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From numbers to narratives

Analyzing the role of open government data as a boundary object in the case of the Austrian Parliament's data platform

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Abstract (English)

Interest in publicly available data has increased significantly, not least since the COVID-19 pandemic. Particularly in journalistic reporting, open government data (OGD) has become an important element. On one hand, OGD platforms hold enormous potential to promote transparency and participation, particularly for journalists as a means of critical reporting. However, on the other hand, meaningful knowledge can only be derived from OGD platforms with the necessary, especially technical, skills. By conducting an ethnographic website analysis and interviews with data journalists and an OGD provider, this thesis demonstrates how the potential and meaning of OGD platforms, particularly the Austrian Parliament's data platform, are enabled and derived from their users, such as journalists. This process involves boundary work by journalists and OGD providers to establish authority and gain trust. At the same time, the data itself acts as a boundary object, adapting to different meanings and use cases whilst providing robust insights into administrative processes. These insights help to understand the value of OGD platforms as tools of participation and transparency to address "wicked problems", such as the climate crisis and the rise of AI-generated fake news.

Abstract (Deutsch)

Das Interesse an öffentlich zugänglichen Daten hat, nicht zuletzt seit der COVID-19 Pandemie, erheblich zugenommen. Insbesondere in der journalistischen Berichterstattung sind offene Verwaltungsdaten (OGD) zu einem wichtigen Element geworden. Einerseits bergen OGD-Plattformen ein enormes Potenzial zur Förderung von Transparenz und Partizipation, insbesondere für Journalist:innen als Mittel zur kritischen Berichterstattung. Andererseits können aussagekräftige Erkenntnisse aus OGD-Plattformen nur mit den erforderlichen, insbesondere technischen, Fähigkeiten gewonnen werden. Anhand einer ethnografischen Websiteanalyse und Interviews mit Datenjournalist:innen sowie einem OGD-Anbieter legt diese Arbeit dar, wie das Potenzial und die Bedeutung von OGD-Plattformen, wie jener des Österreichischen Parlaments, durch ihre Nutzer:innen, wie z. B. Journalist:innen, ermöglicht und abgeleitet werden. Dies beinhaltet Abgrenzungsmechanismen von Journalist:innen und OGD-Anbieter:innen, um Autorität zu etablieren und Vertrauen zu gewinnen. Zugleich fungieren die Daten selbst als Grenzobjekt, das sich an unterschiedliche Bedeutungen und Anwendungsfälle anpasst und gleichzeitig zuverlässige Einblicke in Verwaltungsprozesse bietet. Diese Einblicke tragen dazu bei, den Wert von OGD-Plattformen als Instrumente der Partizipation und Transparenz für die Bewältigung komplexer gesellschaftlicher Herausforderungen wie der Klimakrise oder der Zunahme von durch KI generierten Fake News zu verstehen.

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1 Introduction

„Solange in der Bibliothek noch Licht brennt, kann die Welt nicht verloren sein!“

(As long as the lights are still on in the library, the world cannot be lost)

- Markus Gasser, Austrian literary scholar and author

These words are written on a poster hanging right at the entrance to the Austrian Parliament's library, and they constantly accompanied me during my journey to complete this master's thesis – not only because I spent many hours researching and writing in this library, but also because, in a broader sense, they reflect my topic. Although I am not dealing with libraries in the traditional sense, there are certain parallels to open data platforms since both serve as historical archives and reference works in moments of doubt. So, what does it mean to say “as long as the light from open data platforms is still shining on laptop screens, the world cannot be lost”? This is one of the questions I would like to explore in this master's thesis.

With libraries being increasingly illuminated by laptop screens and artificial intelligence (AI) on the rise, our world is becoming increasingly data-driven. What we think and do as individuals and as a society largely depends on data, and vice versa. Many everyday activities are now unimaginable without data, while data-powered digital technologies are shaping how we live. Data influences our environment; it affects, guides, and limits us (Coeckelbergh, 2024; Crawford, 2021). Learning to interpret and responsibly manage data is becoming an essential skill for everyone, not just professionals.

Interest in data for contextualizing current social issues has increased significantly in recent years, not least since the COVID-19 pandemic. This growing importance is particularly evident in journalistic reporting, where open government data (OGD) has become a key element (Baack, 2015; Bounegru & Grey, 2021; Ramsälv & Ekström, 2024; Tong, 2022). In short, OGD refers to guidelines and practices that make public administration data available in a structured, machine-readable format for free use and further processing (McNaughton et al., 2016).

In Austria, another shift is currently happening in the area of OGD and freedom of information. After a long period of adhering to official secrecy, the widely anticipated Freedom of Information Act will come into effect in September 2025. Until now, citizens and journalists had to justify why information was of public interest to access it. The Freedom of Information Act changes that: authorities will be required to make data available, and information can only be kept secret in specific, justified cases (Bundeskanzleramt Österreich, n.d.). While it remains to be seen how this potential paradigm shift unfolds, many OGD portals that have been available for a while already give a taste of what the mantra of “open by default” encompasses.

One of these portals is the Austrian Parliament's data platform, which was relaunched in 2023 after a participatory process that included gathering user feedback. This process involved collecting ideas and suggestions from stakeholders, presenting results from those submissions, creating a work program in line with the overall concept, and long-term engagement with the OGD community beyond the project (Parlamentsdirektion, 2021). The Parliamentary Directorate views the new data platform as an "essential part of the transparency of parliamentary procedures" (Parlament Österreich, n.d.-c).

For this master's thesis, I investigate the Austrian Parliament's data platform and assess the significance that users, in particular journalists, attribute to such OGD portals. I focus on journalists as an important target group, because they play a crucial role as intermediaries between these platforms and society, and also, as a data journalist myself, I already have professional experience with the Parliament's data portal.

Meaningful knowledge can only be derived from OGD platforms with the necessary skills, particularly technical skills, which is why intermediaries, such as journalists, who transform and translate this data into digestible information, are crucial (Baack, 2015; Tong, 2022). At the same time, these platforms hold enormous potential as tools to promote transparency and participation (Afful-Dadzie & Afful-Dadzie, 2017; Gil-Garcia et al., 2020; Wessels et al., 2017), particularly for journalists as a means of critical reporting.

Consequently, a certain contradiction exists between *open* data platforms and restricted access, necessitating the role of translators. It is this tension I want to shed light upon by asking: How are journalists giving meaning to the Austrian Parliament's open data platform? To answer this question, I analyze how the Austrian Parliament presents data on its platform. I do so by conducting an ethnographic website analysis. Additionally, through interviews with data journalists and the Parliament's open data spokesperson, I further investigate how intermediaries such as journalists understand and make use of OGD and what roles they attribute to the Parliament's data portal.

By mobilizing the concepts of boundary work (Gieryn, 1983, 1999) and boundary objects (Star & Griesemer, 1989), as well as the notions of journalistic authority (Carlson, 2017) and gatewatching (Bruns, 2009), I show that the meaning of OGD platforms is derived from its users as OGD is situated and performative. Depending on who uses the data in which context, it attributes different meanings to the platform and its data. At the same time, by engaging with it, intermediaries turn the data itself into a boundary object that fosters collaboration across worlds. I will show that journalists do not use demarcation practices to establish authority as data experts, but rather embrace collaboration and cooperation, two values that lie at the core of the idea of OGD. Nevertheless, for this data to become relevant and acknowledged facts, OGD providers, as well as intermediaries, must earn trust. This is achieved through boundary work and ongoing communication and negotiation among actors.

I will now begin to develop my arguments by reviewing research related to my topic that has already been conducted (see Chapter 2). Next, I will outline my research questions and provide context for the chosen research field (see Chapter 3) before describing how I will utilize the conceptual frameworks I have selected to guide my analysis (see Chapter 4). Then, I will sketch out the methods applied to address my research questions (see Chapter 5). After that, I will describe the key themes and findings from the ethnographic website analysis and interviews in detail (see Chapter 6) that I will then discuss in relation to the relevant literature and conceptual frameworks (see Chapter 7) to answer my research questions (see Chapter 8). Finally, I will conclude with a summary of the practical implications of the results in light of recent developments in the field of OGD and journalism (see Chapter 9).

2 State of the Art

Before presenting my research question(s) and empirical strategy, I will outline some key definitions and review relevant literature on this topic. To do so, I will discuss why data is described as socio-material, address the role of open government data (OGD) in a knowledge society, analyze how democracy and participation have been examined in the context of digital technologies, and explore how expertise influences the role of (data) journalism in a democratic society. Therefore, I will rely on findings from various social science fields, including science and technology studies (STS), critical data studies, participation studies, and communication studies.

2.1 Open government data and knowledge society

Before outlining the concept of “open government” in relation to knowledge societies, I will briefly present some relevant arguments from critical data studies that explore the socio-materiality of data and argue that data is never neutral.

Bates et al. (2016), for example, highlight that data is produced through specific social practices, value systems, and physical infrastructures. The authors describe the way data moves between contexts, and is thus shaped, transformed, or constrained as “data journeys”. Data movement is not smooth or automatic as data mutates, experiences friction, and is blocked or enabled by social and material forces when traveling across institutions.

Similarly, Pickren (2016) examines the hidden social, economic, and ecological factors behind the production and movement of digital data, arguing that data are products of the global political economy. According to the author, data flows are not independent or purely technical but embedded in an evolving, socio-technical network of material infrastructures, labor, capital, and ecological and geopolitical consequences.

Data flows are controlled, influenced, and shaped by institutions, corporations, and governments driven by particular interests, which is why data neutrality is an illusion that supports ongoing processes of extraction and exploitation (Pickren, 2016). This argument is supported by De Vries (2023), Brevini (2020), and Lucivero (2020), who investigate the often unforeseen or overlooked ecological impacts of data infrastructures and practices, especially concerning big data and artificial intelligence (AI).

As I explore how intermediaries interpret OGD and assign meaning to data, it is, thus, important to recognize that data are not just discovered but created, as they are integrated into power dynamics, physical infrastructures, labor practices, and economies, thereby reinforcing social, economic, and ecological inequalities.

2.1.1 Defining open, defining data

Generally, the concept of OGD refers to open data practices and open government infrastructures and can be categorized under the broader term “open governance”, with transparency, participation, and collaboration as its core values (data.gv.at, n.d.; see Figure 1), as I will elaborate on now.

The Austrian government defines OGD as data by public administration “that is made available to the general public for them to use freely and free of charge” (Digital Austria, 2025). This is facilitated through the use of a Creative Commons (CC) license, such as CC BY 4.0, which allows anyone interested to use the data for any purpose, provided the source is properly cited.

There are ten principles of OGD (Digital Austria, 2025) that I want to briefly list, as they will be relevant for the later analysis of the research findings:

- completeness of datasets
- data is collected and published at its primary source
- datasets are available in a timely manner
- datasets are easy to access and barrier-free
- data is stored in common file formats that are easily machine-readable
- any person may access data at any time without having to identify themselves or justify their actions
- use of open standards as far as possible
- licensing under CC BY 4.0
- published information is documented with metadata and permanently archived
- no cost of use

As Gil-Garcia et al. (2020) argue, collaboration, transparency, participation, information technology, and information availability are the five key dimensions of open government. Therefore, open government has become “an important strategy for administrative reform” (Gil-Garcia et al., 2020, p. 483). The data portal data.gv.at (n.d.), Austria’s central catalog for all available open public sector data, also states that open data “provides the impetus for networked and collaborative work within one’s organization” as the data can “contribute to significant, sustainable efficiency gains” and “support evidence-based decisions.” This open government approach includes open data infrastructures, open services, and open decision-making, thereby promoting transparency, collaboration, and participation (data.gv.at, n.d.). These values are also fundamental elements in journalistic reporting, as I will outline later (see Chapter 2.3).

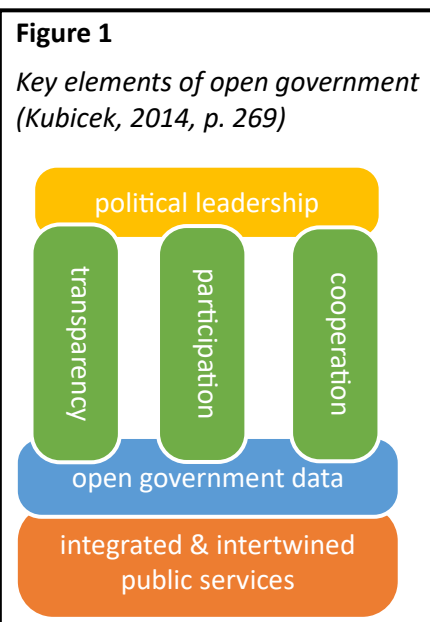
In more practical terms, McNaughton et al. (2016), who studied open data practices in tourism, explain that OGD is “defined as policies and practices where government data is published online in a structured, machine-readable format that is available for anyone to access, consume, and reuse” (p. 48). Although the authors focus on the potential economic benefits of open data for the tourism

industry, they also note that open data is “increasingly being seen as a powerful entry point and enabler for governments and civil society partners to collaborate” (p. 48). This is the understanding of OGD that I will adopt and apply throughout this research project: OGD as an open information technology that aims to promote transparency, collaboration, and participation.

2.1.2 OGD as a democratic knowledge practice

To further define OGD and its role in society, scholars have examined its importance for administrative bodies and its connection to knowledge within the broader social context. Many authors have highlighted OGD as a tool for strengthening democratic processes, such as Afful-Dadzie, E. & Afful-Dadzie, A. (2017), who describe open government initiatives as expanding the frontiers of democracy, fighting corruption, and empowering citizens. Similarly, Kubicek (2014) elaborates that OGD can not only make government actions transparent but also significantly boost citizen participation. It forms a fundamental basis for promoting transparency, participation, and cooperation in public services (see Figure 1; Kubicek, 2014, p. 269). This relates to the previously discussed principles of OGD (data.gv.at, n.d.; Digital Austria, 2025).

As I examine how different intermediaries, such as journalists, work with OGD, it is crucial to understand that various interest groups use and define OGD in different ways. Wooten & Kiss (2019) examine definitions of open government by journalists and politicians and found that the concept is associated with multiple dimensions depending on the institutional position. In other words, various actors define open government differently in ways that align with their own occupational or political interests. So, whilst journalists are more likely to define open government as access to information and sources, politicians view open government rather in terms of public participation.



Wessels et al. (2017) note that these varying definitions can make it challenging to understand the overall impact of open data. However, the authors identified six general barriers that hinder access to open data and limit its potential impact, including, for example, uneven open access, a lack of key datasets, inadequate right-to-information laws, or a lack of ‘open by default’ policies. These barriers contrast with the principles of OGD mentioned earlier (Digital Austria, 2025).

Wessels et al. (2017, p. 25) further describe data as embedded in a “knowledge society”. In other words, analyzing how knowledge shapes society and vice versa requires examining the role of data in both knowledge production and social development. That is why I will focus on how journalists engage

with OGD, exploring how journalistic knowledge production and OGD practices influence each other. I will discuss challenges in working with OGD and journalists' roles concerning these challenges later (see Chapter 2.3.4).

2.2 Technologies of participation

Although OGD is a very specific socio-technological practice, some parallels can be drawn between OGD and other digital technologies in terms of their role in democratic knowledge societies. This connection between democracy and technology has been extensively explored not only by STS scholars but also by researchers from political science, history, and the arts, for example, in participation studies. Therefore, I will briefly outline some characteristics of democracy and how they relate to the principles of OGD, before summarizing some findings from participation studies and highlighting works that have examined the role of technologies like digital health infrastructures and AI in participatory and democratic processes. These insights are helpful to understand how participatory technologies facilitate and hinder democratic processes on an abstract level. I will later connect this body of literature to my findings to unpack how digital technologies like open data can facilitate or hinder knowledge production in a democratic society.

2.2.1 Democratic technologies, technological democracies

To analyze the potential relevance of OGD in democratic knowledge societies, it is essential to discuss the implications of democratic values. Coleman & Blumler (2009) explain five such characteristics of democracy that can be summarized as follows:

- regular, free, and fair elections
- common jurisdiction
- freedom to speak, assemble, and publish
- government accountability and responsiveness to the public
- free civil society sector

These characteristics largely align with the earlier-described principles of OGD (see Chapter 2.1.1), as the concept of OGD relates to democratic principles such as citizen participation and the information exchange with public officials, as previously outlined (see Chapter 2.1.2). Both OGD principles (Digital Austria, 2025) and democratic values (Coleman & Blumler, 2009) emphasize the importance of freedom of information and open communication, thereby fostering an atmosphere of transparency and checks and balances. Democratic participation has been described as the co-creation of society by engaged citizens and elected public officials (Chilvers & Kearnes, 2016; Soneryd, 2023), and OGD can serve as a tool to either support or hinder (Afful-Dadzie, E. & Afful-Dadzie, A., 2017; Kubicek, 2014; Wessels et al., 2017) this co-creation.

The co-creation of society and the intertwining of technoscience and society have been studied through various cases, often arriving at similar conclusions, especially regarding digital infrastructures and data practices. Nadim (2021), for example, explores how datafication of nature plays a role in natural history museums and describes data as the power “to materialize and scale the world” (p. 64).

Moreover, as Kelty (2008) explains, open data practices can foster broader participation in the creation and governance of digital technologies. By examining the social effects of free and open-source software and describing how data practices are rooted in cultural norms, both legally and technically, the author argues that software development is a form of political and ethical engagement because it helps shape publics that can question, change, and support the infrastructure of modern digital life. Therefore, open digital practices can promote a cultural ethic of collaboration and moral responsibility toward openness, while also reshaping ideas of authorship, authority, and legitimacy.

In the context of the COVID-19 pandemic, Stevens & Haines (2020) explore the opportunities and challenges of civic participation through digital tools, focusing on government data practices and pandemic response. The authors studied an app used for digital contact tracing in Singapore, illustrating how technologies like surveillance apps influence civic behavior. Stevens & Haines (2020) point out that the app depends on widespread participation to function effectively, which is why the developers attempted to increase involvement by making the process transparent and open, for example, by making the app's source code publicly available. The authors believe that open data movements are often connected to ideas of participation, transparency, and democracy, empowering citizens to take control of technology.

During the last two decades, the open software movement has given rise to a wide range of other “open” movements in data, science, hardware, health care, and even the military. These movements share the conceit that openness is associated with increased participation, fairness, justice, transparency, and democracy. (Stevens & Haines, 2020, p. 527)

However, releasing the source code seemed to increase public skepticism and concerns about data privacy. Stevens & Haines (2020) conclude that data practices like these not only reflect the society from which they originate but also shape and reinforce it. The use of technologies, such as surveillance measures, creates specific types of social and political relationships and establishes particular kinds of citizens. This again relates to the argument that digital practices and data technologies are often at the center of the co-creation of society by citizens and public officials (Chilvers & Kearnes, 2016; Soneryd, 2023).

At the same time, this co-creation is rarely equal, as several scholars have critically examined in the context of participation studies. For instance, Kelty (2019) analyzes experienced participation from the

participant's viewpoint and argues that, especially when public administrations or government institutions are involved, participation practices are often less participant-centered. Bogner (2012) and Arnstein (1969) also point out that participation can appear quite different in theory than in its practical application. The impact of such participatory projects is often further from giving real agency to participants than imagined or communicated. Similar limitations can be attributed to OGD principles, as the idea is to provide information in an accessible manner for everybody. However, in practice, this is not always the case.

2.2.2 Socio-politics of AI

When discussing the impact of technology on democracy, many scholars and public debates are now focusing on the role of AI in politics. Although I am not examining AI practices, some conclusions about the socio-political implications of such digital technologies are relevant when exploring the role of OGD.

One of the authors exploring how AI can both threaten and improve democracy is Coeckelbergh (2024). The author argues that technologies are inherently political because they change social structures. He supports this claim with historical examples showing how technologies, such as water systems or military tools, have historically shaped societal organization.

Technologies are not merely neutral instruments for achieving human goals, but also change these goals and the human meanings attached to them. The histories mentioned here support that point: technology helped to change the outlook of an entire civilization. (Coeckelbergh, 2024, p. 21)

AI also influences how we see the world and function as a society; in turn, we as a society shape how AI is understood through our collective imagination and actions. AI is more than just a technical creation; it also includes culture: “AI is about us, for some a dream, for some a nightmare” (Coeckelbergh, 2024, p. 27). Considering the principles of OGD and their close connection to democratic principles, a similar conclusion can be made for OGD: a tool that is shaped by how we choose to live together, and that also changes how we perceive the world.

Furthermore, the author argues that AI supports authoritarian regimes, as demonstrated by mass surveillance and election manipulation. However, even though AI worsens many issues in democracies, it is possible to tackle these problems, strengthen democracy, and make AI more democratic. As previously outlined (see Chapter 2.2.1), similar arguments have been made regarding the co-creation of society and OGD as tools that can either boost or hinder democratic processes (Afful-Dadzie, E. & Afful, Dadzie, A., 2017; Kubicek, 2014; Wessels et al., 2017).

Similarly, Crawford (2021) argues that AI is “neither artificial nor intelligent” but rather “embodied and material, made from natural resources, fuel, human labor, infrastructures, logistics, histories, and

classifications” (p. 8). The author examines the (hidden) impacts of AI from a socio-materialistic perspective, revealing how AI influences natural resources, labor, privacy, and freedom. Ultimately, Crawford (2021) contends that AI is a mode of knowledge, communication, and power, and must be understood in this context so society can better navigate how AI will shape knowledge, communication, and power structures in the future.

