-rossijskaya-aviatsiya-atakovala-dve-shkolyi-i-chastnyie-doma-pogibli-9-chelovek-chetvero-ranenyi-foto-i-video.htm - all links of this footnote visited on 1st July 2023) *alongside firefighters, medics and policemen.*" Cf. BC (2022r).

Bellingcat summarizes its report, which was published just two days after the incident, stating that "[t]*he Russian account of these events presented so far does not tally with the available open source evidence; neither have the Russian authorities provided any verifiable information which could substantiate their claims.*"[851] Aside from the 29th June 2022 investigation, as of 31st July 2023 Bellingcat's Civharm TimeMap includes one entry[852] which refers to eight sources of verified OAVC regarding the missile attack on the Amstor shopping mall in Kremenchuk on 27th June 2022.

As mentioned at the beginning of this subchapter, under Grozev's concept of the "disinformation multiverse"[853], the Kremenchuk case, along with the Bucha massacre and the Kramatorsk air strike, exemplifies how Russian strategic information campaigns operate. Through the rapid dissemination of multiple, often contradicting versions of an incident[854] across various channels including official sources (such as the MOD, MFA, etc.) as well as numerous formal media outlets and informal opinion makers (such as military bloggers, pro-Russian Telegram channels, etc.), the perception is created in public discourse that either the situation itself is unclear due to the existence of different versions of “the truths", or that all parties to the conflict are somehow lying to the public. In this regard, it should be noted that, given the short time for research and publication, the three Bellingcat investigations discussed here are not intended to fully explain an incident in every detail for a legal assessment or attribution. Instead, their main objective was to debunk the most widely spread disinformation before it became entrenched in the collective media discourse and perceived as legitimate viewpoints. Nevertheless, the investigations mentioned in this subchapter do have components that may be relevant to both national and international law enforcement authorities. Due to the fact that Bellingcat conducted these investigations based on open source information, i.e. information which could and thereby should be known to military decision-makers, one can accuse those who

[851] Cf. BC (2022r).
[852] CIV1120 (link: https://ukraine.bellingcat.com/?range=2021-12-20&range=2023-07-01&id=CIV1120 - visited on 1st July 2023)
[853] Cf. footnote 806.
[854] An example is the Kremenchuk missile attack, where Russia claimed on one hand that the Amstor shopping mall was not directly targeted and was damaged as a result of explosions from the neighbouring road machinery plant. On the other hand, there is the argument that the mall was a legitimate military target because it housed Ukrainian soldiers and served as a Western weapon storage facility.

authorized and/or ordered the missile attacks on the Kramatorsk railway station, which served as a transportation hub for evacuating the civilian population, or on the industrial facility in the midst of Kremenchuk, which is located in close proximity to one of the city's largest and busiest shopping centers, of not adhering to the IHL principle of precaution[855]. Furthermore, if it is revealed that a military commander was aware of the status of an object as civilian, through the existence of respective open source information, the commission of such imprecise and therefore indiscriminate weapons must be assessed, among other factors, in terms of adherence to the IHL principles of distinction[856] and proportionality[857]. These considerations lead to the fourth and last thematic complex addressed in this chapter's subcategory – namely, the attribution of war crimes or even crimes against humanity to a specific individual or a group of individuals – a prerequisite for criminal prosecution.

B.4.2.1.4. Tracing the Individual for Accountability

Considering the two missile strikes mentioned above on Kramatorsk and Kremenchuk, several questions arise concerning accountability, directed at various individuals or groups. Based on the arguments raised in previous chapters, the criminal scope extends beyond the relatively lower-ranked soldiers who directly carried out an attack, often lacking information about the target's militarily legitimacy, but particularly pertains to those individuals who politically mandated or tactically ordered such an attack. In this context, the principles of command responsibility and information superiority lead to the assumption that the latter-mentioned group of persons is much more aware of the potential civilian harm and may have even accepted this risk consciously. However, as long-range missiles are highly complex weapon systems, there is an additional group of

[855] Cf. footnote 81 referring to AP-I (1977): Art. 57(1) (sparing civilian population and objects), ibid. Art. 57(2)a/i (verification of military objectives prior an attack), ibid. Art. 57(2)a/ii and Art. 57(3) (choosing means of warfare that cause minimum harm to civilians), ibid. Art. 57(2)a/iii and Art. 57(2)b) (excessive harm to civil population in relation to military advantage anticipated), ibid. Art. 57(2)c) (warning civilians prior an attack), ibid. Art. 58(a) (evacuation of civilians), etc. See also HENCKAERTS/DOSWALD-BECK (2005): pp. 51/Rule 15-24.

[856] Cf. footnote 79 referring to AP-I (1977): Art 48 (civilians/civilian objects versus combatants/military objectives) and 85(3)a and ICC (1998): Art. 8(2)b/I and ii (deliberate targeting); and AP-I (1977): Art. 52(2) (definite military advantage) and ibid. Art. 51 (3), AP-II (1977): Art. 13 (3), ICC (1998): Art. 8(2)e/I and CIHL (cf. HENCKAERTS/DOSWALD-BECK (2005): Rule 6/pp. 20 (exceptions and attributions).

[857] Cf. footnote 80 referring to AP-I (1977): Art. 51(5)b) (intentional/indiscriminate attacks) and ICC (1998): Art 8(2)b/iv (knowledge of disproportionate/excessive harm to civilians relative to the anticipated military advantage).

individuals to consider from a legal point of view, namely, those involved in the technical planning and execution of an attack, i.e. engineers, programmers and missile technicians. Grozev's investigation from 24th October 2022, titled "*The Remote Control Killers Behind Russia's Cruise Missile Strikes on Ukraine*"[858], specifically deals with this matter.

In the first half year since the escalation of the IAC in Ukraine, there were numerous instances where long-range missile strikes repeatedly destroyed non-military targets, causing civilian harm.[859] Despite the blatancy that many of these incidents constituted war crimes[860], they continued to occur frequently in the subsequent year of the armed conflict, intensifying both in quality and quantity[861]. From the early days of the war onward, open source information indicated that these attacks were launched from all three classical domains of warfare, including "(…) *cruise missiles, of the sea-launched Kalibr (3M-14), the land-launched R-500 (9M728) for the Iskander system, and air-launched Kh-101 types.*"[862] A six-month investigation conducted jointly by Bellingcat with The Insider[863] and Der Spiegel[864] revealed a clandestine operating group consisting of dozens of military engineers and their superiors, affiliated with both the Russian MOD and the Main

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858 The Remote Control Killers Behind Russia's Cruise Missile Strikes on Ukraine (link: https://www.bellingcat.com/news/uk-and-europe/2022/10/24/the-remote-control-killers-behind-russias-cruise-missile-strikes-on-ukraine/)

859 The Bellingcat report links in addition to media reports (e.g. suspilne.media (link: https://suspilne.media/292840-kilkist-zaqiblih-pid-cas-raketnih-udariv-10-zovtna-zrosla-do-20-ludej-dsns/), voanews.com (link: https://www.voanews.com/a/latest-developments-in-ukraine-oct-10/6783022.html), Twitter.com/KyivIndependent (link: https://twitter.com/KyivIndependent/status/1579413266094125056), etc.) to its Civharm TimeMap, which depicts OAVC from at least 14 incidents/events (cf. i.a. CIV1504 to CIV1512, CIV1524, CIV1525, CIV1560 and CIV1573 (link: https://ukraine.bellingcat.com/?id=CIV1573&id=CIV1524&id=CIV1512&id=CIV1511&id=CIV1510&id=CIV1508&id=CIV1507&id=CIV1506&id=CIV1505&id=CIV1504&id=CIV1525&id=CIV1560)) on 10th October 2022, occurring all over Ukraine, in regard to "(…) *Russia's* [at that time] *largest coordinated missile strikes since the beginning of the war.*" Cf. BC/GROZEV (2022). Despite Russia's claim (link: https://rg.ru/2022/10/10/udar-vozmezdiia.html - visited on 2nd August 2023) that its high-precision weapons (link: https://www.reuters.com/world/europe/russias-defence-ministry-all-targets-hit-massive-missile-strikes-ukraine-2022-10-10/) only aim and thus destroy relevant military targets, the Bellingcat article refers to several online sources which report on missile strikes causing civilian harm, such as the destruction of residential buildings, healthcare facilities, schools, kindergartens (link: https://apnews.com/article/russia-ukraine-nato-kyiv-business-76dba1ecb9c1d3ff04ec4609740c2283), civilian infrastructure (link: https://defence-blog.com/bellingcat-identified-missile-that-russia-used-to-strike-on-kharkiv/), and more, in cities like Mykolaiv (link: https://news.yahoo.com/russian-missiles-strike-mykolaiv-day-093500698.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAISMl60b3pKz1owtCSad7gHLA0xBmqr-sEDVGHuUVN8HuMxlA8JPNXCQaITfbVMfDClPvvvyAMmYrSCr97p_kCh6O2j2_LRu7N5LansGM6uiN1H4nueUtO17TBdcFuVwZxVKVupicZ3DTCZiN3layVVMD_9dqqJP7r6enmTsSGOi), Odesa (link: https://www.nytimes.com/2022/04/23/world/europe/missile-strikes-odesa-ukraine.html), Vinnytsia (link: https://24tv.ua/ru/raketnyj-udar-po-vinnice-14-07-2022-pogibshee-chislo-zhertv_n2096773), and others (link: https://www.pravda.com.ua/rus/news/2022/10/18/7372381/ - all links of this footnote visited on 2nd August 2023), resulting in hundreds of civilian deaths and injuries.

860 Cf. i.a. AI (2022b and 2022c), UN/OHCHR (2022), BEAUMONT/BORGER (2022), and more.

861 Cf. i.a. BRIMELOW (2023), HASSAN et al. (2023), KIRBY (2023), and more.

862 Cf. BC/GROZEV (2022).

863 Cf. INSIDER (2022c).

864 Cf. DOBROKHOTOV et al. (2022).

Computation Centre of the General Staff (GVC)[865]. The investigation achieved this through initially combining open source data of thousands of graduates from prominent Russian military institutions specializing in missile engineering and computer programming with analyses of leaked employment and telephone entry data associated with these groups. For this, it used various data lookup Telegram bots, such as Glaz Boga and HimeraSearch, to compile a collection of phone numbers and working addresses. Based on this information, in conjunction with a similar method applied to Bellingcat's investigation of the Navalny poisoning, Grozev then obtained phone metadata records from the highest publicly know person connected with the GVC, Major General Robert Baranov, analyzed them, and was able to establish "(…) *a correlation between significant Russian cruise missile attacks in Ukraine, and incoming calls prior to the missile strikes* (…)", as well as identifying a key working address of the GVC; Znamenka 19 in Moscow – the official address of Russia's Armed Forces General Staff.[866] Through further investigation, the organizational structure and internal hierarchy of a group could be reconstructed, comprising at least 33 military technicians, working in three sub teams (clusters) reporting to a central figure, Lieutenant Colonel Igor Bagnyuk.[867] Based on the individuals' educational and professional backgrounds, it was further possible to associate the three clusters with the missile types "(…) *3M-14 (Kalibr, sea-launched), R-500 (aka 9M728, for Iskander systems, (ground) launched), and Kh-101 (air-launched).*"[868] Besides technical explanations of these weapon systems[869] and the operational procedures of the pre-planning and execution of a missile attack[870], the Bellingcat report provided insights about the professional as well as private lives of the so-called "*Remote Control Killers*" based on online open

[865] The *Главный Вычислительный Центр Вооружённых Сил Российской Федерации* (ГВЦ ВС РФ), usually abbreviated as just the ГВЦ (engl. GVC), can be translated as the *Main Computing Center of the Armed Forces of the Russian Federation*. Despite the fact that little is known and published about its official function, the Bellingcat report disclosed with open source information links to at least two individuals who are by profession related to the GVC. Based on this and later-discovered GVC staff and their "(…) *highly specialized technical skills* (…)", Bellingcat reasoned "(…) *that the GVC may be linked to programming the flight paths of Russia's cruise missiles.*" Cf. BC/GROZEV (2022): para. "*How we Linked the GVC Team to Cruise Missile Strikes*".
[866] Cf. ibid.
[867] For an organogram of the group within the GVC, see Appendix JJ.
[868] Cf. ibid.: para. "*How we Linked the GVC Team to Cruise Missile Strikes*".
[869] Cf ibid.: para. "*What are Russia's High-Precision missiles?*".
[870] Cf. ibid.: para. "*Flight-Path Planning and Precision*".

source information.[871] In addition to identifying those individuals involved in the missile strikes, including the cluster's technicians, commanding officers and the higher-ranking decision-makers, the investigation also enabled the tracing of internal and external communication patterns related to certain large-scale missile operations. These correlation patterns suggest, among other things, that the attack wave, which Russia officially presented as retaliation to the Kerch Bridge explosion on 8th October 2022, was not occasion-related but rather preplanned and decided upon in advance.[872] Similar to the Navalny poisoning investigation, Bellingcat's investigative partner, *The Insider*, contacted the identified Russian MOD/GVC employees to grant them a chance to respond to the allegations. While most of those contacted remained silent or denied any connection with the program, at least one individual affiliated with the GVC "(…) *shared with* [the investigators]*, on condition of anonymity, certain contextual information about how the group was tasked with manually programming the sophisticated flight paths of Russia's high-precision cruise missiles* (…)" and even provided a group photo[873], which was later geolocated in a Bellingcat guide[874]. While criminal prosecution of the 31 identified GVC employees may be highly improbable in the foreseeable future, the Bellingcat article already held them to account with consequences. As of 16th December 2022, all individuals identified by the open source investigative collective[875], along with the GVC as an entity, have been placed on the sanctions list of the European Union[876] and other states, including Switzerland, Japan, and,

[871] Cf. ibid.: paras. "*Who are the Remote Control Killers?*" and "*The Approach: Reaching out to the GVC Team*". It is noticeable that the GVC staff is, for a military organization, composed of a relatively young and diverse group of people, with backgrounds often recruited from civilian sectors, particularly in IT, computer sciences and mathematics, who later "(…) *underwent military engineering training at the Military Academy of Strategic Missile Forces or the Military-Naval Engineering Institute.*" However, while there seems to be quite a bit of online content available about many of these relatively young military engineers (e.g. on social media platforms(link: https://web.archive.org/web/20221024173648/https://twitter.com/MattewStill), job search websites(link: https://web.archive.org/web/20221018150425/https://profi.ru/profile/LyubavinMA3/?ysclid=l917g2lyre287682168), dating portals(link: https://teamo.ru/profile/18063056 - all links of this footnote visited on 2nd August 2023), etc.), the Bellingcat report primarily focused on the higher-ranking officers, such as Colonel Igor Bagnyuk, who previously served in the Russian missile program during Russia's military engagement in the Syria Civil War, for which he received recognition and medals.

[872] Cf. BC/GROZEV (2022): para. "*An Hour to Kill*".

[873] Cf. BC/GROZEV (2022): para. "*Russia's Cruise Missiles*".

[874] Cf. BC/TOLER (2022b).

[875] Cf. Appendix JJ.

[876] The EU's *Council Regulation No 269/2014 of 17th March 2014 concerning restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine* added to its list of natural and legal persons, entities and bodies (Annex I) on 16th December 2022 the following 31 individuals; Major General Robert Baranov (Director of the GVC), Colonel Evgeny Kapshuk (Deputy Commander of the GVC), Colonel Igor Bagnyuk (Commander at the Missile Pre-

of course, Ukraine[877]. While, as of 4th August 2023, none of these individuals have been sanctioned by the US, another Russian citizen, soldier and alleged war criminal, Ochur-Suge Mongush, whose identity was revealed in the course of another Bellingcat open source investigation, was listed on the *Specially Designated Nationals and Blocked Persons List*[878] as well as other US material sanction measures for "(…) *human rights abuses against civilians in Ukraine,*"[879] specifically for "(…) *torturing a Ukrainian prisoner of war.*"[880]

In late July 2022, three extremely graphic videos (aka. "the violent videos") appeared on Russian telegram channels, depicting a male person in Ukrainian military attire being abused and mocked, castrated with a cutting knife while fully conscious, and eventually executed with a gunshot to the head by a group of Akhmat battalion fighters, a Chechen paramilitary formation serving with the Russian Armed Forces in Ukraine. Eight days later, on 5th August 2022, a group of four Bellingcat researchers (Grozev, Toler, Sheldon and Gonzales) published an investigation, titled "*Tracking the Faceless Killers who Mutilated and Executed a Ukrainian POW* [prisoner of war]"[881], which not only geolocated the crime scene but also identified the main culprit[882]. The geolocation process of the execution site serves as a textbook example of how open source research techniques, e.g.

Planning Unit at the GVC), Lieutenant Colonel Anton Timashinov (responsible for programming the route of the guided missiles types Kalibr, R-500 and Kh-101), Captain Elvira Obukhova, Captain Pavel Obukhov, Captain Vitalia Yaskelainen, Lieutenant Artem Vedenov, Major Ivan Popov, Major Matvey Lyubavin, Lieutenant Ekaterina Chugunova, Captain Sergei Ilyin, Captain Yuri Nikonov, Senior Lieutenant Dmitry Tikhonov, Captain Artem Chernov, Captain Alexey Betekhtin, Lieutenant Nikita Poplavsky, Major Andrey Ivanyutin, Lieutenant Igor Groza, Senior Lieutenant Nikolai Tarasov, Captain Georgy Starostin, Major Roman Kurochkin, Lieutenant Vladimir Petrov, Captain Anton Chulikov, Senior Lieutenant Olga Pismenskaya, Senior Lieutenant Pavel Vasilyev, Lieutenant Alexei Volkov, Captain Anton Shatun and Captain Stanislav Minkov (all GVC employees). Cf. INSIDER (2022a) and EU (2023): Annex I/Persons/Nr. 1348-1378 and ibid./Entities/Nr. 166.

877 Switzerland (link: https://www.fedlex.admin.ch/filestore/fedlex.data.admin.ch/eli/oce/2023/39/it/pdf-a/fedlex-data-admin-ch-eli-oce-2023-39-it-pdf-a.pdf - visited on 3rd August 2023), Japan (link: https://www.mofa.go.jp/files/100465346.pdf - visited on 3rd August 2023), and Ukraine (link: https://www.president.gov.ua/storage/j-files-storage/01/17/97/623846514a5770c2a3839ae27f028d5f_1680342471.pdf - visited on 3rd August 2023)

878 Cf. US/OFAC (2023): p. 1189.

879 Cf. US/DT (2022).

880 Cf. US/DOS (2022). In regard of sanctions, Bellingcat mention in its Annual Accounts 2022, that "[n]*ew names of Russian military operatives implicated in assisting the war in Ukraine have been added to the international sanctions lists due to Bellingcat's investigations.*" Cf. BC (2023b): p. 6. See also (2023a): p 11.

881 Tracking the Faceless Killers who Mutilated and Executed a Ukrainian POW (link: https://www.bellingcat.com/news/2022/08/05/tracking-the-faceless-killers-who-mutilated-and-executed-a-ukrainian-pow/ - visited on 4th August 2023)

882 Cf. GROZEV et al. (2022). While the Bellingcat investigators were sure to have identified the alleged perpetrator, their report abstained due to an internal editorial debate, from revealing the real name and showed only obscured images. However, soon after Bellingcat's publication, other media outlets disclosed the full name and unpixelated facial pictures of the main culprit, making Ochur-Suge Mongush's identity de facto public. Cf. i.a. INSIDER (2022b) or FINCH (2022).

comparing distinctive landmarks like stones and kerbs, trees and boughs, buildings and other structures, were used to determine that the ”violent videos” had been recorded in vicinity of the Pryvillya Sanatorium (Luhansk Region) and to corroborate their authenticity through publicly available sources such as YouTube videos and satellite imagery.[883] After geolocating and authenticating the video material, the next step involved identifying the main perpetrator, whose face was not clearly depicted in the original recordings with sufficient quality to attribute the crime to a specific individual. However, some distinctive pieces of clothing, such as a white seashells-decorated cowboy hat, a bracelet, shoes, as well as background elements like military uniforms and insignias, along with a white vehicle with a spray-painted "Z" on it, provided enough potential linkage evidence for further investigation.[884] Based on at least six videos depicting members of an Akhmat Battalion unit operating in the relevant region during the period under consideration, a connection to a specific soldier could be established.[885] Through various social media entries and cross-referencing phone numbers with the help of Telegram bots, the suspected perpetrator could ultimately be identified.[886] Bellingcat, adhering to the right of reply, contacted the suspected individual for questioning about their findings regarding the potential war crime. While the person in question acknowledged to have served with Akhmat during the relevant

[883] Cf. GROZEV et al. (2022): para. ”*Geolocation of the Footage*”. YouTube videos(link: https://www.youtube.com/watch?v=uElfVqER3Ik and https://www.youtube.com/watch?v=3evkvHHIQiq - visited on 4th August 2023) and satellite imagery(link: https://www.google.com/maps/place/48%C2%B059'29.5%22N+38%C2%B015'16.8%22E/@48.9913209,38.254764,393m/data=!3m1!1e3!4m4!3m3!8m2!3d48.9915278!4d38.2546667?entry=ttu - visited on 4th August 2023)

[884] Cf. GROZEV et al. (2022): para. ”*The Man in the Cowboy Hat*”.

[885] Cf. ibid.: para. ”*Six ‘Akhmat’ Videos*”. Aside from the CIT pointing towards some details of the ”violent videos“(link: https://aliexpress.ru/item/1005002829196736.html?item_id=1005002829196736&sku_id=12000022371679333&spm=a2g2w.productlist.0.1.56e2199dkKMRmN), other Twitter/X users(link: https://twitter.com/justkotekmeme/status/1552669980860321794?t=8jqvi2yljkOQOoDEU8MjYw&s=19) pointed out early two videos from RT (link: https://www.bitchute.com/video/87OnnW72t25J/) and RIA Novosti(link: https://www.youtube.com/watch?v=P1H_Et9iFg8) in which the suspected individual appeared. The Bellingcat report also examines three more YouTube videos (from Patrick Lancaster(link: https://www.youtube.com/watch?v=DRKNBYqb5DQ), Investigations and Portraits(link: https://www.youtube.com/watch?v=3evkvHHIQiq) and Kadyrov 95(link: https://www.youtube.com/watch?v=MsRqCF72YMI)) and one from Telegram (Zhdanov)(link: https://t.me/zhdanovrt/1160 - all links of this footote visited on 5th August 2023) that depict the suspected main culprit, or rather, particular elements of his distinctive clothing, as well as the white ”Z”-marked vehicle.

[886] Cf. GROZEV et al. (2022): para. ”*Finding a Face*”. Using an online facial recognition tool on snippets from the *Investigations and Portraits*-video (cf. previous footnote), Bellingcat discovered a VK account with better quality facial photos of the male individual in question. These new pictures in turn led to an old profile on Odnoklassniki and, subsequently, a Facebook profile with more photos and personal data. By applying the website Search4faces and PimEyes, these photos could be linked to already known videos. Several mobile phone numbers were obtained from a public VK group and two private profiles, as well as Avito.ru, a Russian classified advertisement website and leaked government records, employing various methods similar to previous investigations by Grozev. This provided information about the name, residential address, and other details of the suspected perpetrator.

period in Luhansk Region, he denied being the man from the "violent videos" but provided instead a version – seemingly suggested by the FSB, who had temporarily detained and interrogated the suspect – implicating that Ukrainians are responsible for the mutilation and murder. However, the questioned individual got entangled in a series of contradictions in his narrative, which eventually disclosed further details about the incident itself, contributing, among other things, to Bellingcat's geolocation.[887] In addition to the somewhat grotesque attempt of denial and distortion of facts, this case stands out not just for the extraordinary gruesomeness of the crime but also due to several factors related to suspect's attribution and preservation of potential criminal evidence using open source information. On one hand, unlike the previously mentioned highly-complex examples where attacks with long-range weapons caused harm to civilians, this incident represents a relatively straightforward and clear case of multiple war crimes, including torture, cruel and inhumane treatment of a POW[888], physical mutilation of a POW[889], displaying a POW to public curiosity in a degrading manner[890], murder/willful killing a POW[891], and so forth. On the other hand, this Bellingcat investigation demonstrates that, based on open source information, even without physically entering the country where an alleged crime scene is located (Ukraine) or receiving cooperation from the state where the suspect resides and served on behalf of its armed forces (Russia), enough linkage evidence could be gathered to elucidate the essential aspects of the alleged atrocity crime. Another point to consider is that less than a year after the Bellingcat report was published, most of the original sources of the open source information

[887] Questioned by Bellingcat via phone, the suspect revealed that the "violent videos" took place in Pryvillya, but that they were recorded after he had already left Ukraine; he argued that "[t]*he FSB officers told me that they found this video in vehicles of Ukrainian soldiers. When I was with them on the second day, they realised that it was not me, and explained that Ukrainian soldiers did this themselves because the person who was being mutilated raped a ten-year-old girl. They found him, punished him, and then somebody found this* [spliced-together] *video and led to all of this nonsense.* (…) *The FSB officers suddenly understood everything and let me go after two days.*" Cf. GROZEV et al. (2022): para. "*I Didn't Even Fire a Single Shot*".

[888] Cf. i.a. GC I-IV (1949): Art. 3(1)a, GC-I (1949): Art. 50, GC-II (1949): Art. 51, GC-III (1949): Art. 17 and 130, GC-IV (1949): Art. 147, HENCKAERTS/DOSWALD-BECK (2005): pp. 306/Rule 87 and 90 and ICC (1998): Art. 8(2)a/ii, and more.

[889] Cf. i.a. GC I-IV (1949): Art. 3(1)a, GC-III (1949): Art. 13 and 130, GC-IV (1949): Art. 32, AP-I (1977): Art. 75(2)a/iv and ICC (1998): Art. 8(2)a/iii and b/x, and more.

[890] Cf. GC-III (1949): Art. 13 (POWs "*must at all times be protected* (…) *against insults and public curiosity*") and MAHNAD (2022).

[891] Cf. i.a. GC-I (1949): Art. 50, GC-II (1949): Art. 51, GC-III (1949): 130, GC-IV (1949): Art. 147, AP-I (1977): Art. 75(2)a/i, HENCKAERTS/DOSWALD-BECK (2005): pp. 311/Rule 89 and ICC (1998): Art. 8(2)a/I, and more.

cited, has already disappeared from the online platforms or media outlets for various reasons; YouTube for example removed some videos due to "*violating YouTube's policy on hate speech*"[892], while others were intentionally deleted by the uploaders[893]. This highlights once again the importance of timely executed open source investigations and the imperative of archiving any and all digital items found. In the course of the investigation it became once again apparent that rapid and decentralized involvement of the open source investigative community in the broader sense, which includes a large number of "amateur investigators", is essential for processing and filtering out relevant sources and data from the continuously growing volume of openly available online content. However, the case of the ”violent videos” also illustrated the risks associated with such collective and thus essentially unguided investigations. Shortly after the original videos were made public, an entirely unrelated person, who simply looked like the suspected perpetrator, was wrongly doxed on the internet, including the disclosure of his private address, mobile phone and passport numbers, and was falsely accused of murder and war crimes. This incident highlights a significant issue in collective open source investigations, which Bellingcat also discussed in its article.[894]

In the context of the two open source investigations presented in this subchapter, the author of this thesis emphasizes that while criminal prosecution of individuals such as Ochur-Suge Mongush or the programmers of the long-range missiles is rather unlikely within the state they are serving during the time of armed conflict and in the foreseeable future, it does not necessarily mean that a perpetrator will evade punishment and atonement forever. Whether this occurs through a political and/or legal transition in the primarily responsible state, in another country under the application of international criminal law or through the scope of universal jurisdiction, perpetrators can still face prosecution and eventual conviction.

Before conclusively addressing the research question, it is suggestive to partially delve into two additional aspects, as they bear contextual relevance for understanding the extent to which Bellingcat influences and contributes to the

[892] Cf. i.a. footote 883 (”*YouTube videos*” (link: https://www.youtube.com/watch?v=3evkvHHIQig - visited on 4th August 2023)).
[893] Cf. i.a. footnote 885 (”*RIA Novosti*” (link: https://www.youtube.com/watch?v=P1H_Et9iFg8 - visited on 4th August 2023) or ”Kadyrov 95” (link: https://www.youtube.com/watch?v=MsRqCF72YMI - visited on 4th August 2023)).
[894] Cf. GROZEV et al. (2022): para. ” *Finding a Face*”.

broader open source investigative community in terms of various facets explaining the IAC in Ukraine, which might hold legal significance in the future as well.

B.4.2.2. Investigations with Contextual Information on the IAC in Ukraine

The ongoing IAC between the Russian Federation and Ukraine, which began in early 2014 and escalated significantly in February 2022, is remarkable for two key reasons. Firstly, from the onset of the armed conflict, one party to the conflict has repeatedly denied its direct participation, while backing certain armed groups in and outside the so-called "LPR" and "DPR," including PMCs. Secondly, and closely related to the first point, the information domain plays an integral part in both domestic and international efforts to legitimize the initiation of the military campaign. Although this subchapter does not directly address those Bellingcat articles that focus on specific incidents that potentially constitute war crimes or crimes against humanity, these investigations may still contribute to the attribution of certain individuals or groups affiliated with government institutions, particularly the armed forces, as well as providing contextual information regarding jus ad bellum.

B.4.2.2.1. Certain Armed Groups and Individuals in the IAC in Ukraine

The complexities of the war in Ukraine extend beyond the traditional model of an inter-state conflict. Various armed groups and individuals that are decisive in the fighting are often operating in the shadows with unclear affiliations and motivations. This lack of transparency poses another challenge for the application of ICL and its accountability mechanisms. The following three Bellingcat publications are paradigmatic in demonstrating how the open source investigative collective combines established facts with open source-based information to expose hidden identities and track various groups, which have an impact in the continuously changing dynamics of this very conflict.

Sheldon's investigation from 17th June 2022, titled "*Meet the Irregular Troops Backing up Russia's Army in the Kharkiv Region*"[895], describes the presence of a variety of irregular forces fighting alongside the Russian Armed Forces in Ukraine,

[895] Meet the Irregular Troops Backing up Russia's Army in the Kharkiv Region (link: https://www.bellingcat.com/news/2022/06/17/meet-the-irregular-troops-backing-up-russias-army-in-the-donbas/ - visited on 7th December 2023)

including the Union of Donbas Volunteers (SDD)[896] or the far-right Rusich Group[897]. The Bellingcat report employs a combination of open source research techniques, including social media analysis, geolocation, as well as video and image verification, to identify and pinpoint the locations of these and other irregular military units.[898] Another investigation, jointly conducted by the open source investigative collective and The Insider, published on 18th July 2022, titled "*Donbas Doubles: The Search for Girkin and Plotnitsky's Cover Identities*"[899], revealed the use of fake passports by Igor V. Girkin[900] and Igor V. Plotnitsky[901], two prominent figures in the armed conflict in the Donbas regions. Through meticulous analysis of travel documents (e.g. flight and train booking data) and other records (e.g. publicly available tax and residency databases) alongside with social media posts, the report reveals that both men have used cover identities issued by the Russian state to travel within and outside of Russia and maintain contact with a number of FSB and GRU operatives. The article provides compelling evidence not only of Russia's direct affiliation with these two individuals, and thus its involvement in the conflict, but also the effort to conceal its political and military exertion of influence in the Donbas regions.[902] On a similar note, but employing some different open source research techniques, another Bellingcat investigation from 13th February 2023, titled "*How Wagner Gave Three 90s Russian Crime Bosses a New Lease of Death*"[903], follows the trails of individuals to shed light on the PMC Wagner's recruitment of convicted criminals for combat in Ukraine. To illustrate this, Toler

[896] Led by former Aleksandar Borodai, former Prime Minister of the "DPR" and a member of Russia's Duma, the SDD trains fighters in Russia, collaborates with other ultranationalist paramilitary groups and supports Russian military operations in Ukraine, as evidenced by Borodai's visits i.a. to their training camps in Russia and social media posts documenting their activities in Kharkiv Region. Cf. BC/SHELDON (2022c): para. "The Union of Donbas Volunteers".

[897] The Rusich Group, a far-right paramilitary organization, participates in SDD units and also collaborates with other armed groups, such as the "Sparta" battalion and Cossack units, as evidenced by several social media posts of its members. Cf. BC/SHELDON (2022c): para. "The Rusich Connection".

[898] Cf. BC/SHELDON (2022c): para. "On the Izyum front".

[899] Donbas Doubles: The Search for Girkin and Plotnitsky's Cover Identities (link: https://www.bellingcat.com/news/2022/07/18/donbas-doubles-the-search-for-girkin-and-plotnitskys-cover-identities/ - visited on 7th December 2023)

[900] Girkin, a former Russian intelligence officer, who led i.a. the "DPR" during the early stages of the war, proclaimed on several occasions that he isa"military pensioner" and has only worked for a private security firm after his dismissal from the FSB in 2013. Cf. BC (2022j): para. "Igor Vsevolodovich Girkin and 'Sergey Viktorovich Runov'".

[901] Plotnitsky, an ex-Soviet army officer and Ukrainian citizen, served as the leader of the "LPR" from 2014 to 2017 and thus played a key role in the war in Ukraine. Cf. BC (2022j): para. "Igor Venediktovich Plotnitsky and 'Igor Vladimirovich Plotnikov'".

[902] Cf. BC (2022j).

[903] How Wagner Gave Three 90s Russian Crime Bosses a New Lease of Death (link: https://www.bellingcat.com/news/2023/02/13/how-wagner-gave-three-90s-russian-crime-bosses-a-new-lease-of-death/ - visited on 7th December 2023)

identified three former criminal gang leaders – Sergei Maksimenko[904], Andrey Berezhnykh[905] and Igor Kusk[906] – all serving life sentences for murder and other grave offenses before being recruited for the war in Ukraine in exchange for pardons. Bellingcat's analysis, encompassing social media posts, witness interviews and government records, traced not only their deployments to the Ukrainian battlefields but also the public reception in Russia after they were killed in action. Additionally, the report raised serious questions about PMC Wagner's tactics and ethics, as well as the potential legal repercussions of employing convicted criminals in military operations.

In summary, these three Bellingcat investigations have not only offered valuable insights into the conflict's hidden actors and their roles, but also highlighted several specific characteristics of this war, including deliberate attempts by one party to the conflict to distort facts in accordance with its official narrative and to proactively influence public perceptions through information operations, sometimes resorting to blatant falsification of events, as the next subchapter will depict.

B.4.2.2.2. Debunking OAVC used as Part of Information Warfare

While this thesis primarily deals with open source investigations that potentially provide legal evidence and contextual information regarding certain atrocity crimes committed during the conduct of warfare (ius in bello), there are several Bellingcat publications that point towards instances where notably Russian state-controlled media and associated outlets disseminated questionable videos aimed at legitimizing the full-scale invasion of Ukraine (ius ad bellum). On 23rd February 2022, the day before Russia initiated its so-called ”special military operation”, the open source investigative collective published an article titled ”*Documenting and Debunking Dubious Footage from Ukraine’s Frontlines*”[907]. This article contained a link to a public spreadsheet[908] which was initially designed to be updated with open source evidence and contextual data, either to verify or debunk the growing number of ”war-legitimating” allegations. While this online database has not been

[904] Cf. BC/TOLER (2023): para. ”The ‘Avenger’: Andrey Berezhnykh”.
[905] Cf. ibid.: para. ”The ‘Olympian’: Sergei Maksimenko”.
[906] Cf. ibid.: para. ”‘The Afghan’: Igor Kusk”.
[907] Documenting and Debunking Dubious Footage from Ukraine’s Frontlines(link: https://www.bellingcat.com/news/2022/02/23/documenting-and-debunking-dubious-footage-from-ukraines-frontlines/ - visited on 12th December 2023)
[908] link to a public spreadsheet(link: https://docs.google.com/spreadsheets/d/1bZ5ulfSGLfYlCKT2kl0MEGYIF0qEhPaY68KVduwPw8M/edit?pli=1#gid=0 - visited on 12th December 2023)

maintained since due to the relatively sudden escalation of the war itself, as a contemporary document it remains a source that depicts several cases of deliberately fabricated and disseminated videos that are most likely part of a broader information warfare operation by one party to the conflict. The Bellingcat article and the data base include, among other suspicious videos, the following.

- Alleged attack by Ukrainian saboteurs on a sewage facility[909]
- Alleged Ukrainian military incursion into separatist held territory and alleged shelling of a Russian border post by Ukrainian forces [910]
- Alleged Ukrainian shelling causing a civilian to lose one leg[911]
- Alleged recording date of ”DPR” and ”LPR” officials’ declaration[912]
- Alleged bomb attempt by Ukrainian saboteurs on civilian vehicles.

Since the latter case concerns a particular gruesome scene with several inconsistencies that seemed well-suited for reexamination via open source research techniques, Nick Waters, who later became Bellingcat’s Lead Investigator/Researcher for its Justice and Accountability project, published on 28th February 2022 an article, titled ”*‘Exploiting Cadavers ’and ‘Faked IEDs’: Experts Debunk Staged Pre-War ‘Provocation’ in the Donbas*”[913]. This incident, involving two

[909] Russian state media outlets such as TASS(link: https://tass.ru/mezhdunarodnaya-panorama/13755607) and RIA Novosti(link: https://ria.ru/20220218/diversiya-1773588707.html) reported on 18th February 2022, based on a ”DPR People’s Militia” Telegram post(link: https://t.me/nm_dnr/6192), about a repelled attack by Ukrainian Polish-speaking saboteurs, aiming to blow up chlorine containers at a sewage facility in separatist held territory. As metadata revealed(link: https://twitter.com/EliotHiggins/status/1495355366141534208?s=20&t=EFFBX_qpcjRxRt34m1T9bg – all links of this footnore visited on 12th December 2023), the video was recorded prior to the stated attack date and its sound has been manipulated by adding an audio track of an explosion from another YouTube video. Cf. i.a. BC/DREGER (2022), NEWSY/BC (2022a): 00:45, NEWSY/BC (2023):02:10, HTA (2023): 14:00, IIPC (2024): 03:20, and others.

[910] Russian state-controlled media outlets such as Pervyj kanal (rus.: Первый канал, engl.: First channel), reported, based on a pro-Russian telegram channel(link: https://t.co/sgbFFJW1M7 - visited on 12th December 2023),, about an alleged repelled Ukrainian attack with an armoured personnel carrier and infantry on the ”DPR”. The area geolocated by Bellingcat is not only inside Russia (Rostov Oblast) and 40km east of the heavily guarded ”DPR” contact line with the Ukrainian held territory, but appeared to be the same area where another dubious shelling had happened, namely a direct hit on a relatively insignificant border post. Additionally, Ukraine does not possess the filmed type of military hardware (BTR 70M). Cf. BC/DREGER (2022) and NEWSY/BC (2022a): 02:10.

[911] RIA Novosti(link: https://ria.ru/20220221/lnr-1774116400.html - visited on 12th December 2023) reported, based on a ”DPR” Militia Telegram channel(link: https://t.me/millnr/7172 - visited on 12th December 2023), about a civilian whose leg was allegedly torn off by a Ukrainian shelling. However, the initially posted video (which was later deleted and replaced with a blurred version) depicted in some frames a prosthetic bolt on the man’s leg stump, indicating that the leg had been amputated prior to the video’s recording. Cf. BC/DREGER (2022) and NEWSY/BC (2022a): 03:20.

[912] Despite ”LPR” and ”DPR”(link: https://t.me/LIC_LPR/17431 and https://t.me/pushilindenis/1999 - visited on 12th December 2023) officials claiming an emergency evacuation on 18th February 2022 due to escalating fighting, video metadata reveal(link: https://www.axios.com/2022/02/18/telegram-ukraine-russia-separatists-evacuation - visited on 12th December 2023) they were filmed already two days prior(link: https://twitter.com/AricToler/status/1494738571483353092?t=UiOybmlFZCW_nU2CBX6aXQ - visited on 12th December 2023), predating the significant escalation. Pushilin's explicit time reference of "today" further suggests pre-planning.

[913] ‘Exploiting Cadavers ’and ‘Faked IEDs’: Experts Debunk Staged Pre-War ‘Provocation’ in the Donbas(link: https://www.bellingcat.com/news/2022/02/28/exploiting-cadavers-and-faked-ieds-experts-debunk-staged-pre-war-provocation-in-the-donbas/ - visited on 12th December 2023)

mangled and partially burned-out vehicles attributed to an alleged IED detonation by Ukrainian saboteurs in separatist-held territory, took place two days before Russia's full-scale invasion and was amplified by "DPR" and Russian officials, Russian state-controlled or affiliated media, and a pro-Russian blogger[914]. Aired video ”evidence” showed not only the destroyed and perforated wreckage’s surroundings[915] but also charred remains of three human beings. Following the incident's reporting, members of the broader open source investigative community were quick to point out[916] several inconsistencies between the footage and the presented narrative on Twitter/X. Bellingcat then reached out to two subject-matter experts for a competent assessment of the visual ”evidence” and claims[917]. The assessment concluded that neither do the blast patterns suit an off-road IED but rather short-range small arms fire[918], nor do the injuries and the condition of the corpses seem to be plausible[919] with the stated progression of the events. The open source investigative collective’s report eventually concludes that this incident, beyond the particular macabre practice of placing cadavers in a vehicle, then firing at and eventually setting them on fire, was another staged fabrication to justify Russia’s aggression in the region.

However, Russian information warfare operations have not ceased since 24th February 2022. While Bellingcat, along with many other actors active in open source research, shifted its focus to the actual conduct of warfare, particularly on

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[914] These were i.a. the spokesperson of the MOD of “DPR“, posts on the Telegram channel of the ”DPR” People’s Militia (link: https://t.me/s/nm_dnr/6287), US blogger Patrick Lancaster (link: https://www.youtube.com/watch?v=NvxtJ6JnHF0&t=39s), online newspapers such as Izvestiya (link: https://iz.ru/1295126/2022-02-22/v-dnr-raskryli-podrobnosti-terakta-na-trasse-donetck-gorlovka) and Vashi novosti (link: https://vnnews.ru/expressnews/na-trasse-doneck-gorlovka-proizoshel/ and https://t.me/RtrDonetsk/2250), Rossiyskaya Gazeta (link: https://rg.ru/2022/02/22/ukrainskie-diversanty-podorvali-mashinu-na-trasse-doneck-gorlovka.html), RT’s Russian-language service (link: https://russian.rt.com/ussr/news/966104-basurin-vzryv-trassa), Gazeta.RU (link: https://www.gazeta.ru/politics/2022/02/22/14567059.shtml), etc. Later, the Russia’s Investigative Committee (link: https://sledcomrf.ru/news/503279-predsedatel-sk-rossii-poruchil.html - al links of this footnore visited on 14th December 2023) announced on its webpage an official investigation on the incident.

[915] With the reports mentioned in the previous footnote, Bellingcat was able to geoloacate the exact incident place (link: https://twitter.com/search?q=(from%3Aglasnostgone)%20until%3A2022-02-23%20since%3A2022-02-22&src=typed_query - visited on 14th December 2023). Cf. BC/WATERS (2022).

[916] Examples are Twitter/X accounts of @GlasnostGone (link: https://www.google.com/maps/place/48%C2%B012'54.3%22N+37%C2%B057'54.9%22E/@48.215079,37.965239,17z/data=!3m1!4b1!4m5!3m4!1s0x0:0xff3d87d1f03cafe9!8m2!3d48.215079!4d37.965239 and https://glasnostgone.org/2022/02/22/in-ukraine-russia-uses-corpses-in-false-flag-attack/- visited on 14th December 2023) and @nixintel (link: https://twitter.com/nixintel/status/1496417353042735104?t=d23far5pqBLOsQDh4FmEqg - visited on 14th December 2023).

[917] The two experts were Chris Cobb-Smith, an explosive weapons expert, and Dr. Lawrence Owens, research fellow at the University of Winchester. Cf. ibid.

[918] Also the fact that the vehicles seemingly did not move after the explosion, one window was blown out in the wrong direction, the absence of car plates and other inconsistent patterns suggested that the incident scene was manipulated before, after, or even in the absence of, a blast. Cf. ibid.

[919] Dr. Owens (cf. footnote 917) points out that the skull of one casualty reveals pre-existing surgical cuts and inconsistent heat-warping, as well as incongruous burn severity compared to the car, suggesting post-mortem manipulation of the corpse. Additionally, the neat rib cuts at another casualty’s remains suggest surgical intervention, potentially opening the thoracic cavity. Cf. BC/WATERS (2022): para. ”Unusual Injuries”.

investigating the rising number of potential violations of IHL and IHRL, their work on debunking disinformation became less pronounced in the following months. One explanation is that this was partly due to its obviousness and blatant distortion of realities, not only by the Russian official narrative but also by statements from state officials, including the President – requiring, in many cases, no further debunking. Nevertheless, certain incidents, like the one described above, were so audacious that independent fact-checking by open source researchers remained crucial. Another such case, exemplifying the working methods and its promptness of the open source investigative community when it comes to suspicious footage used in the war's information domain, is the Bellingcat article from 29th March 2023, titled "*How Online Investigators Proved Video of Ukrainian Soldiers Harassing Woman was Staged*"[920]. Higgins describes how members of the open source community, primarily on Twitter/X, quickly identified not only several inconsistencies in a dashcam video widely shared on pro-Russian social networks and media[921], but also geolocated where it was actually recorded[922]. The video, intended to portray Ukrainian soldiers negatively by associating them with the trope of Nazism, Islamophobia and mistreatment of Russian speakers, was ultimately revealed to be a fabrication. Given the timely geolocation, which placed the incident deep within Russian-controlled territory, conflicting with the initial claim

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[920] How Online Investigators Proved Video of Ukrainian Soldiers Harassing Woman was Staged (link: https://www.bellingcat.com/news/2023/03/29/how-online-investigators-proved-video-of-ukrainian-soldiers-harassing-woman-was-staged/ - visited on 17th December 2023)

[921] Examples include Twitter/X posts by the Russian Embassy to the UK (link: https://twitter.com/RussianEmbassy/status/1640321732480315398) and the Russian Ministry of Foreign Affairs, with the latter even stating "*Once a nazi always a Nazi*" (cf. Appendix KK). Notably, several prominent Russian media outlets like Izvestiya (link: https://dzen.ru/video/watch/6421d5d6a3772a0a00dfd0bb?utm_referrer=www.bellingcat.com), RenTV (link: https://www.youtube.com/watch?v=qUVOfvR25fg), and Tsargrad (link: https://md.tsargrad.tv/news/voennyj-vsu-obstreljal-mashinu-s-materju-i-rebjonkom-iz-za-russkoj-rechi_751325) referred as first source to a pro-Russian Twitter/X user (link: https://twitter.com/q8uDhz9uIY3DI65/status/1640317390788411392), Bellingcat discovered an earlier Version on the Telegram channel of Два майора (link: https://t.me/dva_majors/11800 - all links of this footnote visited on 18th December 2023) (engl. Two majors). Cf. BC/HIGGINS (2022c): para. "Think for Yourself".

[922] On 27th March 2023, GeoConfirmed, a Twitter/X account (link: https://twitter.com/GeoConfirmed/status/1640447549331873833), first geolocated the dashcam video, with Tatarigami, another Twitter/X user (link: https://twitter.com/Tatarigami_UA/status/1640414201264115712), reaching the same conclusion. The Moscow Calling Telegram channel posted a satellite imagery (link: https://t.me/m0sc0wcalling/21932) of the area and called on local population for a photo contribution (link: https://t.me/m0sc0wcalling/21934). Soon, it received such contributions, which further confirmed that the video was taken approximately 30km behind the frontline, deep within Russian-controlled territory. Later, another older dashcam video shared on Telegram by a Ukrainian blogger (link: https://t.me/ASupersharil/17373) solidified the previous geolocation. The Bellingcat report "followed" this footage with Yandex Maps' streetview (link: https://yandex.com/maps/142/donetsk/?l=sat%2Cstv%2Csta&ll=37.929428%2C47.971432&mode=search&panorama%5Bdirection%5D=106.410390%2C10.016713&panorama%5Bfull%5D=true&panorama%5Bpoint%5D=37.928374%2C47.971427&panorama%5Bspan%5D=113.339117%2C60.000000&sll=37.933837%2C47.973410&text=47.973410%2C37.933837&utm_source=share&z=18 – all links of this footnote visited on 19th December 2023), thereby geolocating and confirming the spot as well. Cf. BC/HIGGINS (2022c): para. "East of Donetsk".

that it was recorded near the frontline zone in Ukrainian-held territory, several pro-Russian social media bloggers eventually admitted that the footage had been staged[923], and even the Russian Ministry of Foreign Affairs deleted their tweet, however, without a comment. In contrast, as of late December 2023, the Russian Embassy to the UK's Twitter/X claim regarding the video still remains online[924]. While Bellingcat's contributions in this investigation were relatively modest compared to others, the synthesis of results in an article plays a significant role in consolidating the findings of individuals researching both independently and interconnected within the broader open source investigative community. Not only does it serve the function of documenting and critically scrutinizing these insights, as was done with the originally disseminated claim, but it also delineates how information has been acquired through open source methods. This provides future open source researchers with a paradigm for conducting their own investigations.

However, beyond the exemplary effect of Bellingcat's investigative articles and reports, the open source investigative collective offers a distinct subcategory of publications that is precisely about discussing, explaining and disseminating open source investigative tools and methods – Guides/Resources[925].

B.4.3. Bellingcat's Publications on OSINT Tools and Methods related to the IAC in Ukraine

From its founding in July 2014 to the beginning of Russia's full-scale invasion of Ukraine, Bellingcat has published 236 guides and resources on its website on a variety of topics in the field of open source research. These resources are explicitly intended to support the open source investigative community, targeting both complete beginners with no prior knowledge in this field, as well as to technically highly experienced and long-standing OSINT users. Beyond concrete examples of the application of OSINT/open source research standard procedures,

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[923] For example, the Russian military blogger Rybar(link: https://t.me/rybar/45110 - visited on 18th December 2023) (engl. Fisherman), added to its initial post on Telegram that the video is fake, or the pro-Russian Telegram channel Записки Ветерана(link: https://t.me/notes_veterans/8663 - visited on 18th December 2023) (engl. Notes of a Vetaran), acknowledging in one post as well that "(…) *the video is a fake. Our guys aren't training well. In carrying out such information operations* (…)", etc. Cf. Appendix LL and BC/HIGGINS (2022c): para. "The Walkback".

[924] Nevertheless, Twitter/X contextualized the Russian Embassy to the UK's post with a link to the Geo-Confirmed thread(link: https://twitter.com/GeoConfirmed/status/1640447549331873833 - visited on 18th December 2023) and the remark that "*Open-source intelligence reports have confirmed that this video was taken in territory in Donetsk that is currently occupied by Russian troops, making this certainly a hoax, as there are no Ukrainian troops in the area.*" Cf. Appendix. MM and BC/HIGGINS (2022c): paras. "East of Donetsk" and "The Walkback".

[925] Guides/Resources(link: https://www.bellingcat.com/category/resources/ - visited on 17th December 2023)

such as geolocation or fact verification, these resources also provide specific tools (some developed by Bellingcat), materials supporting researchers' methods and processes, and crucial insights into potential risks, such as cyber security or psych hygiene, associated with open source investigations. Given that a comprehensive overview of the extensive array of guides and resources offered by Bellingcat, including those shared on other platforms such as GitHub, Discord, and, of course, Twitter/X, would be beyond the scope of this work, the author of this thesis focuses in this subchapter on a select subset of this category, specifically those closely tied to the study's timeframe and thematic focus.