Artificial intelligence, then, is an idea, an infrastructure, an industry, a form of exercising power, and a way of seeing; it’s also a manifestation of highly organized capital backed by vast systems of extraction and logistics, with supply chains that wrap around the entire planet. (Crawford, 2021, p. 18–19).

This relates to findings from critical data studies (see Chapter 2.1), which emphasizes the importance of recognizing data not as a neutral technology, but as a tool that is shaped by and simultaneously shapes society.

All in all, there is a broad range of literature discussing the implications of digital technologies on democratic processes. Participation and democracy are intricate phenomena to comprehend and evaluate, and implementing them in practice is even more challenging because participatory processes inherently involve hierarchies that mirror existing power structures – specifically concerning who is allowed to participate and how. This issue is especially pronounced with digital technologies, which are predominantly owned and managed by a small elite in society.

So, the question remains: How does that affect the practical work of (data) journalists as intermediaries of OGD? I will now proceed to discuss research that examines the role of journalism in society in general, and in relation to open data practices and participatory civic engagement in particular, to approach this tension.

2.3 Journalism’s role in democracy

Regarding public engagement and participatory democratic processes, journalism plays a vital role, especially in knowledge societies increasingly characterized by information overload in the digital age (Blum, 2014; Carlson, 2017). In this section, I will explain the role of journalism in democracy and, more specifically, what this role involves in the digital age. I will also review previous findings in the field of data journalism and discuss how journalists are seen as intermediaries in the transfer of digital knowledge.

2.3.1 Watchdog versus lapdog journalism

As Hargreaves (2014) argues, “journalism’s job is to provide information and arguments that enable societies to establish facts, to work through disagreements, to test moral boundaries, and to know their

priorities” (p. 7). Journalists serve as the representatives of minority groups by amplifying voices that might otherwise be unheard, including, for example, socio-economically disadvantaged, ethnic minorities, and individuals with physical disabilities. The Mexican American journalist Jorge Ramos (2017) called this “el contrapoder”, the counterbalance to power. Alongside legislative, executive, and judiciary power, journalism is seen as the “fourth estate” of democracy (Cambridge Dictionary, 2025b).

This counterbalance to power and the “watchdog” function (Bennett & Serrin, 2005) assign to journalism are closely linked with political systems. Blum (2014) explores this connection between media systems and politics, analyzing media in various countries. He uses the term “Lautsprecher” (loudspeakers) to describe media that serve those in power and support the current ruling regime. This lapdog journalism is common in totalitarian and authoritarian regimes. In contrast, “Widersprecher” (contradictors) are media that critically evaluate governments and expose abuses of power. This watchdog role is typical of liberal and democratic systems. Blum (2014) concludes that, in practice, media are rarely only contradictors or loudspeakers. While the role media play depends on the political system, they often perform both roles simultaneously, to varying degrees.

However, it is not only the political context established by ruling powers that shapes the framework in which journalism functions. Carlson (2017) explains that the watchdog or contradictor role is assigned to journalists by the audience. Especially in an era of post-truth, when “people are more likely to accept an argument based on their emotions and beliefs, rather than one based on facts” (Cambridge University Dictionary, 2025a), journalists must earn the audience's trust and establish themselves as a trustworthy institution within democracy; they must earn trust and the “right to be heard.” Carlson (2017) highlights authority as a central element for the functioning of journalism through which journalistic findings become socially relevant representations of reality. Therefore, the expertise of journalists must be recognized as such. I will further explore this later, as the concept of journalistic authority is one of the frameworks I will use to analyze my findings (see Chapter 4).

2.3.2 Journalistic expertise

In general, it can be said that journalists’ expertise in reporting and determining which narrative is true is also rooted in tacit knowledge, as laid out by Olsen (2018), who investigated this intuitive experience as an often unspoken aspect of journalism, especially during periods of transition, such as the digital shift. The author describes journalists’ tacit knowledge as “knowledge in use,” which is internalized, habitual, and shaped by one’s lifeworld. Tacit knowledge encompasses unspoken knowledge that is difficult to articulate but crucial for professional functioning. This intuitive judgment and practical know-how underpins everything, from editorial choices to social media and understanding community values. This can sometimes make it challenging for journalists to establish themselves as experts, as their expertise is not easily described or communicated.

However, as Palmer et al. (2019) emphasize, the legitimacy of scientific knowledge, especially in complex controversies, depends “less on their being perceived as rigorous and objective, and increasingly on their sensitivity and responsiveness to social and political contexts” (p. 245). The authors conclude that the credibility of scientists is built through boundary work at multiple levels. In other words, expertise is not black and white; it is about building bridges through an interdisciplinary approach. Experts play a crucial role in mediating and translating knowledge, not only through rhetorical efforts but also through a distinctive blend of social and material practices. They achieve this by closely interacting with stakeholders face-to-face to guide decision-making processes. Similarly, I will investigate the negotiation between stakeholders regarding OGD and journalists.

2.3.3 Classifying expertise

Talking more broadly about expertise and its recognition in a knowledge society, many scholars have studied how expertise is classified in relation to science. Grundman (2018), for example, explores different types of expertise and how their importance and roles in society have changed. The author looks at the “rightful place of expertise” and distinguishes between experts, who address problems that cannot be solved with routine solutions, and specialists, who handle routine tasks in their daily work. Thus, Grundman (2018) concludes that technical specialists are crucial for solving “tame problems” that are clearly defined, while the rightful place of experts is with “wicked problems” that involve much more uncertainty and require broader social and political debates to resolve. However, the author also states that experts and specialists are equally essential, each in their own areas.

Another classification of expertise is introduced by Collins et al. (2017), who distinguish between no expertise, interactional expertise, and contributory expertise. No expertise refers to the inability to perform sociological analysis. In terms of scientific research, this level of expertise aligns with the stage where a researcher begins fieldwork and is unfamiliar with the technical details of a field or its operational processes. The authors argue that, in the context of STS research, this is inadequate for conducting sociological analysis, as researchers cannot effectively engage with the community they are studying. Interactional expertise describes the stage in scientific research where a scholar has enough knowledge of a field's language and key concepts to interact meaningfully with participants and perform sociological analysis. Contributory expertise signifies a level of knowledge where a scholar can make valuable contributions to the field under study. This concept also applies to expert laypeople who have enough knowledge about a specific domain to participate in discussions about controversies or help solve problems.

Interestingly, this distinction between different types of expertise is often blurred in practice, as Kerr et al. (2007) argue. Expertise is not static, but fluid and contested, because it is socially constructed and depends on the context. Therefore, the authors challenge the idea of fixed boundaries between experts

and laypeople and suggest that these roles are often blended. This is why Kerr et al. (2007) observe a rise in “lay-experts” and “interactional expertise,” where people without formal credentials still contribute meaningfully to scientific discussions. Additionally, the authors note that technical expertise continues to dominate in shaping public engagement outcomes, making other forms of expertise, such as political or legal expertise, less visible. That is why I will focus on defining the type of expertise and knowledge needed when working with OGD.

Thus, in the case of this research, these distinctions – or the blend thereof – will be examined in the context of OGD expertise and data experts as I will take up classifications of expertise and expand these terms to the context of (data) journalism and OGD (see Chapter 7).

2.3.4 Data journalism as intermediary expertise

These questions of expertise can also be related to the role of specialized data journalists in open data practices. Baack (2015) examined the role of data journalists and activists as “data intermediaries”. The author outlines three key impacts of open-source practices: Open data practices “should break the interpretative monopoly of governments,” thus empowering citizens to formulate “their own interpretation of data” concerning public issues (p. 1). Moreover, Baack (2015) argues that activists connect the ideas of open data practices to “an open and flexible form of representative democracy” (p. 1) by applying the open-source model of participation to political engagement. Lastly, since raw data must be transformed and translated to create knowledge for citizens, journalists, and activists serve as intermediaries, especially when dealing with highly technical information infrastructures such as open data platforms.

Overall, Baack (2015) outlines similarities between open data practices and democratic structures by discussing the role of agency in datafied publics, providing a strong starting point for investigating the role of OGD in democratization processes within knowledge societies. Particularly, the concept of intermediaries will be essential in defining the role of a data platform, such as that of the Austrian Parliament (see Chapter 3.3).

The functioning of data journalism and its role within journalism and society have been analyzed by scholars like Bounegru & Grey (2021), Porlezza & Splendore (2019), Ramsälv & Ekström (2024), and Tong (2022). Bounegru & Grey (2021) note that data journalism has shifted from being “in the making” to an established field over the past twenty years: “It has subsequently become socialized and institutionalized through dedicated organizations, training programs, job openings, professional teams, awards, anthologies, journal articles, reports, tools, online communities, hashtags, conferences, networks, meetups, mailing lists, and more” (p. 12). However, data journalism also faces challenges, as incidents like the Snowden leaks in 2013 demonstrated the risks data technologies pose to society. The authors emphasize that data is not a neutral depiction of reality but is “entangled with politics and

culture, money and power” (p. 12). A recent example is the COVID-19 pandemic, where the numbers and graphs shared globally became politicized as discussions about the data’s methodology and fragility emerged.

Along the same lines, Ramsälv and Ekström (2024) argue that data journalism is gaining momentum, as the information presented can significantly impact the actions of both citizens and those in positions of power. The authors examine knowledge and truth claims made by public service media in Scandinavia. Generally, they point out that data journalism represents a rather interdisciplinary practice, combining elements from journalism, computing, and academia. Thus, data journalism is closely linked to both technical thinking and scientific research practices. Although there is no widely agreed-upon scholarly definition of data journalism, the authors discuss various forms of data journalism to account for its use in different journalistic editorial contexts, including quick visualizations as a relatively brief form of data journalism, investigative research through data analysis, and somewhat playful and entertaining data journalistic pieces.

The authors conclude that data journalism can have a significant impact on public discourse and knowledge, as was evident during the COVID-19 pandemic. However, Ramsälv and Ekström (2024) also note that the feasibility of data journalism varies globally depending on the access authorities provide to datasets. Porlezza & Splendore (2019) explore the role of open data in data journalism within Italy and similarly conclude that while data journalism heavily depends on the availability and accessibility of public datasets, journalists have found ways to navigate these limitations. For instance, many data journalists produce and gather their own data, often through collaborations and networks.

Tong (2022) offers similar arguments and outlines four roles of data journalists. First, data journalists serve as “intermediaries between data holders and audiences.” Furthermore, they are “translators of data for audiences”. Third, data journalists act as “endorsers for data,” and finally, they can be “data holders and publishers themselves” (p. 100). Data journalists not only curate data for media coverage but also create and publish new data. On paper, these roles enable journalists to report the truth and hold those in power accountable, thereby strengthening the democratic goal of quality journalism. However, in reality, various factors, such as power struggles over control of data access, media systems, news organizations’ resources and principles, and journalists’ understanding of specific issues and their data literacy levels, can weaken this influence.

2.4 Conclusion

In this literature review, I have analyzed findings from STS, critical data studies, participation studies, and communication studies that revolve around the topics of data as socio-material, the role of OGD

in a knowledge society, how society is shaped by and shapes digital technologies, and how expertise influences the role of (data) journalism in democracies.

As an STS student, I understand technology and science as interconnected, which is why the entanglement of technoscience and society in the case of OGD is of great interest to me. The connection between democratic processes and data as a digital practice has been examined from many angles, recently including the impact of AI on democracy and vice versa (Coeckelbergh, 2024; Crawford, 2021). However, there seems to be a gap in research on how the role of OGD for the public is enacted through intermediaries (Baack, 2015; Tong, 2022).

The interplay of digital practices and civic public engagement has been examined in various cases (Kelty, 2008; Nadim, 2021; Steven & Haines, 2020) and there is a wide range of literature that explores the role of OGD in a knowledge society (Afful-Dadzie, E. & Afful-Dadzie, A., 2017; Gil-Garcia et al., 2020; Kubicek, 2014; McNaughton et al., 2016; Wessels et al., 2017), along with various research on democracy and participation in general (Arnstein, 1969; Bogner, 2012; Chilvers & Kearnes, 2016; Kelty, 2019; Soneryd, 2023). Additionally, from the perspective of communication studies, there is a great variety of publications on journalism's role in democracy, especially in the light of digital information (Bennett & Serrin, 2005; Blum, 2014; Carlson, 2017; Hargreaves, 2014) as well as some academic work on the special role of data journalists (Baack, 2015; Bounegru & Grey, 2021; Porlezza & Splendore, 2019; Ramsälv & Ekström, 2024; Tong, 2022).

So, on the one hand, there is research reflecting on participatory technologies and how they facilitate or hinder democratic processes on a relatively abstract level, and, on the other hand, the practical work of (data) journalists as intermediaries has been analyzed in depth. However, what is missing is a link between the idea of OGD facilitating democratic meaning and the practical work of intermediaries, such as journalists, and how they are connected. Participation and democracy are complex practices to understand and analyze, and even more challenging to implement in real life, as participatory practices always involve hierarchies that reflect power structures regarding who gets to participate and how. This is particularly true for digital technologies that are owned and controlled by a relatively small elite in society. Therefore, it is crucial to consider how exactly digital practices, such as open data platforms, can both promote and hinder citizen participation through expert intermediaries, like data journalists.

3 Research Field

Before presenting my research interests, I will briefly outline my positionality and provide some context regarding recent developments and key players in the field of open government data (OGD) and data journalism in Austria, as well as regarding my research case: the Austrian Parliament's data platform.

As already mentioned earlier (see Chapter 1) and further discussed later (see Chapter 6.2.2), there has been a growing awareness regarding the relevance of OGD. Austria, in particular, has a tradition of official secrecy. This law was only recently abolished, with the new Freedom of Information Act put into force in September 2025, shortly after writing this thesis. With official secrecy as the law, public administration bodies used to withhold information by default, and interested citizens or journalists, for example, had to bring forward arguments as to why information is relevant to the public in order to acquire it. With the Freedom of Information Law, this will change: Administrations will have to bring forward arguments as to why information cannot be made public. If this will lead to a paradigm change in the way intermediaries make sense of and interact with OGD remains to be seen (see Chapter 9; Bounegru & Grey, 2021; Ramsälv & Ekström, 2025).

3.1 Positionality and relation to the field

My interest in OGD and data journalism comes from my experience working as a data journalist. At the time of writing this thesis, I have been working for the Austrian public broadcaster's news website, ORF.at, for about four years. I specifically chose the Parliament's data platform as a case study for two main reasons: First, and most importantly, as a journalist, citizen, and student, I am interested in democratic processes and digital technologies, particularly in how they interact and are intertwined. Since the Parliament itself is at the core of Austria's democracy, it made sense to explore this topic where democracy is practiced and represented. Secondly, I have already worked with the platform myself, not only through my work as a data journalist but also through my studies, as I previously examined the platform's relaunch process for another research project. That is when I encountered the Parliament's data portal as a potential topic for my master's thesis. For the seminar paper, I investigated the platform's participatory relaunch process, asking how stakeholders such as data journalists influenced the conception of the relaunched website and data platform. As I will explain in more detail later (see Chapter 5), the interview I conducted for that seminar paper was also relevant for this thesis, which is why I decided to use it again with the interviewee's permission.

In addition to the knowledge I already possessed from previous research, my personal connection to the topic also gave me early insights into the field before starting the research. This can create many opportunities, such as easier access to the field and potential interviewees, as well as a more engaged perspective that can aid in interpreting the findings. However, this biased view must be consciously

reflected throughout the research process, which I consistently aimed to do. This insider perspective aligns with what Haraway (1988) describes as “situated knowledges”, a term indicating that knowledge is never purely objective and always arises from a specific viewpoint. Knowledge is rooted in place and time; it is neither entirely value-free nor free of context or history; it evolves with social change. Still, this situatedness can be an advantage in research. There are strong reasons to pursue research within one’s field or community, as it facilitates access and helps build rapport with participants or interviewees. Nonetheless, this sense of groundedness and positionality must be acknowledged and reflected throughout the research process. As I will explain later (see Chapter 5.1), I conducted an ethnographic analysis of the Parliament’s platform, which includes a reflection of how I have interacted with the portal. By doing so, I aim to openly share my interactions with the platform and make my viewpoint transparent to readers.

3.2 Austrian Parliament’s data platform as a case study

As already mentioned, I decided to examine the data platform of the Austrian Parliament as a case study because of its relevance in society as a core democratic institution, as well as my personal experience with the data platform and the relatively new design of the platform after its relaunch in 2023. I will lay out more details about the technicalities and content of the platform later (see Chapter 6.1), but briefly want to give an overview of what the Austrian Parliament’s data portal is, before presenting my research questions.

On its general website, the Austrian Parliament offers approximately 25 datasets that provide insight into democratic processes and parliamentary practices, such as parliamentary requests, protocols of National Council meetings, or negotiation item data. It is, thus, possible, for example, to look up precisely what members of parliament said during National Council meetings many years ago, or to accurately trace and explain how laws are formed. This platform is used by researchers, journalists, NGOs, interested individuals, and businesses; however, journalists and researchers constitute the primary target audience (see Chapter 6).

In general, there is a close exchange of information between the Parliamentary Directorate’s press team and journalists, particularly political journalists. However, the uptake of the OGD offer is not too widespread in the daily business of journalists. This is also due to the fact that data journalism in Austria is relatively small, compared to, for example, Germany or other European countries. So, the number of journalists who actively and regularly engage with the Parliament’s data portal is limited, as I will reflect on later (see Chapters 5.3 & 7).

3.3 Research Questions

I will now describe my research interest and the questions I have formulated for this research:

MQ: How are journalists giving meaning to the Austrian Parliament's open data platform?

Considering that such data platforms require specialized knowledge to operate (see Chapter 2.3.4; Baack, 2015), I am interested in how intermediaries, like journalists, shape the meaning of open data platforms. Specifically, I seek to understand the value of the Austrian Parliament's open data platform to society and why these platforms are important. I aim to deconstruct which role these portals can play, both in theory and in practice, and how this role is facilitated through intermediaries.

To address this question, I have broken down my research interest into three sub-questions:

SQ1: How does the Austrian Parliament present data on its platform?

The first sub-question aims to understand what the Parliament's data platform offers and what it does not, how it is structured, and why it is set up this way. I want to identify the target audience of the portal and the reasons behind it, as well as the Parliamentary Directorate's vision for the portal's use. To answer this, I conducted a brief ethnographic analysis of the data platform and interviewed a representative of the Austrian Parliament responsible for open data.

SQ2: How do intermediaries such as journalists make use of OGD?

For the second sub-question, I want to understand how journalists make use of the platform and why. Therefore, I will explore the type of knowledge needed to work with OGD by looking at how intermediaries turn complex data into understandable information for the public (Baack, 2015; Tong, 2022). To do so, I will use the interviews I have conducted with journalists, along with my own experience with OGD, particularly the Parliament's data.

SQ3: What role are journalists attributing to the Austrian Parliament's data platform?

The last sub-question aims to explore how journalists view the platform and any meaning they assign to it. I am interested in the potential they see for the portal's role in society and for their own, as well as how this role is reflected in practice. I want to understand how journalists perceive the relationship between their journalistic work and the platform by examining the role they assign to OGD.

4 Theoretical Framework

In this chapter, I will outline the theoretical frameworks that have guided my research process and shaped my analysis. I mobilized concepts from both STS and journalism studies, namely boundary work, gatewatching, and journalistic authority. These theoretical frameworks are not only suitable for answering my research questions but also for guiding my research process from the outset. These notions can, furthermore, be combined with each other to create a better understanding of how translation processes of open government data (OGD) take place and how intermediaries give meaning to OGD platforms and create their societal relevance.

I will now elaborate on each of these theoretical concepts in detail. However, for my analysis, I will utilize these guiding principles in combination, as they align well with one another. I will argue that boundary work, journalistic authority, and gatekeeping all revolve around questions of expertise and authority, which is what I am interested in with regard to OGD.

4.1 Boundary work

Boundary work, as developed by Gieryn (1983, 1999), examines the demarcation between science and non-science. Gieryn (1983) describes boundary work as attributing “selected characteristics to the institution of science (i.e., to its practitioners, methods, stock of knowledge, values, and work organization) for purposes of constructing a social boundary that distinguishes some intellectual activities as ‘non-science’”.

Demarcating science from non-science is an essential practice for researchers pursuing professional goals, such as establishing intellectual authority, denying academic resources to non-scientists, and protecting academia from political influence. Therefore, boundary work might also be referred to as science communication in that scientists “create a public image for science by contrasting it favorably to non-scientific intellectual or technical activities” (p. 781). The author further describes instances where boundary work can also be used to demarcate different fields within science.

Nevertheless, boundaries are destined to change, adapt, and transform as they are socially constructed and constantly re-evaluated, which is why science “is no single thing” (Gieryn, 1983, p. 792). In other words, science is a cultural space that lacks universal qualities, so it is continually contested. Gieryn (1999) argues that the question of what science is often leads to the question of where science is; however, this ‘where’ is in constant motion, defined by public debate and negotiation.