One example of a condensed guide about a specific type of open source information is Toler's article, "*Tracking Russian Military Vehicles on the Move*"[926], published just two weeks before the full-scale invasion. It not only explains the significance of capturing a vehicle's number plate and how to categorize and analyze it[927] but also delves into some peculiar characteristics of Russia, Ukraine and their societies' habits[928] that make this kind of information chunk particularly useful, especially in the context of military mobilization[929]. When the large-scale invasion of Ukraine eventually materialized, there was a significant increase in the quantity of social media posts depicting potentially relevant open source information regarding the course of the war itself, its impacts on the civilian population, and troop movements that might later be important for attribution. Two platforms stood out, TikTok and Telegram. One explanation for the relatively prominent use of these two applications during this armed conflict is the fact that Facebook and Instagram have been blocked, and Twitter/X restricted, in Russia

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926 Tracking Russian Military Vehicles on the Move (link: https://www.bellingcat.com/resources/how-tos/2022/02/08/tracking-russian-military-vehicles-on-the-move/ - visited on 19th January 2024)

927 Cf. BC/TOLER (2022a): para. "Plate Formats".

928 In the Russian-speaking internet, numerous websites that catalogue Russian and foreign license plates exists - a phenomenon that stems i.a. from a subculture fascinated by "beautiful" plate numbers or the practice of naming-and-shaming inconsiderate driving and parking. Cf. BC/TOLER (2022a): para. "Public Databases and Licence Plates". Examples of such pages are i.a. avto-nomer.ru/platesmania.com (link: https://platesmania.com/ru/?&lang=ru), migalki.net (link: https://migalki.net/), nomerogram.ru (link: https://www.nomerogram.ru/), fototruck.ru/kargoteka.ru (link: https://fototruck.ru/ - all links of this footnote visited on 19th January 2024) and others.

929 The guide provides an example of a Russian military truck, observed in a Telegram video as part of a larger military convoy moving towards the Ukrainian border in early February 2022. With one number plate visible, this vehicle has been attributed to the National Guard (part of Russia's Interior Ministry), a "(…) *deployment* [that] *is relatively new, with analysts noting that this may be a worrying escalation in the build-up on the Ukrainian border.*" Cf. BC/TOLER (2022a): para. "Rosgvardia Near the Border" and DEVINE (2022).

and in Russian-controlled territory.[930] Similarly, Bellingcat's website has been blocked in Russia. In response, the open source investigative collective promptly provided a guide on how to access its own and other blocked or restricted websites.[931] Additionally, Bellingcat published several guides on the analysis and archiving of digital open source information from the above mentioned two platforms. Notably, TikTok gained attention, as its structural layout and elusive algorithm had previously made it less utilized by the open source investigative community.[932] Bellingcat's guide, "*How to Investigate TikTok Like a Pro - Part II: Using TikTok for Ukraine Research*"[933], is in this regard not a mere continuation or update of an introductory article about this social network published before the war[934]. It also addresses the peculiarities of this armed conflict and TikTok's role in it.[935] Covering efficient research methods and platform functionality, the guide introduces several third-party tools and browser plugins, including the "*Bellingcat TikTok Analysis Tool*"[936], previously released by the Bellingcat Investigative Tech Team[937] in May 2022 in the article "*This New Tool Lets You Analyse TikTok Hashtags*"[938]. Even earlier, one week after Russia's invasion of Ukraine, the article "*How to Archive Telegram Content to Document Russia's Invasion of Ukraine*"[939] addresses the issue of link rot[940] – the phenomenon where web links stop working over time. It explores different possibilities for promptly and efficiently backing up digital items or even entire datasets on Telegram, including its metadata that may

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[930] Cf. MILMO (2022) and ENGELHAUPT (2022).
[931] Cf. footnote 387 and BC (2022n).
[932] Cf. BC/O´CONNOR (2022).
[933] How to Investigate TikTok Like a Pro - Part II: Using TikTok for Ukraine Research (link: https://www.bellingcat.com/resources/how-tos/2022/11/02/how-to-investigate-tiktok-using-tiktok-ukraine-research/ - visited on 20th January 2024)
[934] Cf. BC/MASSOU/WILD (2020).
[935] Cf. BC/O´CONNOR (2022).
[936] Bellingcat's TikTok Analysis Tool (link: https://www.bellingcat.com/resources/how-tos/2022/11/02/how-to-investigate-tiktok-using-tiktok-ukraine-research/ - visited on 20th January 2024), built upon a TikTok scraper by Github user drawrowfly (link: https://github.com/drawrowfly/tiktok-scraper - visited on 20th January 2024), downloads TikTok posts and videos with specific hashtags, thus helping open source researchers to create a growing database for detailed hashtag analysis. Cf. BC/O´CONNOR (2022) and BC/WILD (2022).
[937] Bellingcat's Investigative Tech Team (link: https://github.com/bellingcat/tiktok-hashtag-analysis - visited on 20th January 2024) is a subunit inside the open source investigative collective which describe on the official Bellingcat webpage (link: https://www.bellingcat.com/author/bellingcattechteam/ - visited on 20th January 2024) that it "(…) *develops tools for open source investigations and explores tech-focused research techniques.*"
[938] Cf. BC/WILD (2022). This New Tool Lets You Analyse TikTok Hashtags (link: https://www.bellingcat.com/resources/how-tos/2022/05/11/this-new-tool-lets-you-analyse-tiktok-hashtags/ - visited on 20th January 2024)
[939] How to Archive Telegram Content to Document Russia's Invasion of Ukraine (link: https://www.bellingcat.com/resources/how-tos/2022/03/08/how-to-archive-telegram-content-to-document-russias-invasion-of-ukraine/ - visited on 20th January 2024)
[940] Cf. BOWERS/STANTON/ZITTRAIN (2021).

be needed for later use.[941] Given that timely and comprehensive archiving is crucial to archiving open source information before its disappearance from the internet, particularly considering the earliest version of digital items containing vital information like context information or metadata, the open source investigative collective introduced a tool in the article "*Preserve Vital Online Content With Bellingcat's Auto Archiver*"[942] in September 2022, with the aim to simplify this technically and time-consuming process for researchers. The guide explains in detail what the Auto Archiver is, where to download it[943], including its source code and a technical documentation, and provides step-by-step instructions on how to use it.[944] Furthermore, this tool is particularly noteworthy because it exemplifies that, in addition to Bellingcat's own data scientists from its Investigative Tech Team, "(…) *community contributors* [were also] *regularly working to make improvements to the software*". It also highlights that "(…) *it's not just Bellingcat that has been using the Auto Archiver — organisations like the Centre for Information Resilience*[945] *and OSR 4 Rights*[946] *have also used it to help their researchers systematically archive content from ongoing conflict situations.*"[947] In this regard, Benjamin Strick from CIR stated that they used this tool for their Eyes on Russia project[948].

> "*The Bellingcat Archiver (…) essentially helps us. Because when we started our projects, for example for Myanmar, we had to input something into spreadsheets, we had to download the video, and we had to save it somewhere. But now with this tool you're able to enter something in the spreadsheet and it basically automatically captures footage, screenshot, text, everything like that, really cool tool, freely available.*"[949]

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941 Cf. BC (2022k).

942 Preserve Vital Online Content With Bellingcat's Auto Archiver(link: https://www.bellingcat.com/resources/2022/09/22/preserve-vital-online-content-with-bellingcats-auto-archiver-tool/ - visited on 21st January 2024)

943 Auto Archiver(link: https://github.com/bellingcat/auto-archiver - visited on 21st January 2024)

944 Cf. BC/RAMALHO (2022).

945 *Centre for Information Resilience*(link: https://www.info-res.org/post/eyes-on-russia-documenting-conflict-and-disinformation-in-the-kremlin-s-war-on-ukraine - visited on 21st January 2024)

946 *OSR 4 Rights*(link: https://osr4rightstools.org/auto-archiver - visited on 21st January 2024)

947 Cf. ibid. or CIR/STRICK (2023). Another organisation using and popularizing the Bellingcat Auto-Archiver is BENEDMO(link: https://benedmo.eu/wp-content/uploads/2023/12/Bellingcats-Fact-check-Starter-Pack-ENG.pdf - visited on 2nd February 2024), a Flemish-Dutch collaboration against disinformation that has partnered with Bellingcat and published i.a. the Bellingcat's Fact-check Starter Pack(link: https://benedmo.eu/english/#resources - visited on 2nd February 2024) by the end of 2023 (cf. BENEDMO (2024)).

948 Eyes on Russia project(link: https://www.info-res.org/eyes-on-russia - visited on 26th April 2023)

949 Cf. IJF/STRICK (2023): 33:20. See also BC/STRICK (2023).

While some articles elaborated on other Bellingcat-developed open source investigation tools, such as the Ship Detection Tool[950] used in an investigation that tracks obfuscated Russian ships transporting grain from Ukrainian territory[951], other guides focused either on public web applications, such as how to use NASA's FIRMS[952], or released by other open source researchers, such as the OSINT Forest Area Tracker[953]. While the three aforementioned guides and resources all focus on web applications utilizing various satellite-based image and area analysis tools, which can be complex to understand due to their technical nature, Bellingcat, during the observation period of this thesis, also published a guide that, complementary to one of their investigations, exemplifies the very basic procedures and methods for which the open source investigative collective initially became widely known – geolocation[954]. However, the scope of the guides and resources provided by Bellingcat goes beyond mere technical manuals, assistance, or the presentation of open source sample investigations and standard procedures; it increasingly addresses various issues that are often marginalized in the context of open source research. Thus, the open source investigative collective takes its reputation as a role model and pioneer in the wider community

[950] Cf. the Ship Detection Tool (link: https://ollielballinger.users.earthengine.app/view/ship-detection-tool#lon=33.5519;lat=44.6249;zoom=17; - visited on 22nd January 2024), developed by Bellingcat's Tech Fellowship program, identifies ships in ports, at anchor, or at sea using publicly available synthetic-aperture radar (SAR) imagery. When optical satellite images are obscured by clouds or darkness, SAR imagery penetrates even dense cover, allowing continuous ship tracking and uncovering previously invisible activity. Cf. BC/BALLINGER (2023a).

[951] The Bellingcat investigation "Grain Trail: Tracking Russia's Ghost Ships with Satellite Imagery" (link: https://www.bellingcat.com/news/2023/05/11/grain-trail-tracking-russias-ghost-ships-with-satellite-imagery/ - visited on 22nd January 2024), published on 11th May 2023, tracks locations and movements of Russian transport vessels that are linked to grain theft from Ukraine. It reveals the frequency of their visits to a key terminal and identifies potential dates of their activity, shedding light on the scale and methods of these illegal operations. This investigation also has been supported by members from Bellingcat's GAP. Cf. BC/BALLINGER (2023b).

[952] NASA's Fire Information for Resource Management System (FIRMS) (link: https://firms.modaps.eosdis.nasa.gov/map/#d:24hrs;@0.0,0.0,3.0z - visited on 22nd January 2024) is a global near-real-time fire detection and monitoring system that detects heat signatures. The Bellingcat article "Scorched Earth: Using NASA Fire Data to Monitor War Zones" (link: https://www.bellingcat.com/resources/2022/10/04/scorched-earth-using-nasa-fire-data-to-monitor-war-zones/ - visited on 22nd January 2024), published on 4th October 2022, explores how FIRMS can be used to provide valuable insights into warzone dynamics when traditional satellite imagery analysis is limited due to the time delay of its publication or cloud cover. Cf. BC/GONZALES (2022).

[953] The Bellingcat guide from 18th August 2023, titled "A New Tool Shows What War Has Done to Ukraine's Forests" (link: https://osintmapping.users.earthengine.app/view/osint-forest-area-tracker and https://github.com/csgsf/ee_forest_area_tracker - visited on 22nd January 2024), shows how to analyse Sentinel-2 satellite data to identify changes in forest stand. The OSINT Forest Area Tracker (link: https://osintmapping.users.earthengine.app/view/osint-forest-area-tracker and https://github.com/csgsf/ee_forest_area_tracker - visited on 22nd January 2024) detects anomalies on land that might indicate deforestation or damage caused by the warfare in Ukraine. This helps researchers prioritize areas for further investigation and sheds light on the environmental impact of the conflict. Cf. BC/GILES (2023).

[954] Toler's publication from 28th December 2022, titled "*How we Geolocated a Photo of a Russian Missile Programming Team*" (link: https://www.bellingcat.com/resources/2022/10/28/how-we-geolocated-a-photo-of-a-russian-missile-programming-team/ - visited on 22nd January 2024), demonstrates paradigmatically how to pinpoint the location of a photograph by leveraging seemingly minor details and openly available online sources, particularly satellite imagery, to corroborate prior findings. Cf. BC/TOLER (2022b).

seriously, aiming to raise awareness about frequently overlooked issues such as SGBV[955], potential risks to the researchers' psychological well-being, ethical dilemmas they face during research, and others. For instance, an article from 23rd November 2022, titled "*How to Maintain Mental Hygiene as an Open Source Researcher*"[956], discusses experiences and advices not only from Bellingcat's own researchers but also from members of its GAP. It explores techniques to mitigate the risk of exposure to potentially graphic content, addresses traumas caused by these sorts of investigations, and identifies other sources that provide information about this topic.[957] Another illustration is Bellingcat's "*Notes from the Digital Field: Ethical Dilemmas in Open Source Research*"[958], which raises awareness about how to balance exposing injustices with protecting individuals, sensitive topics like sexual abuse, or investigating the realities of war.[959] Recognizing these and other challenges is crucial for open source researchers to navigate responsibly through their investigations and to ensure that the process of collecting, analyzing and preserving digital open source information is not only technically accurate and, from a legal point of view, utilizable but also adheres to ethical principles. The

[955] Bagdasar's article, titled "*Recognising Sexual and Gender-Based Violence as an Open Source Researcher*"(link: https://www.bellingcat.com/resources/2023/03/03/sexual-and-gender-based-violence-open-source-researche-osint-digital/ - visited on 23rd January 2024), published on 3rd March 2023, serves as a continuation and thematic contextualization of Bellingcat's J&A Methodology respective chapter (cf. subchapter B.4.1.5 and GLAN/BC (2022a): Annex III and IV). The article delves into detailed explanations of the definitions and categories of SGBV, explores methods for detection, emphasizes the relevance of SGBV awareness for investigators, discusses the "do no harm principle", and provides a variety of additional sources and resources on this topic. Cf. BC/BAGDASAR (2023).

[956] How to Maintain Mental Hygiene as an Open Source Researcher(link: https://www.bellingcat.com/resources/2022/11/23/how-to-maintain-mental-hygiene-as-an-open-source-researcher/ - visited on 28th January 2024)

[957] The article refers aside to one of its own articles from October 2018,"How to Prevent, Identify and Address Vicarious Trauma — While Conducting Open Source Investigations in the Middle East" (link: https://www.bellingcat.com/resources/how-tos/2018/10/18/prevent-identify-address-vicarious-trauma-conducting-open-source-investigations-middle-east/), to other guides such as the Dart Centre for Journalism and Trauma's(link: https://dartcenter.org/) "Style Guide for Trauma Informed Journalism" (link: https://dartcenter.org/resources/dart-center-style-guide) or Headlines Network's(link: https://headlines-network.com/) "Vicarious Trauma - A guide for journalists and newsrooms to recognize vicarious trauma and mitigate against it" (link: https://img1.wsimg.com/blobby/go/6ca5410e-ac1d-4642-b85f-b717e6a71453/downloads/Vicarious%20Trauma_final.pdf?ver=1668672882671), First Draft News'(link: https://firstdraftnews.org/wp-content/uploads/2017/04/vicarioustrauma.pdf?x11129) "Journalism and Vicarious Trauma – A Guide for Journalists, Editors and News Organisations" (link: https://firstdraftnews.org/wp content/uploads/2017/04/vicarioustrauma.pdf?x11129), and others. Cf. BC/FIORELLA (2022).

[958] Notes from the Digital Field: Ethical Dilemmas in Open Source Research(link: https://www.bellingcat.com/resources/2023/09/18/notes-from-the-digital-field-ethical-dilemmas-in-open-source-research/ - all links of this footnote visited on 28th January 2024)

[959] Besides referring to a number of further sources and blueprints for ethics in open source research (cf. i.a. LOEHRKE et al. (2022), HANHAM (2022), PHILLIPS (2018), DUBBERLEY (2022), etc.), Fiorella's article also explains the role of the Bellingcat Ethics Committee – a group of experienced staff that flags and discusses challenging ethical dilemmas in investigations – he is also a member of. It aims to uphold the open source investigative collective's core principles and values, based, i.a., on its Editorial Standards & Practices or Principles for Data Collection, while setting precedents for future responsible research. Cf. BC/FIORELLA (2023) and BC (2022e and 2022g).

author mentions topics like these at the end of this subchapter to highlight that Bellingcat has evolved in recent years from a rather-amateurish, hobbyist investigative journalism website to a more multifunctional entity. It has produced numerous guides and resources addressing a spectrum of both technically detailed and general-purpose questions. In doing so, Bellingcat has contributed to the advancement, transformation and professionalization of the broader open source investigative community.

C. CONCLUSION

In the final and concluding section this thesis once again addresses the question – what is Bellingcat's contribution as part of the open source investigative community to the documentation, attribution and prosecution of war crimes and crimes against humanity in the first year following the escalation of the international armed conflict in Ukraine? First we must recap some of the insights gained throughout the main chapters and juxtapose these findings with an initial consideration presented in the introduction. This aims to address not only the research question but also why and what for the topic of this thesis is relevant, and will be even more so in the future.

C.1. Reflections on the Research Subject and Why It Matters

Bellingcat's immediate impact on the open source investigative community in the still-ongoing armed conflict should not be exaggerated. Nor should its contribution to the identification, analysis, preservation, and subsequent provision of potential evidentiary digital items to the respective legal authorities and bodies be understated. While Bellingcat has consistently contributed to international criminal cases in the past with spectacular revelations and the disclosure of key information for verification, falsification and attribution of crimes – echoed widely in the broader media and thereby affecting public discourse – a significant part of their legal work now takes place in the background through their internally distinct Justice and Accountability Unit, with the exception of a small number of individual case investigations and guides. Beyond a limited number of reports on their website and public statements by Bellingcat officials, information regarding the J&A Unit remains scarce. Nevertheless, thanks to the sophisticated J&A Methodology developed in collaboration with a partner organization, the Global Legal Action Network, this aspect of their work is likely to remain of high significance in the long term. The tried and tested, methodically refined and professionalized approach of Bellingcat's J&A Unit not only serves as a role model for other international organizations, (I)NGOs, national and international justice and accountability mechanisms, but it may also provide databases of verified and forensically archived digital items (documentation) for various actors in the field for assessing, clarifying, attributing and eventually prosecuting war crimes and war

criminals even decades later. At the time of writing, this seems to be an imminent matter.

Therefore, the answer to the thesis' question has to be nuanced. While in the current stage of the war in Ukraine, Bellingcat primarily has emerged in public consciousness as a debunker of disinformation; for open source researchers, and perhaps for some OSINT operatives, it serves as a platform for learning and sharing new techniques, exchanging and discussing the latest open source information and coordinating fact-finding missions; the open source investigative collective's activities in the legal domain are expected to gain importance, especially when hostilities eventually cease, and the essential process of reappraisal begins. This leads back to a key point raised at the outset of this thesis – that coming to terms with the past (germ. "Vergangenheitsbewältigung") is inevitable for both individuals and the society as a whole. In contrast to the wars in the former Yugoslavia, which are, in historical terms, not too distant, the current armed conflict in Europe offers a significantly higher amount of information due to the prevalence of modern recording and communication devices. These huge quantities of produced and disseminated data that encompass the events of the war, from its planning to the impacts on civilians, bear the potential to enable a comparatively quick and legally informed assessment and resolution of questions related to guilt and retribution, which are crucial prerequisites for any reconciliation process.

The author of this thesis is convinced that a sustainable armistice and lasting peace between Ukraine and the Russian Federation can only be achieved when a substantial portion of questions related to guilt and atonement, and by extension, crime and punishment (rus. преступление и наказание/ukr. злочин і кара), are addressed. This includes dispelling doubts about what has actually happened during the armed conflict, compensating for immediate material damages, and essentially processing the human horror of war. A prerequisite for all of this is comprehensive transparency, which requires readily available facts; trust in their accuracy; and, given the sheer quantity, an overview of all the information. Additionally, this ought to happen as quickly as possible. As evidenced by other conflicts in the past, such as the divided and torn societies of post-war, former

Yugoslavia, prolonged protraction and, as a consequence, the negligence of crimes and the punishment thereof hinders the process of coming to terms with the past. The author of this thesis argues that this process is a key pillar in establishing a lasting Positive Peace.

C.2. What is Bellingcat's Contribution as Part of the Open Source Investigative Community to the Documentation, Attribution and Prosecution of War Crimes and Crimes Against Humanity in the First Year following the Escalation of the International Armed Conflict in Ukraine?

Bellingcat's activities, particularly the efforts of its Justice and Accountability Unit, hold strong potential to contribute to future criminal investigations and legal prosecutions of atrocity crimes committed during the international armed conflict in Ukraine. The open source investigative collective has demonstrated this in the past.

Bellingcat, known for numerous case investigations, spectacular revelations, and the provision of technical and methodological guides and resources, has become a benchmark within the broader open source investigative community. The open source investigative collective's J&A Methodology is, in this context, an exemplary publication that, similar to the Berkeley Protocol, may serve as an important methodological reference for other organizations, in this conflict and others for years to come.

However, the full extent of Bellingcat's contribution will depend on the evolving realities of the armed conflict, including the accessibility and admissibility of open source evidence, the duration of hostilities, and the willingness of international and national law enforcement agencies to pursue justice and accountability. While significant challenges remain, Bellingcat's own contribution, along with that of the broader open source investigative community, holds a significant role in building criminal cases or supporting existing ones, aiming to ensure that perpetrators of war crimes and crimes against humanity committed in Ukraine are not kept immune from legal consequences for their actions.

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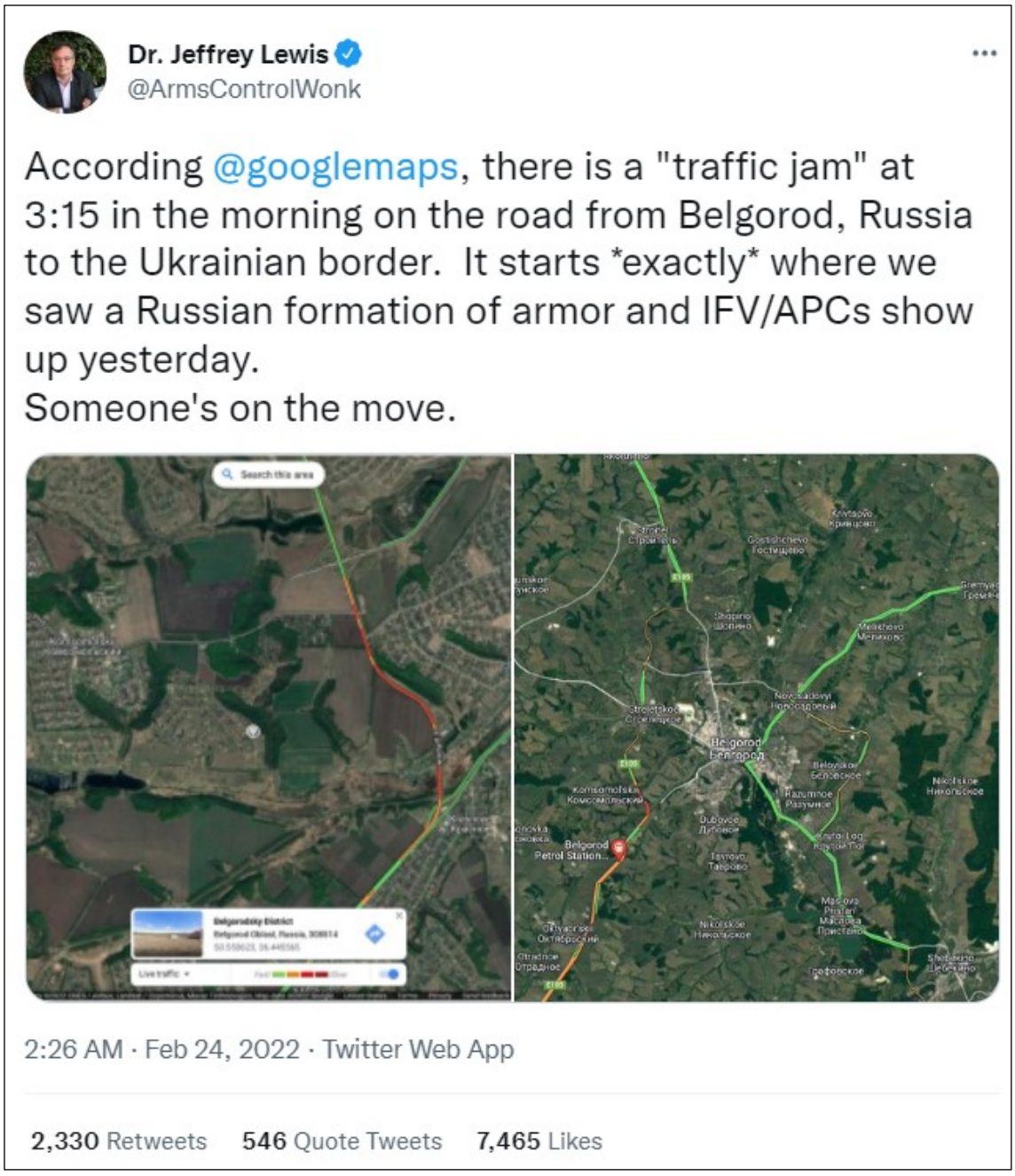
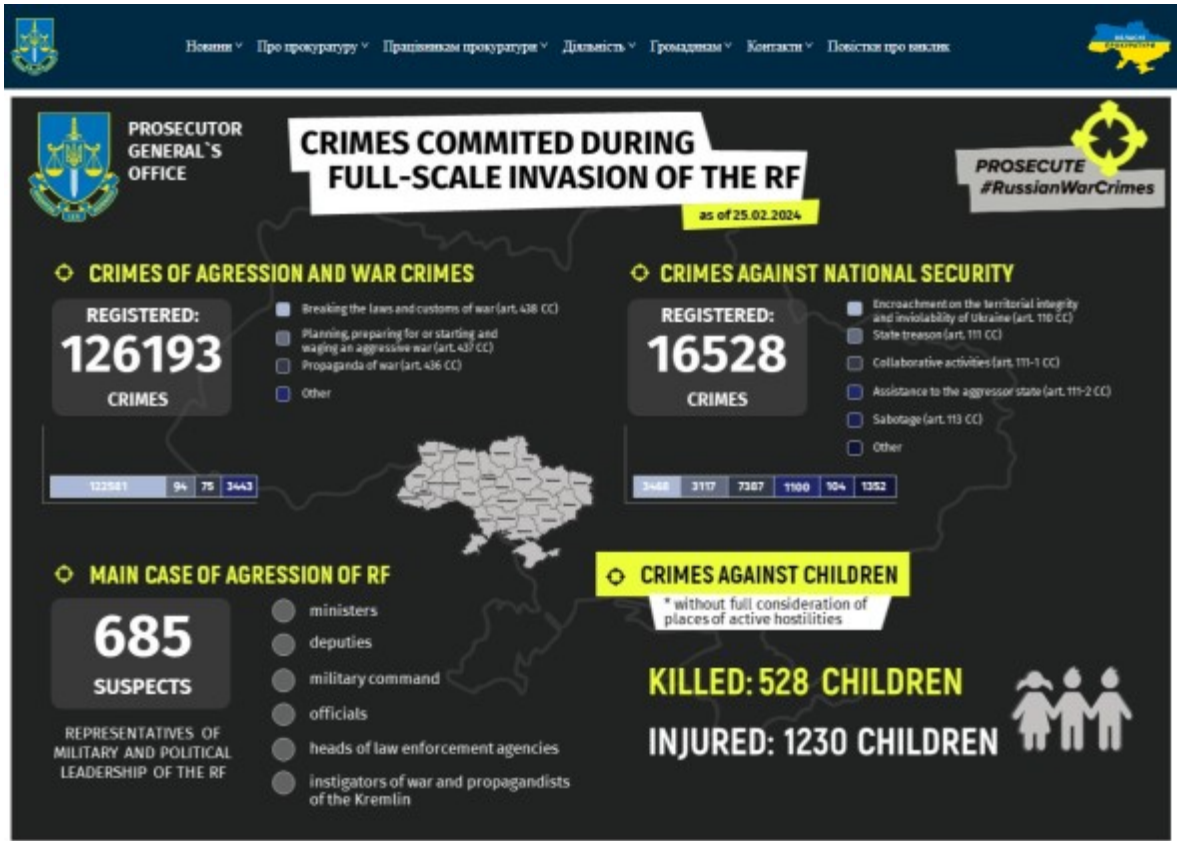
D.2. Appendices

Appendix a Screenshot of Tweet from @ArmsControlWonk (Dr. Jeffrey Lewis), posted on 24th February 2022



link: https://twitter.com/ArmsControlWonk/status/1496657816740036616
- visited on 13th June 2022

Appendix b: Screenshot of the webpage of the Office of the Prosecutor General of Ukraine



link: https://gp.gov.ua/ - visited on 25th February 2024

Appendix c: Screenshot of Article 8/1., 8/2.(a) and 8/2.(b) of the ICC's Rome Statute

Article 8
War crimes

1. The Court shall have jurisdiction in respect of war crimes in particular when committed as part of a plan or policy or as part of a large-scale commission of such crimes.

2. For the purpose of this Statute, "war crimes" means:

(a) Grave breaches of the Geneva Conventions of 12 August 1949, namely, any of the following acts against persons or property protected under the provisions of the relevant Geneva Convention:

(i) Wilful killing;

(ii) Torture or inhuman treatment, including biological experiments;

(iii) Wilfully causing great suffering, or serious injury to body or health;

(iv) Extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly;

(v) Compelling a prisoner of war or other protected person to serve in the forces of a hostile Power;

(vi) Wilfully depriving a prisoner of war or other protected person of the rights of fair and regular trial;

(vii) Unlawful deportation or transfer or unlawful confinement;

(viii) Taking of hostages.

(b) Other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts:

(i) Intentionally directing attacks against the civilian population as such or against individual civilians not taking direct part in hostilities;

(ii) Intentionally directing attacks against civilian objects, that is, objects which are not military objectives;

(iii) Intentionally directing attacks against personnel, installations, material, units or vehicles involved in a humanitarian assistance or peacekeeping mission in accordance with the Charter of the United Nations, as long as they are entitled to the protection given to civilians or civilian objects under the international law of armed conflict;

(iv) Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated;

(v) Attacking or bombarding, by whatever means, towns, villages, dwellings or buildings which are undefended and which are not military objectives;

(vi) Killing or wounding a combatant who, having laid down his arms or having no longer means of defence, has surrendered at discretion;

(vii) Making improper use of a flag of truce, of the flag or of the military insignia and uniform of the enemy or of the United Nations, as well as of the distinctive emblems of the Geneva Conventions, resulting in death or serious personal injury;

(viii) The transfer, directly or indirectly, by the Occupying Power of parts of its own civilian population into the territory it occupies, or the deportation or transfer of all or parts of the population of the occupied territory within or outside this territory;

(ix) Intentionally directing attacks against buildings dedicated to religion, education, art, science or charitable purposes, historic monuments, hospitals and places where the sick and wounded are collected, provided they are not military objectives;

(x) Subjecting persons who are in the power of an adverse party to physical mutilation or to medical or scientific experiments of any kind which are neither justified by the medical, dental or hospital treatment of the person concerned nor carried out in his or her interest, and which cause death to or seriously endanger the health of such person or persons;

(xi) Killing or wounding treacherously individuals belonging to the hostile nation or army;

(xii) Declaring that no quarter will be given;

(xiii) Destroying or seizing the enemy's property unless such destruction or seizure be imperatively demanded by the necessities of war;

(xiv) Declaring abolished, suspended or inadmissible in a court of law the rights and actions of the nationals of the hostile party;

(xv) Compelling the nationals of the hostile party to take part in the operations of war directed against their own country, even if they were in the belligerent's service before the commencement of the war;

(xvi) Pillaging a town or place, even when taken by assault;

(xvii) Employing poison or poisoned weapons;

(xviii) Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices;

(xix) Employing bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions;

(xx) Employing weapons, projectiles and material and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering or which are inherently indiscriminate in violation of the international law of armed conflict, provided that such weapons, projectiles and material and methods of warfare are the subject of a comprehensive prohibition and are included in an annex to this Statute, by an amendment in accordance with the relevant provisions set forth in articles 121 and 123;

(xxi) Committing outrages upon personal dignity, in particular humiliating and degrading treatment;

(xxii) Committing rape, sexual slavery, enforced prostitution, forced pregnancy, as defined in article 7, paragraph 2 (f), enforced sterilization, or any other form of sexual violence also constituting a grave breach of the Geneva Conventions;

(xxiii) Utilizing the presence of a civilian or other protected person to render certain points, areas or military forces immune from military operations;

(xxiv) Intentionally directing attacks against buildings, material, medical units and transport, and personnel using the distinctive emblems of the Geneva Conventions in conformity with international law;

(xxv) Intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including wilfully impeding relief supplies as provided for under the Geneva Conventions;

(xxvi) Conscripting or enlisting children under the age of fifteen years into the national armed forces or using them to participate actively in hostilities.

link: https://legal.un.org/icc/statute/99_corr/cstatute.htm - visited on 12th October 2022

Appendix d: Screenshot of Article 7 of the ICC's Rome Statute.

Article 7
Crimes against humanity

1. For the purpose of this Statute, "crime against humanity" means any of the following acts when committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack:

(a) Murder;

(b) Extermination;

(c) Enslavement;

(d) Deportation or forcible transfer of population;

(e) Imprisonment or other severe deprivation of physical liberty in violation of fundamental rules of international law;

(f) Torture;

(g) Rape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization, or any other form of sexual violence of comparable gravity;

(h) Persecution against any identifiable group or collectivity on political, racial, national, ethnic, cultural, religious, gender as defined in paragraph 3, or other grounds that are universally recognized as impermissible under international law, in connection with any act referred to in this paragraph or any crime within the jurisdiction of the Court;

(i) Enforced disappearance of persons;

(j) The crime of apartheid;

(k) Other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health.

2. For the purpose of paragraph 1:

(a) "Attack directed against any civilian population" means a course of conduct involving the multiple commission of acts referred to in paragraph 1 against any civilian population, pursuant to or in furtherance of a State or organizational policy to commit such attack;

(b) "Extermination" includes the intentional infliction of conditions of life, inter alia the deprivation of access to food and medicine, calculated to bring about the destruction of part of a population;

(c) "Enslavement" means the exercise of any or all of the powers attaching to the right of ownership over a person and includes the exercise of such power in the course of trafficking in persons, in particular women and children;

(d) "Deportation or forcible transfer of population" means forced displacement of the persons concerned by expulsion or other coercive acts from the area in which they are lawfully present, without grounds permitted under international law;

(e) "Torture" means the intentional infliction of severe pain or suffering, whether physical or mental, upon a person in the custody or under the control of the accused; except that torture shall not include pain or suffering arising only from, inherent in or incidental to, lawful sanctions;

(f) "Forced pregnancy" means the unlawful confinement of a woman forcibly made pregnant, with the intent of affecting the ethnic composition of any population or carrying out other grave violations of international law. This definition shall not in any way be interpreted as affecting national laws relating to pregnancy;

(g) "Persecution" means the intentional and severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity;

(h) "The crime of apartheid" means inhumane acts of a character similar to those referred to in paragraph 1, committed in the context of an institutionalized regime of systematic oppression and domination by one racial group over any other racial group or groups and committed with the intention of maintaining that regime;

(i) "Enforced disappearance of persons" means the arrest, detention or abduction of persons by, or with the authorization, support or acquiescence of, a State or a political organization, followed by a refusal to acknowledge that deprivation of freedom or to give information on the fate or whereabouts of those persons, with the intention of removing them from the protection of the law for a prolonged period of time.

3. For the purpose of this Statute, it is understood that the term "gender" refers to the two sexes, male and female, within the context of society. The term "gender" does not indicate any meaning different from the above.

link: https://legal.un.org/icc/statute/99_corr/cstatute.html - visited on 12th October 2022

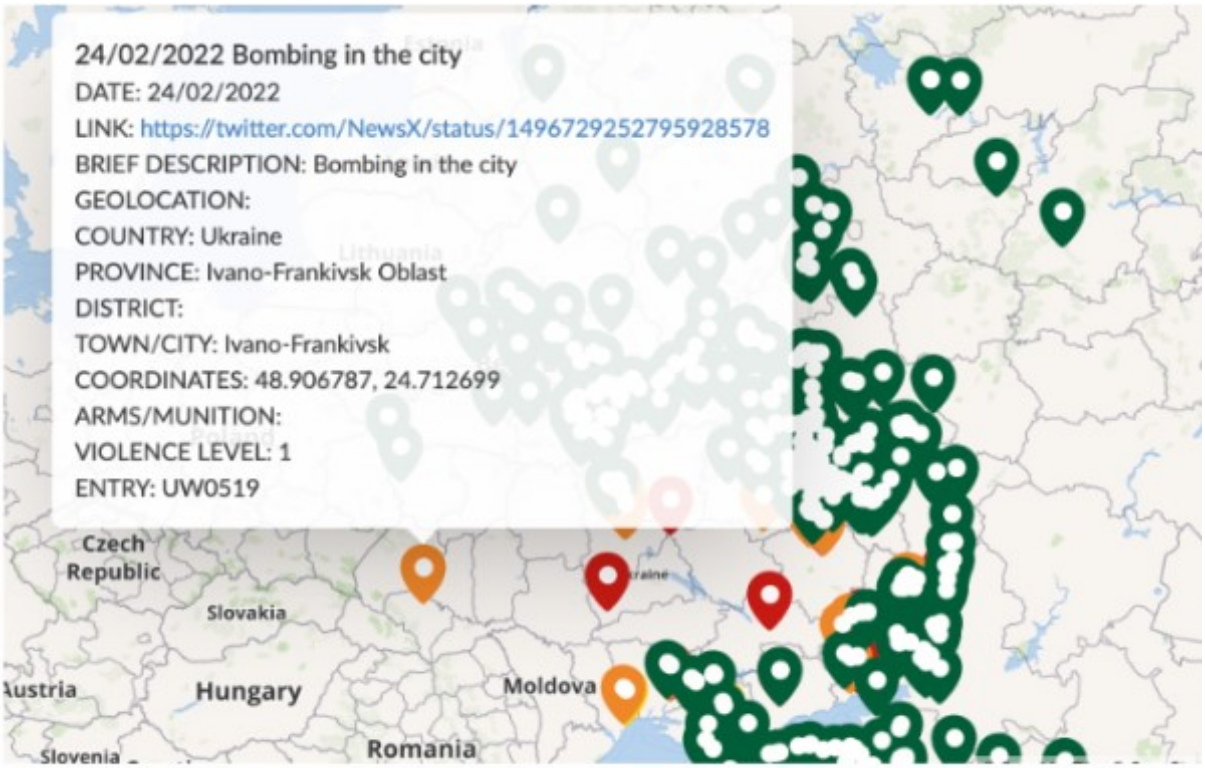
Appendix e: Screenshot of a Tweet from @VenediktovaIV (Iryna Venediktova), posted on Twitter/X on 9th March 2022

link: https://twitter.com/VenediktovaIV/status/1501596904009912320 - visited on 22nd October 2022

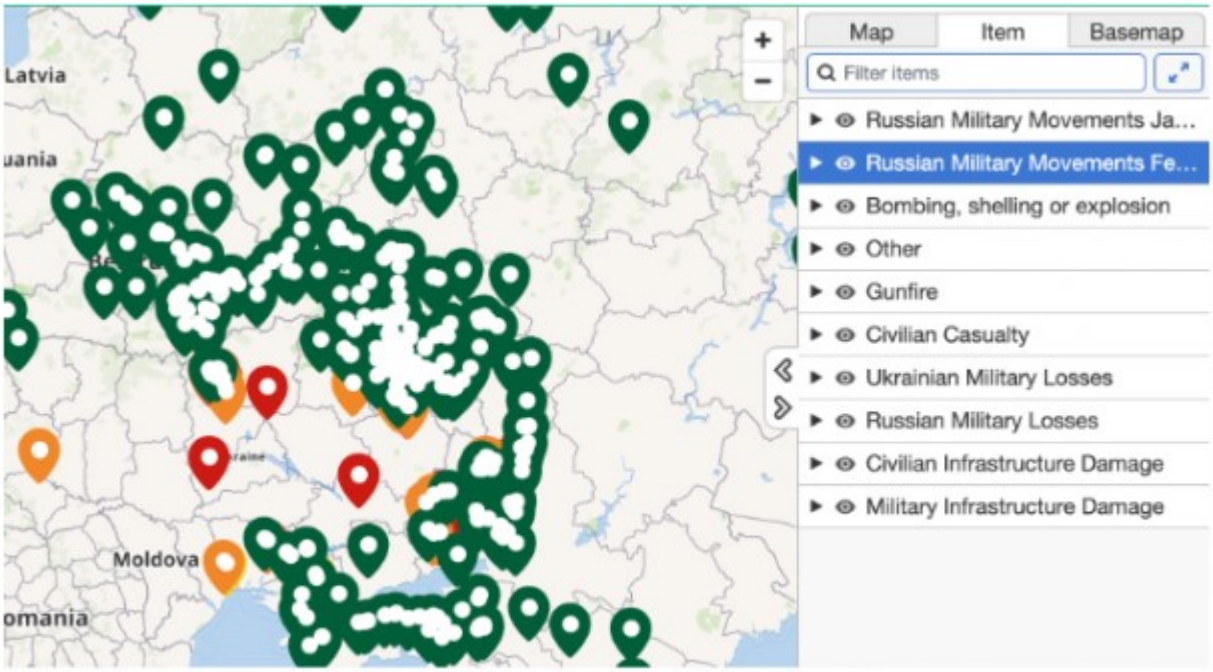
Appendix f: Screenshots of Bellingcat webpage sections, as of 21st April 2023

link: https://www.bellingcat.com/ - visited on 21st April 2023

Appendix g: Screenshots of Bellingcat's Russia-Ukraine Monitor Map, which was later replaced by the Eyes-on-Russia



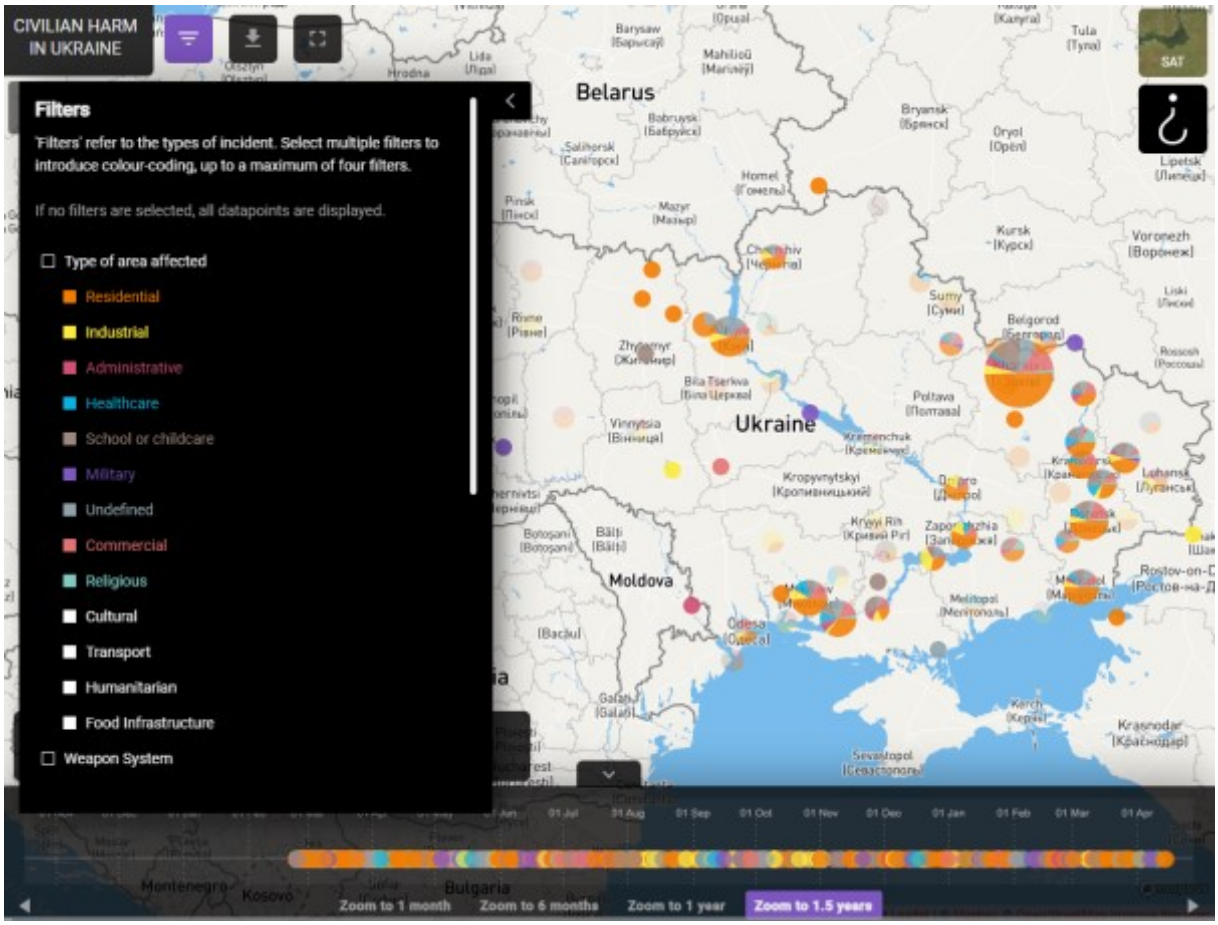
A screen grab of the Russia-Ukraine Monitoring Map detailing a bombing in Ivano-Frankivsk.



A screen grab of the Russia-Ukraine Monitoring Map detailing a list of categories (right) that can be searched.

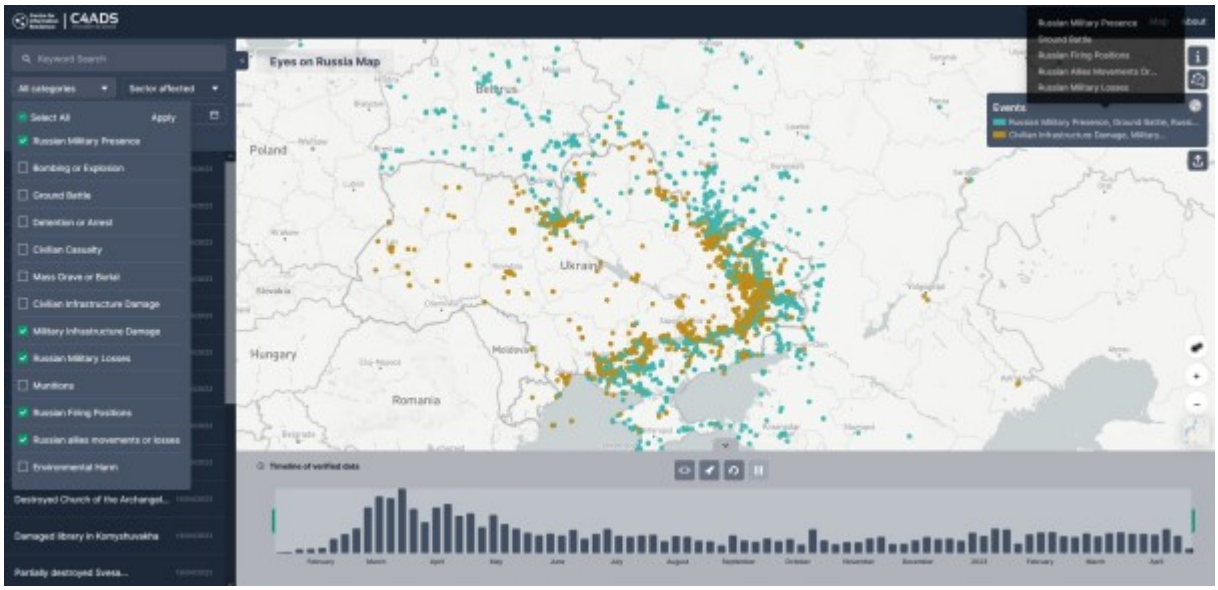
Cf. BC/STRICK (2022)

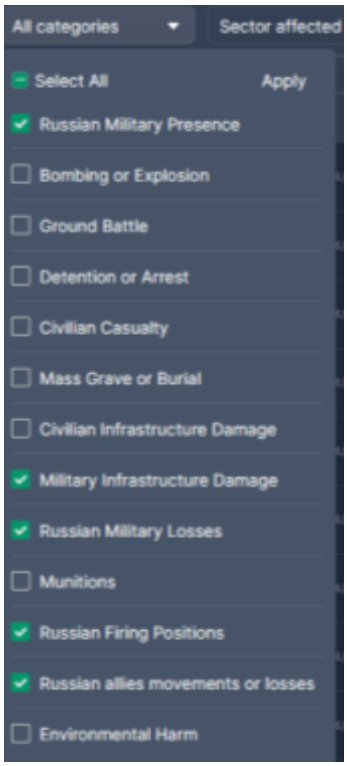
Appendix h: Screenshot of Bellingcat's Civilian Harm in Ukraine Map/TimeMap, as of 28th April 2023

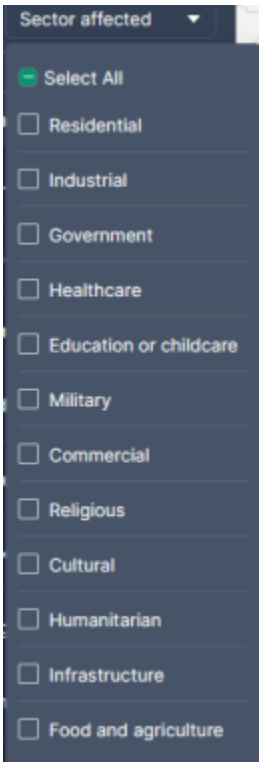


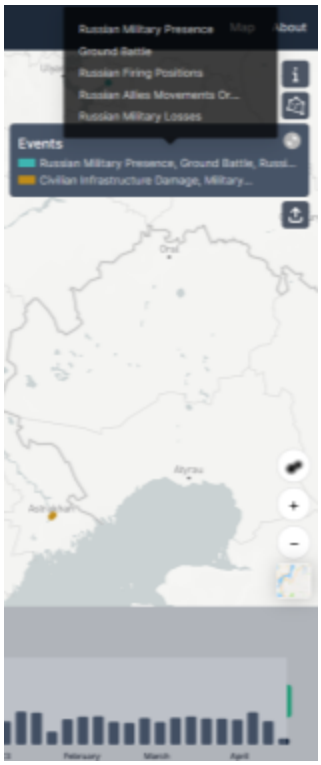
link: https://ukraine.bellingcat.com/?range=2021-10-17&range=2023-04-28&color=asc6&color=asc1&color=asc2&color=asc3&color=asc4&color=asc5&color=asc7&color=asc8&color=asc9&filter=asc6&filter=asc1&filter=asc2&filter=asc3&filter=asc4&filter=asc5&filter=asc7&filter=asc8&filter=asc9&filter=asc10&filter=asc11&filter=asc12&filter=asc13 - visited on 28th April 2023