In this sense, it is a little misleading to speak of ‘epistemic authority of science’ as if it were an always-already-there feature of social life, like Mount Everest. Epistemic authority does not exist as an omnipresent ether but rather is enacted as people debate (and ultimately decide) where to locate the legitimate jurisdiction over natural facts. (Gieryn, 1999, p. 15)

This negotiation of boundaries occurs through what Gieryn (1999) refers to as credibility contests. These boundary work strategies can be divided into three genres: expulsion, expansion, and protection of autonomy. Expulsion happens when two rival actors each claim to be scientific, thus defining the boundaries of what science is and what is not. An example could be when scientists distinguish their work from pseudoscience. This often involves actively excluding practices or individuals from the realm of science. Expansion describes the debate among more than two rival authorities to establish control over a contested domain, often incorporating new ideas, methods, or even individuals into a scientific field. In this case, different groups or individuals attempt to expand their influence in a struggle for dominance, for example, an organization that seeks to broaden their scope of practice and expertise to gain authority. With the protection of autonomy, Gieryn (1999) describes boundary work that aims to safeguard the reputation of a field, profession, or group of individuals against external pressures. This could include, for example, professionals establishing licensing requirements or codes of conduct to regulate entry and practice.

Regardless of which strategy of boundary work is in play, demarcating scientific knowledge from other types presupposes that science possesses the intellectual authority to enforce this distinction in the broader public arena. As I will lay out later, Carlson (2017) similarly argues that expertise is not given or possessed by individuals but achieved through boundary work and constant negotiation (see Chapter 4.2.1).

The notion of boundary work and credibility contests will allow me to investigate tensions that arise when intermediaries, such as journalists, work with OGD. With this framework, I want to unpack the types of demarcations that journalists draw between themselves as experts and others. Moreover, I can analyze how data is identified as a trustworthy source or not, and how journalists distinguish between the two. This concept will particularly relate to my second and third sub-questions of how intermediaries make sense of and use OGD, and the role journalists attribute to the data platform.

A scholar who has used and extended Gieryn's concept of boundary work is, for example, Pereira (2019), who critically argues that social inequalities represent a blind spot in the theory. She points out that class, race, and gender influence one's ability to set boundaries and participate in 'credibility contests.' Pereira (2019) contends that Gieryn mentions these factors only as a possible "add-on" to the theory rather than as a foundation of the concept itself. Furthermore, Pereira (2019) asserts that not all boundary work is successful, even when done "correctly," as claims of demarcation can fail when made by scholars marginalized by existing epistemic hierarchies, due to their embodiment and social positioning. Thus, marginalized groups must engage in boundary work, often to demarcate themselves from other groups perceived as more marginalized, in order to establish their authority. This further amplifies social inequalities.

This is highly relevant, not only because I am investigating a rather small field, but also because journalism, in general, is not very heterogeneous (Kaltenbrunner & Lugschitz, 2021). Thus, I will have to critically reflect not only on my choice of interviewees, but also on the fact that any demarcation practices I identify might look very different from individual to individual or from field to field. So, Pereira's (2019) input on inequalities and boundary work is important for this analysis.

While examining demarcation practices helps to understand how different fields perceive themselves and distribute authority and credibility, it is also crucial to consider who benefits from these demarcations and who holds the authority to engage in these practices in the first place. Nevertheless, boundary work is a fitting concept for this research, as it provides a suitable framework for analyzing how journalists work with and give meaning to OGD platforms.

4.1.1 Boundary objects

A concept derived from boundary work that is also central for this research is boundary objects, as developed by Star & Griesemer (1989). The authors investigate how different actors, including professional scientists, university administrators, amateur naturalists, field collectors, local trappers, and specimen gatherers, collaborated effectively to build a major scientific institution: the Museum of Vertebrate Zoology at the University of California, Berkeley.

The authors identify "boundary objects" as a crucial concept for facilitating collaboration and negotiations across domains. Boundary objects are "both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites" (p. 393). In other words, objects with different meanings in various social contexts can also serve as translators, as they inhabit multiple social worlds while maintaining their basic meaning across them, thereby facilitating collaboration and understanding.

For instance, a specimen may be regarded as a research object by scientists, a display by museum staff, and a species record by amateur collectors. This robust yet flexible role of the same object for different stakeholders facilitates cooperation across diverse communities without necessitating complete agreement or shared viewpoints. Actors can work together productively while retaining their individual perspectives.

As laid out by Star (2010), boundary objects are not just objects in a materialistic sense, but rather "stuff of action" (p. 603). By that, the author highlights that boundary objects are not static or fixed representations but situated in cooperative work and formed through practice. A boundary object can, for example, be a map, a form, or even a theory that becomes a boundary object when it coordinates heterogeneous activities. Thus, boundary objects can be understood as enabling, constraining, and

shaping how groups interact, exchange knowledge, and work together; they embody both friction and flow between different social worlds.

Consequently, the question for this research project is: Can OGD be viewed as a boundary object? With this notion, I aim to examine the role of OGD itself amidst the tensions that may arise from demarcation practices. I am interested in whether OGD is a sort of “common denominator” for different actors from different fields and with different interests. This concept will help address my third sub-question about the role that journalists attribute to the OGD platform, as well as my main research question about how journalists give meaning to the portal. I will analyze how OGD’s role might change across different contexts and user groups and examine how these changes can be bridged.

4.2 Expertise and authority in journalism

When differentiating science from non-science, a key aspect is defining expertise, or what type of knowledge is recognized as such, which is also central to this thesis. There is extensive research on expertise and authority, particularly in the field of STS, as addressed earlier (see Chapter 2.3.3), but also in relation to journalism (see Chapter 2.3.2), which is what I will focus on as my research centers on journalists as intermediaries of open data platforms (Baack, 2015; Tong, 2022). Thus, I will now lay out Carlson’s (2017) notion of journalistic authority and Bruns’ (2009) notion of gatewatching.

I will explain each framework in detail separately. However, it is essential to understand these concepts as interconnected, as they all revolve around the question of whom society trusts to make decisions about which information is relevant and how to translate it. What I take away from these frameworks for my research is that expertise cannot be assumed; it is negotiated in specific contexts, as also outlined by Gieryn’s (1983, 1999) notion of boundary work (see Chapter 4.1). I understand expertise as performed, and it can be displayed in more or less convincing ways. So, non-experts in the public audience also significantly impact what is considered necessary credentials for expertise. These concepts help investigate not only who possesses expertise and who does not, and how these demarcations are drawn, but also how journalistic expertise is performed, claimed, and exhibited in specific situations.

4.2.1 Journalistic authority

As addressed already earlier (see Chapter 2.3), for journalists to be able to fulfill their role as intermediaries in information exchange (Baack, 2015), they need to earn the “right to be heard”. This is what Carlson (2017) describes as journalistic authority. Especially in the digital era, where there is an overload of information online, journalists need to establish themselves as credible curator and translator of knowledge. This can be rather challenging, particularly, ever since “people are more likely to accept an argument based on their emotions and beliefs, rather than one based on facts”

(Cambridge University Dictionary, 2025a) in the so-called post-truth age. So, how do journalists earn the audience's trust, and how do they establish themselves as a reliable institution in a democracy? Why should audiences heed journalists in an age of information overload, and why should they trust journalists to convey the truth amid an increasing tide of disinformation?

Carlson (2017) explains that authority is a vital factor for journalism, as it enables journalistic findings to become socially relevant representations of reality. For that, the expertise of journalists must be recognized as such. This trust that needs to be earned is never a one-way street: "journalistic authority is a contingent relationship in which certain actors come to possess a right to create legitimate discursive knowledge about events in the world for others" (Carlson, 2017, p. 13). This relationship is asymmetrical, involving those who hold authority and those who recognize it. Similar to what Gieryn (1983, 1999) says about credibility contests and demarcation practices, granting journalistic authority happens through discourse and is enacted through debate. Consequently, the right to be heard can also be contested, altered, or even revoked at any time, especially during periods of cultural change.

Components of authority, as outlined by Carlson (2017), include group identity, textual practices, and metadiscourse. Group identity refers to how journalists perceive themselves. Textual practices pertain to how journalism interacts with audiences through texts, as well as how journalists are acknowledged. Metadiscourse involves how journalism is discussed in society. These components are evident in what Carlson (2017) describes as four authority relations of journalists: with the audience, with their sources, with technologies, and with media criticism.

So, in summary, according to Carlson (2017), journalism's democratic role within society, as the fourth estate of democracy, as the watchdog of society, and as the spokesperson for those who would otherwise be unheard, must be enacted by both journalists and the audience. On one hand, journalists need to establish rapport with their audience to gain trust through their practices. On the other hand, the audience must grant journalists the authority to act as intermediaries in democratic civic engagement and knowledge transfer (Baack, 2015; Tong, 2022). This creates an asymmetrical journalist-audience relationship shaped by how journalists perceive themselves, how journalistic practice engages with the audience, such as through texts, and how society discusses journalism in general.

This thesis will focus on journalists' relationships with the audience, sources, and technologies. The concept of journalistic authority helps explain the practices that allow journalists to give meaning to OGD platforms, which relates to my main research question. This idea emphasizes that trust is essential to establish authority. To explore who is trusted in making sense of OGD and why, it will be useful to combine the concept of boundary work with the notion of journalistic authority.

Carlson & Lewis (2019) have already linked the concept of journalistic authority to Gieryn's (1983, 1999) theory on boundary work and argue that demarcation practices help to investigate how journalistic practices, values, and actors are in- or excluded, ultimately shaping how information is created and legitimized.

The authors lay out how journalistic boundary work is contested in three different ways, analogous to Gieryn's (1983, 1999) three genres of credibility contests. Journalists as actors can be either rejected or accepted as experts, or actors outside of journalism can be perceived as threats. Similarly, this can also be said about actions that can be accepted, rejected, or seen as an outside threat. Lastly, also "propositions", which include norms, beliefs, and ideas, can be accepted, or rejected as journalistic, or seen as an outside threat. "The argument is that boundary work is always more than talk. To engage in boundary work is to seek power to define social reality; the shape of news as knowledge; and the distribution of access, funding, attention, and other material elements" (Carlson & Lewis, 2019, p. 127)

Thus, through combining the concepts of boundary work and journalistic authority, I can not only analyze why and how journalists are rejected, or accepted as experts, or seen as a threat, but also why and how OGD itself is rejected, or accepted as a reliable information source, or seen as a threat.

4.2.2 Gatewatching

Another concept related to expertise and authority that informs this research is Bruns' (2009) concept of "gatewatching." This framework represents a further development of classic gatekeeping theories from communication studies, evaluating the role of journalists in the digital age as "gatewatchers" rather than "gatekeepers".

Bruns (2009) argues that with the advent of social media and online journalism, the role of gatekeepers has become somewhat obsolete because there are relatively more users who "watch" information flows while content is multiplied and spread independently, without the need for traditional "gatekeepers". All three "steps" of "gatekeeping" – namely, selecting which information is considered, which information is published, and which responses from users are perceived as relevant – have traditionally been monitored by editorial teams, but can now be bypassed.

In contrast to gatekeepers who share or withhold information, gatewatchers point out, curate, and comment on relevant content. At the same time, the power to guide attention is distributed among various actors rather than concentrated in a single journalist or editorial team. This shifts the role of journalists as they share the task of distributing content with users, who can also influence the visibility of information through online participation and behavior. Thus, Bruns (2009) argues that gatewatching supports a polyphonic, participatory public, which also allows laypeople to contribute to the formation of opinions. This opens up opportunities; however, it also enforces disinformation and echo chambers,

where similar opinions and “beliefs are amplified or reinforced by communication and repetition inside a closed system” (European Center for Populism Studies, n.d.).

Bruns (2009) explains that although this shift from gatekeeper to gatewatcher alters the role of journalists, it also makes quality journalism increasingly important. Finding reliable information is becoming increasingly challenging, which is why information and verification experts are essential in guiding audiences through the digital information landscape. Unlike user gatewatching, this curation work is performed by professional journalists who have the skills to filter, contextualize, and assess relevant information. Furthermore, Bruns (2009) argues, similarly to Carlson (2017), that journalists strive to establish institutional credibility and are granted authority to curate by the audience. In times of polarization and fragmented, algorithmically controlled media environments, as well as the rise of disinformation and propaganda, it is especially crucial to rely on curation experts capable of reliably contextualizing information.

Moreover, Bruns (2009) argues that, as a consequence, journalistic work is becoming more transparent and participatory, as journalistic expertise also includes handling feedback and engaging in dialogue with the audience. He even describes gatewatching as a form of participatory journalism, at least to some extent. However, Bruns (2009) acknowledges that participatory reporting, oriented toward multiperspectivity, is not just about participation but also about who gets to participate: “Multi-perspective journalism depends on participating users representing a variety of perspectives” (p. 120). Without the necessary diversity and variety of perspectives, participatory journalism might even lead to a false sense of plurality.

In conclusion, Bruns (2009) acknowledges that everyone can now participate in the circulation of information. Still, the role of journalists remains crucial, not as the sole gatekeeper but as a highly specialized gatewatcher with institutional responsibility. The expertise of journalists comes not from controlling information flows, but from a qualitative assessment of information in an open media ecosystem.

I will use this notion of gatewatching as a framework to analyze how the idea of openly available data platforms supports Bruns’ (2009) arguments, or not. In other words, I will examine how journalists frame their expertise about OGD platforms as a reliable intermediary in opposition to the fact that, at least in theory, everyone can access the same information source. Thus, the notion of gatewatching can provide an argumentative framework to explain why journalists are necessary intermediaries and translators of OGD. In relation to journalistic authority and boundary work, gatewatching can be seen as a practical description of how journalists establish authority through boundary work. Therefore, I will ask if gatewatching can be seen as a demarcation practice to constitute journalistic authority.

4.3 Conclusion

To conclude, boundary work, as a sensitizing concept, enables me to explore the demarcation of journalists and other actors as (OGD) experts, helping to understand how their roles are formed and viewed. This method also provides an opportunity to analyze the roles assigned to open data itself; for instance, which data is trusted and which is not. Using the idea of boundary objects, I seek to explore whether OGD can act as a bridging element between different worlds.

Furthermore, I will use the concepts of journalistic authority (Carlson, 2017) and gatewatching (Bruns, 2009) to examine expertise in journalism further. Journalistic authority maintains that the recognition of specialized expertise must come from the public audience. Along with boundary work, this framework helps to reveal not only how journalists establish themselves as credible intermediaries and data experts but also how this authority is granted to them by the audience. I will use this concept to investigate further how and why journalists are listened to when using OGD for their work.

Finally, gatewatching (Bruns, 2009) offers a theoretical perspective rooted in journalism studies to explore the role of intermediaries in relation to OGD and to examine questions about their necessity and goals further. This concept addresses a paradigm shift from journalists being the only gatekeepers of information to them being curation experts in an era when laypeople also have access to information, for example, through OGD platforms, due to an online information overload. Using this idea, I will analyze the tensions between the exclusivity of information for journalists and OGD platforms, which promote the idea of openly accessible information for everyone.

5 Methods

In this chapter, I will describe the research methods I used to answer my research questions. After conducting an exploratory ethnographic analysis of the Parliament's data platform, I carried out a total of eight interviews. The initial website analysis helped me better understand the platform, how it might be used, and its organizational structure. Additionally, the ethnographic analysis guided the development of the questionnaire I then used for my semi-structured interviews. Before delving into the research methods, I want to reiterate that I have a personal connection to the field and the interviewees through my work as a data journalist. I have outlined this positionality and my access to the field earlier (see Chapter 3.1) and will now also reflect on how this influenced my research, especially the selection and approach of interviewees (see Chapters 5.2.2 & 5.3).

5.1 Laying the ground: Ethnographic website analysis

As preparation for the later interviews and to provide an overview of the Parliament's open data platform, I conducted a brief analysis of the Parliament's data platform using elements of digital ethnography (Pink et al., 2016) and trace ethnography (Geiger & Ribes, 2011; Hodges, 2021). I will now explain how I conducted this ethnographic analysis.

This analysis laid the foundation for the main empirical work – the interviews – as I developed a deeper understanding of my personal experience with the platform and my perspective on it. The goal of this ethnographic website analysis was to gain an intuitive sense of the data platform from a researcher's viewpoint. As a data journalist, I have previously only experienced the platform as a user. This previous personal experience has inevitably shaped how I see, interact with, and interpret the website.

Generally, ethnography involves studying a specific social or cultural group to gain a better understanding of it. Kramer & Adams (2017) describe ethnography as both a process in which researchers conduct ethnography and a product, such as when someone writes about it. Ethnography as a research method can provide a more nuanced perspective from the subject's point of view, and it also acknowledges the researcher's role and influence in the research process. That is why I decided to start my empirical work with a short ethnographic analysis of the Parliament's data platform. Although ethnography includes a wide range of research methods and approaches, I chose to pursue a digital and trace ethnography approach for this initial website analysis.

As Pink et al. (2016) describe it, digital ethnography is “an approach to doing ethnography in a contemporary world” and to “explore the consequences of the presence of digital media in shaping the techniques and processes through which we practice ethnography” (p. 1). In other words, this research method provides insights into how the digital space intertwines with social, cultural, and material

aspects of human experience, which relates to my interest in how journalists understand and utilize these data platforms.

Pink et al. (2016) further emphasize that the digital is not separate from the non-digital, offline world but is woven into everyday life. Similarly, data on the Parliament's data platform is not separate from "real-life" political processes but reflects them. Therefore, through this ethnographic website analysis, I explored how the Parliament's data platform is embedded in social practices, such as journalistic reporting and political processes, by examining how information is presented.

Trace ethnography similarly focuses on digital worlds but emphasizes traces left in digital systems. For example, Geiger & Ribes (2011) have analyzed editing logs of Wikipedia pages to understand how users collaboratively identify and remove vandals, while Hodges (2021) has examined PDF metadata from biomedical repair manuals shared during the COVID-19 pandemic to reveal otherwise invisible maintenance and repair work related to digital documents. Likewise, I closely examined how the Parliament's website is organized by tracing the hierarchies visible on it. By unpacking the website's technical and logical structure, I was able to understand the Parliamentary Directorate's perspective on users and their needs.

In general, the Austrian Parliament's open data services are divided between two providers: data.gv.at, a platform operated by the Federal Chancellery to summarize open data offerings, and the Parliament's own website. For this analysis, I focused on how the Austrian Parliament presents data on its website (Parlament Österreich, n.d.-c). First, I conducted an initial ethnographic observation of the website, scrolling through it and noting anything that caught my attention. Next, I analyzed the website again using a small questionnaire I had prepared beforehand: How is the website structured? What data is available? How is the data presented? How is it accessible? What language is used? What assumptions or actions does the portal imply regarding data use? Finally, I documented how I typically would use the data and which content resonates with me or does not, and why. I will lay out the preliminary findings of this exploratory ethnographic analysis later (see Chapter 6.1), before summarizing the interview results (see Chapter 6.2).

5.2 Digging deep: Semi-structured expert interviews

As I sought to understand how journalists interpret and give meaning to open data portals, such as the one maintained by the Austrian Parliament, a qualitative research approach using semi-structured interviews and a thematic coding analysis proved to be the most suitable. I conducted seven interviews with journalists who have worked with the Parliament's data, as well as one interview with an employee responsible for open data at the Parliamentary Directorate. This helped me gain a deep understanding of how the Parliament's Administration envisions the use of the data portal and also

allowed me to compare how journalists from different backgrounds interpret OGD. I then developed themes from the transcripts to identify where connections, similarities, and contradictions emerged.

I will now first lay out how I collected data through interviews and then describe my data analysis process.

5.2.1 Collecting data through interviews

I conducted semi-structured interviews, as this approach enabled me to gain an in-depth understanding of the interviewees' experiences and viewpoints that cannot be easily reduced to numerical data. The interviews provided me with rich, detailed data about not only what the interviewees think or do, but also how and why they do so. This allowed me to understand the context of behavior and opinions necessary to answer my research questions. Using the same prepared questionnaire for the interviews was crucial for comparing the interviewees' practices and perspectives on OGD. At the same time, semi-structured interviews offer sufficient flexibility to adapt and explore themes that arose during the conversation, which I had not anticipated in my questionnaire. However, this occurred relatively rarely, potentially because I knew the field well before (Bryne, 2018; Jensen & Laurie, 2016).

I chose to interview a total of seven journalists from different media outlets and with diverse backgrounds – some of whom are data journalists, while others are not, as well as one employee at the Parliamentary Directorate responsible for communication about the open data platform. One of the interviews I used for this research was an interview I had already conducted approximately eight months prior to the other interviews for another seminar paper. As mentioned earlier (see Chapter 3.1), it was this very seminar paper that later inspired me to further investigate the topic of OGD and the Austrian Parliament's data platform in the course of my master's thesis. It turned out that, although the questionnaires differed between this one interview and the other seven conducted explicitly for this thesis project, the answers were similar enough to be considered for this analysis. A few questions remained the same because I reused parts of the old questionnaire for this project as well. While the interview for the seminar paper focused more on the "call for participation" before the website's relaunch and how the OGD community was involved in remaking the data portal, many answers centered around similar general topics as the other interviews. These included how the interviewee views OGD as a journalist, his perception of the Parliament's data platform, and the role he assigns to such data portals.

In preparation for the semi-structured interviews, I developed two questionnaires: one for the journalists and one for the Parliament's spokesperson (see Annex B). Although some of the questions I had prepared were the same for both interviewee groups, many of the questions also differed, which is why I decided to have two different questionnaires. After conducting the first interview with a

journalist, I slightly adapted my initial version of the questionnaire to refine some of the questions. I developed the questions along the lines of my preliminary research questions and structured the interviews along four topical blocks: First, I started with some personal questions to break the ice, where I asked interviewees, for example, if they would identify as a data journalist, and what they do in their daily work. Then, we discussed OGD in general, its implications for the interviewees, and how the meaning and role of OGD have evolved, as well as what is required to work with OGD effectively. Subsequently, I posed questions about the Parliament's open data in particular, including how interviewees use the platform and how they would describe the portal's role for their work. Lastly, we discussed OGD's role in democratic processes and how interviewees perceive the relevance of OGD in general, as well as the Parliament's platform in particular. As a final question, I offered interviewees the opportunity to address topics important to them that we had not previously discussed.