Appendix i: Screenshots of CIR's Eyes on Russia Map, as of 28th April 2023



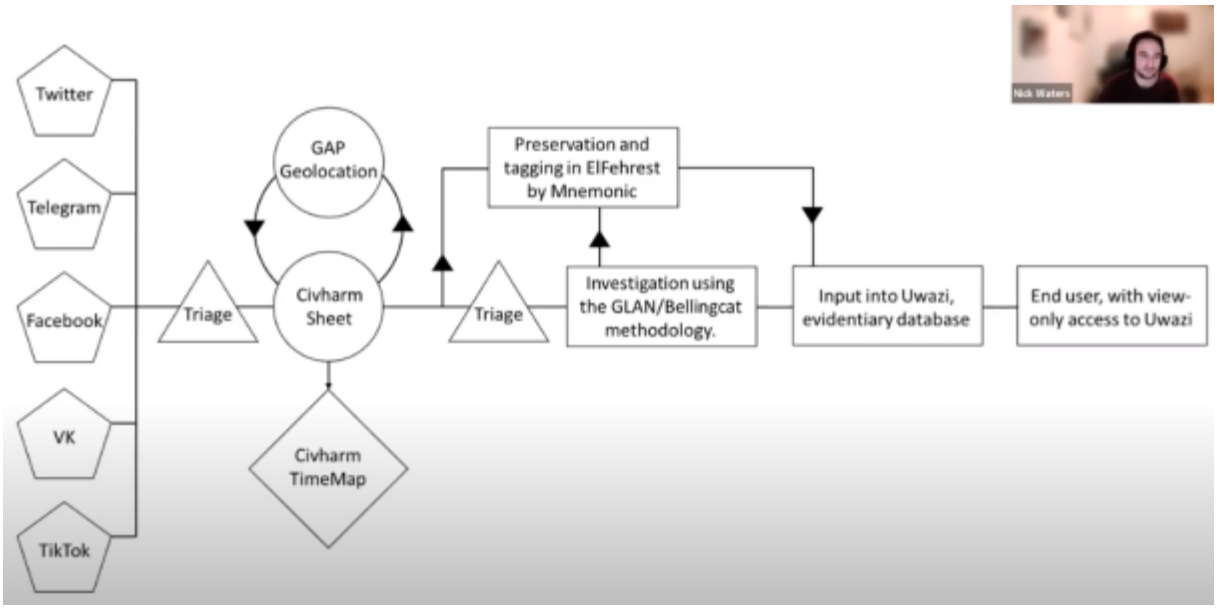






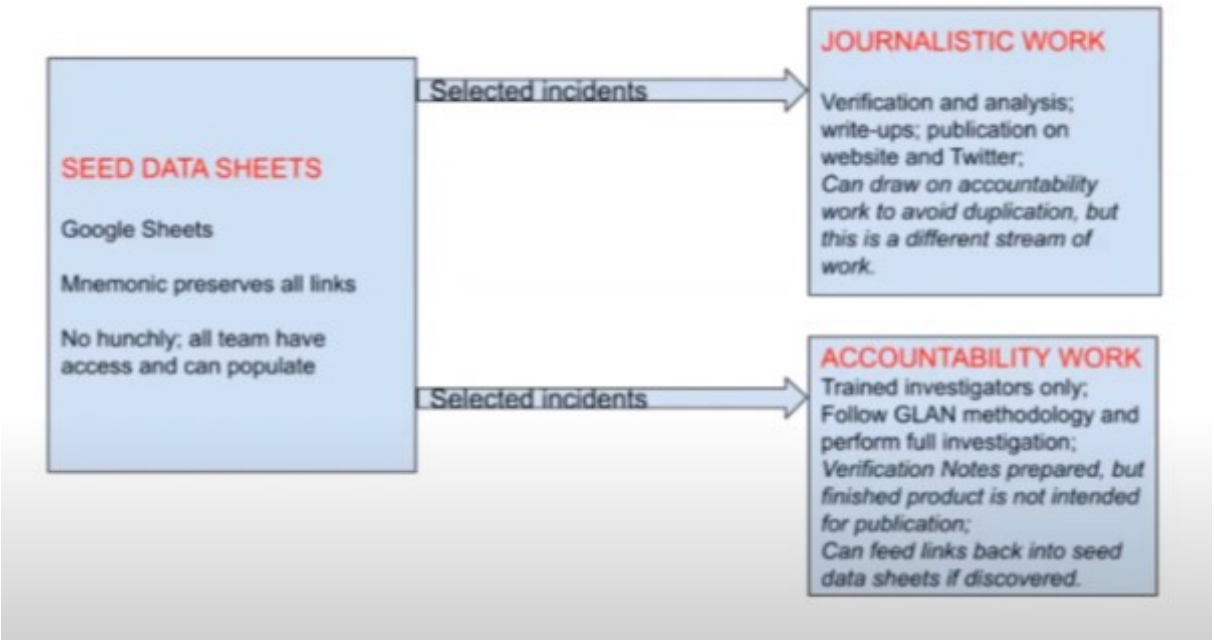
link: https://eyesonrussia.org/ - visited on 28th April 2023

Appendix k: Screenshot of Bellingcat's justice and accountability work process



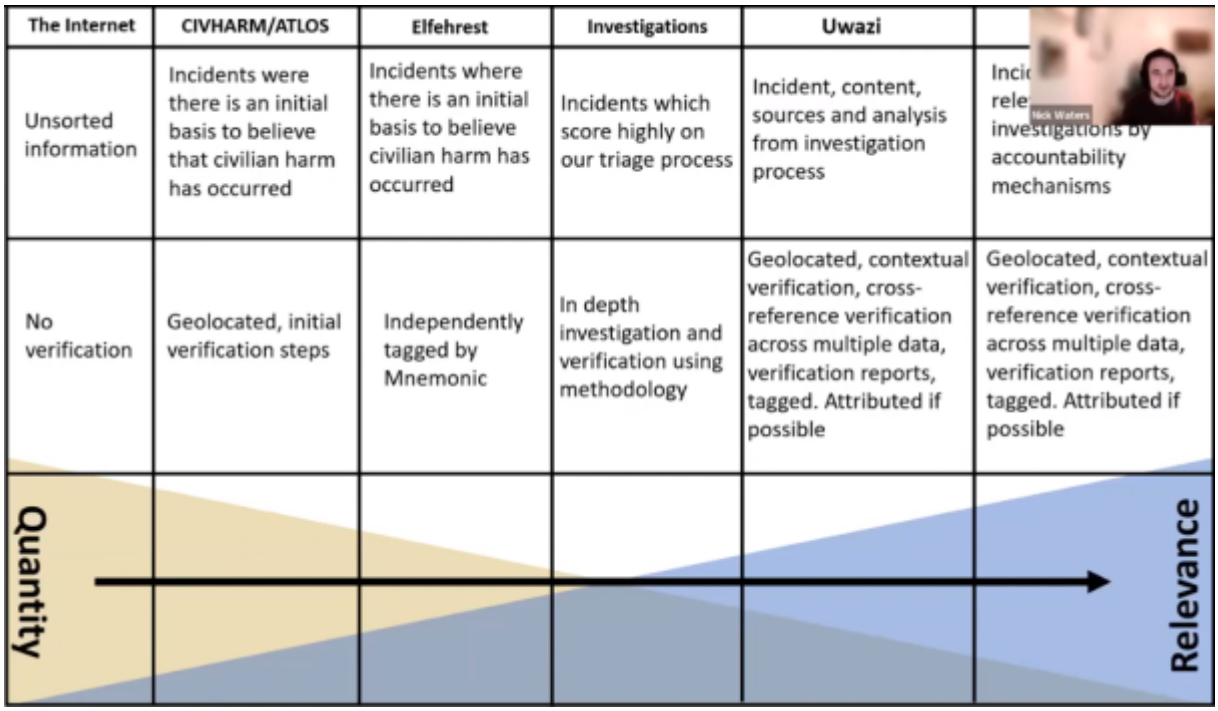
Cf. GLAN/BC (2022b): 19:52.

Appendix l: Screenshot of Bellingcat's journalistic versus accountability work



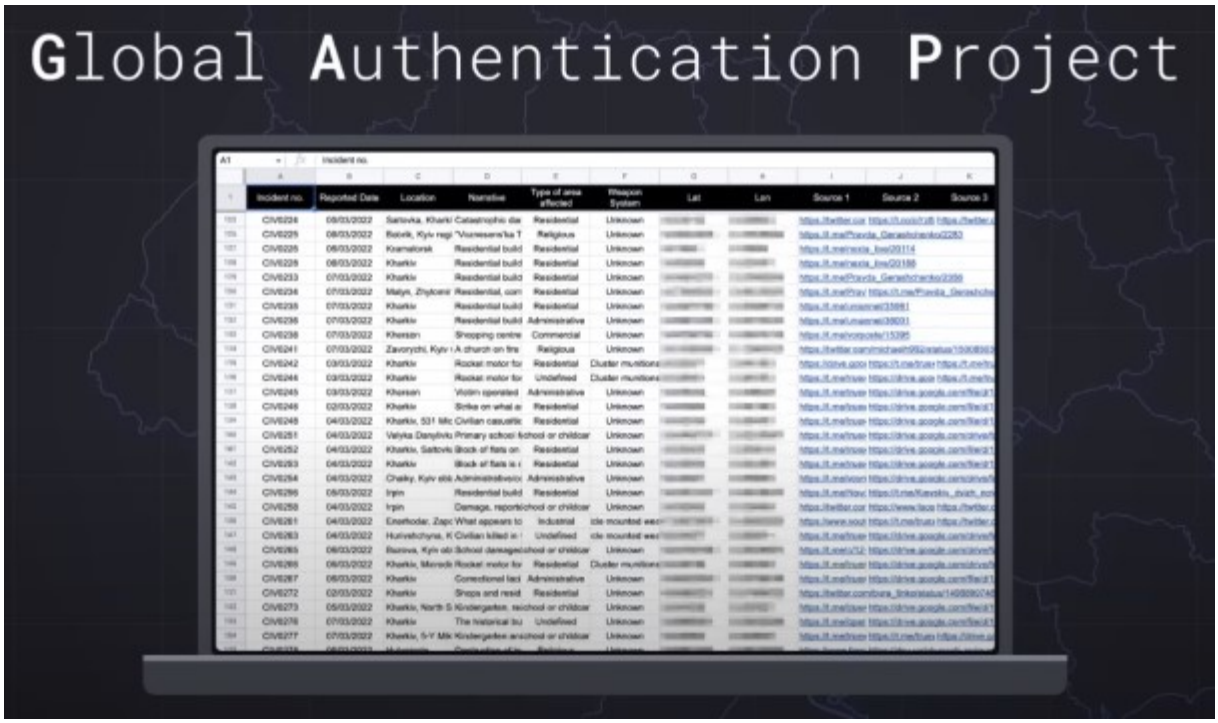
Cf. GLAN/BC (2022b): 16:20.

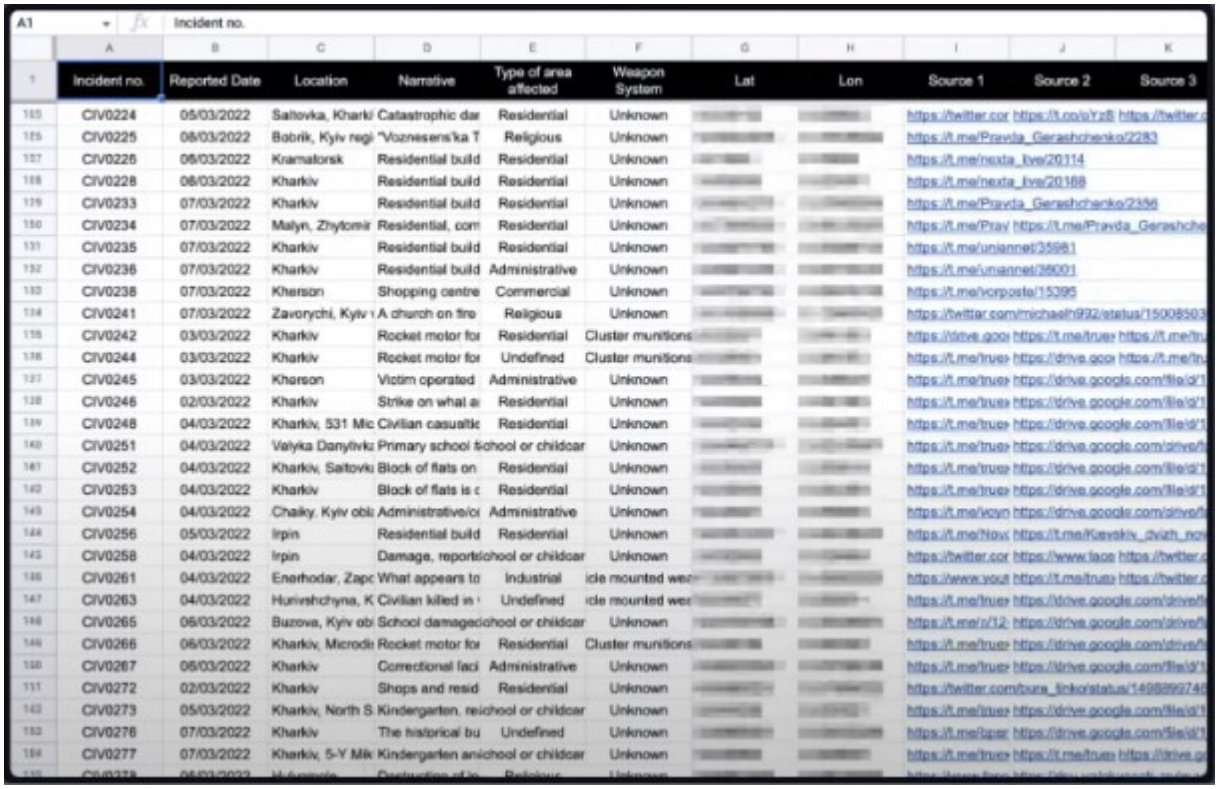
Appendix m: Screenshot of Bellingcat's quantity-to-relevance conversion process



Cf. GLAN/BC (2022b): 21:10.

Appendix n: Screenshot of Bellingcat's Global Authentication Project (GAP)

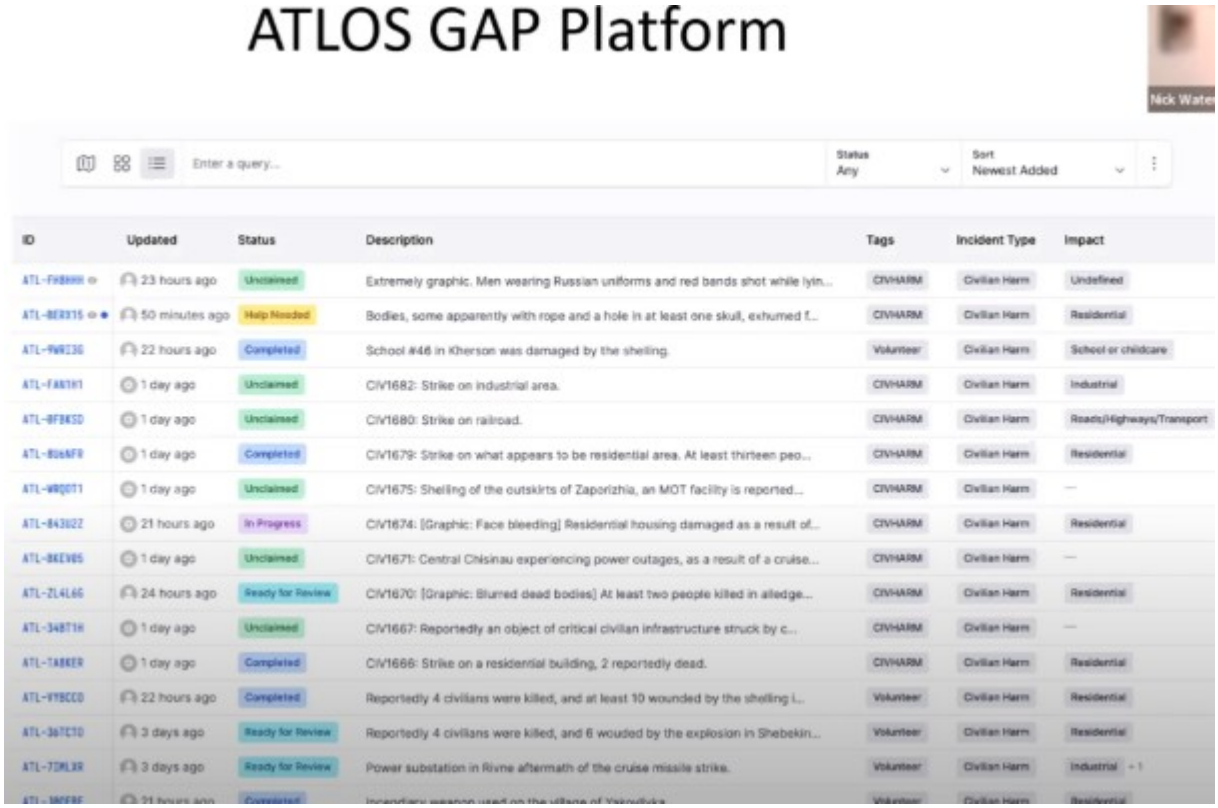




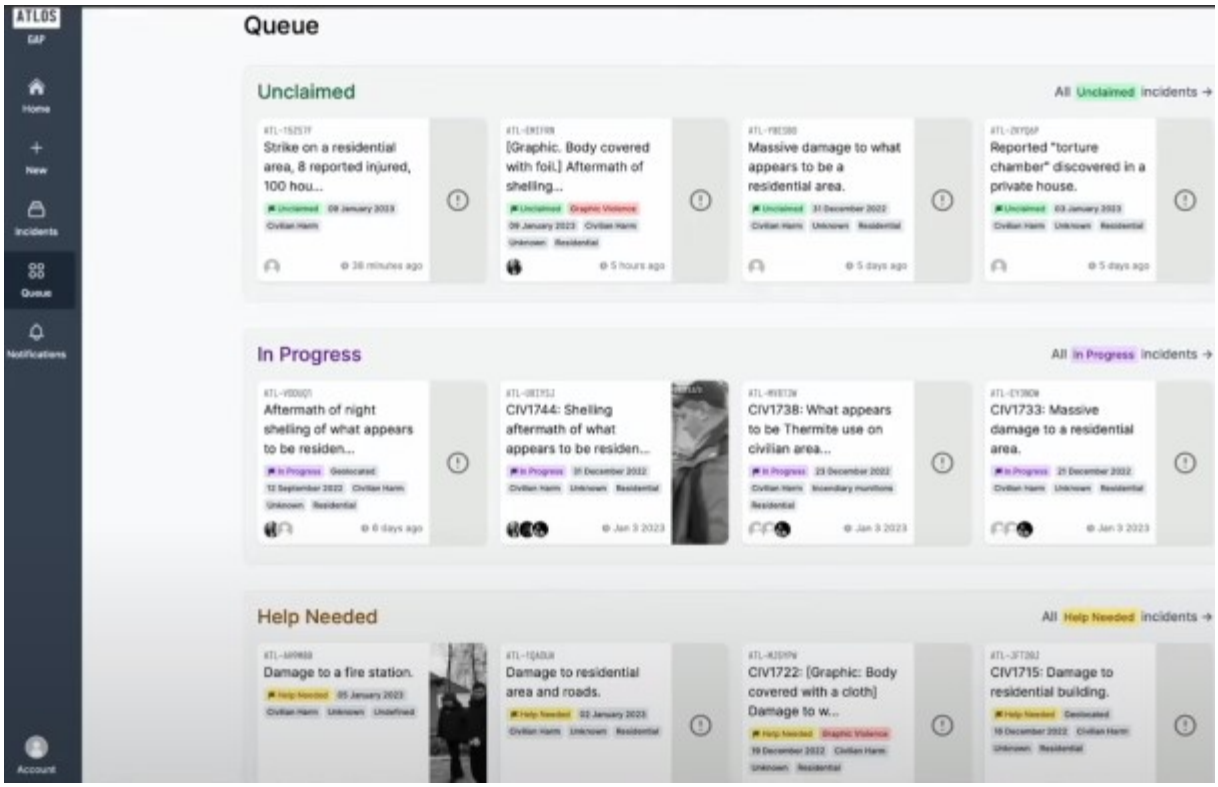
	Incident no.	Reported Date	Location	Narrative	Type of area affected	Weapon System	Lat	Lon	Source 1	Source 2	Source 3
103	CIV0224	05/03/2022	Saltovka, Kharki	Catastrophic dar	Residential	Unknown			https://twitter.cor	https://t.co/oYz8	https://twitter.c
105	CIV0225	06/03/2022	Bobrik, Kyiv regi	"Voznesens'ka T	Religious	Unknown			https://t.me/Pravda_Gerashchenko/2283		
107	CIV0226	06/03/2022	Kramatorsk	Residential build	Residential	Unknown			https://t.me/nexta_live/20114		
108	CIV0228	06/03/2022	Kharkiv	Residential build	Residential	Unknown			https://t.me/nexta_live/20188		
109	CIV0233	07/03/2022	Kharkiv	Residential build	Residential	Unknown			https://t.me/Pravda_Gerashchenko/2356		
110	CIV0234	07/03/2022	Malyn, Zhytomir	Residential, com	Residential	Unknown			https://t.me/Prav	https://t.me/Pravda_Gerashche	
111	CIV0235	07/03/2022	Kharkiv	Residential build	Residential	Unknown			https://t.me/unarmed/35981		
112	CIV0236	07/03/2022	Kharkiv	Residential build	Administrative	Unknown			https://t.me/unarmed/36001		
113	CIV0238	07/03/2022	Kherson	Shopping centre	Commercial	Unknown			https://t.me/vorposte/15395		
114	CIV0241	07/03/2022	Zavorychi, Kyiv r	A church on fire	Religious	Unknown			https://twitter.com/michaelh992/status/1500859		
115	CIV0242	03/03/2022	Kharkiv	Rocket motor for	Residential	Cluster munitions			https://drive.goo	https://t.me/true	https://t.me/tru
116	CIV0244	03/03/2022	Kharkiv	Rocket motor for	Undefined	Cluster munitions			https://t.me/true	https://drive.goo	https://t.me/tru
117	CIV0245	03/03/2022	Kherson	Victim operated	Administrative	Unknown			https://t.me/true	https://drive.google.com/file/d/1	
118	CIV0246	02/03/2022	Kharkiv	Strike on what a	Residential	Unknown			https://t.me/true	https://drive.google.com/file/d/1	
119	CIV0248	04/03/2022	Kharkiv, 531 Mic	Civilian casualtic	Residential	Unknown			https://t.me/true	https://drive.google.com/file/d/1	
120	CIV0251	04/03/2022	Valyka Danylivki	Primary school fi	School or childcar	Unknown			https://t.me/true	https://drive.google.com/drive/fi	
121	CIV0252	04/03/2022	Kharkiv, Saltovki	Block of flats on	Residential	Unknown			https://t.me/true	https://drive.google.com/file/d/1	
122	CIV0253	04/03/2022	Kharkiv	Block of flats is c	Residential	Unknown			https://t.me/true	https://drive.google.com/file/d/1	
123	CIV0254	04/03/2022	Chaiky, Kyiv obl	Administrative/co	Administrative	Unknown			https://t.me/voyn	https://drive.google.com/drive/fi	
124	CIV0256	05/03/2022	Irpin	Residential build	Residential	Unknown			https://t.me/Nov	https://t.me/Kievskiy_dvizh_nov	
125	CIV0258	04/03/2022	Irpin	Damage, reportedschool or childcar		Unknown			https://twitter.cor	https://www.face	https://twitter.c
126	CIV0261	04/03/2022	Enerhodar, Zapc	What appears to	Industrial	icle mounted wea			https://www.yout	https://t.me/true	https://twitter.c
127	CIV0263	04/03/2022	Hurivshchyna, K	Civilian killed in	Undefined	icle mounted wea			https://t.me/true	https://drive.google.com/drive/fi	
128	CIV0265	06/03/2022	Buzova, Kyiv obl	School damagedschool or childcar		Unknown			https://t.me/s/12	https://drive.google.com/drive/fi	
129	CIV0266	06/03/2022	Kharkiv, Microdis	Rocket motor for	Residential	Cluster munitions			https://t.me/true	https://drive.google.com/drive/fi	
130	CIV0267	06/03/2022	Kharkiv	Correctional faci	Administrative	Unknown			https://t.me/true	https://drive.google.com/file/d/1	
131	CIV0272	02/03/2022	Kharkiv	Shops and resid	Residential	Unknown			https://twitter.com/bura_tinko/status/1498899746		
132	CIV0273	05/03/2022	Kharkiv, North S	Kindergarten, reschool or childcar		Unknown			https://t.me/true	https://drive.google.com/file/d/1	
133	CIV0276	07/03/2022	Kharkiv	The historical bu	Undefined	Unknown			https://t.me/bpsr	https://drive.google.com/file/d/1	
134	CIV0277	07/03/2022	Kharkiv, 5-Y Mik	Kindergarten anschool or childcar		Unknown			https://t.me/true	https://t.me/true	https://drive.g

Cf. NEWSY/BC (2023): 17:55.