5.2.2 The interviewees

For the recruitment of interviewees, I relied on my own "personal network" (Roulston, 2012), given that I had access to the field through my work. I also used recommendations from interviewees on whom to talk to as well. Although recruiting within a researcher's surroundings might not produce as diverse outcomes as random sampling, I had rather specific pre-requisites for interviewees: They had to be journalists, preferably from slightly different backgrounds and of diverse age and gender, and they had to have worked with the Parliament's data before. With such a recruiting approach, a study cannot be representative, which was not the goal in this case anyway. Generally, the potential pool of interviewees in this case was relatively small. Nevertheless, my initial skepticism about whether I would find enough interviewees soon proved to be irrelevant.

The interviewees are not anonymized, as this would take away too much relevant information. It was not possible to anonymize the interviewees enough so that they would not be identifiable, whilst providing some context as to where they work and what kind of professional background they have, which is necessary when analyzing work experiences and skills. Thus, I am now sharing a brief overview of my interviewees with their full names and professional backgrounds to give insight into their respective roles (see Table 1).

As I will discuss in more detail later (see Chapter 5.3), the sample is, unfortunately, not diverse in terms of gender. Although journalism in general is a rather female-dominated field, only a small number of women are working within data journalism.

Table 1*Overview interviewees*

Name	Role ¹	Personal Relation
Günter Hack	project manager, ORF.at	direct co-worker (same department)
Jürgen Klatzer	political journalist, “Der Falter”	former direct co-worker (same department)
Robin Kohrs	data journalist, “Der Standard”	no relation
Markus Hametner	freelance data journalist & freedom of information expert	no relation
Christian Haslacher	head of data & graphics team, APA	work colleague (different employer)
Lisa Lind	business journalist, ORF TV-magazine “Eco”	co-worker (same employer)
Simon Hofer	Open Data Officer, Austrian Parliamentary Directorate	no relation
Martin Thür ²	political journalist & news anchor, ORF “ZIB2”	co-worker (same employer)

My first interview was with Günter Hack, project manager at the Austrian public broadcaster’s news website ORF.at. Among other things, he is responsible for the development of data tools for journalists at ORF and is working regularly with (open) data in his work. My second interviewee was Jürgen Klatzer, a political journalist at the weekly newspaper “Der Falter” who formerly worked for ORF.at. I then interviewed Robin Kohrs, data journalist at the daily newspaper “Der Standard”. He specifically has a focus on geospatial data, but works with (open) data regularly in general. Afterwards, I talked to Markus Hametner, a freelance data journalist and freedom of information expert. Among others, he has worked for “Der Standard” and the now-discontinued project Addendum, as well as the German daily newspaper “Süddeutsche Zeitung” and “Dossier”, a magazine for investigative and data journalism. Further, I interviewed Christian Haslacher, head of the data & graphics team at APA, the Austrian news agency. Another interview was conducted with Lisa Lind, a business journalist at the ORF TV-magazine “Eco,” who regularly engages with OGD, particularly on economic topics. Finally, I interviewed Simon Hofer, Open Data Officer at the Austrian Parliamentary Directorate. He is responsible for providing and maintaining the open data offer and serves as a spokesperson on open data topics within the Parliamentary Directorate. The last interview I used for this thesis is one I conducted in July 2024 with

¹ at the time of the interviews

² interview conducted prior to this research for another project

Martin Thür, a political journalist and news presenter of the evening news show “ZIB2” at ORF. I initially interviewed him to analyze the relaunch process of the Parliament’s data platform, which he was involved in, for another research project (see Chapter 3.1).

Given that I knew many of the interviewees personally and was familiar with the field of my research interest, the interviews took place in a relaxed atmosphere. I was initially skeptical that my involvement might create bias in the interviews, but this concern proved to be unfounded. On the contrary, I was positively surprised to see that all of the interviewees I contacted were willing to participate in my research. Given that I decided to conduct expert interviews that are not anonymized, I expected that some interviewees might be more hesitant to consent to the interview. I purposefully decided to name all my interviewees because I would not have been able to provide enough context about their work or workplace without compromising their identity.

Moreover, my relation to the interviewees and the topic helped to build trust, as they perceived me as someone who understands the context and their experiences (Bryne, 2018; Jensen & Laurie, 2016). Often, interviewees addressed my experience as well, asking, for example, if I had had a similar experience. I decided to encourage my interviewees by sharing my own experiences with them whenever they addressed me directly. I will reflect on this insider research approach further later, when outlining the limitations and ethical considerations of my chosen research methods (see Chapter 5.3). I will also address the implications of conducting all interviews in German while doing research and writing in English.

5.2.3 From codes to categories: Qualitative content analysis

For the data analysis, I pursued a thematic coding approach. Firstly, I transcribed all interviews with WhisperTranscribe, an AI-powered software that creates transcripts from audio files. I then re-listened to all interviews and made corrections to the AI-transcript where necessary. As my research interest was primarily focused on what interviewees said and less on how they said it, I removed filler words, false starts, or repetitions that would interfere with the coding process, while keeping the interviewees’ statements as raw as possible.

After transcribing, I began the thematic coding process. Braun & Clarke (2006) describe six stages for this process that I also followed. First, I read through each of the transcripts without taking notes to familiarize myself with the data. In a second step, I reviewed the transcripts again, taking notes to summarize each interview individually. Thirdly, I began to code phrases, paragraphs, and words using the coding software MAXQDA. This step involved identifying content relevant to my research topic and labeling it accordingly. I repeated this step several times in an iterative process, revisiting the codes and refining them multiple times until no new codes emerged. In total, I conducted three rounds of coding for each of the eight interview transcripts.

After the repeated coding process, I started to generate initial themes from the previously identified codes. This process was initially challenging, as it required interpreting the data on a broader level, which is why I refined and reviewed the themes in a subsequent step several times. I ultimately identified four main themes, each of which is divided into smaller sub-themes. These main themes are: “Job”, “OGD”, “Expertise”, and “Parliamentary data”. I used different colors for each of the main themes and organized all the codes within these (sub-)themes, utilizing various levels of subcategories (see Table 2).

Table 2

Themes and codes

Theme	Subtheme	Exemplary codes
Job	job title	-
	“Tätigkeit” (professional activity)	experience Parliamentary data, professional background, ...
OGD	definition	-
	role in democracy	transparency, tool for critical journalism, OGD as social facts
	advantages for OGD providers	feedback loops
	OGD & Covid-19	data awareness changed
	data sources	trustworthy data sources, freedom of information law, missing data sources
Expertise	processing and access to OGD	restricted access, role of AI, visualized/pre-processed data, ...
	competence	legal competence, technical competence, ...
	journalism	OGD vs. exclusivity, data as a source for stories, data journalism objectives, few resources in journalism for OGD, ...
	OGD experts vs laypeople	Providers as experts, users as experts, citizen journalism/science, ...
Parliamentary data	appealing data source	-
	working with Parliament’s OGD	insights from data, technical barriers, use of Parliamentary data, contact with OGD team, ...
	democratic value of	archive function, missing data/wishes
	Parliament’s OGD	

I followed a content-oriented approach, which means I grouped codes into categories and themes that made sense based on the topic and content, rather than fitting a certain number of codes into a theme. Naturally, each subtheme and also the main themes contain different amounts of codes, with the codes themselves varying in length. Finally, I defined and described these themes in more detail in preparation for writing up my empirical analysis, which is also structured along the themes I created (see Chapter 6).

5.3 Ethical considerations & limitations

I will now lay out ethical considerations and limitations concerning the research methods I chose. First of all, as described earlier (see Chapter 3.1), my positionality is more of a strength than a limitation to pursuing this research. Overall, the entire research process was inevitably guided by my perspectives and experiences related to the topic and was relatively intuitive, making it challenging to explain in detail how I interpreted the data and why. However, I tried to the best of my abilities to unpack how I came to the conclusions I did.

At the same time, I do not want to undermine the power of such tacit knowledge, which is also valuable for research. As outlined earlier (see Chapter 2), journalists also rely on their intuitive experience and practical know-how, which is difficult to articulate (Olsen, 2018). Watson (2025) describes this phenomenon as “vibes-based methods.” The author argues that social research methods are indeed “vibes-based” because they are experience-oriented, focus on closeness and interactions, and serve the purpose of eloquence. She criticizes traditional research methods as overly rationalized. With “vibes-based” methods, one can examine how things feel, how they work, and how they move in a way that is consistent with the ambiguity and intensity of real life. So, by relying on my intuition to identify what is relevant as I experience and feel the field differently than an outside researcher would, I can render findings visible more clearly.

Another ethical consideration I want to reflect on at this point is interview consent. Since I decided to conduct expert interviews that are not anonymized, it was essential to obtain consent from the interviewees beforehand. I explained to them what I planned to do for my research and how they would be named and quoted in this process. All of them agreed to be quoted by name without restrictions. I explicitly chose not to anonymize my interviewees because I wanted to provide their respective professional backgrounds as relevant contextual information. Naming my interviewees also helps readers to understand why I selected these individuals.

Although I attempted to have a diverse sample of interviewees in terms of professional background within journalism, age, and gender, the group of interviewees is not representative. I managed to acquire interviews with journalists from slightly different fields, including politics, business and

economics, as well as data journalism and project management. However, I interviewed no one under the age of 30 and only one woman. This is mainly because the field of data journalism is rather male-dominated. This was also picked up by one of the interviewees, who explained that many people entering data journalism come from IT-related fields that are traditionally male-dominated as well:

Where do the people who do this come from? They are very often programmers or people who have been very involved with IT, who then have a strong journalistic urge and then develop in this direction, and it is a very male-dominated industry (Thür)

Additionally, journalism itself is also a quite homogenous bubble, as Kaltenbrunner & Lugschitz (2021) investigate. The authors analyze diversity in Austria's media landscape and conclude that "journalists with a non-German-speaking migration background are clearly underrepresented" (p. 3).

Moreover, I would like to emphasize that I conducted all the interviews in German, although the rest of this research is presented in English. This was a deliberate decision, as it would have been unnatural to conduct an English-speaking interview between native German speakers. Especially with interviewees I have worked with and usually converse in German, it would have felt forced to conduct interviews in English. Consequently, I also transcribed and coded the interviews in German. Interestingly, I took notes in both English and German, sometimes even mixing the two mid-sentence. I completely switched back to English when writing up my empirical findings. I can only speculate how this has influenced my research, but I noticed that I sometimes struggled to find precise translations for interviewees' quotes, which is why I used AI-powered software for these direct translations, often tweaking them multiple times (see Annex A). Interestingly, the English quotes also ended up being notably shorter than the original German quotes, as German is more extensive, especially in its sentence structure.

Finally, my role as a researcher and an insider in the field is blurred. Although I was worried about this aspect beforehand, this turned out to be more of a strength than a challenge. My positionality and insight into the field allowed me to have easier access and gain interviewees' trust more quickly. As argued by Haraway (1988), there are strong arguments in favor of conducting research from within one's field or community. For example, a personal rapport in the field allows for deeper insight into unspoken norms, values, and complexities (Haraway, 1988; Olsen, 2018; Watson, 2025). This situated knowledge allows for "webbed connections" and solidarities rather than isolated truth claims, encouraging interviewees to speak more openly as they might feel more understood and seen.

6 Empirical Findings

I will now present my empirical findings. As mentioned earlier (see Chapter 5), I conducted an exploratory ethnographic website analysis before conducting semi-structured qualitative interviews. I will, first, lay out the findings from the initial website analysis before presenting the interview results according to the categories that emerged during the thematic coding process.

6.1 Website analysis: Goldmine with pitfalls

On the following pages I will now lay out the findings from this initial and question-guided ethnographic observation regarding the website's structure and data availability, as well as its presentation and language, along with a reflection on how I have worked with the Parliament's data. To illustrate this, I will include a description of a specific available dataset and a so-called showcase. The questions that guided this ethnographic observation were: how is the website structured, what data is available (see Chapter 6.1.1), how is the data presented, how is it accessible, what language is used? (see Chapter 6.1.2), and what assumptions or actions does the portal imply regarding data use (see Chapters 6.1.3 and 6.1.4).

6.1.1 Platform structure and data availability: Navigating an open data jungle

As mentioned earlier, the data provided by the Parliament can be found on two websites; however, for this analysis, I will focus solely on the Parliament's website. Navigating to the open data section is somewhat less intuitive for users accessing the open data portal for the first time. The easiest way to get to the data platform was to Google "open data" and "Parlament" (parliament). Alternatively, one can also navigate to the open data section directly through the Parliament's general website by opening the "research" section (see Figure 2). However, the open data section is located at the bottom of this page and is quite difficult to find.

Generally, the open data platform is structured into one main page, two subpages, and several sub-subpages for each dataset (see Figure 3). Interestingly, the actual page of each dataset links back to a topic page and not directly to a data file, for example. The two main subpages are "data & licenses," containing explanations and links to the actual datasets, and a page called "showcases" containing examples of interaction with the provided data in cooperation with the University of Vienna, which I will explain later.

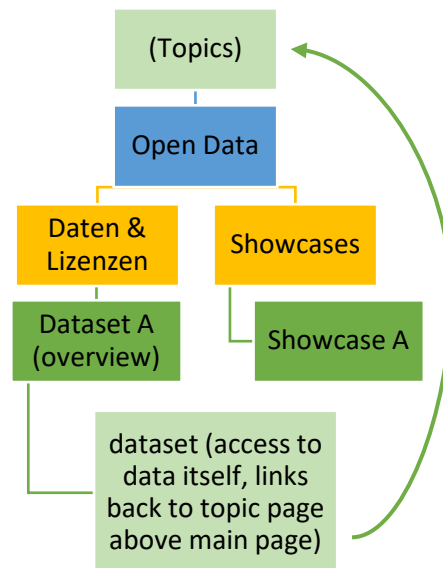
The overall structure of the website is somewhat hidden and not very intuitive. Many links lead back to other pages again, making it hard for users who are not familiar with the datasets and the platform's structure to find the information they are looking for. However, contact details for the open data team are included at the bottom of every page, and most pages contain an explainer section as to what the data contains.

Figure 3

Navigation sidebar (Parlament Österreich, n.d.-a)

**Figure 2**

Data platform structure (own visualization)



As of now, there are 25 datasets available, clustered into four topical fields (negotiating items, participation, persons, meetings/protocols/dates). The datasets are licensed under the 4.0 Creative Commons (CC BY 4.0) license, which means that the data can be distributed, remixed, tweaked, and used for further work, even commercially, if the original creator is credited. This is a common term of usage when it comes to open (government) data (see Chapter 2). The specific terms of use are indicated separately for each dataset, as some of them include information that is not entirely licensed under CC BY 4.0, for example, some of the personal data of members of parliament is excluded. The datasets are available as JSON files or sometimes single PDFs via integrated development environments (IDEs) or direct download.

To illustrate how the data is presented, I will now describe the structure and content of one of the datasets, namely „Anträge” (requests). The main page of this dataset begins with a general overview of the topic: What is a request? What types of requests exist? What is the process for handling requests? This introduction already suggests that additional technical and specialized knowledge is necessary to interpret these datasets (see Chapter 6.2.3.2). The introductory text includes many highlighted terms that link to a glossary of specific parliamentary process terms. The dataset page also contains a link to the actual data, as well as links to showcase pages, hints about data-specific features and rights of use, an FAQ section, and contact information (see Figure 4). When users click the link to access the actual data, they are redirected to one of the four topical pages (“Gegenstände”) where they can filter datasets related to requests for direct download (see Figure 5). So, to access the actual data, users need to navigate through several pages (see Figure 3), which can create a sense of disorientation.

Figure 4

Page structure dataset “Anträge” (Parlament Österreich, n.d.-a)

Anträge

introductory text

Das parlamentarische Verfahren kennt eine Vielzahl von Anträgen. So können Abgeordnete und Ausschüsse mit Selbständigen Anträgen Gesetze initiieren oder sie mit Abänderungsanträgen während des parlamentarischen Verfahrens abändern. Mit Entschließungsanträgen können sie politische Wünsche über die Ausübung der Vollziehung an die Regierung oder einzelne Regierungsmitglieder herantragen. Mit Zusatzanträgen können ergänzende Bestimmungen in Gesetzesvorschlägen initiiert werden. Der Bundesrat kann ebenfalls Gesetzesanträge einbringen. Entweder als Gesetzesanträge des Bundesrats durch drei Bundesräte oder als Gesetzesantrag von einem Drittel des Bundesrats. Eine Beschreibung der Daten zu Gesetzesanträgen des Bundesrats wird hier bereitgestellt: Gesetzesanträge des Bundesrats

Die Daten zu Anträgen enthalten Metadaten zu den Anträgen selbst. Angeführt sind Titel, Zitation, Datum der letzten parlamentarischen Behandlung und die Gesetzgebungsperiode. In den Geschichtsseiten der Anträge sind die Daten zum parlamentarischen Verfahren des Antrags angeführt. Zusätzlich werden Dokumente, Informationen zu den Einbringer:innen, Parlamentskorrespondenz, Bezüge auf Verhandlungsgegenstände, Schlagworte und Themenbereiche bereitgestellt. Eine detaillierte und vollumfängliche Beschreibung der Daten entnehmen Sie bitte der JSON-Beschreibung.

Die bereitgestellten Daten können nach Antragsart und Verfahrensstufe voneinander abweichen. Die Dokumentation der Detaildaten bezieht sich auf abgeschlossene und angenommene Selbstständige Anträge. Die Systematik der Dokumentation ist für alle Arten von Anträgen gleich.

Die jeweiligen Informationen der jeweiligen Phase sind innerhalb der Hierarchie in Verfahrensstufen eingeteilt. Eine genaue Dokumentation finden Sie in der JSON-Beschreibung unter „Wie ist die Geschichtsseite inhaltlich aufgebaut?“ weiter unten.

In content/documents sind Dokumente wie der Verhandlungsgegenstand (gescanntes Original bzw. HTML) und diverse Arbeitsdokumente zum Verhandlungsgegenstand verlinkt.

content/names gibt Auskunft über die Funktion der jeweiligen Person mit Informationen zu Namen, Fraktion, Personen-ID (PAD).

Wurde über einen Gegenstand in zweiter und dritter Lesung abgestimmt, findet sich das Votum auf Klub/ Fraktionsebene unter content/vote.

content/topics enthält Themen des Verhandlungsgegenstandes.

content/headwords enthält die Schlagwörter des Verhandlungsgegenstandes.

content/eurovoc enthält die Schlagwörter des Verhandlungsgegenstandes

content/correspondence enthält Parlamentskorrespondenz zum Verli

Verlinkungen in den JSON-Daten sind relative Verlinkungen.

information on rights of use

Link zum Datensatz

link to dataset (see Figure 5)

Hier geht es direkt zur Filtersuche des Datensatzes: Gegenstände

Showcases Open Data

Der Weg vom Download über die Auswertung bis zur Visualisierung von parlamentarischen Daten wird in Kooperation mit der Universität Wien anhand von Showcases demonstriert. Durch diese Beispiele zu Akteur:innen, Verhandlungsgegenständen und Debatten soll der Umgang mit dem Datenangebot des Parlaments veranschaulicht werden.





Besonderheiten der Daten zu Anträgen

Daten zu Anträgen sind seit der XX. Gesetzgebungsperiode vorhanden. Meldungen der Parlamentskorrespondenz in den Geschichtsseiten sind seit der XXI. Gesetzgebungsperiode vorhanden.

In der JSON-Datei der Geschichtsseiten werden unter „content“ sämtliche verfügbare Informationen dargestellt.

Neben allgemeinen Daten zum Gegenstand wie Typ, Name, Gesetzgebungsperiode oder Nummer, gibt „status“ den aktuellen Stand im Verfahren wieder. Hier können fünf Status unterschieden werden:

- 1: Eingelangt
- 2: Zugewiesen
- 3: In Verhandlung
- 4: In Plenarberatung
- 5: Abgeschlossen

Diese fünf Status können wiederum in Phasen des parlamentarischen Verfahrens untergliedert werden.

content/progress gibt Auskunft über alle möglichen Phasen des Gegenstandes.

content/phase enthält Dokumente und weitere Informationen, die mit der Behandlung des Gegenstandes in der jeweiligen Phase des parlamentarischen Verfahrens zusammenhängen. Folgende Phasen sind bei Anträgen möglich:

- 1 - Einbringung NR: Daten zum Verfahren der Einbringung (Datumsangaben, ...)
- 2 - Erste Lesung: Daten zur Phase der Ersten Lesung
- 3 - Ausschussberatungen NR: Bezeichnung der behandelnden Ausschüsse, Anträge auf Fristsetzung,
- 4 - Plenarberatungen NR: Debattenbeiträge, etwaige Abänderungsanträge, Abstimmungsergebnis
- 5 - Einlangen BR: Daten im Zusammenhang mit der Übermittlung an den Bundesrat
- 6 - Ausschussberatungen BR: Behandelnde Ausschüsse
- 7 - Plenarberatungen BR: Debattenbeiträge und Informationen zur Abstimmung

Wie komme ich zu den Ergebnislisten der Filter?

Alle ausklappen Alle einklappen

+ Nach welchen Dimensionen kann gefiltert werden?

+ Wie funktioniert die API?