Appendix o: Screenshots of Bellingcat's internal ATLOS GAP Platform user interface

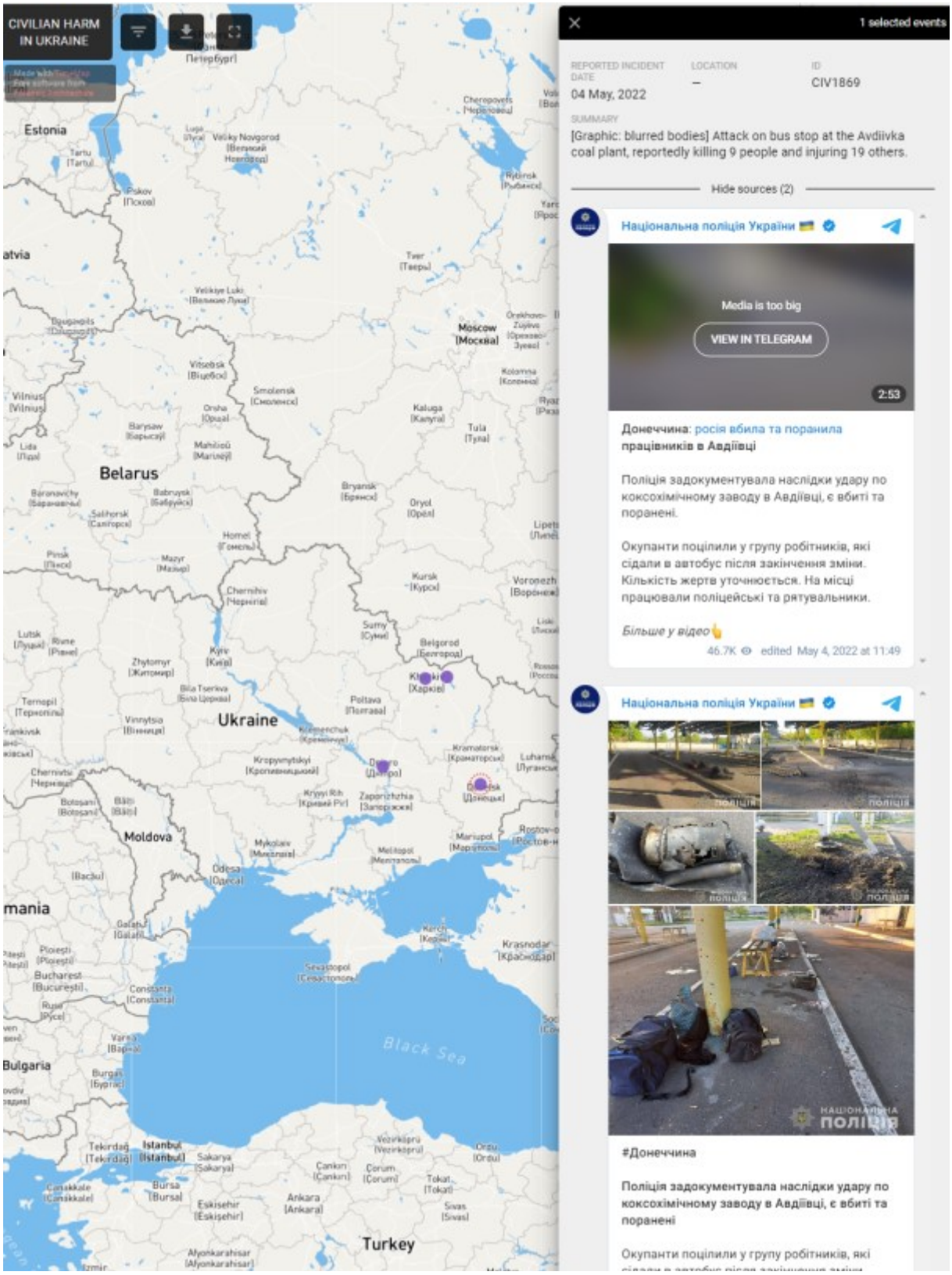


Cf. GLAN/BC (2022b): 18:20.



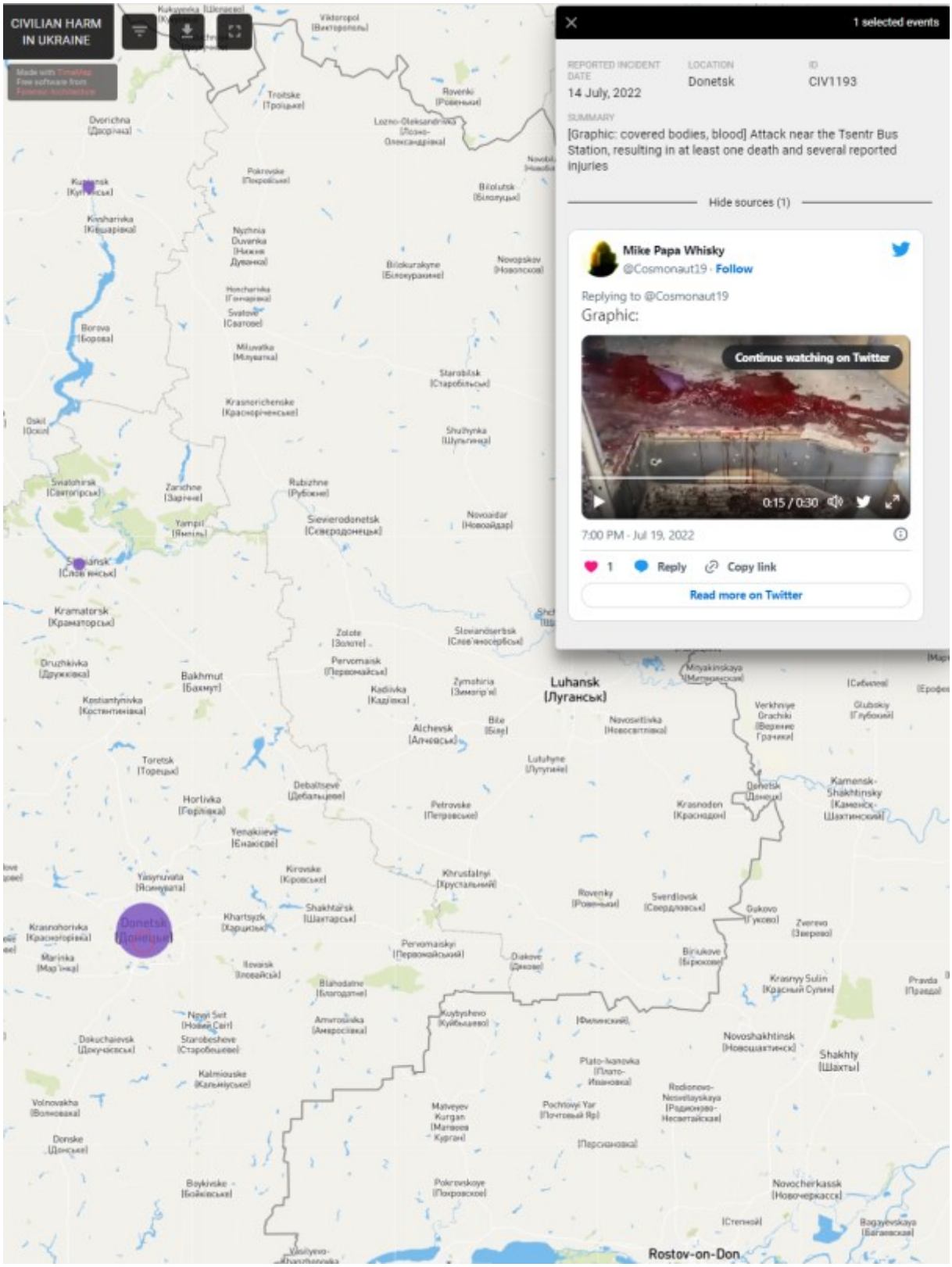
Cf. SKAGEN (2023): 09:00 and IIPC (2024): 08:15.

Appendix p: Screenshot of Bellingcat's Civharm TimeMap – CIV1869



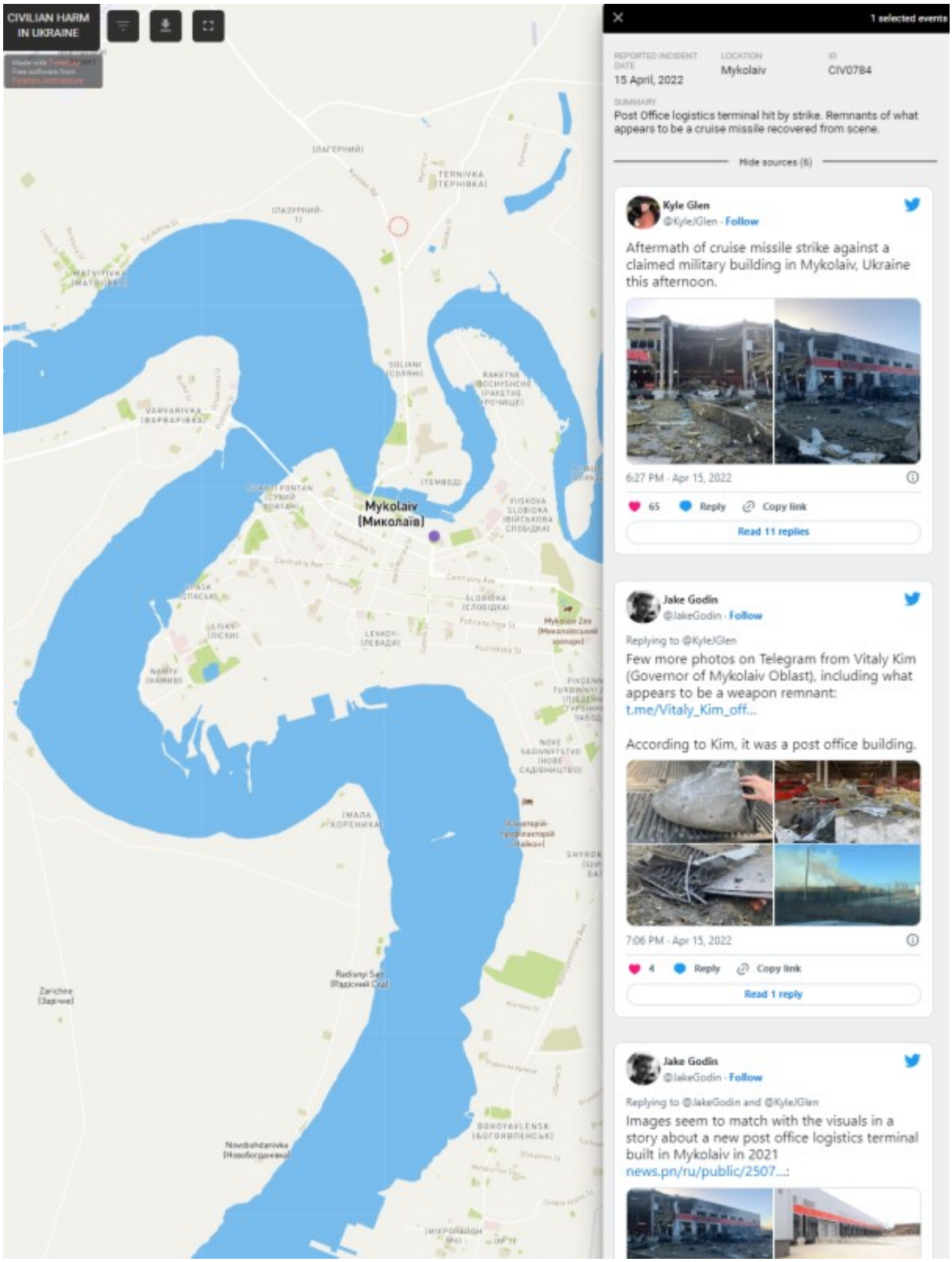
link: https://ukraine.bellingcat.com/?id=CIV1869 - visited on 7th May 2023

Appendix q: Screenshot of Bellingcat's Civharm TimeMap – CIV1193



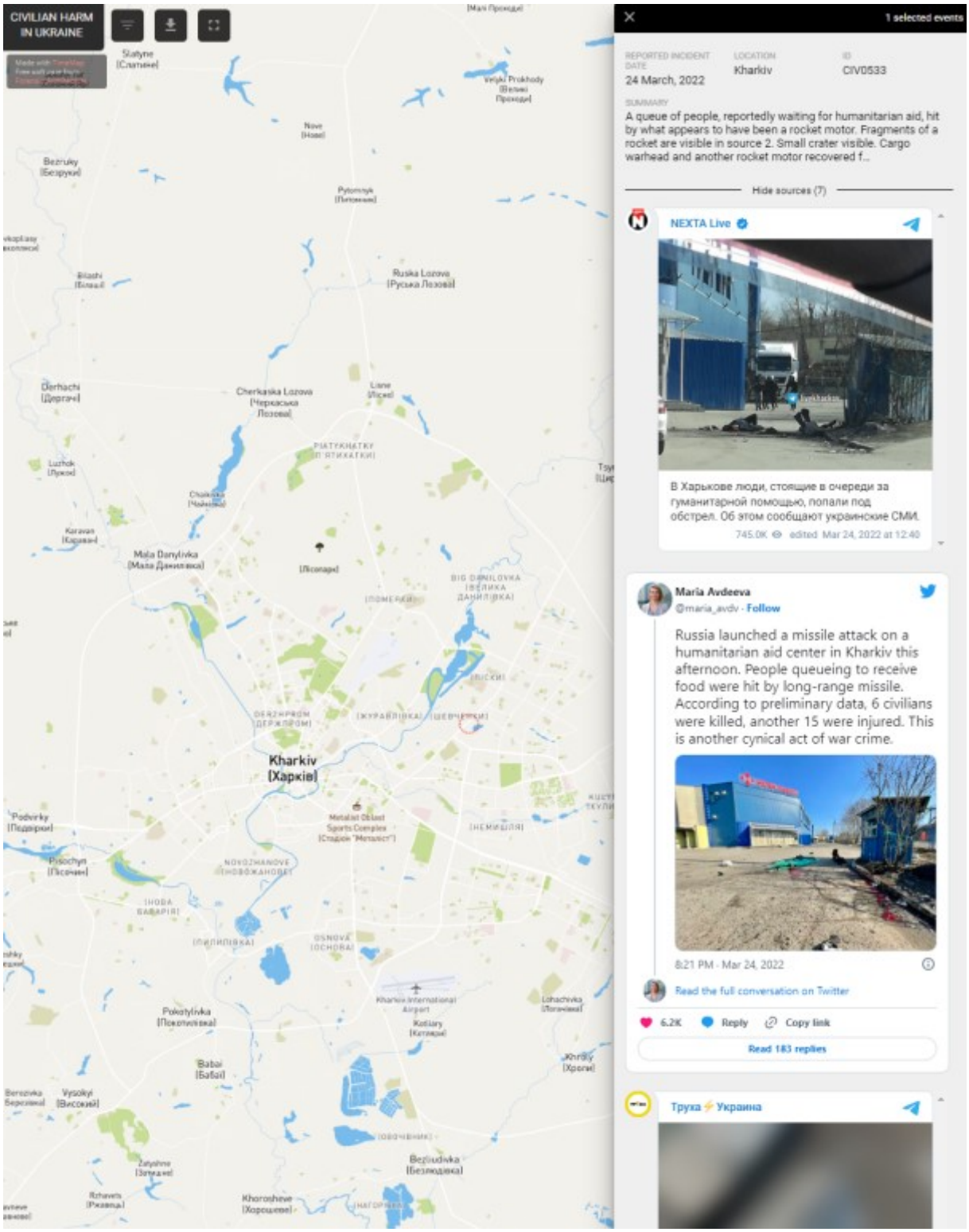
link: https://ukraine.bellingcat.com/?id=CIV1193 - visited on 7th May 2023

Appendix r: Screenshot of Bellingcat's Civharm TimeMap – CIV0784



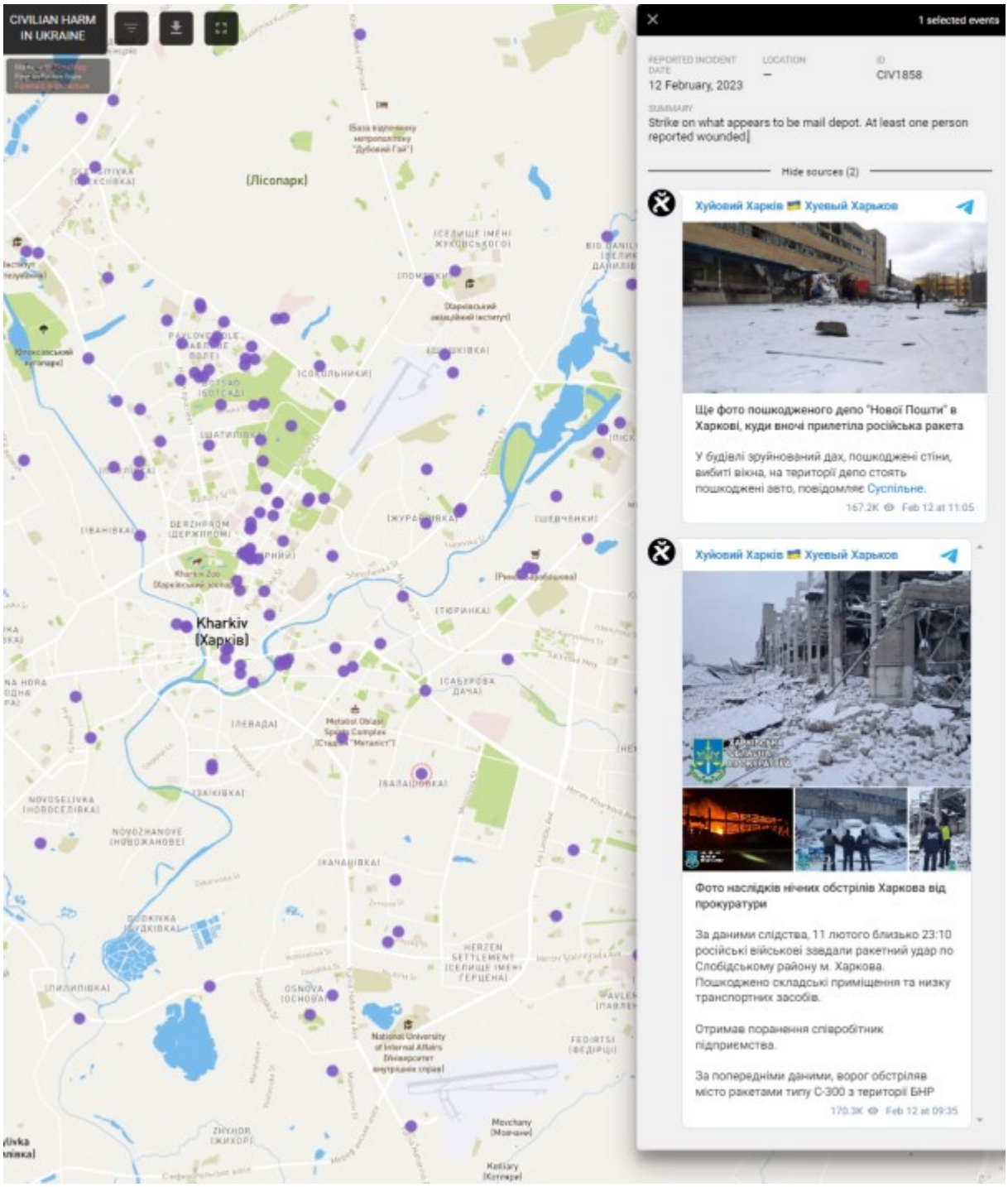
link: https://ukraine.bellingcat.com/?id=CIV0784 - visited on 7th May 2023

Appendix s: Screenshot of Bellingcat's Civharm TimeMap – CIV0533



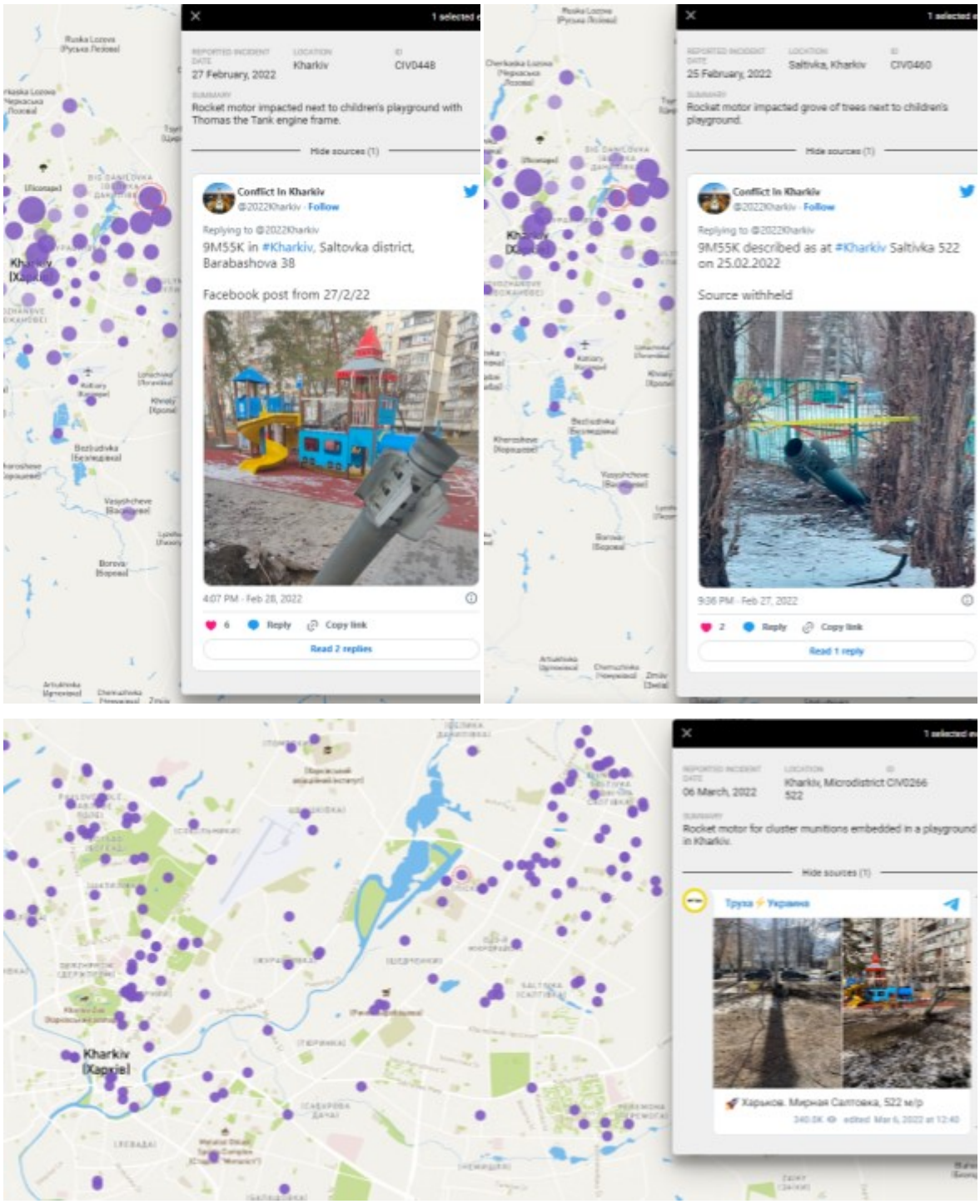
link: https://ukraine.bellingcat.com/?id=CIV0533 - visited on 7th May 2023

Appendix t: Screenshot of Bellingcat's Civharm TimeMap – CIV1858



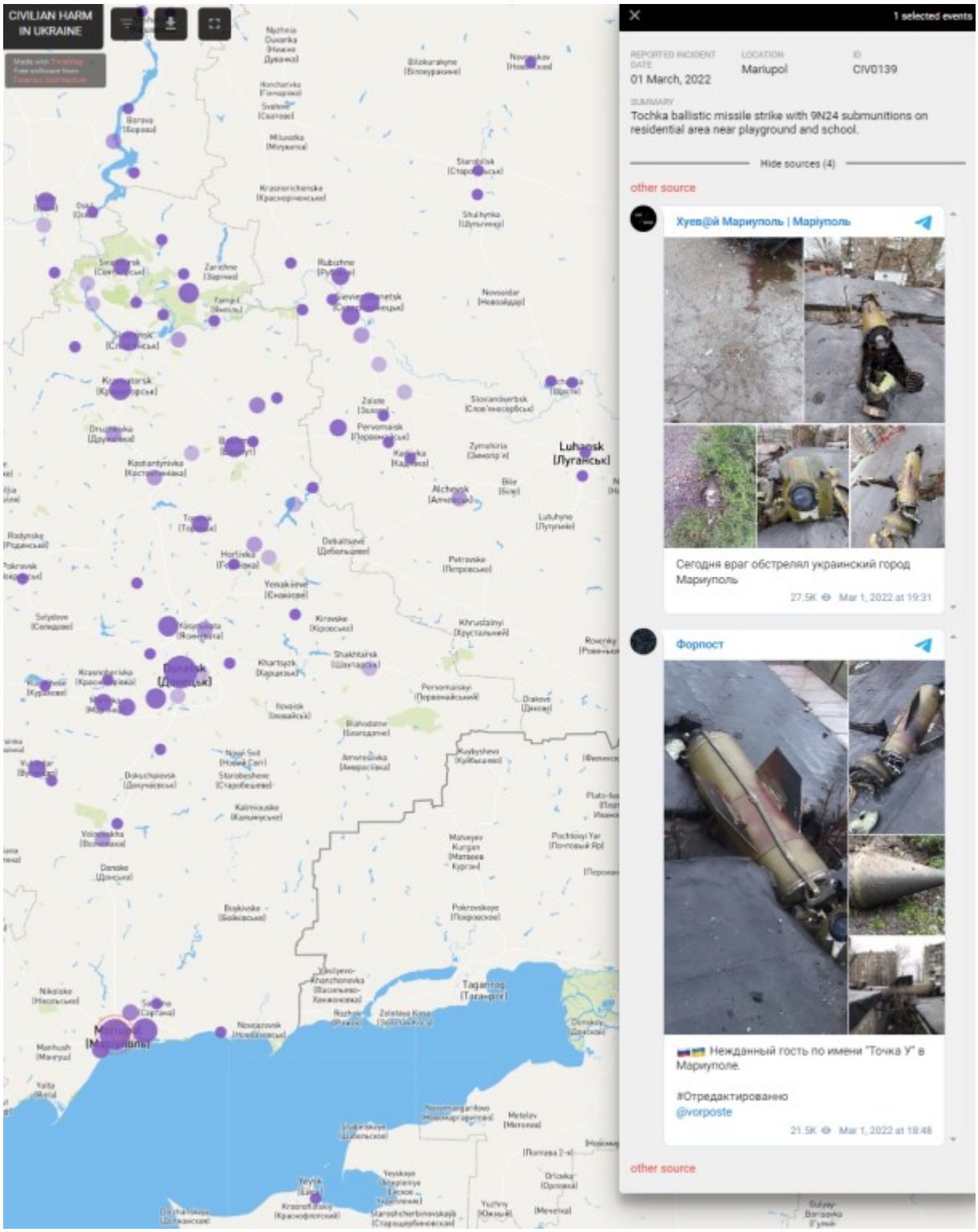
link: https://ukraine.bellingcat.com/?id=CIV1858&range=2021-10-26&range=2023-05-07 - visited on 7th May 2023