FAQ

Was ist in der Ergebnisliste des Filters enthalten?

Alle ausklappen Alle einklappen

+ Wie ist die Ergebnisliste inhaltlich aufgebaut?

+ Wie sieht ein Auszug der Ergebnisliste aus?

Was ist in der Geschichtsseite enthalten?

Alle ausklappen Alle einklappen

+ Wie ist die Geschichtsseite inhaltlich aufgebaut?

+ Wie sieht der Auszug einer Geschichtsseite aus?

Kontakt Open Data

Wir freuen uns auf Ihre Anregungen!

Bei weiteren Fragen zum Open-Data-Angebot des Parlaments können Sie sich gerne an unsere Mitarbeiter:innen wenden.

ogd@parlament.gv.at

contact details

Note. Composite screenshots of the dataset page “Anträge”. The order of the screenshots is indicated by the black arrow.

Figure 5

Topical page “Gegenstände” to filter data (Parlament Österreich, n.d.-b)

Gegenstände

Alle Verhandlungsgegenstände des Nationalrats und des Bundesrats sowie weitere parlamentarische Materialien.

Alle Verhandlungsgegenstände

Suchen Sie hier nach allen Verhandlungsgegenständen des Nationalrats und Bundesrats. Schnelleinstiege zu Ministerialentwürfen, Gesetzesinitiativen sowie Anfragen und Beantwortungen finden Sie am [Ende der Seite](#).

search and filter interface for “Verhandlungsgegenstände” data

Datum	Art	Betreff	Nummer	Status
13.08.2025	JPR	Wahrung der Würde, Ordnung und Sicherheit im Parlament statt Unterwanderung des Freiheitlichen Parlamentsklubs durch rechtsextreme Aktivisten - Anfrage wurde nicht beantwortet	19//JPR	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundesministerium für Wirtschaft, Energie und Tourismus sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3136//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundesministerium für Land- und Forstwirtschaft, Klima- und Umweltschutz sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3133//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundesministerium für Arbeit, Soziales, Gesundheit, Pflege und Konsumentenschutz sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3129//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundesministerium für Finanzen sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3125//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundeskanzleramt sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3123//J	● ● ● ● ○
12.08.2025	J	Ist der Digital Austria Act 2.0 mehr als nur eine Überschriften-Sammlung? - Frist für die Beantwortung 12.10.2025	3138//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundesministerium für Landesverteidigung sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3131//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bundesministerium für Frauen, Wissenschaft und Forschung sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3128//J	● ● ● ● ○
12.08.2025	J	IT- und Cybersicherheit im Bildungsministerium sowie bei Mitarbeiter:innen in Schlüsselpositionen - Frist für die Beantwortung 12.10.2025	3127//J	● ● ● ● ○

list of documents and data points

Schnelleinstiege

Mit einem Klick zu Ministerialentwürfen, Gesetzesinitiativen, Anfragen und Anfragebeantwortungen sowie älteren Materialien.

Gesetzesinitiativen
Hier finden Sie alle Gesetzesinitiativen und Regierungsvorlagen.

Details

Ministerialentwürfe
Durchsuchen Sie alle Ministerialentwürfe der Ressorts seit 1975.

Details

Anfragen und Beantwortungen
Alle schriftlichen und mündlichen Anfragen und deren Beantwortung finden Sie hier.

Details

links to other datasets

Haben Sie noch Fragen?

Bei Fragen steht Ihnen das Infoteam der Parlamentsdirektion von Montag bis Freitag von 9 bis 16 Uhr zur Verfügung.

Wir freuen uns auf Ihre Anfrage!

HÄUFIGE FRAGEN >

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KONTAKTFORMULAR >

contact details

6.1.2 Data presentation and language: Showcases as inspiration

Regarding the language used in presenting data, I made three observations: First, the Parliament's main website is only partially translated from German to English, and the open data platform is not available in English at all, which already limits the number of potential users. Second, explanatory language is used, such as in the glossary or explanation sections, to make the data more accessible. Third, technical language is also employed, which might pose a barrier to users unfamiliar with the terms. In particular, the details and datasets themselves contain many administrative terms related to parliamentary processes. They are structured according to these processes, which users need to understand to engage effectively with the data.

Generally, there is a focus on explanatory sections and using understandable language and structures to present the data. Nearly every page has an explanatory introduction to the theme, an FAQ section, and links to examples. Additionally, many use cases help to provide a glimpse of what is possible. I will now describe one of these so-called showcases. At the moment of this analysis, there are eleven such showcases available aimed to “inspire further projects” (Parlament Österreich, n.d.-c), including the showcase “How is the committee work distributed?” (see Figure 6) that I examined in detail. The showcase addresses committee memberships based on party affiliation, topic, and activity.

At the beginning of the showcase page, there is a brief explanation of committee work and membership in general, followed by a presentation of the findings, which are also illustrated through data visualizations. At the end, there is a detailed explanation of the methodology and the script used to download, rearrange, and visualize the data. In this case, the analysis was conducted with R, a programming language for statistical computing and data visualization. The showcases are created in cooperation with the University of Vienna's Department of Government. This further indicates that interpreting the available data requires some expert knowledge within the fields of political science and government administration (see Chapter 6.2.3.2).

Figure 6

Showcase "Ausschussarbeit" (Parlament Österreich, n.d.-e)

introductory text

Wie wird die Ausschussarbeit verteilt?

Ein Showcase zu Ausschussmitgliedschaften – basierend auf dem Open Data Angebot des Parlaments von Laurenz Ennsner-Jedenastik und Daniel Bliem in Zusammenarbeit mit der Parlamentsdirektion.

Wie erfolgt die Zuteilung der Ausschussmitgliedschaften?

Die Beratung und Prüfung von Gesetzesinitiativen findet im Parlament hauptsächlich in den **Ausschüssen** statt. Im Unterschied zum Plenum sind Debatten nicht so streng geregelt, und es ist mehr Zeit für Diskussionen. Damit findet ein beträchtlicher Teil der parlamentarischen Arbeit in den Ausschüssen statt. Im Nationalrat gab es in der letzten Gesetzgebungsperiode (2019 bis 2024, im Folgenden GP) 31 Ausschüsse, die jeweils über einen eigenen thematischen Fokus verfügten. Die meisten Ausschüsse hatten in diesem Zeitraum 23 Mitglieder, inklusive der Vorsitzenden, deren Stellvertreter:innen und der Schriftführer:innen. Ausnahmen waren der Immunitäts- und der Unvereinbarkeitsausschuss mit jeweils 13 Mitgliedern. Das ergab in Summe 693 Ausschussmitgliedschaften. Zusätzlich wurden noch Unter- und Untersuchungsausschüsse eingesetzt, mit denen sich dieser Showcase jedoch nicht beschäftigt.

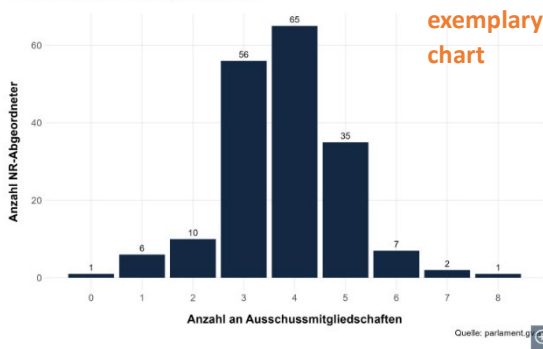
In der Praxis des Nationalrates ist es üblich, dass jeder Klub in jedem Ausschuss vertreten ist und dass die Stärkeverhältnisse im Ausschuss jene im Plenum widerspiegeln. Bei insgesamt 183 Nationalratsabgeordneten ist es somit klar, dass die meisten Abgeordneten in mehreren Ausschüssen Mitglied sein müssen.

Dieser Showcase beschäftigt sich damit, wie die Zuteilung der Ausschussmitgliedschaften erfolgt. Als Stichtag der Untersuchung wurde der 1. Juni 2024 gewählt, da es auch innerhalb einer GP zu leichten Veränderungen der Ausschusszugehörigkeiten innerhalb der Klubs kommen kann.

Barrierefreie Alternative / CSV, 167 BYTES

Nationalratsabgeordnete nach der Anzahl ihrer Ausschussmitgliedschaften am 1. Juni 2024

Gesamtanzahl der Ausschussmitgliedschaften: 693



exemplary chart

Die erste Abbildung zeigt, wie viele Abgeordnete am Stichtag über welche Anzahl an Ausschussmitgliedschaften verfügten. Wir sehen deutlich, dass die große Mehrheit – fast 85% – der Abgeordneten in drei bis fünf Ausschüssen saßen (ohne Unterausschüsse und Untersuchungsausschüsse gerechnet). Mit 65 Personen war sogar über ein Drittel aller Nationalratsabgeordneten in genau vier Ausschüssen vertreten.

Nur eine Abgeordnete hatte keine einzige Ausschussmitgliedschaft, nämlich Philippa Beck, die ohne Klubzugehörigkeit im Nationalrat saß. Da die Ausschussplätze im Parlament proportional zur Mandatsstärke der Nationalratsklubs vergeben werden, blieb sie ohne Ausschussmitgliedschaft.

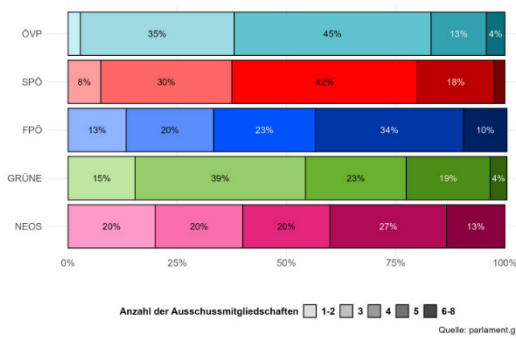
Teilen Nationalratsklubs ihre Ausschusssitze gleichmäßig auf?

Weil die Ausschusssitze proportional auf die Nationalratsklubs verteilt werden müssen, stellt sich die Frage, wie die Klubs mit den verfügbaren Plätzen umgehen und ob es hierbei Unterschiede zwischen den Klubs gibt.

Barrierefreie Alternative / CSV, 333 BYTES

Verteilung der Anzahl an Ausschussmitgliedschaften pro Abgeordneten nach Klub

Stand: 01. Juni 2024



link to barrier-free chart (csv-file)

Kombination von Ausschussmitgliedschaften nach thematischer Nähe

Wie kann man Mehrfachmitgliedschaften in Ausschüssen möglichst effizient gestalten? Eine Möglichkeit wäre, dass Abgeordnete jene Ausschüsse miteinander kombinieren, deren Themen inhaltlich zusammenhängen (z. B. Budget und Finanzen). So können sie von thematischen Überlappungen und Synergien profitieren. Die dritte Abbildung zeigt, welche Ausschüsse in der XXVII. GP am häufigsten von Abgeordneten miteinander kombiniert werden. Sie bestätigt die hier vorgestellte Annahme.

Barrierefreie Alternative / CSV, 562 BYTES

Die häufigsten Ausschussskombinationen unter Nationalratsabgeordneten

Stand: 01. Juni 2024



In den dargestellten Fällen taucht dieses Phänomen in sehr hohem Ausmaß auf. 15 der 23 Mitglieder des Budgetausschusses saßen auch im Finanzausschuss (und umgekehrt), zwischen Justiz- und Verfassungsausschuss gab es 14 personelle Überschneidungen. Auch dahinter wiesen die Themen der kombinierten Ausschüsse einen hohen Verwandtschaftsgrad auf.

Angeichts der Notwendigkeit, dass die meisten Abgeordneten mehrere Ausschussmitgliedschaften wahrnehmen müssen, dient die Kombination von inhaltlich verwandten Themenfeldern natürlich der Effizienz in der parlamentarischen Arbeit. Wer sich zum Beispiel mit Finanzpolitik auseinandersetzt, profitiert von Wissen über Budgetpolitik – und umgekehrt. Zudem finden die Sitzungen fachlich ähnlicher Ausschüsse oft in zeitlicher Nähe zueinander statt. Dadurch ist die Arbeitsbelastung für Abgeordnete mit Mehrfachmitgliedschaften leichter zu bewältigen, und gleichzeitig fördert dies ihre inhaltliche Spezialisierung.

Wie wurde es gemacht? FAQ

Alle ausklappen Alle einklappen

+ Welche Methodik wurde angewandt?

+ Wie sieht das R-Script aus?

Themen

Parlament und Demokratie

ZUR ÜBERSICHT >

Note. Composite screenshots of the showcase "Ausschussarbeit". The order of the screenshots is indicated by the black arrow.

6.1.3 Usage of data: Personal experiences

I will now lay out how I have personally engaged with the Parliament's data platform before. Generally, in my experience, it usually takes some time and experience to understand OGD platforms and work with them. One has to be familiar with the contents and structures, as well as the technical details of such a portal, before being able to download and interpret data. This is especially the case for the Austrian Parliament's platform due to the volume of data available and the bureaucratic nature of data related to parliamentary processes.

Personally, I have bookmarked the Parliament's platform for quick access and usually explore the website directly to get a feeling of which dataset I need and how it is structured. I then use the software R Studio to download, transform, and visualize the data via an API. For other open data platforms that offer API access, I follow a similar approach.

To access data effectively, it is necessary to have sufficient information not only about the technical aspects of the data, such as the available timeframes and formats, but also about the data aggregation and explanations that provide context for interpretation. This is something I noted as a positive aspect of the Parliament's data platform. Although the structure can be overwhelming, there are detailed explanations of each dataset and what they encompass.

To give a concrete example, together with a colleague whom I also interviewed for this thesis project, I analyzed laughter during parliamentary debates (Klatzer & Schober, 2023). The Parliament provides protocols for each National Council meeting that also include remarks describing how members of parliament (re)act, for example, "Heiterkeit" (cheerfulness). Thus, we downloaded all protocols since 1945 and analyzed, amongst other things, which legislative periods have seen the most laughter, as well as which members of parliament from which political parties are most often amused.

Although this might be a rather unusual news story, which initially might seem less serious, with this analysis, we were not only able to provide readers with an understanding of how stenographic protocols are established, but also how the mood between members of parliament changes over legislative periods and through changes of government. Without the protocols available in a machine-readable format, we would not have been able to draw these conclusions.

However, through engaging with the data, I also encountered numerous pitfalls and barriers associated with working with OGD. Especially the fact that many protocols were only available as scanned PDFs posed a challenge, as the scanned image had to be transformed into a text format first. Additionally, the sheer volume of data from multiple protocols slowed down my computer several times. Moreover, interpreting these protocols required some knowledge about how National Council Meetings operate and how these protocols are developed.

6.1.4 Conclusion

The Parliamentary Directorate highlights transparency as a key benefit of the platform: “The easy use of public data from the legislative process is an essential part of the transparency of parliamentary procedures,” and the “easy usage” and “detailed documentation” are intended to enable “the broader public to gain insight into the usage option of the open data offerings” (Parlament Österreich, n.d.-c).

On the one hand, the intention is to allow a wide range of people to access and utilize the provided data. This is evident from how the data is explained: there are explanatory sections, sample use cases, FAQ sections, and contact details for each dataset to help users understand the data. Therefore, it appears that there is a genuine effort to make parliamentary processes more transparent through OGD.

On the other hand, however, there still seem to be barriers to that goal, as potential users need some expert knowledge to understand the data. Additionally, the website's structure is very complex, and there may be language barriers, especially for non-German speakers. This ambivalence between transparency and, often, unavoidable barriers around OGD platforms is what I will further investigate through interviews. The ethnographic website analysis proved that such platforms require translators who can interpret the data and present it clearly and understandably for a broader audience (Baack, 2015). I will now continue to present the findings from the interviews.

6.2 The interviews

I will now present the interview results according to the four main themes I identified in the coding process: “Job”, “OGD”, “Expertise”, “Parliamentary data” (see Chapter 5.2.3). I will use the structure of these themes to present my interview findings. I will begin with a summary of the findings related to the “Job” theme, followed by “OGD”, “Expertise”, and conclude with “Parliamentary data”. In each theme section, I will provide detailed summaries of the interviewees' responses, comparing and contesting their answers, as well as brief explanations of the implications of these findings. For quoting interviewees, I will use their last name in order to refer to them.

6.2.1 Job: The interviewees' identities

Of the four themes that emerged from the interview, the “Job” theme is the smallest category and includes all comments directly related to the interviewee's job. This encompasses whether they see themselves as a data journalist and the points of contact they have with data journalism, for example. This theme also includes explanations of their work habits and professional background. With this theme, I can give a summary of where interviewees locate themselves and their work and give an overview of what their daily work experience looks like, which is essential to lay out before discussing other themes. There are two subcategories for this theme: “Job title” and “Tätigkeit,” which translates to professional activity.

6.2.1.1 Job title: Hesitant labelling

Three of the seven journalists I interviewed describe themselves as data journalists. The others refer to themselves as project manager (Hack), political journalist (Klatzer), business journalist (Lind), or news anchor (Thür). However, all the interviewees have worked with the Austrian Parliament's data and regularly handle (open government) data due to their jobs. Interestingly, when "data journalist" is not the official job title, the interviewees appear hesitant to label themselves as such. Thus, it seems that official credentials like job titles are used to distinguish who is considered a data journalist rather than daily work practices, for example.

I would describe myself as a journalist who works with data because I simply have to deal with it every day in my job as a business journalist, and therefore, I think I have an affinity for it. But I would say that I don't really work as a data journalist, or only very rarely. (Lind)

Simon Hofer, the spokesperson for the Parliamentary Directorate who also works regularly with the Parliament's open data, describes his position as "responsible for open data" (Hofer). While the Parliamentary Directorate does not have a dedicated open data department, Hofer is responsible for communicating open data topics. He collaborates with individuals from various departments (e.g., press office, IT, specialist departments) on open data topics and projects. In doing so, he frequently contacts stakeholders, such as journalists and scientists who work with the data, and tests the Parliament's data platform himself.

6.2.1.2 "Tätigkeit": Data as the job

When it comes to their daily work, all interviewees agree that working with open data is essential to their jobs. I will elaborate on the role of OGD and what working with data means for the interviewees in more detail later (see Chapter 6.2.2). In general, almost all interviewees explicitly mentioned that data helps them perform their jobs better and more easily:

The role of data is that it makes many areas of my daily work easier. (Hofer)

Well, it [the data] is definitely a basis for work. (Haslacher)

It [the data] is important for us. Simply because a lot has to happen quickly in journalism. [...] It just simplifies a lot. (Kohrs)

If it [the data] didn't exist, I probably wouldn't be able to do my job, or would be able to do it much worse. (Hack)

The interviewees come from diverse professional backgrounds. Some possess a technical background, while others specialize in specific fields such as geospatial data or internal affairs. Additionally, some interviewees with a journalism background have become interested in data later in their careers. I will

describe the expertise and knowledge that the interviewees possess and demonstrate separately later (see Chapter 6.2.3).

6.2.1.3 Summary: Non-exclusive identity

So, to conclude, although all interviewees work with the Parliament's data and emphasize the data's essential role in fulfilling their job, the majority is hesitant to label themselves as data journalists. Particularly in the context of boundary work and demarcation practices (Carlson, 2017; Gieryn, 1983, 1999), this is highly interesting, which I will pick up on in detail later (see Chapter 7). In short, surprisingly, the interviewed journalists do not use demarcation between data journalists and non-data journalists to establish their authority as data experts.

6.2.2 OGD: From public input to public impact

I will now move to the next theme, which I have labelled OGD. This includes topics related to the interviewee's perspectives on OGD and its role in democracy in general, as well as their view on the significance of (open government) data over recent years. In this theme, I summarize and unpack the role that intermediaries attribute to OGD and how this contributes to the relevance and significance of the data. I will begin this section by describing how interviewees define open data, followed by an analysis of the role of OGD providers and the benefits they derive from it. Lastly, I will outline how the interviewees perceive and describe the meaning of OGD in the context of democracy and information exchange.

6.2.2.1 Definition: A question of perspective

Although not asked directly to define OGD, most interviewees mention this while answering other questions. For example, Kohrs asks: "I also do not know exactly what open data means. What exactly does it mean?" Conversely, Lind questions whether there is data that is "not open". Similarly, Thür emphasizes that open data is publicly available information:

I would define it much more fundamentally. To put it very broadly: everything we use tax money for and everything we pay for must also be made available to us, including the data they [public administrative bodies and government institutions] produce. In my opinion, not all of this always has to work via a technical interface, but it should be available, at least on request.
(Thür)

All interviewees agree that there are multiple definitions of OGD; "everyone understands open data differently" (Thür). Most interviewees share insights into their definitions or focal points regarding what constitutes open data. Some emphasize the openness of available data, while others concentrated on technical characteristics, such as machine readability. According to Hametner, OGD is "the structured publication of information under permissive licenses, i.e., enabling further processing."

He further argues that open data is typically defined as open *government* data, making public administrative bodies the subject of reporting: “Due to its nature, the data comes from public authorities. This means that it affects work in fields where public authorities are normally the subject of journalistic reporting” (Hametner).

Hofer defines OGD, as he and the Parliamentary Directorate view it, as a rather technical service that concentrates on the infrastructure associated with open data. He further explains that Parliamentary data has some unique aspects to it:

In my opinion, Parliament's data is not comparable with data published by other public bodies. I always like to use the example of published data on river levels. It is now relatively clear what a water level is, what water is, and what the unit meter means. In a parliamentary context, however, this is not so easy, because the understanding of data on the side of the provider also depends on a deep understanding of the rules of procedure, i.e., the rules of the game, how our Parliament, the National Council, and the Federal Council work. (Hofer)

Hack also mentions a similar distinction between sensory and socially constructed data. As an example of socially constructed data, Hack describes the definition of deaths due to COVID-19. Usually, the so-called CT value at the time of death determines whether a death is classified as resulting from the virus. However, in reality, this could result in individuals dying from COVID-19 not being included in the statistics, or individuals dying from other causes who also had a COVID-19 infection being counted as having died from the virus. On the contrary, sensory data, such as weather data, is more precisely defined. Nonetheless, results can vary depending on the sensor's location, for example. So, for Hack, it is vital to be aware of these data definition “quirks”, especially in communication contexts. “If you know that, you can deal with it. If you do not know that and you just accept it, then the purpose of agreeing on data is lost.”

This is interesting as it not only shows the kind of specialized knowledge and experience intermediaries need to have with each dataset; they must know these “quirks”, but it also underlines the importance of how such data is presented and published. Simply providing information is not enough; the infrastructure surrounding it must support the valuable use of data, for example, by including information about data collection and definitions.

So, most of the interviewees underline the importance of data quality, noting that open does not always mean open. Many interviewees (Hofer, Haslacher, Hack) explicitly state that having open and machine-readable data makes their work easier. However, this facilitation of work depends heavily on the quality and infrastructure of data sources. I will discuss the role of OGD providers in this context in more detail in the following chapters (see Chapters 6.2.2.2 & 6.2.2.3).

6.2.2.2 Data sources: Institutional power building trust

Knowledge of data sources is one of the key skills data journalists need to have, as it helps them to define which sources are trustworthy and available quickly if needed. Hack emphasizes the importance of knowing where data can be located as a vital aspect of data journalism, as this facilitates the quick retrieval of data when current events require it.

You have to keep yourself up to date all the time and see what is going on in case something happens, and we have to report on it. And then I also need to know what the data is like, how up to date it is, and the like. (Hack)

When it comes to knowing where to find data, people tend to trust institutional sources that are considered reliable, i.e., the reputation of the data directly stems from the credibility of the institution providing it. For instance, Lind mentions the Austrian statistics bureau as a trustworthy institution because she can reach out to specific experts there for direct feedback and answers to her questions. According to her, such large, reliable institutions serve as a “seal of approval for data”:

In Austria, we still have large institutions that work with and process the data. You can exchange information with them, and they have a seal of approval where I can say, ‘ok, if they calculate it like this, it is a trustworthy source, then it is fine’. (Lind)

All interviewees recognize the Austrian Parliament as an important and reliable source of data. Haslacher and Hack both label the Parliament as a “historical memory” for the country, making it a viable source of information they like to rely on in cases of doubt: “Both on Wikipedia and on government websites, you often find incorrect data, and experience has shown that Parliament is the place that presents it correctly in cases of doubt” (Haslacher).

Vice-versa, trust in the institution is also a central issue for OGD providers themselves, for example, the Parliamentary Directorate. While users must have confidence in data itself – and they are more likely to do so if they trust the publishing institution – trust in the institution can also be established and reinforced through the provision of open data, as Hofer explains:

There is a massive loss of trust in institutions and politics. There are repeated accusations from society that politicians do nothing but lie all day long. These are well-known issues, and I believe that with this data and its use, it can all be put into context. (Hofer)

Regarding the facilitation of trust through the provision of OGD, the interviewees observe improvements in recent years. Not only has the quality, but also the quantity of open data increased. Institutions have become more aware of the need for open data in society and the advantages it can bring to institutions themselves, not least since the COVID-19 pandemic, which saw a massive increase

in data-driven journalistic products, such as dashboards. During times of crisis, information becomes more critical as institutions recognize the need to provide transparent information, for example, to explain socio-political measures such as lockdowns (Hack).

Klatzer observes that information has become more easily accessible due to the increased availability of open data, allowing journalists to acquire information much more quickly. In some cases, the need to send information requests to institutions or press teams has become obsolete, for example, the Ministry of the Interior's asylum statistics are available online now.

I can still remember when I started journalism in 2013, and I made many inquiries, mostly by email, and then also by phone. It just takes forever to get answers. Especially if you are not that well-known as a journalist, press spokespeople do not reply that quickly, and they also have to hold consultations with the individual sections and departments in the ministries. Thanks to open data, a lot is already public, and it makes many things easier for us. (Klatzer)

However, Kohrs argues that this increased supply of data is not always what it seems at first. Labeling data as open has become a misleading indicator of quality, akin to what might be described as "open data washing":

I cannot explain or justify this, and have no reference for it, but peanut butter used to be vegan, and at some point, it was simply labeled vegan, and that is what it feels like with open data. Maybe there used to be a lot of open data, but now it is always there. Maybe it is my feeling that this is a quality feature somewhere. (Kohrs)

Nonetheless, some datasets remain inaccessible to the public, lack a designated open data license, or are not machine-readable. This is primarily due to the prevailing practice among administrations, which has been to withhold such information under Austria's official law. With the Freedom of Information Act finally implemented in Austria in September 2025, it remains to be seen how these limitations will be addressed in the future. Almost all the interviewees appear very relieved and optimistic that the law will not only make more data available but also enable a paradigm shift from treating openness as an exception to treating it as the default setting.

It used to be: What do we have to publish? And everything that we do not have to publish, we do not publish. And with the Freedom of Information Act, it is a bit the other way around: What are we not allowed to publish? And everything else must be published. (Hofer)

Although institutions and administrations will continue to determine how data is provided in the future, intermediaries such as journalists must also ensure that information is published; if it is not, they must request it. As Lind put it, the Freedom of Information law needs to be "brought to life in practice".

6.2.2.3 Implications for OGD providers: Trust is not a one-way street

With the increasing availability and use of open data, OGD providers can also benefit. The function of open data platforms as “historical archives” can, for example, serve as an asset for public communication by institutions and administrations. Instead of searching for information themselves, press teams can access data through their platform. They can also direct individuals (e.g., journalists or researchers) to the platform for their requests. As Hack argues, data quality also enhances this communication benefit.

I also believe that the better this is prepared for laypeople, the better the effect on the administration itself. Firstly, because not all administrative staff are professionals in a particular field, but then you can also use this in external communication with citizens. [...] This means that the more consistent providers are, the more open they are in this case, the more efficient the communication will be, because you can always refer to it. Once it is documented, you can refer to the documentation instead of having to improvise. Because improvisation costs a lot of energy, and the state no longer has that. (Hack)

Thür gives another example where public administration itself benefits from the Austrian Parliament’s available data. Christoph Wiederkehr (NEOS), the Viennese City Councilor for Education at the time, had to obtain information about the influx into the Viennese education system through parliamentary inquiries; this information would not have been available otherwise.

I noticed that Wiederkehr says that he knows about the upcoming influx into the Viennese education system through parliamentary inquiries, because there is no other way to get information, and because there is no traditional exchange between the Ministry of the Interior and the city. They simply have to read parliamentary inquiries, and that shows how important these things are – not only for normal citizens, but even for authorities. (Thür)

Another asset for OGD providers is the feedback they receive from users, as Hack, Hofer, Lind, Klatzer, and Hametner explain. All of the interviewees have encountered situations where they discovered inconsistencies in data and reported them back to the institution. For Hofer, this type of quality management is a valuable and cost-effective method for verifying data and maintaining contact with the user community. In the case of the Austrian Parliament, this has already resulted in a paradigm shift in how institutions view the importance of making their data publicly available.

However, there are also considerable risks associated with making information public, as one inherently relinquishes the “narrative sovereignty” (Haslacher) in the process. So, users and OGD providers must have mutual trust.

If you publish data as open data, as an institution, then you give up narrative sovereignty. That is often insanely risky. And also, the question, can other people work with it? This can lead to really horrible misunderstandings. [...] I think the hurdle for any institution is relatively high to hand over this narrative and explanatory competence. (Haslacher)

Providing sufficient contextual information alongside data is also an essential task that the Parliamentary Directorate aims to achieve through its data platform. For Hofer, this represents one of the key challenges for OGD providers, as it is also crucial to prevent misunderstandings and misinterpretations.

6.2.2.4 Role in democracy: Facilitating transparency

The role of OGD, especially in democracy, was arguably the most central topic discussed in all interviews. I will now focus on the role interviewees ascribed to OGD platforms in terms of their democratic significance. Key themes related to OGD's role in democracy include transparency and legitimization, the social construction of data, and OGD as a tool for journalists.

Transparency

Transparency is one of the key roles that interviewees attribute to OGD. The availability of data enables us to understand and verify government processes and decisions, as well as to hold politicians and public administrators accountable. When information is withheld, it creates suspicion, particularly among journalists.

If the government is doing something in its ivory tower and nobody is aware of what is going on, and it is not generating any output in terms of data, then for me, that is perhaps a small aspect of a democracy that is not working, but it is definitely an aspect. And if a government does not have much to hide, then it should just publish it. (Kohrs)

For Thür, making OGD available is a "way in which a democratic state can be accountable to its citizens". Both Thür and Hack use the term "proof of performance" in this context.

The availability of data and information can exert significant pressure on administrative and government bodies to maintain coherence in communication. Haslacher describes the function of OGD as similar to a court of audit, which can be understood as a public control body that ensures that (financial) figures add up. Knowing that information is publicly accessible to everyone, or to a court of audit to review, motivates administrative bodies to ensure that there is no discrepancy between the communicated political message and the actual data published.

On a meta-level, I believe that open data theoretically has the potential to function like a public audit office. The nice thing about the court of audit is that it does not audit everything. But every public body has it permanently in the back of its mind, or should, because it could come by at any time and take a look. And I believe that the obligation to make things transparent, to publish them, can have exactly the same effect. So, if I know that every one of my procurements will be published somewhere, then it is logical for me to think ‘phew, yes, does that look good out there?’, so to speak. (Haslacher)

On a less institutional and more individual level, open data lays the groundwork for enabling citizens to fulfill their responsibilities in a democracy, as it helps ensure that people can adequately inform themselves to make informed decisions, such as when voting. This is particularly true for data related to parliamentary processes, as individuals should have sufficient information about the actions of the candidates they are voting for. If not, the very essence of how democracy is supposed to function may be called into question, as Hametner argues:

I find it very problematic that many processes – and by ‘processes’ I do not mean legal processes, but also bureaucratic processes – sometimes take so long that you may not be able to inform yourself about government actions fully before elections. And if that does not exist, if there is no such openness, you have to ask yourself: how legitimate is this election at all? Is it all about vibes anyway? Are we a vibes-based democracy, rather than a fact-driven one? (Hametner)

So, this public transparency can foster trust in public institutions and governments. Kohrs illustrated this as “small building blocks” of information that, together, form the basis of confidence in the government and ultimately in democracy itself.

Basis for policy-making

Another significant aspect of OGD as a “basic infrastructure” is its role in aiding decision-making. In other words, when information about governmental administrative processes is made public, people can understand why (policy-)decisions are made and are ultimately more likely to support them.

As Hack explains, open data enables multiple actors to agree on a basis for debate, rendering data a “social fact” that is negotiated and subsequently manifested. Even if people distrust data, it serves as a starting point for political debate. An example of this, mentioned by several interviewees, is the COVID-19 pandemic. The way information was provided and communicated significantly affected how well restrictions were perceived and adhered to by the population (Lind, Hack). In general, the more information, such as case numbers or death rates, was communicated in a transparent and comprehensible manner, the less room there was for speculation and mistrust.

The availability and quality of OGD also influence how effectively academia and researchers can collaborate with policymakers. The more comprehensive and better the data, the more accurate the predictions and results can be. As I will explain later (see Chapter 6.2.4), this is also one of the reasons why the Parliamentary Directorate collaborates with the University of Vienna to enhance the platform's appeal to academics.

Tool for critical journalism

The last role clearly assigned to OGD by the interviewees is as a tool for critical journalism, a distinction particularly notable since I interviewed journalists. Hofer, for example, compares OGD to journalistic tools like “laptops, recorders, or pens” and adds that he wishes journalists would use this tool much more often.

I believe and I hope – not from an administrative perspective, but from a private one – that journalists will make much more use of this tool. Because it can be used to quantify statements, not only to refute statements, but also to verify them easily. (Hofer)

Just as data is considered a “basic infrastructure” in a democratic state, it is also part of the “basic tools” journalists use. Lind calls data in her work as a journalist the “source number one”; Kohrs compares the significance of data for data journalists to that of a press conference for political journalists; Klatzer views data as the “factual underpinning of stories”; and Thür sees data as a means of telling and uncovering connections.

So, the role of OGD in promoting democracy largely stems from its use by journalists. Thus, the meaning of OGD arises from the principles of journalism and freedom of information in society. The democratic value of OGD is “derived from the added value of journalists and researchers” (Hofer). OGD enables or assists journalists and researchers in fulfilling their roles as watchdogs in society, thereby contributing to the fostering of trust in democratic systems.

It is also important for us in the media that we can, for example, make maps and visual representations, which in turn is important for informing the population. I do not want to overplay the importance of my job, but if the data did not exist, it would be difficult for us to inform other people, which would not be particularly encouraging of basic trust in democracy. (Kohrs)

The interviewees argued that using OGD is somewhat connected to a sense of duty. In other words, because it is the task of journalists to assess information critically and present it to the public, this responsibility also includes engaging critically with OGD. Even more so, if data is unavailable, it is journalists who have both the right and the obligation to demand that the information be made public. Without critically assessing data, its value for democracy diminishes: “The fact that something exists

and is published does not automatically mean that someone has had the time to take a critical look at what it says” (Hametner).

However, this critical assessment of data is not limited to journalists. “The availability of information as such in a public way is super relevant for participation or even just for the critical view that anyone can simply look it up if he or she wants” (Hametner). Therefore, OGD must remain open to the public, even if accessibility cannot be guaranteed for everybody, as I will address later (see Chapter 6.2.3).

6.2.2.5 Summary: OGD as performative and situated

To conclude, the meaning of OGD is performative and situated. Depending on who uses the data, its meaning changes. The perception of OGD platforms in society is directly influenced by who engages with the data and how it is presented. For journalists, OGD is a “tool for critical journalism” (Klatzer), a “basic infrastructure of a functioning state” (Hametner), an instrument to ensure government transparency (Haslacher, Kohrs), as well as a “social fact” and “basis for decision-making” (Hack).

As I will outline later (see Chapter 8), facilitating OGD’s meaning is closely linked to trust-building processes: the audience trusts journalists, as described by Carlson’s (2017) concept of journalistic authority, and journalists trust the data and its providers, allowing these data platforms to become important actors in democratic societies. This trust in data by journalists is driven by the institution’s credibility and the quality of the data itself, and vice versa. Additionally, OGD providers trust intermediaries to ensure that the data is not taken out of context or used for manipulation.

There are situations where OGD becomes a source of tension, such as debates over which data to trust. However, it also acts as a linking element, for example, in building trust in institutions. I will examine OGD’s role more closely later (see Chapter 7), connecting it to Gieryn’s (1983, 1999) concept of boundary work and Star & Griesemer’s (1989) notion of boundary objects, as well as Carlson’s (2017) idea of journalistic authority.

6.2.3 Expertise: Intermediaries as a necessity

One of the main challenges related to OGD is that one needs to possess specific knowledge to work effectively with this type of information. There is a need for specialized intermediaries to translate the information (Baack, 2015). I will now lay out arguments that emerged during the interviews and coding process regarding questions about expertise. These include: the accessibility and processing of OGD, the required competence to work with data, how journalism works with data in particular, and the challenging distinction between OGD-experts and non-experts. This theme reveals the tensions surrounding OGD and therefore provides a basis for examining these conflicts in the light of boundary work (Gieryn, 1983, 1999) and gatewatching (Bruns, 2009) practices (see Chapter 7).

6.2.3.1 Accessibility and processing: Data not open to everyone

When it comes to the accessibility of OGD, most interviewees argued that, at least in theory, everyone would be able to access open data. Above all, it depends on who even has an interest in data. Most interviewees generally agree that it is possible for interested laypeople to access and work with OGD, depending on the purpose for which the data is needed and the quality of the data provided.

I do not think I would deny anyone the basic ability to work with data, [...] if you bring a bit of passion and ambition to a project. Reading, thinking, and working with open data is within the realm of possibility for everyone, depending on the format. (Hametner)

If it is well-prepared and you only need it for quasi-reuse, and do not have to prepare it yourself, I believe that many people should be able to work with this data. (Lind)

For Hametner and Thür, the larger issue is that much data is not available at all. “The problem is more that we get data at all and less how high- or low-threshold it is” (Thür). The “availability of information as such” is “already super relevant” (Hametner). “Whether it is open data or not” only changes the “degree of participation,” but the crucial step is to have information published in the first place (Hametner).

However, the interviewees agree that specific skills are needed to access and process open data, which I will explore in detail later (see Chapter 6.2.3.2). This required knowledge leads to systematic exclusion, which interviewees criticized. Nevertheless, the interviewees also admitted that such highly technical and raw information will naturally always need to be translated by specialized intermediaries.

This is a tension that is quite challenging to resolve in practice, as Hametner argues: “The good and bad thing about raw data is that it is not processed.” It would be inappropriate for OGD to come with a handbook detailing how it should be used, particularly when it originates from public administration or governments: “You are not guided through the data, but that is kind of the point?” (Hametner).

An example of this tension between preparing data to make it more accessible versus providing raw information free to be interpreted by whoever is exemplary charts. For example, the Austrian Parliament has also published “showcases” on its platform, featuring exemplary graphs and articles derived from publicly available datasets, such as the speaking times of male and female members of parliament. Hack and Haslacher argue that it is beneficial for OGD providers to also publish their analysis and results alongside raw data. This allows users to compare whether they achieve the desired results and helps them understand what data can be used for or is intended to be used for.

In this context, AI has been mentioned several times during the interviews. Some interviewees argue that AI could help alleviate some of the struggles associated with making OGD accessible to everyone,

particularly in cases where there is a lack of technical skills. Kohrs and Haslacher see the most considerable potential for AI use in OGD processing tasks, such as file conversion or data summarization.

However, the interviewees are also skeptical about leaving all steps to AI tools, as the critical examination of data – since this requires more than just technical skills – should be performed by a human rather than left in an artificial black box: “Honestly, I would not want to rely on putting a [journalistic] story into a black box” (Haslacher).

For Hofer, the rise of AI tools also emphasizes the importance of data itself. Not only can AI systems lower the barrier for those who want to work with the data, but the rise of AI systems also enhances the role of data in society, as AI systems cannot function without it.

6.2.3.2 Competence: the many toolboxes required

As already mentioned, a significant hurdle in utilizing OGD is a lack of competence, which systematically excludes people from accessing and processing this information. Based on the interviews I conducted, the skills necessary for working with OGD are technical, journalistic, political, and legal skills. However, these skills may also vary from case to case, depending on the type of data being processed and the intended purpose. As several interviewees illustrate, a data journalism project is ideally realized through a team effort, as “you always come across points where you need others not only for technical tasks, such as data queries, but perhaps also content experts”. Thus, the “interaction between people who use and people who interpret data” is important (Kohrs).

Technical skills

I will begin by outlining the technical skills needed when working with OGD. All interviewees agree that a fundamental understanding of the technical process is essential for effectively using and comprehending OGD. This includes the ability to use search engines to understand and navigate data platforms, knowledge of how spreadsheet programs operate and how to utilize them, as well as a basic understanding of data formats to make sense of metadata explanations.

Some interviewees admit that they did not have sufficient technical knowledge and experience to work with OGD in greater depth, illustrating that this also hinders their ability to conduct data analyses independently. As a result, some intermediaries themselves need (technical) translators.

You must be technically skilled in some way or have an understanding of the necessary interface or tools to obtain the data. [...] I wish I did not need a translator for data that already exists – a technical translator. I know data exists, but I am unable to convert it so that I can view it. (Klatzer)

Another consequence of this technical focus in OGD that should not go unmentioned is the male dominance in the field of data journalism. As I have reflected already (see Chapter 5), my interviewee sample is also clearly male-dominated due to the limited availability of female data journalists in Austria. Thür argues that this is because many individuals enter data journalism with a technical background, which is often male-dominated, rather than coming from a journalistic background, a field that tends to be more female-dominated.

Journalistic skills

I will now elaborate on the journalistic skills necessary to make sense of and present OGD. The skills I summarize as journalistic can be described as critical thinking, a “feeling for what is realistic and relevant” (Hametner), “craftsmanship” (Haslacher, Thür), and knowing where to find what kind of information. Essentially, working with OGD in journalism follows a logic similar to that of non-data-driven stories. The first step always centers around the questions: “Why do I want data, what do I want to do with it? What story do I want to tell?” (Thür).

Then, in the next step, identifying which data can be found was noted as another necessary skill by several interviewees. “Sometimes you have to dig a little deeper into where to find which information, which is not always self-evident” (Hack), which is why it can be helpful to rely on the expertise of others.

I need a certain special interest in order to find something interesting in the big haystack of open data on data.gv.at³. So, if you do not have someone who knows the subject and can tell you where the interesting information is, then you will not find anything there. (Haslacher)

At the same time, critically assessing the data one works with is another essential journalistic skill, necessary to avoid misinterpretations or mistakes in the analysis of that data. It is essential to be critical and interrogate the data, which Haslacher describes as skills that “journalists are taught anyway.”