Appendix u: Screenshots of Bellingcat's Civharm TimeMap – CIV0448, CIV0460 and CIV0266



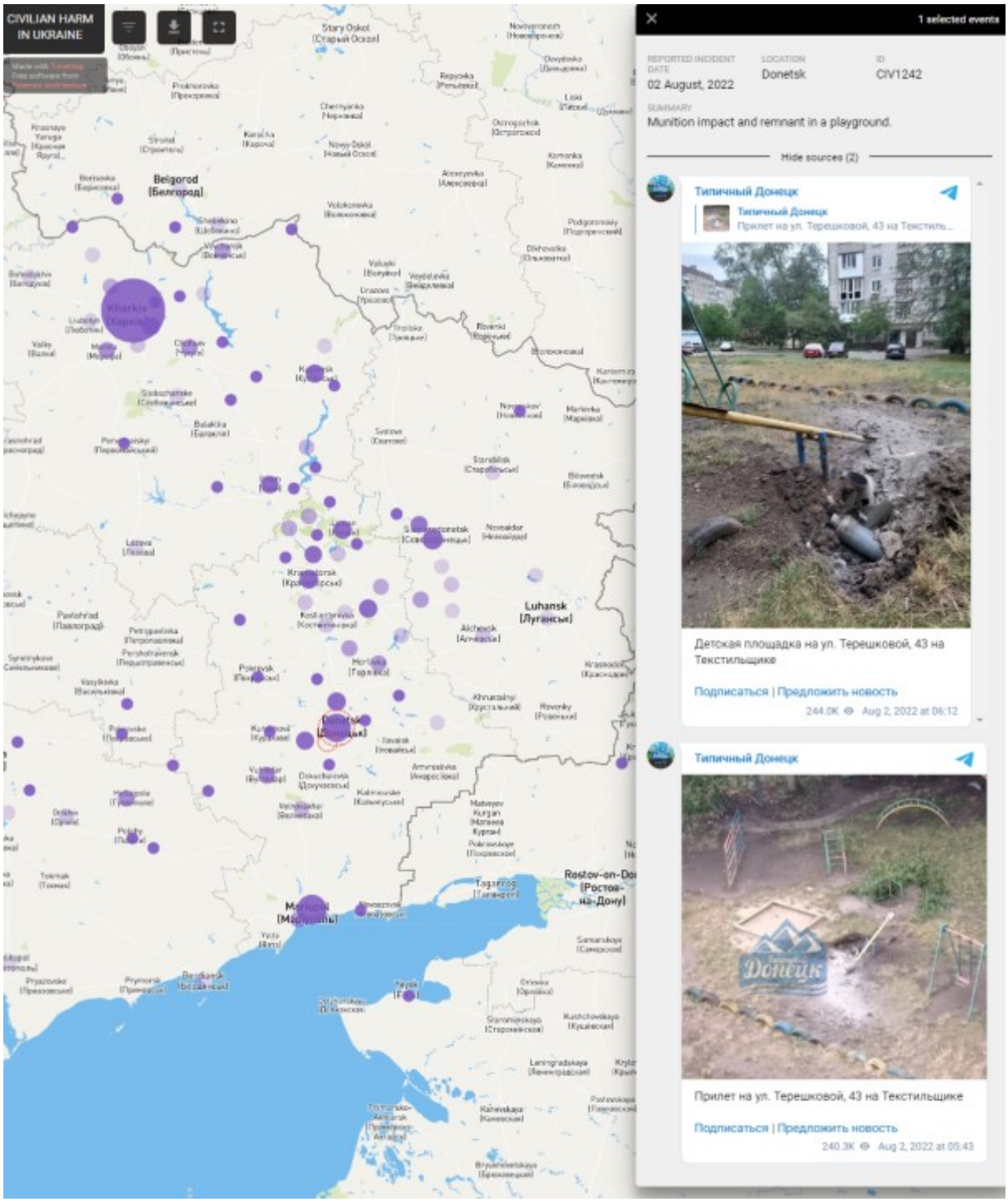
links: https://ukraine.bellingcat.com/?id=CIV0448&range=2021-10-27&range=2023-05-08, https://ukraine.bellingcat.com/?id=CIV0460&range=2021-10-27&range=2023-05-08 and https://ukraine.bellingcat.com/?id=CIV0266&range=2021-10-27&range=2023-05-08 - visited on 8th May 2023

Appendix v: Screenshot of Bellingcat's Civharm TimeMap – CIV0139



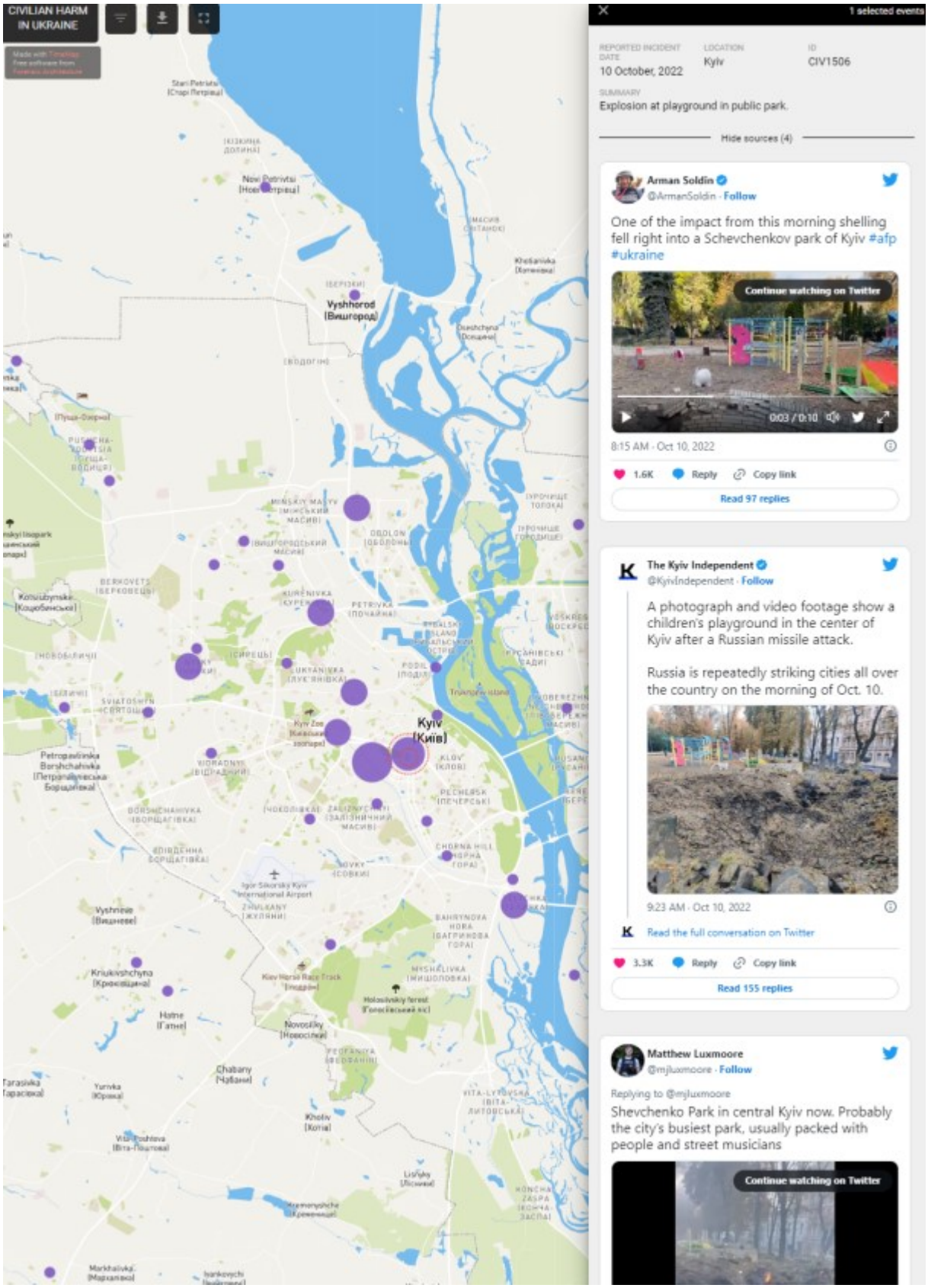
links: https://ukraine.bellingcat.com/?id=CIV0139&range=2021-10-27&range=2023-05-08 - visited on 8th May 2023

Appendix w: Screenshot of Bellingcat's Civharm TimeMap – CIV1242



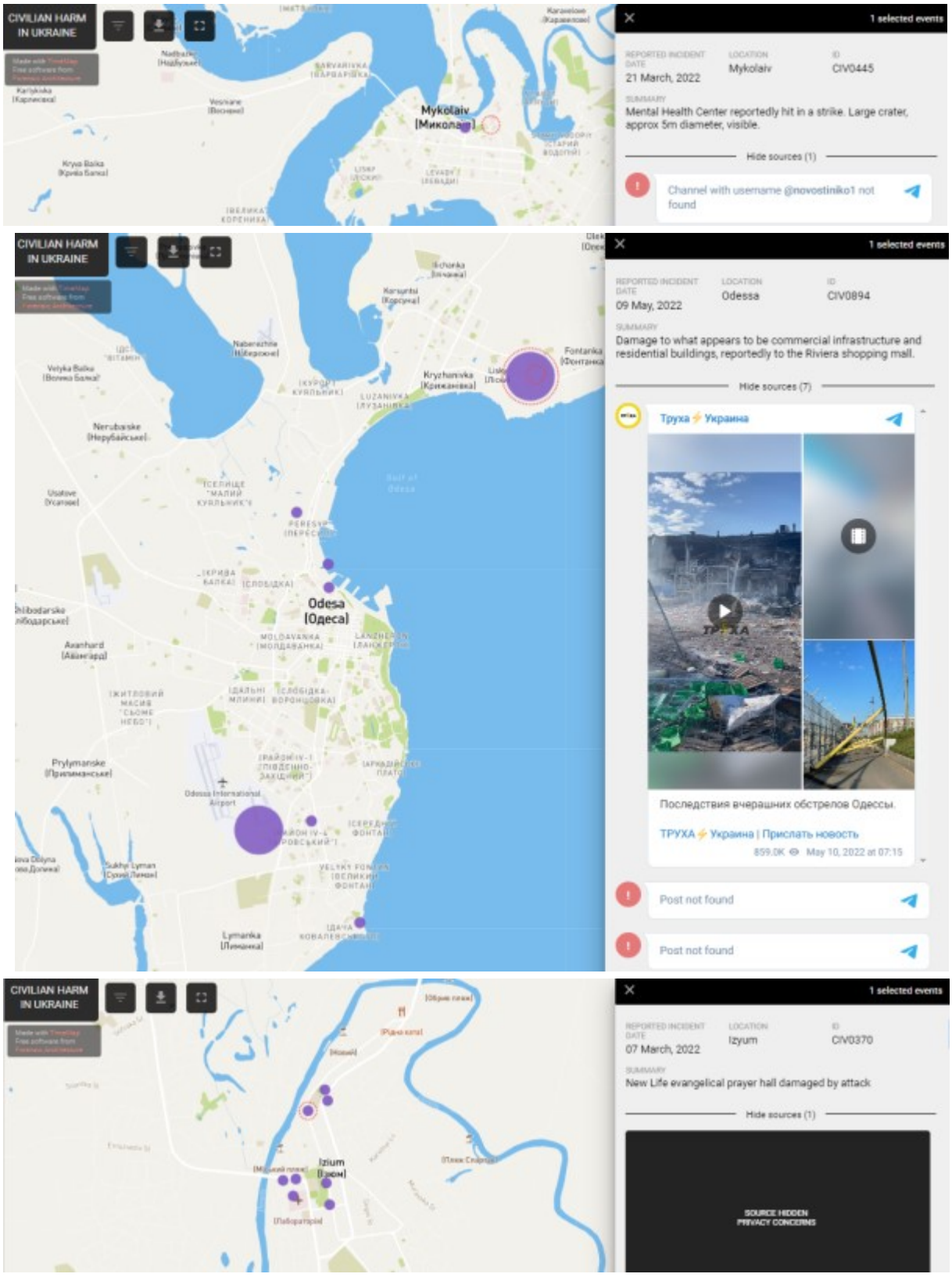
links: https://ukraine.bellingcat.com/?id=CIV1242&range=2021-10-27&range=2023-05-08 - visited on 8th May 2023

Appendix x: Screenshot of Bellingcat's Civharm TimeMap – CIV1506



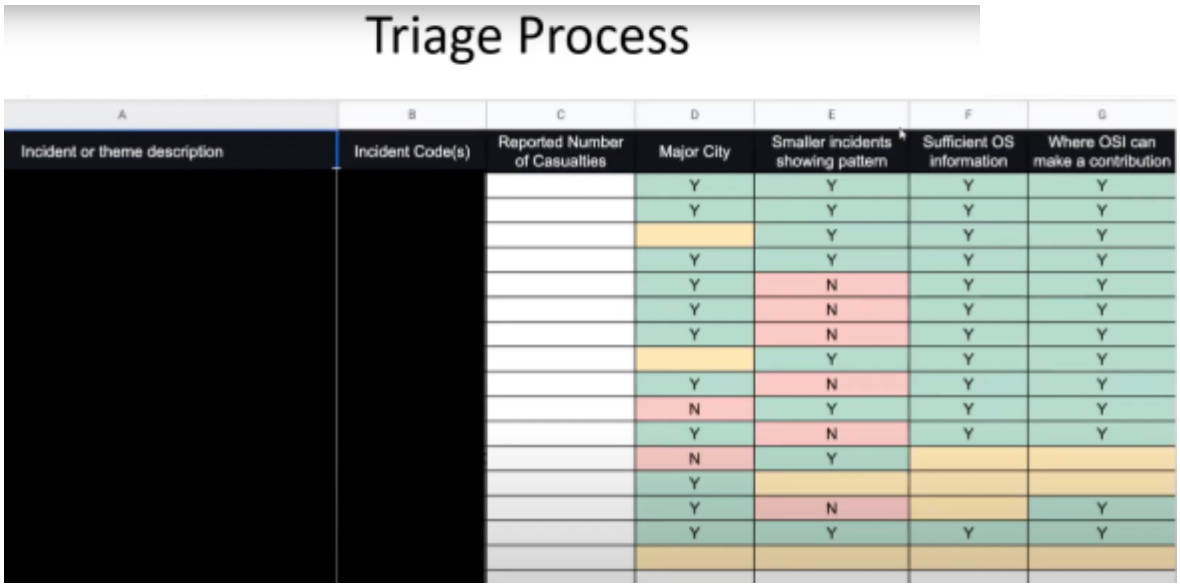
links: https://ukraine.bellingcat.com/?id=CIV1506&range=2021-10-27&range=2023-05-08 - visited on 8th May 2023

Appendix y: Screenshots of Bellingcat's Civharm TimeMap – CIV0445, CIV0894 and CIV0370



links: https://ukraine.bellingcat.com/?id=CIV0445, https://ukraine.bellingcat.com/?id=CIV0894 and https://ukraine.bellingcat.com/?id=CIV0370 - visited on 8th May 2023

Appendix z: Screenshots of the categories of the J&A Unit's triage process

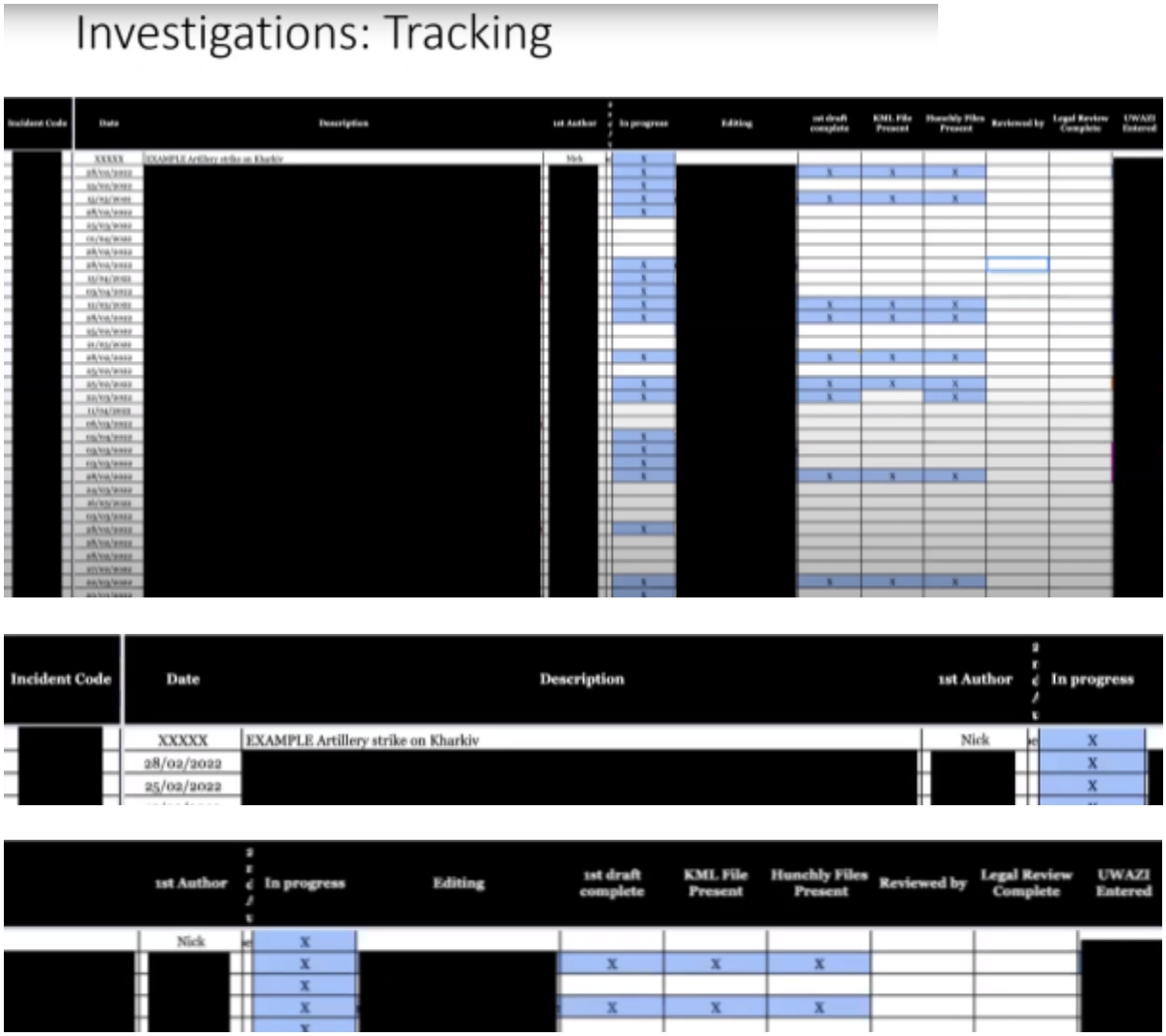


Cf. GLAN/BC (2022b): 20:15.

Appendix AA: Screenshots of the J&A Unit's investigation file structure

Cf. GLAN/BC (2022b): 24:20.

Appendix BB: Screenshots of the J&A Unit's internal "tracking spreadsheet"



Cf. GLAN/BC (2022b): 24:40.

Appendix CC: Screenshots of the J&A Methodology – Annex IX – Uwazi Fields

ANNEX IX - UWAZI FIELDS

Provisional - under regular review - shared to encourage collaboration

Field	Instruction	Sample
INCIDENT		
Title	CIVHARM ID, OBLAST IN BLOCK CAPITALS, short description to help describe which incident this is	CIV0463, KHARKIV, Cargo warhead impacted into road outside what may be a healthcare facility.
CIVHARM ID		
Date	PRIMA FACIE - either claimed date, or date of first posting of the content.	
Assessed date or date	Only populate if you have assessed based on information other than descriptive claims.	
Reported civilian deaths	This can be loosely estimated based on credible reporting - it's for identifying the general seriousness of an incident - Bellingcat is not claiming to have verified these figures.	
Reported civilian injuries	This can be loosely estimated based on credible reporting - it's for identifying the general seriousness of an incident - Bellingcat is not claiming to have verified these figures.	
Description	This should give the reviewer a very short overview of what they'll find if they read the full report.	A cargo section of what appears to be a 9M55K rocket motor is seen embedded in a road on Novhorods'ka St, 4, Kharkiv, Kharkivs'ka oblast, Ukraine. The impact location is in a residential area, meters from a red cross location and across the road from a location registered on Google Maps as a school. The exact area of

Cf. GLAN/BC (2022a): Annex IX/p. 84.

		launch was not identified, however it was possible to identify the general direction of origin.
Level of investigation	Detailed or stub. Stub incidents are incidents which are backed up by either a credible third party claim or a piece of Examinable Content.	
Incident Assessment	Link to Google Doc	
Geolocation	Must be decimal	
OBLAST		
Type of object affected	From drop-down. Select all that apply.	
Military presence	Colocated, direct vicinity or broad area (within 1 KM). Threshold is 'yes or maybe', and 'maybe' will be satisfied if there is a claim that is credible. Spurious claims which cannot be backed up will be reported in the incident assessment but will not be logged through this filter. We have had to take a common-sense approach since distances become arbitrary depending on weapon type, density of building, and many other favtors. Therefore, we have 'colocated' (e.g. a school being in use as a base), direct vicinity (e.g. so close that the actual affected object could feasibly have been hit by mistake, either because the weapon went off course or because the intel was a bit off), or 'general area'. There is no way to turn this into an exact science - it's just for filtering purposes.	
Cautions	To be selected if an item has been shown to be bogus, for example. You would also want to include a high profile incident even if it was staged or unsubstantiated so that you can show that you have looked into it.	
Research Notes	Insert Research Notes Google doc link under 'Label'.	
Type of attack	For filtering - can be populated if we're unsure. Includes explosives attacks and other killing and injury.	
Investigator Responsible	The first assigned investigator who writes the research report.	

Cf. GLAN/BC (2022a): Annex IX/p. 85.

Incident Assessment	[Duplicate]	
Implicated Unit	Only if concrete link and ensure link is explained in your Incident Report or in the Incident description. No automated linking. Consider the role of Incident Groups for linking units.	
Perpetrator	Leave blank unless further discussions take place	
Victim	Leave blank unless further discussions take place	
Investigated by	Select other NGOs or prosecutors if they have looked into this incident. Add as an actor if they are not already in the database.	
Ukraine Witness ID	If you know which item in the UW database the content relates to, enter it. It is helpful if you can take a minute to find it in their dataset (e.g. by searching the original links), but it is not necessary to trawl through and find it. Sometimes the J&A Tool auto populates these - they need to be checked.	
Red Flags	See SGBV and CAAC annexes	
Reason for Red Flag	Only complete if not obvious	
Generated ID	Automated - paste into Incident Assessment during Legal Review	
Incident Group	Attach to the relevant incident group, if there is one.	
Stage of investigation		
CONTENT		
Title	Name for reviewer to understand what the video shows - does NOT need to have the incident code, since it will be linked to the incident. Include what kind of content it is.	"Video of smoke column filmed from a distance" OR "Video of multiple small munition detonations" OR "Photograph of rocket motor lodged in path"
UW_CATEGORY	Ignore	
Original title on social media	Cut and paste the text associated with the content in the post	ПЗДЦ. Гаражи на Бучмы! Салтовка

Cf. GLAN/BC (2022a): Annex IX/p. 86.

Generated ID	Automated - insert into written report for each item.	
Incident	Link to the incident it refers to. If it refers to multiple incidents (e.g. is a composite showing the incidents in question), link to all the incidents. If it is a general piece of content that you can't link to a specific incident (e.g. denial of any Russian involvement in cluster munition attacks in February/March), then do not link here, link to the Incident Group.	
SITE_SIGNIFICANCE	This filter is going to be used to map military bases/activity and significant protected objects. It is only to be selected if the site would have significance for other incidents - e.g. if you discover that there is a military base or a hospital at the exact location. If in doubt, please consult with wider team as this filter's usefulness might only become apparent a little later and it needs to be used correctly.	
UW_ID	As with Incident - if you know the UW ID if the item, include it.	
Online link	Type 'Link' into the left field and include the live link.	
Archived_Link	This should be populated already but if the autoarchiver hasn't worked, it will need to be done manually (see Workflow).	
Graphic Content Warning		
POSTED_DATE		
POSTED_TIME	24 hour clock, local time	
FILMED_DATE	If you have this information, include it. It should be easier for things like satellite imagery. This will often be left blank	
Description	This is important to complete in Uwazi because otherwise someone looking at the database without the incident assessment open doesn't understand what the video shows. Especially important if the item doesn't clearly show the incident taking place or the aftermath.	
Geolocation	Insert location of event taking place and	

Cf. GLAN/BC (2022a): Annex IX/p. 87.