In a sense, these journalistic skills are also connected to mathematical skills, as one needs a basic understanding of what constitutes a realistic outcome and must be able to interpret basic graphs or understand what a percentage value represents, for example: “I need to be able to do basic mathematical operations, draw conclusions, assess and put into context” (Hack).

Specialized, political knowledge

A kind of competence that may vary from case to case, is what I will call specialist knowledge. Concerning the Austrian Parliament’s open data platform, this includes political knowledge. This means

³ a portal for all available open public sector data in Austria

users must understand what the Parliament does, the type of data it is likely to provide, and how it can be interpreted.

You have to know what data the Parliamentary Directorate collects in the first place. [...] If I do not know that there are such things as review deadlines, for example, then data will not help me either. So, I think you have to have some idea of what the Parliament collects and what the Parliament does. (Klatzer)

Hofer describes this specialized political knowledge as informal knowledge that extends beyond formal rules, encompassing knowledge of political practice that is often invisible.

You do not just need formal knowledge about laws and rules; you also need this informal knowledge about processes that are not written down, about perhaps the pre-parliamentary process, about party dynamics, about the differences between different parties. I think all these things that play into this are a very big topic where you simply need a certain amount of knowledge from a data user's perspective. (Hofer)

As Hametner argues, specialized editors, particularly in the field of politics, have a greater potential to work with OGD, as this data comes from public authorities covering political topics. In other words, political editors are more familiar with political processes and are more likely to possess this informal political knowledge than editors from other departments. The same applies, of course, to economic topics or data and business journalists, for example.

Legal knowledge

Lastly, I would like to briefly address legal competence. This includes knowledge on topics such as data licenses, data privacy, and copyright. Legal, political, and technical competence is a skill required not only from users of OGD but also from providers, as Hofer pointed out. For OGD providers, assessing whether and in what form data can be legally provided or used constitutes a tremendous workload in terms of legal knowledge.

6.2.3.3 Journalism: The power of transforming numbers into narratives

I will now summarize the findings I have coded as “journalism”. This includes comments on how interviewees view the role of journalists in society in general, and particularly concerning the role of OGD. To understand how journalists give meaning to open data platforms, it is essential to comprehend their perspective on their role as intermediaries and within society. Thus, the arguments I will lay out revolve around the responsibilities and tasks of (data) journalists, the significance of data for journalism, and the challenges journalists face when working with OGD.

Journalistic responsibilities

Most of the interviewees agree that journalists must translate information, whether it be OGD or other types of information, as they research, present, and contextualize facts for a broad audience in the clearest way possible. In doing so, journalists must highlight problems and challenges in society. This function is described as an “intermediary function” (Thür), a “contextualization” (Hack), and a “control function” (Lind, Haslacher) that, overall, forms an “obligation to prepare data as objectively as possible” (Kohrs).

These obligations require a considerable amount of time and resources, which is why there must be journalists who have both the privilege and the obligation to provide the necessary contextualization of data.

It is my job to not just to tell people that this is one opinion and that is the other, but to say that this is one opinion and that is the other, but if you look at the figures, this one is more likely to be true or contextualize, because that is a time commitment that perhaps many people do not have.
(Lind)

Hametner, for example, mentions that journalists are “lucky enough to be paid to take a critical look at public statements,” which also makes it a responsibility to work through the data thoroughly. So, “society needs people who deal with certain topics for a long time and who are given the opportunity to remember them”. This also links back to the role of journalists as a control institution, this watchdog function that is often described as one of the core values of journalism in democratic societies (Bennett & Serrin, 2005; Blum, 2014; Hargreaves, 2014).

As I will explain in more detail later (see Chapter 6.2.4), the Parliamentary Directorate also relies on the control and translation function assigned to journalists when defining its target audience. As Hofer laid out, the Parliamentary Directorate cannot provide data in a way that is accessible to everyone, but hopes that journalists will do so for them through translation.

Impacts of data in journalism

The interviewees describe various impacts data can have on journalistic stories. Klatzer, for example, uses data to establish a factual basis for his stories. Therefore, while the data is utilized in journalistic work, it does not necessarily appear in the published product. For Klatzer, the data often operates in the background.

At the same time, data can also serve as a starting point for journalistic stories. This can sometimes happen somewhat “accidentally” as well. The interviewees mention a kind of basic curiosity and an intuition for what might be interesting as a starting point for a data-driven story. In other words, some

interviewees note having an initial suspicion that they then test with open data to determine if this can be a valid story. For example, Klatzer characterizes one of his stories as a “blind flight”:

I did not even know if it was a story. Now I think it is a story. It was like flying blind. I really wanted to know what these parliamentary inquiries were all about. There were almost 200 questions in one day, and then a story automatically emerged for me. (Klatzer)

In this context, it is also important to note that, in addition to revealing data, facts, or supporting a story, it may also become clear that an initial suspicion is incorrect. In such cases, data can contradict and thus alter the narrative, or even shut down a story (Haslacher, Hack, Klatzer, Lind).

Journalistic challenges

Nevertheless, working with OGD, or data in general, also poses challenges for journalists. One, if not the, major hurdle is a lack of resources, as all interviewees emphasize. Since working intensively with data requires more time and personnel resources, many interviewees acknowledge that the role of OGD in journalistic reporting could be greater if resources were not so scarce; there appears to be greater potential than is currently exploited. Despite the advantages of open data being raw information that is mostly not framed in a particular way, due to the lack of resources, journalists often revert to using data that has already been processed.

I am being very critical of journalism here, but journalists often simply allow themselves to take data from a source that has been made available to them, i.e., that has already been processed, simply because of time pressure and a lack of resources. (Klatzer)

Many interviewees provide concrete examples of projects that were never realized or continued due to a lack of time and personnel. In “day-to-day journalistic work,” which involves rapid information processing, a lack of time is the primary reason why data stories go unrealized (Kohrs), particularly when information is readily available in a pre-processed format from sources such as press offices. However, most interviewees note that this trend is regrettable as it is important not to rely solely on pre-processed information, particularly in a political context.

This lack of resources poses a significant challenge not only for journalists but also for OGD providers. As Hofer explains, “neither private companies nor public administrations have unlimited technical resources,” which limits what can be offered in the first place. At the same time, however, working with OGD can also save time in the long run. This is especially true for recurring processes where it makes sense to automate information processing.

Another challenge around the value of using OGD in journalistic reporting is exclusivity. On one hand, interviewees describe OGD as a fast and reliable resource. On the other hand, openly available data

undermines the exclusivity that journalists depend on, particularly in investigative work. Klatzer, for example, describes an ambivalence he feels towards OGD; a tension between supporting the idea that administrations must transparently provide information and the fact that if information is available to everyone, it loses some of its exclusive relevance. If data must be requested, “a feeling of exclusivity” (Klatzer) accompanies the acquired information, whereas open data lacks this, making it less interesting or valuable to journalists. Thus, there is a certain tension between the rapid accessibility and exclusiveness of OGD in journalism.

6.2.3.4 Experts versus “lay” people: A blurry line

Another persistent theme in all interviews was the role of individuals traditionally considered “lay” serving as temporary experts in a specific field. Thus, I will now discuss the arguments made by interviewees regarding who is perceived as an expert and why. All interviewees grapple with the question of who they consider to be an OGD expert, which also relates to their hesitance in identifying themselves as data journalists or data experts, as elaborated previously (see Chapter 6.2.1).

Individual knowledge as a resource

Before I explain where interviewees drew a boundary between OGD expertise and knowledge that is traditionally not regarded as expert knowledge, I want to clarify why they attribute such an important role to “lay experts”. Some interviewees note that translating very specific data in particular contexts might sometimes also fall within the responsibilities of engaged and highly specialized citizens. Thus, interpreting data is a task that is by no means exclusively reserved for journalists. As the volume of openly accessible data increases, interpreting it becomes a responsibility that cannot be borne, so to speak, by journalists alone:

Overall, I think the challenge is that when so much is published, it happens in a form that actually makes analysis more difficult. That is why I think we really need experts who can interpret and assess this correctly and find interesting stories. And they do not always have to be journalists. On the contrary, they are often people at universities, activists, NGOs, other people. (Haslacher)

There are many instances in which journalists collaborate with individuals who possess specific expertise in a given area. They work with OGD not because of a technical knowledge of data but due to their understanding of the field from which the data originates or that the data addresses. This is particularly true for very local topics, for example. Or, as Lind illustrates, this could also be observed throughout the COVID-19 pandemic. A former statistics professor, for example, began compiling and analyzing case data:

We saw that with Covid, where Neuwirth, a former professor, now retired, actually compiled the initial figures and tried to make a contribution in some way. You always have individual people who are deeply involved in certain areas where they somehow have a personal interest. (Lind)

The interviewees characterize this as a valuable resource rather than competition, and some mention having previously collaborated with interested individuals who act as temporary experts. It appears that both groups share similar interests, aiming to benefit society by sharing information and knowledge. Such “lay” experts offer specific expertise in their fields or within data processing, while journalists possess expertise and institutional credibility in translating and disseminating information.

No expert prototype

Consequently, when it comes to defining who is considered an OGD expert, all interviewees agree that this is almost an impossible generalization to make; the distinction between OGD experts and OGD laypeople is blurry. Most interviewees define expertise in terms of experience with OGD. In other words, the reputation of expertise can be earned by investing time and effort. The more someone works with OGD, the more they are regarded as an expert.

With experience also comes working speed, which Kohrs also mentioned as an indicator of OGD expertise. Data journalists or OGD experts are quicker at working with data than laypeople who have never processed a complex data set before.

Most of these arguments relate to users of OGD as experts. This primarily stems from the fact that all interviewees, except one, see themselves primarily as users of OGD and not providers, in contrast with Tong (2022), who argues that by analyzing and visualizing data, journalists become OGD providers themselves. Nevertheless, most interviewees also mention providers as OGD experts in relation to which data source they trust. In other words, for users to trust data enough to work with it, they need to trust the provider, and this trust often derives from the level of expertise attributed to an institution in processing data.

6.2.3.5 Summary: Boundaries of expertise

To summarize this section, expertise is a crucial factor when it comes to OGD for many reasons. First, although OGD should be openly available and accessible to everyone, it is impossible to work with OGD without the necessary expertise. This encompasses technical and journalistic skills as well as legal and specialized political knowledge. Thus, there will always be a need for intermediaries with these skills (Baack, 2015; Tong, 2022).

Furthermore, OGD is an important asset in journalism itself, and vice versa, journalism is an important asset in OGD practices. Using data in news reporting can help build arguments and critically assess

political narratives. At the same time, as already argued earlier (see Chapter 6.2.2), OGD needs to be rendered relevant by intermediaries such as journalists. However, OGD also presents challenges for journalists, as the field faces limited resources, and working with data can be very time-consuming.

Lastly, it is unclear how to define who qualifies as an OGD expert or layperson. The interviewees emphasize the importance of “lay” expertise, or rather expertise that is traditionally not labelled as such, as a valuable resource for working with OGD. Thus, this blurry distinction is not very relevant anyway. Interestingly, although journalists render OGD relevant, they do not claim sole authority as intermediaries. I will further analyze how these demarcations relate to Gieryn’s (1983, 1999) concept of boundary work and what it means that journalists decide not to label themselves as data experts. I will also explain how OGD becomes a facilitator of quality journalism through journalistic meaning being given to data by mobilizing Star & Griesemer’s (1989) notion of boundary objects (see Chapter 7).

6.2.4 Parliamentary data: Case Study at the Heart of Democracy

I will now outline arguments linked explicitly to the Austrian Parliament's data platform that arose during the interviews. The interviews revealed how Parliamentary data is, overall, a vital resource for journalists and a positive example of open data platforms. However, the interviewees also mentioned some areas for improvement. Furthermore, I asked about how they access the data, which datasets they use, and what they do with it. Finally, the interviewees shared their views on the contribution of Parliamentary data to civic engagement and its relevance in a democratic society.

Generally, as previously described (see Chapter 6.2.2.1), Hofer notes that the Parliament’s data is quite specific compared to data on other topics, as there is more room for interpretation and a greater need for background knowledge about the political process. Moreover, Hofer stated that the Parliamentary Directorate does not aim to “control the narrative” created with the data, but instead only provides the information it can legally share, with the necessary context.

In general, Hofer explains that the Parliamentary Directorate has defined four target groups regarding the data platform: researchers, journalists, civil society, including NGOs and civil society projects, and businesses, as these groups have the greatest interest in the Parliament’s data. Since data platforms can hardly be made accessible enough for the general public, the Parliamentary Directorate decided to focus on journalists and civil society as their target groups instead, trusting that it is their responsibility to translate information and provide knowledge to the broader public, as Hofer highlights.

We could argue that we want to also reach ‘average joe’ that maybe worked with excel at some point but did not engage with data like this otherwise. But that is very difficult for us. So, we said: ‘Okay, in our view journalism has the responsibility to prepare such things for people that follow the media’. (Hofer)

Moreover, the Parliamentary Directorate consciously refrains from contextualizing the data and prefers to leave that step to journalists who are trained to do so.

In my opinion, journalism has a very important task here, namely, to put the data into context in everyday life. In other words, to attach a certain significance to the data. This is something that we as an administration can neither do nor want to do, because we are not there for this and are not qualified to analyze this data outside of an analytical context. (Hofer)

6.2.4.1 Parliamentary data as an important resource

Overall, all interviewees agree that the Parliament’s data platform is a valuable resource and a strong example of a well-designed open data platform. Both the content and presentation of the data receives overall approval from interviewees: “visually compelling and thoughtfully curated” (Lind), “it is important to provide context about how data was collected [...] and I think the Parliament’s data platform does that relatively well” (Kohrs).

Nevertheless, the interviewees all point out areas for improvement, particularly regarding the site’s structure. They all agree that significantly more necessary and important information could likely be extracted from the page than they currently are able to access and work with, due to the website’s concrete structure. In other words, some data is not as easily accessible as it could be. When it comes to customizing a data platform for (data) journalists, clear structures are essential, including a hierarchical page layout and a well-explained overview page that allows journalists to access information and data more quickly. Several interviewees also note that they lack the time to thoroughly explore the Parliament’s data platform to understand it before using it.

Another point of improvement mentioned by the interviewees is missing datasets, particularly, the absence of data tracking the voting behavior of individual members of parliament. Currently, only party voting behavior is tracked, and there are no electronic voting machines in use to collect data on individual voting behavior. One interviewee even points out that they have once double-checked a vote and found that the votes were not counted correctly.

When we investigated the topic, we found out that a vote was miscounted, and in reality, the result was precisely the opposite because people were not present at the moment. I find that rather problematic and hope that the voting machine, which is said to exist, is finally put to regular use. (Hametner)

Currently, votes are counted by tallying the number of people who stand up or raise their hands. Other interviewees also point out that this is “a farce” and “outdated” (Haslacher). Hametner described this situation as a “huge blind spot in a democratic system”. However, it must be noted that the lack of such data is, in this case, a political decision that the Parliamentary Directorate cannot make because changing voting behavior and its tracking during meetings of the National Council requires an update of the Rules of Procedure Act – a change of law that has to be approved by the members of parliament.

6.2.4.2 Working with the Parliament’s data platform

When it comes to journalists working with the Parliament’s data platform, two subgroups can be identified based on how they access data: a technically inclined group that uses the Parliament’s API to download a JSON file and a politically focused group that primarily works with exemplary graphics or downloadable spreadsheets directly. This distinction largely depends on the set of skills of the interviewees, particularly technical skills.

The needs of these two subgroups also differ, as one group expects clear structures and complete raw data sets. In contrast, the other subgroup prefers pre-processed information that is more “digestible” but does not have technical requirements. As mentioned earlier (see Chapter 6.2.3.1), the Austrian Parliament has also published “showcases” on its platform, featuring exemplary graphs and complete articles, for example, about speaking times of male and female members of parliament. Interviewees refer to these showcases as a “prime example” (Haslacher) or “premier class” (Hack), however, highlighting that, preferably, such “showcases” are still always accompanied by complete access to the respective raw data as well.

To provide concrete examples of how interviewees utilize the Parliament’s data platform, Lind discusses how she once investigated the backgrounds of Conservative Party (ÖVP) members of parliament and their connections to party-affiliated associations. The motivation behind this inquiry was the ongoing coalition negotiations that were dominated by the economic wing within the ÖVP.

This was really interesting, I would not have thought that the associations would be so evenly divided. The Wirtschaftsbund [Austrian Economic Association] and the ÖAB [Austrian Workers’ Federation] are roughly the same size in terms of numbers. In this specific case, however, it was the case during the negotiations that the Wirtschaftsbund totally prevailed, which was a fascinating insight.

Another concrete example Klatzer mentions is his investigation of the evaluation period for proposed laws. This is a story idea he had prior to checking the data platform, and he found the necessary information to build a narrative around this initial incentive. The Parliament’s data served as the factual basis in this case, even though the data was not directly highlighted in the story, such as through graphs

or data-driven storytelling. However, Klatzer also explains that without this specific data, there would not have been a story.

This data underlined my hypothesis that evaluation periods are becoming shorter and are used for tactical reasons, as certain processes and deadlines have to be adhered to in the legislative process. In this case, the data showed that this was not the case. So, I used the data to underline a point. If it had not been like that, then the story would not have been possible to tell, because it would be pointless. There would not be the same effect. (Klatzer)

6.2.4.3 Democratic relevance of Parliamentary data

Lastly, I will summarize the interviewees' impressions of the democratic value of the Parliament's data platform. As previously mentioned, the platform serves as a central source for the interviewees, acting as an archive of democratic processes. On one hand, the site's value comes directly from the content available there. On the other hand, its democratic value also arises from who accesses the data and how it is processed – that is, the products that can be created from it.

The interviewees agree that while this data holds significant democratic potential, it is not always fully utilized. In other words, the data must be translated to become democratically valuable, which does not always occur to the same extent as the interviewees had wished, due to limited resources.

I think it is good that the Parliamentary data exists. But somehow, I am still missing this point of contact for the broader masses. If you ask me, 'How important is parliamentary data for democracy or participation in democracies?', I say parliament also needs a translator, and that is journalism, but journalism does not access this data that often. (Klatzer)

Although this journalistic translation function is closely linked to the democratic ideals and objectives of journalism, the interviewees also highlight the significance of translation services provided by other interest groups, particularly in the context of enhancing democratic values.

I think it is essential for the democratic formation of opinions about the government that it [the data] exists. But, I think it is all the more important for participation that they are easy to process. Because the easier they are to process, the more people can use them, the more people can compare whether they come to similar conclusions. (Kohrs)

For Haslacher, civic engagement and the Parliament's data platform are indirectly related. While this platform may not directly influence an individual's participation in democracy, the ability to work with such data expands the range of action and reinforces the argumentative foundation for interest groups.

This massively increases the possibility of participation in the end. Perhaps not for individual citizens, but for the organized interests of citizens. [...] my interest group can participate; I do not have to get involved personally. Civil society does not just consist of 9 million people, but of institutions and organizations. So, that indirectly really enables political participation. (Haslachner)

For Hofer, in an ideal world without technical challenges and limitations, an open data platform would make data accessible to everyone, from marginalized groups, such as blind individuals, to children. In other words, even kindergarteners would be able to research democracy through a platform optimized for all target groups across various areas, connected to an AI system that allows for playful exploration of the data through conversation. Additionally, the use of this platform would be integrated into schools and universities, becoming a staple in the curricula.

6.2.4.4 Summary: From Parliamentary data to public value

In conclusion, I would like to summarize three key findings regarding journalists' engagement with the Parliament's data platform. First of all, interviewees agree that the Parliament's data platform is a good example of how OGD should be provided. Positive remarks centered on the active engagement with the user community and the ease of contacting the Parliamentary Directorate. However, the website's structure is sometimes incomprehensible and opaque to users.

Moreover, there are various possibilities for downloading and engaging with data, depending on the interviewees' skills. Some tech-savvy journalists prefer to use the Parliament's API to download a JSON file, while others prefer direct download links or pre-processed data. In any case, the Parliament's data is often the basis, or "factual underpinning" (Klatzer), for a story, and is used to verify or falsify an initial hypothesis.

Lastly, the Parliamentary Directorate specifically focuses on journalists as one of four target audience groups instead of aiming to make the data platform available to everyone, a task that would be impossible. By doing so, the Parliament hopes that journalists will provide the broader public with meaning from the data. The administration is trusting journalists to bring Parliamentary data to life, so to speak, as it is journalists' responsibility to translate information and provide knowledge to the broader public.

6.3 Interim conclusion of empirical findings

To conclude, the ethnographic website analysis reveals that in the case of the Austrian Parliament's data platform, transparency is one of the key objectives and benefits as highlighted by the platform itself. As formulated by the portal, easy usage and detailed documentation are objectives to facilitate transparency and, ultimately, trust. Transparency is also one central aspect that the interviewed

journalists emphasize as the role of open government data (OGD) platforms. In other words, the intention and the way the platform is set up and imagined to be used mostly align with the interviewees' expectations of open data portals.

However, the empirical investigations also demonstrate that OGD platforms like the Austrian Parliament's need translators capable of interpreting data and conveying it clearly and understandably to a broader audience (Baack, 2015; Tong, 2022). This leads to tensions, such as between open access and exclusivity of journalistic information, trustworthy and non-trustworthy data sources, or who is considered a data expert and who is not. The interviews show, for example, that some interviewees are hesitant to label themselves as data journalists or OGD experts, as this demarcation proved to be blurry. Attributing meaning to OGD is closely linked to who uses the data, which is why data platforms are directly influenced by who engages with data and how it is presented. For example, the interviewees describe OGD as a tool for critical journalism, a basic infrastructure of a functioning state, and an instrument to ensure government transparency, as well as a social fact and basis for decision-making.