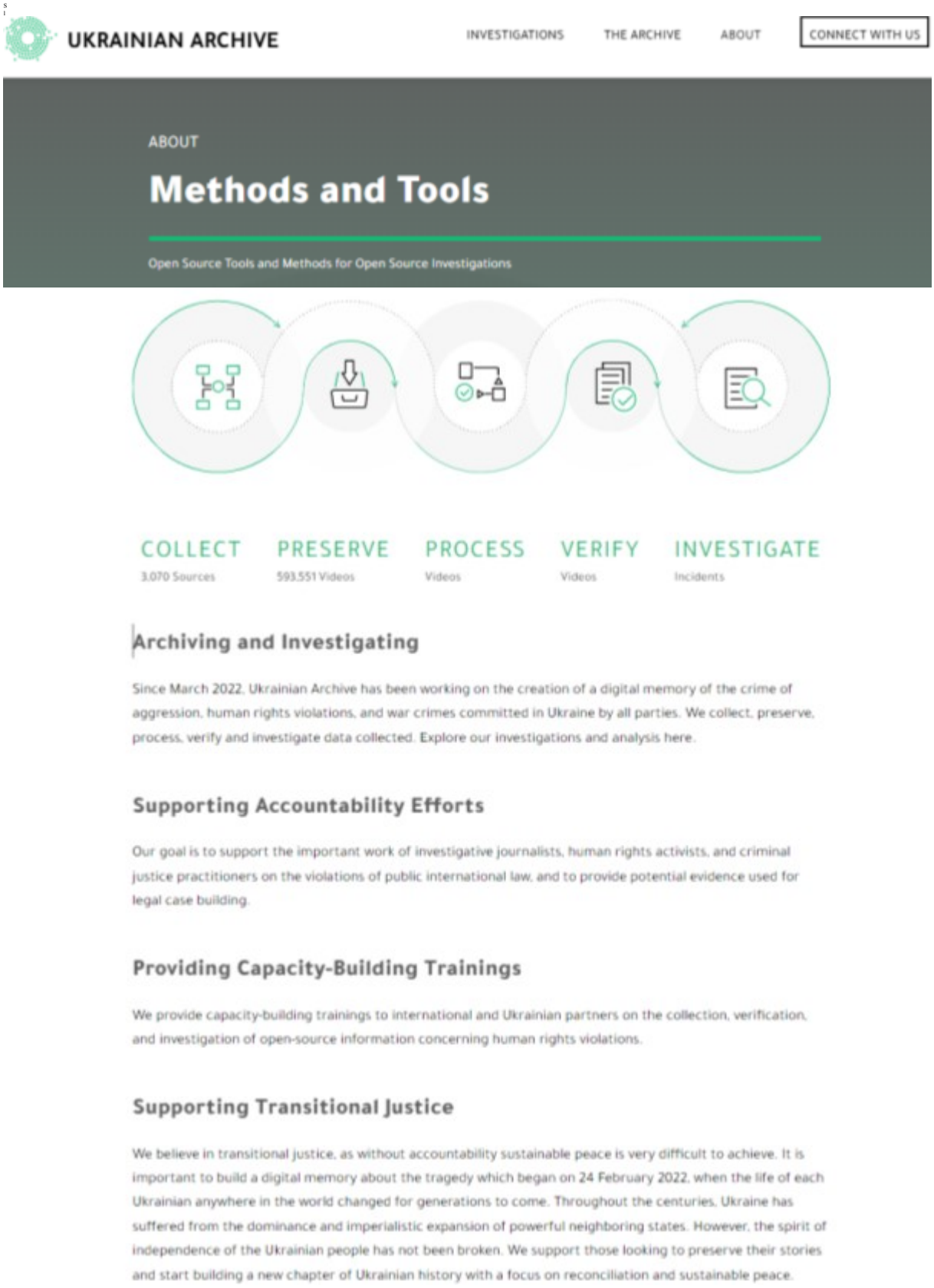
	point of filming if significantly different (e.g sometimes it can be hundreds of metres away). Tens of metres unlikely to be significant but include if the info is there.	
Content_type	This should be self-explanatory.	
People visible	Self-explanatory - should not be over-thought, since this is just for filtering purposes.	
Red Flags	See SGBV and CCACAnnexes	
Reason for flagging	Only complete if not obvious	
Images and video fields		
DEATH_DATE	Ignore - will be used if importing dataset on soldier fatalities	
SOLDIER_CAPTURED_DATE	As above	
Country	Populate - will make sense if we import the UW data where some is in Russia	
OBLAST [fix the thesaurus]		
Entered by	Initial person to enter the entity	
BULK_SOURCE	Deselect	
Source	Online source. Create actor if not present	
Linked Group of Incidents		
Open query?		
Query for		
Query		
ACTORS		
Name	Name as displayed on social media profile - copy paste	Война Украина Россия Труха⚡Украина
Image	Screenshot the person's social media profile or other image that can identify them visually, and upload from your desktop. This is not evidence and can be	

Cf. GLAN/BC (2022a): Annex IX/p. 88.

	deleted from your computer afterwards. It is just to aid recognition of sources.	
Description	[Describe source, including any comments about affiliations, credibility and length of presence online]	
Social media profile (1)		
Social media profile (2)	If you know the same source's other profiles, insert them here. Do not create a new actor for different accounts if you think they're the same person/entity.	
Profile/Home Page Screenshot	[if different from image]	
Type of Actor		
Status		
Entered by		

Cf. GLAN/BC (2022a): Annex IX/p. 89.

Appendix DD: Screenshot of Mnemonic's Ukraine Archive website regarding methods and tools, as of 17th May 2023



link: https://ukrainianarchive.org/en/about/methods-tools - visited on 8th May 2023

Appendix EE: Screenshots of the J&A Methodology – Annex VI – Factual inquiries and their relationship to the elements of crimes

ANNEX VI: FACTUAL INQUIRIES AND THEIR RELATIONSHIP TO THE ELEMENTS OF CRIMES

Please note: this is a guide to what is relevant. You do not need to go through these questions sequentially - use your own judgement

Factual inquiry	Relevance	Comments
GENERAL		
Where was the incident?	General relevance to establish objective facts of incident.	Locate this incident in space. If there are multiple locations, such as in a MLRS barrage, then describe the relevant locations.
When was the incident?		Try to establish the time of the incident, using any method that you can.
Who and what was present?		Was any military activity observed in the area, including vehicles? Are there people carrying weapons? Are there individuals with military uniforms? Are there badges on these uniforms? Are they wearing control measures such as coloured tape around their arms or legs? Who is in the background of the content? If there are interviews from the scene, who is being interviewed? What languages are they speaking? What are they saying?
KILLING		
Who was killed? Where were they when they were discovered?	Core conduct for a range of crimes under the RS including genocide, crimes against humanity and war crimes.	This encompasses their status as civilians or members of the armed forces and their nationality or membership of any particular group. Also include the sex of the person if identifiable, and age if applicable (particularly if they appear to be below 18).
How were they killed? (incl. weapon type)		This relates to linkage but also is relevant to a range of other factors such as the lawfulness of the attack if it occurred in an armed conflict.
Who killed them?		
What were they doing when they were killed?		This relates to whether civilians may have been targetable under IHL because of their direct participation in hostilities.

Cf. GLAN/BC (2022a): Annex VI/p. 69

Is there any evidence of why they were killed?	Relevant to questions of intent and the question of whether a widespread or systematic attack may be taking place.	For example, reports of what killers said (as recalled by survivors), or any public statements. If the killing was caused by an aerial attack, the justification by the attacking party is relevant (even if you do not know whether it is credible).
SGBV (Directly shown, or red flags?		Are there any signs that SGBV could have been committed? (See SGBV annex)
INJURY, SERIOUS HARM		
Who was harmed?	Core conduct for a range of crimes under the RS including genocide, crimes against humanity and war crimes.	As above (for killing).
How were they harmed?		
Who harmed them?		
Is there any evidence of why they were harmed?	Relevant to questions of intent and the question of whether a widespread or systematic attack may be taking place.	
SGBV Red Flags?		Are there any signs that SGBV could have been committed? (See SGBV annex)
RAPE AND OTHER SEXUAL ASSAULT OR SEXUAL AND GENDER-BASED VIOLENCE (SGBV)		
Who experienced SGBV ? How many people?	Core conduct for a range of crimes under the RS including genocide, crimes against humanity and war crimes.	
How did they experience SGBV?		See SGBV Annex for definitions and indicators.
Who perpetrated the SGBV ?		
Is there any evidence of why they were targeted?	Relevant to questions of intent and the question of	E.g. the example of soldiers in Ethiopia explaining to a woman that they did so so because no Tigrayan womb should give birth. Other examples could be things soldiers said about rape being an entitlement

Cf. GLAN/BC (2022a): Annex VI/p. 79

	whether a widespread or systematic attack may be taking place.	or a spoil of war, or because of a particular attitude to the women of the group to which the victims belong.
PROPERTY DAMAGE		
What was damaged?	Core conduct for a range of war crimes under the RS and could be relevant to, for example, the creation of unliveable conditions as a basis for crimes against humanity.	Including extensive inquiry into the use of the location at the time of attack, if possible, to establish whether the property was a military objective or civilian object.
If applicable, whose property was damaged?		Is there evidence of who lived in the area in terms of membership of particular ethnic or social groups?
How extensive was the damage?		This is relevant to proportionality, among other things.
How was it damaged? (incl. weapon type)		This is relevant to linkage and other issues like proportionality and whether the attack discriminated between civilian objects and military objectives.
Who caused the damage?		This could mean which forces or which individual battalion.
EXPLOSIONS / AERIAL ATTACKS [In addition to the above questions in relation to harm to people and property]		
What kind of munition detonated?		This is of general relevance to many areas, including identifying the perpetrator, identifying the accuaracy of the munition, identifying its blast area, which is relevant to IHL considerations, and more.
Is there any evidence of the direction the munition came from?	Linking the attack to the perpetrator	
What did the location look like from above?	Relevant to the mental element of knowledge in cases of attacks which harm civilians	
Was there anything relevant about the		

Cf. GLAN/BC (2022a): Annex VI/p. 71

scene which would have been visible from above?		
Were there military structures, installations or other assets in the area?		Conduct a search in the immediate vicinity (using 200m radius as a guide, but please vary according to the situation) for any military installations on satellite imagery using Google Maps, Wikimapia and other relevant sources. Be clear to differentiate between military structures and military activity.
Was there any crater or remnants?		
Are there any indications of what the location was being used for? What was happening at the time of the incident?		
Has the area been targeted more than once? When?		
What forces were operating in the area?		
Were there any secondary explosions?		
Did more than one munition impact occur?		
Is there any evidence of why the munition was launched at this target?		
PROPERTY APPROPRIATION		
What property was appropriated?	Core conduct for war crimes under the RS including pillaging.	
Who appropriated it?		

Cf. GLAN/BC (2022a): Annex VI/p. 72

What did they do with it?		
CREATION OF CONDITIONS LEADING TO DEATH OR SERIOUS HARM		
What conditions were created?	Core conduct for a range of crimes, including crimes against humanity, genocide and the war crime of starvation.	E.g. the town was cut off from the outside world such that no supplies could enter.
How were the conditions created?		E.g. blockades of all roads leading into the town; shelling of food stores
What was the effect on the civilians?		E.g. Civilians starved
Is there any evidence of a policy in place, either through patterns in behaviour or direct evidence such as leaks or statements?		
USE OF PARTICULAR WEAPONS		
Was an unconventional weapon used? What was the weapon?		Apply this along with all the relevant questions for explosives generally.
Was a cluster munition used? Where was it used?		Apply this along with all the relevant questions for explosives generally.
If there are incidents which appear to have a lot in common or take place on a repeated basis or wider scale: (discuss any such analysis with the legal team)		
Is there any evidence of a policy in place? Are there any public or leaked statements from the party alleged to be responsible?	Pertains to whether the acts are part of a widespread or systematic attack, or whether the conduct was done with the intent of destroying part of a specific group *because of their belonging to that group.*	

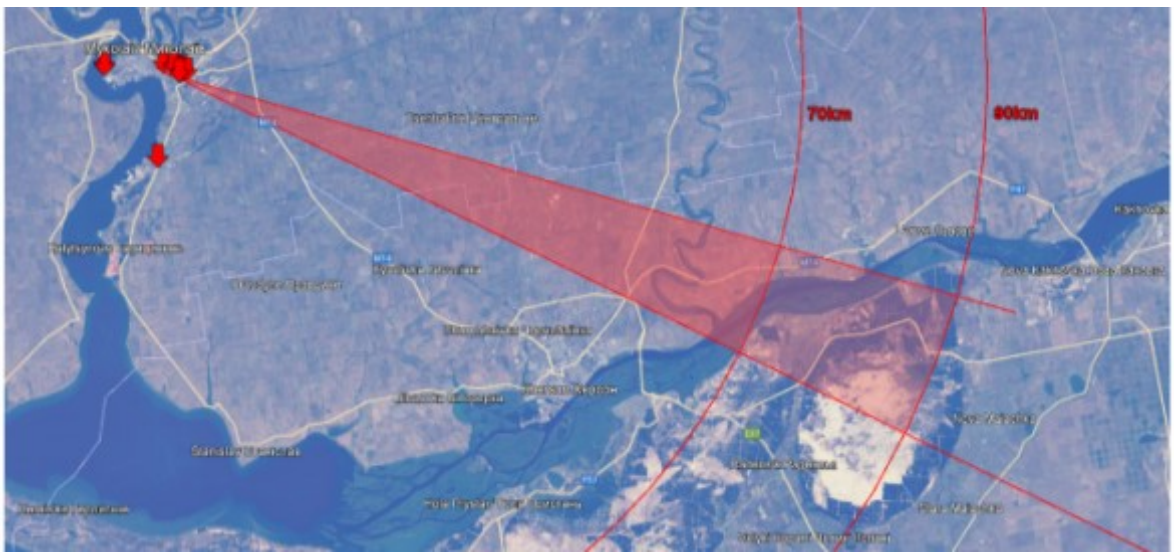
Cf. GLAN/BC (2022a): Annex VI/p. 73

What similar incidents have taken place? What do they have in common, and what is different? How many have there been? If you are focusing on a particular pattern, create 'stub' incidents for all related allegations, even if they remain allegations. This is so you can group them and retain everything relevant. Discuss any patterns you identify with the legal team.	Goes to the widespread and systematic nature of an attack; if a range of attacks display an identical fact pattern, this could be evidence of a system in place.	
Is there evidence of the reason certain acts were conducted from the perspective of the immediate attacker?	Relevance to intent. The perpetrator must know or intend that the act form part of a widespread or systematic attack (CAH) or intend to destroy, in whole or in part, members of a particular group "as such".	E.g. things that were said to victims or on leaked radio conversations about the incidents. This has overlap with the harm types set out above.
Are there incidents of the same party showing restraint in similar circumstances?	This is important to establish whether some instances of harm are being carried out by rogue actors, as opposed to pursuant to a policy.	E.g. some soldiers not executing civilians where others are in the same circumstances.

Cf. GLAN/BC (2022a): Annex VI/p. 74

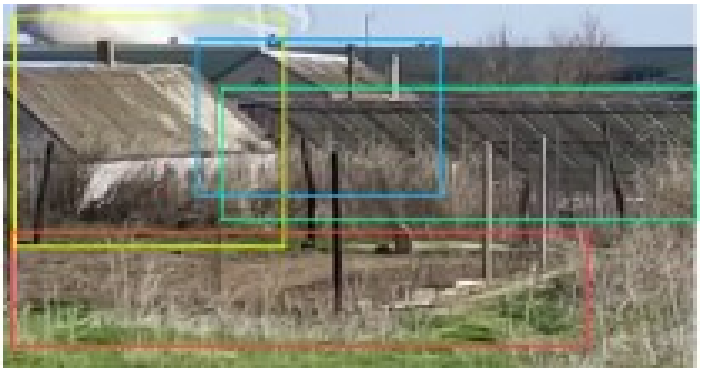
Appendix FF: Screenshots of a Bellingcat investigation published on 27th January 2023 (Anatomy of a Shelling: How Russian Rocket Artillery Struck Mykolaiv), depicting the method of determining the approximate trajectory of a cluster munition rocket.

One line was drawn to go from the rocket engine impact and extend through where the cargo section landed. Another was designed to go straight through the perceived zone of impact. Since the lines are not meant to encapsulate the entire impact area, a small number of impacts such as the paediatric hospital lie outside them.



Cf. BC/SHELDON (2023).

Appendix GG: Screenshots of a Bellingcat investigation published on 27th January 2023 (Anatomy of a Shelling: How Russian Rocket Artillery Struck Mykolaiv), depicting geolocation of the MLRS launching site.

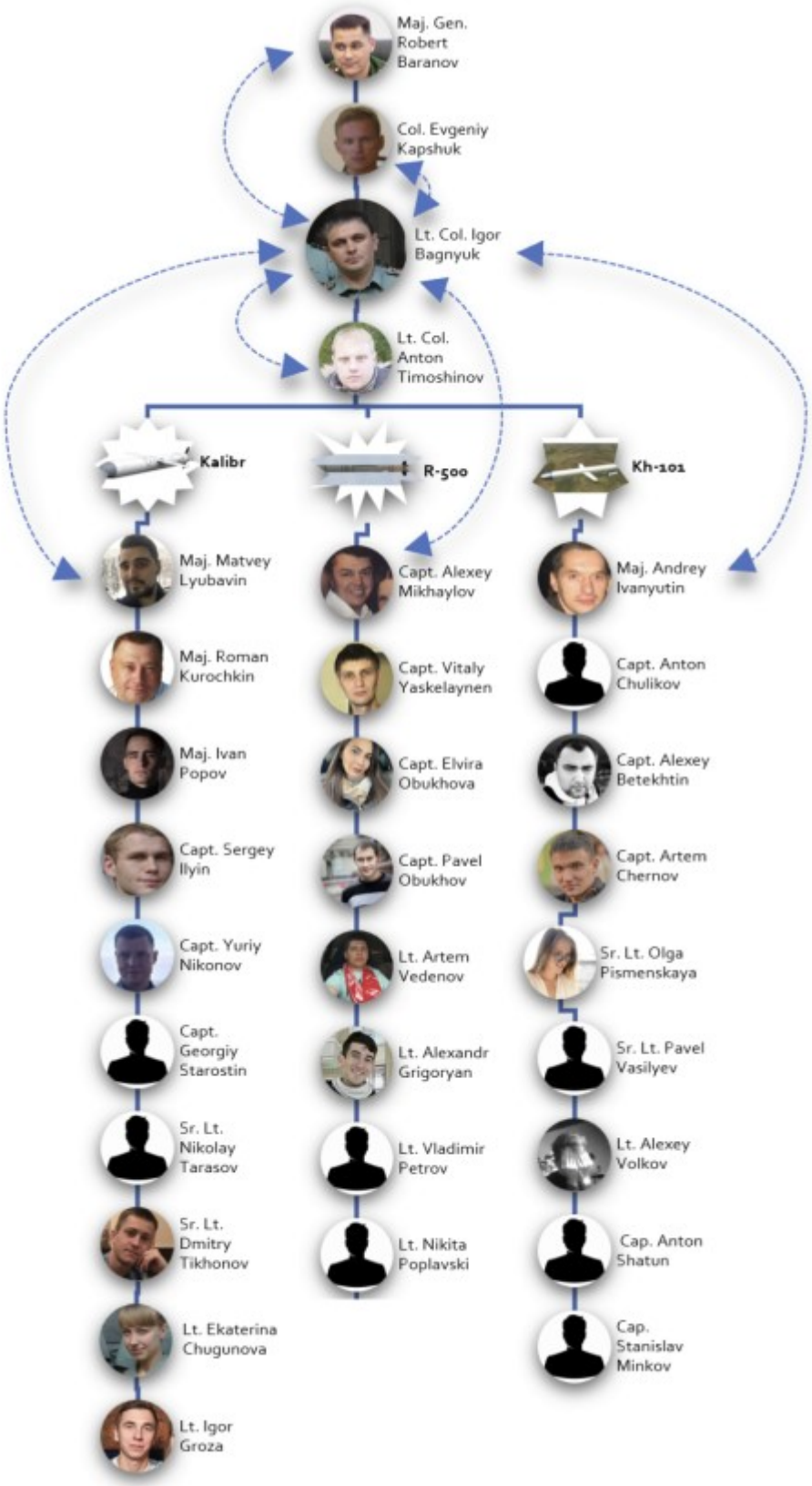


Cf. BC/SHELDON (2023).

Appendix HH: Screenshots of a Bellingcat investigation published on 27th January 2023 (Anatomy of a Shelling: How Russian Rocket Artillery Struck Mykolaiv), depicting a SunCalc determination of the time and a Blender 3D-model of the videofootage's launch site.

Cf. BC/SHELDON (2023).

Appendix JJ: Screenshot from a Bellingcat investigation published on 24th October 2022 (The Remote Control Killers Behind Russia's Cruise Missile Strikes on Ukraine), depicting the organogram of the group within the GVC responsible for programming sea, ground and air-launched cruise missiles.

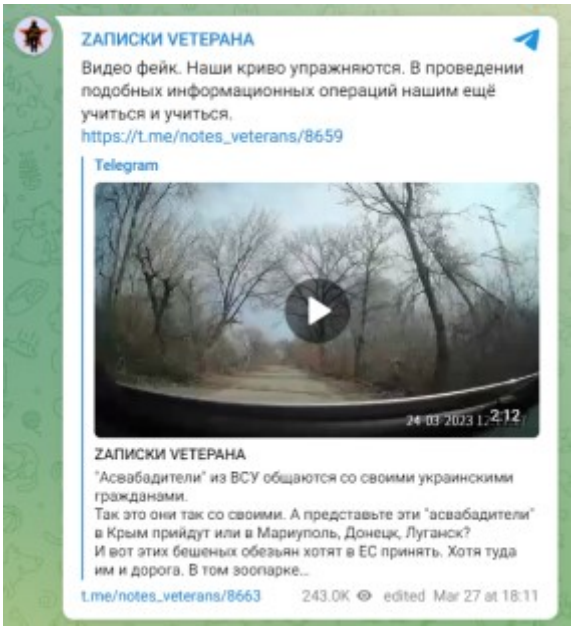


Cf. BC/GROZEV (2022).

Appendix KK: Screenshot of a Bellingcat article from 29th March 2023 (How Online Investigators Proved Video of Ukrainian Soldiers Harassing Woman was Staged), depicting a Twitter/X post by the Russian Ministry of Foreign Affairs.

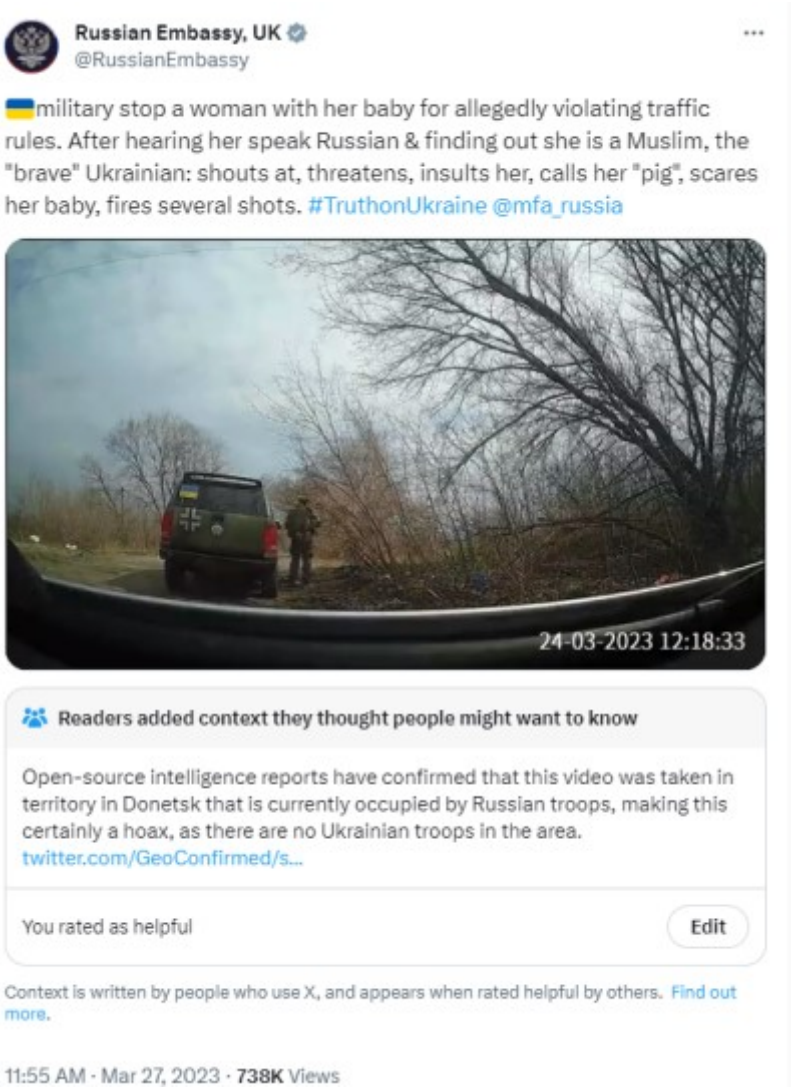
Cf. BC/HIGGINS (2023c).

Appendix LL: Screenshots of posts of Telegram channels Rybar (engl. Fisherman) and Записки Ветерана (engl. Notes of a Veteran).



Cf. BC/HIGGINS (2023c): para. ”The Wayback”

Appendix MM: Screenshot of a post from the Russian Embassy in UK's Telegram channel, posted on 27th March 2023.



Cf. BC/HIGGINS (2023c): para. "The Wayback"