For OGD to fulfill such roles, intermediaries with the skills to interpret and present the data are crucial. In the case of the Austrian Parliament's data platform, this competence encompasses: technical skills, journalistic skills, specialized political knowledge, and legal knowledge. Interestingly, specialized and interested individuals that might traditionally be considered laypeople rather than OGD experts are acknowledged as a source of information and expertise by journalists as well, proving that the demarcation of experts versus non-experts is blurry, or even non-existent sometimes.

Still, OGD is an important asset in journalism as it helps to build arguments and critically assess political narratives. At the same time, journalism is important for OGD as it is journalists who render this aspect of OGD visible. Thus, the Parliamentary Directorate also uses its data platform as a way to gain trust by ensuring transparency, which is important for democratic institutions, especially in times of public doubt and skepticism.

I will unpack the ambivalence of transparency and often unavoidable barriers around OGD and how intermediaries and providers react to those by mobilizing the concepts of boundary work, journalistic authority, and gatewatching, and lay out how the data itself acts as a bridging element across these tensions to facilitate trust (see Chapter 7).

7 Discussion

In this chapter, I will now discuss how the previously described findings (see Chapter 6) relate to the literature and conceptual frameworks introduced earlier (see Chapters 2 & 4). I will do so by mobilizing Gieryn's (1983, 1999) concept of boundary work, as well as Bruns' (2009) notion of gatwatching and Carlson's (2017) elaborations on journalistic authority to identify where and how journalists and open government data (OGD) providers draw demarcations in relation to OGD platforms. I will clarify that these demarcations are, however, not used by journalists to establish themselves as experts in the field of OGD but rather as journalistic intermediary experts. Moreover, I will then utilize Star & Griesmer's (1989) elaborations on boundary objects to examine the role of OGD itself amidst these tensions and demarcations, thereby returning to my research questions of how journalists give meaning to OGD platforms (see Chapter 8).

7.1 Demarcation practices in data journalism

Before addressing OGD's role as a boundary object, I will lay out the demarcations that became visible through the interviews, which include boundaries drawn between data experts and non-experts. Interestingly, many interviewees were hesitant to label themselves as data journalists or data experts and even highly acknowledged the expertise of what can be described as lay experts, or other individuals typically not considered OGD experts. Moreover, I will argue that by distinguishing which data source to trust, journalists establish authority, giving them agency to act as experts of information curation (Bruns, 2009; Carlson, 2017). Lastly, I will explain that openly available information might contradict journalists' aim to acquire exclusive information to establish themselves as experts among their peers. Similarly, the idea of being open to everyone creates tension, as this ideal cannot be fully upheld in practice, particularly regarding the barrier-free accessibility of OGD platforms.

7.1.1 (Non-)Expertise: Aversion to authority

As previously outlined, working with OGD requires a wide range of skills, including technical, journalistic, political, and legal expertise (see Chapter 6.2.3.2). Since all journalists I spoke with have interacted with the Austrian Parliament's data platform and worked with this data before, they have experience in handling OGD. However, only three of the seven journalists I interviewed identify as data journalists. These three are either officially recognized as such in their contracts or work as freelancers. Therefore, the distinction of who is considered a data journalist is based on official credentials, like job titles, rather than daily work practices.

Similarly, most interviewees were hesitant to refer to themselves as OGD experts (see Chapters 6.2.1 & 6.2.3). They struggled to identify clear characteristics that define OGD expertise. However, most ultimately argue that experience is a key factor: OGD experts are quicker at understanding complex

datasets because they have encountered similar data structures or worked with the same data sources before. Although some interviewees admit to having such skills, they still hesitate to call themselves OGD experts.

So, considering how Collins et al. (2017) classify levels of expertise, a gap exists between the type of expertise that is mobilized and performed and the type that is perceived and promoted. With journalists processing data from the platform, publishing it, and providing feedback to OGD providers about discrepancies, they contribute to the field, thus performing contributory expertise. However, they assign themselves a role that Collins et al. (2017) classify as interactional expertise, or even non-expertise.

At the same time, all interviewees also emphasize the role of what could be called OGD “lay” experts. These are individuals who are personally interested in a specific topic and engage with relevant datasets. Journalists also regard them as experts on these specific datasets or topics because they often possess valuable experience and specialist knowledge. Therefore, journalists do not claim exclusive authority as data experts; instead, they prefer to collaborate with specialized individuals when appropriate. As Carlson & Lewis (2019) discuss, journalistic boundary work encompasses not only the acceptance or rejection of expertise but also the perception of actors outside of journalism as a threat. In this case, thus, interviewees do not perceive these specialized outside actors as a threat. This also aligns with what Kerr et al. (2007) notice: a rise in people without formal credentials still contributing meaningfully to scientific discussions – or, in this case, the interpretation of OGD.

Interestingly, many interviewees have initially reflected on who is considered an expert among OGD *users*, but later also note that OGD *providers* need to be experts in their field as well. None of the interviewees, except one, see themselves as OGD providers, which contrasts with Tong (2022), who argued that data journalists are also data providers because they not only curate but also generate and publish new data for media coverage. However, it is not surprising that the interviewed journalists do not consider themselves data providers, as they hesitantly view themselves as data journalists. Instead, the interviewees emphasize their role in translating data for the public; they see themselves as experts in journalism and as intermediaries, rather than data experts or data providers.

In conclusion, journalists distinguish between data journalism and other forms of journalism, as well as between OGD providers, intermediaries, and users, and, more cautiously, between OGD experts and non-experts. Despite these distinctions, contrary to what Gieryn (1983, 1999) argues, journalists do not use these boundaries to assert or expand their authority, as it simply seems unnecessary to position themselves as data experts. First, data journalism is a relatively small field in Austria. Additionally, because it requires extensive knowledge and skills, it is rarely performed by individuals alone but typically in teams, as many interviewees have indicated (see Chapter 6.2.3.2). Lastly, many interviewees

also recognize that the potential of data journalism remains untapped mainly due to a lack of time and staffing resources. As a result, there is little rivalry within the field, making it unnecessary for journalists to differentiate themselves as experts in data journalism. However, as I will argue later (see Chapter 7.1.2), boundaries between journalistic experts who understand what is relevant and accurate, and non-journalists who might struggle to identify pertinent information are used to establish authority and a “right to be listened to” (Carlson, 2017).

7.1.2 (Non-)Trustworthy data: Watching the data gates

Another demarcation practice identified through the interviews is the ability to distinguish between trustworthy and untrustworthy data. Generally, trust in data is strongly connected to trust in institutions seen as reliable, such as the Austrian Parliament, which interviewees describe as a “historical memory”. Therefore, journalists differentiate between data sources they trust and those they do not. They rely on their journalistic instinct and experience, a form of tacit knowledge (Olsen, 2018), to set boundaries between trustworthy and non-trustworthy information (see Chapters 6.2.2.2 & 8).

This process of filtering information and determining which source to trust has been described by Bruns (2009) as gatewatching (see Chapter 4.2.2): With the rise of social media and online journalism, the role of journalists as the sole gatekeepers becomes outdated. A similar trend can be observed with OGD platforms. Selecting relevant information, publishing it, and deciding which user responses are noteworthy were traditionally managed by editorial teams as the only gatekeepers, but now these steps can be bypassed online. Therefore, journalists are becoming gatewatchers who highlight, curate, and comment on relevant content. However, as Bruns (2009) concludes, journalists still play a vital role as highly specialized gatewatchers with institutional responsibility – a role that the interviewees relate to more than that of OGD experts.

The interviewees acknowledge and accept that more people can, at least in theory, access and understand OGD. However, they recognize the wide range of skills needed, including both technical and journalistic abilities. Here, the interviewees assert their expertise and authority as legitimate intermediaries, employing demarcation tactics to distinguish themselves from those who do not perform information curation professionally (Gieryn, 1983, 1999).

This grants journalists the authority to be heard by the audience, as outlined by Carlson (2017), who questions how journalistic findings become socially relevant representations of reality. The interviewed journalists struggled to precisely describe how they decide which information is relevant and how they build trust with the audience. However, the interview results show that two key elements in establishing journalistic authority are transparency and facilitating dialogue.

Thus, as also argued by Gieryn (1983, 1999) and Carlson (2017), authority is established through discourse and enacted through ongoing debate. Journalists' authority as intermediaries is not stable or separate from other actors but is instead built through constant challenges from the audience. The interviews further suggest that journalists try to make curation practices as transparent as possible by clearly indicating data sources and methodologies, for example. By doing so, they hope to build and maintain the audience's trust.

Nevertheless, it has to be noted that not all boundary work is equally recognized, as described by Pereira (2019), who points out that class, race, and gender influence one's ability to set boundaries and participate in "credibility contests" (Gieryn, 1999). Claims of demarcation can fail when made by individuals marginalized by existing epistemic hierarchies. In this research case, however, it is not possible to determine whether and what differences exist in the demarcation mechanisms of different groups of journalists. The sample of respondents was too small and too homogeneous for this (see Chapter 9.2). What is certain, however, is that official job titles, for example, significantly strengthen the respondents' self-confidence in describing themselves as experts (see Chapter 6.2.1.1). It can, therefore, be assumed that official credentials can create an advantage for conscious or unconscious boundary work.

Although the interviews revealed a vivid exchange among intermediaries, OGD providers, and users, this exchange appears to be concentrated primarily among individuals interested in OGD. Enabling dialogue and providing transparency are not just relevant for journalists to establish themselves as legitimate intermediaries and gatewatchers (Bruns, 2009; Carlson, 2017), but also for OGD providers. For journalists to consider a data source or institution as credible, OGD providers also need to facilitate dialogue with journalists and interested individuals, for example, by offering contact details to data experts of the institution, and be transparent about data acquisition, methodologies, and technical details, which includes clear documentation of metadata (see Chapter 6.2.2.3).

7.1.3 (Non-)Exclusivity: Antithesis to data openness

The interviews also revealed that OGD platforms create internal contradictions, which I will explain in detail now. First, the idea of OGD, which is based on complete transparency, conflicts with journalists' efforts to position themselves as important mediators by obtaining information exclusively. Once information is shared with a broad audience, such as OGD, it loses its journalistic value because it becomes less exclusive, as pointed out by one of the interviewees.

However, as Bruns (2009) also argues, it can be countered that the relevance of information is created by curation experts, specifically journalists, who select and contextualize information. Therefore, journalists can distinguish themselves by preparing data appropriately and in various ways, especially since dealing with OGD requires specialized knowledge and expertise. In concrete terms, this occurs

through detailed data analyses that yield new findings or reinterpret existing data from a different perspective. In other words, although the data is theoretically available to everyone, data-savvy journalists possess the expertise and, as some interviewees describe it, the privilege of being able and allowed to work with and interpret OGD. Thus, journalists can create the initially missing exclusivity of OGD by skillfully curating information (Bruns, 2009), thereby also establishing journalistic authority (Carlson, 2017). In this sense, the concepts of gatewatching, journalistic authority, and boundary work can be combined to understand how journalists give meaning to OGD (see Chapter 8).

Furthermore, the principles of OGD present a challenge not only for journalists but also for OGD providers, as the idea of full transparency conflicts with the need to protect data from misinterpretation, for example. Public institutions that share their data openly under the premise of open government (see Chapter 2) must carefully determine which information can be freely shared, as this requires considerable expertise, especially in legal knowledge (see Chapter 6.2.3.2).

These demarcation practices walk a fine line: publishing too much information can, for example, threaten data privacy. Conversely, withholding too much information can foster mistrust. The interview with the open data spokesperson of the Parliamentary Administration reveals that OGD providers also intentionally use demarcation strategies to build trust and establish their authority as credible institutions (Gieryn, 1983, 1999). As previously mentioned, this is primarily achieved by maintaining ongoing communication with interested journalists and stakeholders, and providing transparent explanations for decisions, such as why specific data is published and others are not.

In line with Carlson's (2017) concept of journalistic authority, OGD providers use demarcation mechanisms to demonstrate what could be called institutional authority in this context. As shown in the interviews, this institutional authority interacts with journalistic authority, and vice versa; both forms of authority can strengthen or weaken each other, and together they can build public trust in democratic processes overall (see Chapters 2 & 6). The findings also suggest that Brun's (2009) argument about a shift from gatekeeping to gatewatching is evident among OGD providers. By opening up information based on OGD principles (see Chapter 2), public institutions give up their exclusive role as the sole gatekeeper and allow the public, or intermediaries, to interpret the data themselves. This approach inevitably results in a loss of control over the narrative sovereignty. OGD providers must, to some extent, trust their ability to provide enough context with the data to prevent misinterpretations, and also trust the users of their data, such as journalists. I will argue in detail later that these demarcation practices to facilitate trust are crucial in giving meaning to OGD itself (see Chapter 8).

7.1.4 (Non-)Accessibility: Barriers to open data

Lastly, similar to the contradiction between open and exclusive information, the principles of OGD also present a contradiction regarding accessibility. In theory, OGD is available to everyone without

restrictions; however, in practice, this is not always achievable. This problem arises not only from the need for specialized knowledge to understand and utilize OGD, but also because some groups are categorically excluded from accessing information, as open data platforms are often not designed to be accessible in a barrier-free manner. This is less a deliberate barrier and more a reflection of society's failure to meet the needs of all population groups, from which open data platforms are no exception.

It is, admittedly, challenging to address this situation because the concept of OGD is based on providing information in its raw form, meaning that additional interpretations or classifications, such as translation into simple language, are intentionally left out. The interviews make it clear that journalists and OGD providers are aware of this, but they are also unsure of a solution. One possible approach could be to offer data in two formats: in its raw form, fully aligned with the concept of OGD, and as an interpreted and categorized version that is easier for the general public to understand and fully accessible. However, as shown in the interviews, creating an open data portal that is truly accessible to everyone is impossible, which makes it essential for intermediaries, such as journalists, to translate the data (Baack, 2015; Tong, 2022).

To summarize, the “open” aspect of open data also presents challenges for intermediaries, institutions, and the public. However, working with OGD also offers an opportunity to build trust and establish, defend, and strengthen authority. I will now continue by analyzing the role of data itself at the center of these conflicts using Star & Griesemer’s (1989) concept of boundary objects, exploring how OGD can be flexible enough to operate in different worlds while still maintaining a strong, consistent meaning across them.

7.2 Bridging the tensions: OGD as a boundary object?

The interviews point out that the role of OGD varies depending on who uses the data and how. The perception of OGD platforms in society is shaped by who interacts with the data and how it is presented (see Chapters 6.2.2 & 8). Although OGD platforms can create tensions, as discussed earlier (see Chapter 7.1), they also provide opportunities for negotiation to resolve these tensions. OGD promotes cooperation across different areas by encouraging stakeholders to work together even if they do not reach complete agreement. Thus, OGD could be seen as what Star & Griesemer (1989) label as a boundary object.

In collaboration and negotiation processes across domains, the authors identified boundary objects as a crucial element because they are flexibly adapting to the needs of different interest groups while maintaining a consistent identification across sites (Star & Griesemer, 1989). In the case of OGD, this means that although different target audiences might use OGD for various purposes and interpret it differently, OGD still functions as a sturdy “social fact” that can serve as a common “basis for debate”

(Hack). Especially in fields where cross-domain collaboration is routine, such as data journalism, these boundary objects play a vital role in enabling cooperation.

So, as a boundary object, OGD can connect different social worlds or communities, for example, by establishing a shared language. In the case of the Austrian Parliament's data platform, the programming language R is used. Since the Parliamentary Directorate offers showcases that illustrate the exemplary use of data, including scripts for data analysis and visualization in R, many users who use the same language find common ground in how they work with OGD. Additionally, the metadata includes data definitions that help establish a shared terminology for the dataset's contents. In this way, by serving as a boundary object, OGD creates a space where cooperation and negotiation can happen.

As previously discussed (see Chapter 4.1 & 7.1), creating sites of dialogue is a vital part of boundary work to build trust and authority (Carlson, 2017; Gieryn, 1983, 1999). Boundary objects are action-related items that gain importance when used (Star, 2010), similar to how OGD becomes a meaningful social representation of reality through journalists reproducing it. OGD is a boundary object, not just in the sense of the data tables themselves, but also in the sense of the idea of "open government", and the infrastructure surrounding it (Star, 2010). In other words, OGD must be practiced to create meaning. This use is not always clear, as the data might serve as the "factual underpinning in the background of a journalistic story" (Klatzer); it does not always stand out as the primary focus.

To illustrate how OGD is performative and situated, deriving its meaning from whoever uses it, like a boundary object, OGD platforms can be compared to "paint by numbers". These painting sets include a canvas that is divided into shapes of different sizes with assigned numbers that correspond to specific paint colors. Similarly, OGD platforms are frameworks that provide data (the colors) with corresponding metadata (the shapes and numbers) that guide how to interpret the data, but leave room for individual interpretation.

So, the story derived from OGD can vary greatly depending on who works with it, much like a painting may look different from one artist to another. For instance, people might use different brushes, painting techniques, or slightly varied colors to match their personal preferences. Equally, OGD can be interpreted differently depending on the analysis tools and methods used, resulting in a range of interpretations. Although OGD is not a blank canvas, it is up to the creator to produce something with the given shapes and colors, and it is also up to the viewer to focus on specific aspects when examining the image. Without the creator's effort, the data is just a collection of shapes and numbers, but when colors are added, it transforms into an image that others can perceive.

It can, therefore, be concluded that intermediaries give meaning to OGD by turning it into a thing of action (Star, 2010). Despite the tensions surrounding and within OGD platforms (see Chapter 7.1), the data is flexible enough to meet the needs of different actors. This is crucial so that not only journalists can serve as legitimate intermediaries, but also others, expanding the scope of actors that can give meaning to OGD (see Chapter 8).

8 Answering the research questions

Based on my empirical findings (see Chapter 6.3) and the arguments discussed earlier (see Chapter 7), I will now answer my research questions (see Chapter 3.3), starting with my sub questions.

SQ1: How does the Austrian Parliament present data on its platform?

The Austrian Parliament's data portal is integrated into the main website and encompasses a total of 25 datasets, organized into four thematic categories. The Parliamentary Directorate provides nearly all available data in a machine-readable format, free from public access restrictions and available for reuse, on its data portal. In other words, the guiding principle is to publish as much information as possible rather than withholding it. The provided datasets include, for example, protocols from National Council meetings, parliamentary requests and responses, as well as legislative proposals and resolutions (see Chapter 5.1). This “open by default” approach aims to give the broader public insights into parliamentary procedures and foster trust in the institution.

To facilitate the widespread use of data, the portal provides not only raw datasets but also accompanying explanations and exemplary use cases to help users understand the data provided. There are FAQ sections on almost every dataset page, as well as contact details for further questions, and even exemplary use cases, known as showcases, that the Parliamentary Directorate has developed in cooperation with the University of Vienna. These showcases demonstrate how datasets can be utilized, featuring a written article accompanied by data visualizations, as well as the R scripts used to download, analyze, and visualize the data. This allows users to see what is possible and compare their results with exemplary cases.

However, just like many other open government data (OGD) portals, the Parliament’s platform is still not accessible to every citizen. It requires time, experience, and specialized knowledge to navigate the portal effectively and make sense of the information provided there (see Chapter 6.2.3). Even the interviewed journalists with experience with open data portals admit to sometimes struggling with the complex structure and technicalities of the Parliament’s data platform (see Chapter 6.2.4).

As it is almost impossible to offer an accessible portal to everyone, the Parliamentary Directorate decided to focus on four target audience groups: journalists, researchers, NGOs, and businesses. By relying on journalists as a primary audience, the Parliamentary Directorate hopes that the platform’s data will also reach a wider public, as journalists’ objective is to translate information. In other words, catering such a data portal to the needs of journalists indirectly opens the platform to the broader public.

SQ2: How do intermediaries such as journalists make use of OGD?

Even though this contradicts the very idea of information being open and accessible to everyone, understanding and making use of open (government) data inevitably requires a high level of specialized knowledge, particularly technical knowledge. Through the interviews, I identified four types of knowledge necessary to engage with the Parliament's open data portal.

First, users need technical skills, which is why intermediaries translate technical data into graspable information for the broader public (Baack, 2015; Tong, 2022). A fundamental understanding of the technical process is essential for effectively using and comprehending OGD (see Chapter 6.2.3.2). This includes, for example, the ability to use search engines to understand and navigate data platforms, knowledge of how spreadsheet programs operate and how to utilize them, as well as a basic understanding of data formats to make sense of metadata explanations.

These technical skills overlap partially with what can be described as basic journalistic skills (see Chapter 6.2.3.2), which include critical thinking and a "feeling for what is realistic and relevant" (Hametner). Some interviewees described this competence as "craftsmanship" (Haslacher, Thür), referring to the ability to know where to find specific types of information and how to translate it effectively. Even for non-data-driven stories, journalists need to be able to make sense of information and transform it into a straightforward, concise, and engaging narrative for their audience. In this sense, working with OGD adheres to basic journalistic principles. This journalistic skill and intuition to know what is relevant information can be described as tacit knowledge (Olsen, 2018).

Moreover, in the case of the Austrian Parliament's data platform, users require specialized political knowledge to interpret the available information effectively (see Chapter 6.2.3.2). Hofer described this as not just "formal knowledge about laws and rules", but also "informal knowledge about processes that are not written down", including pre-parliamentary processes, party dynamics, or differences between parties. So, this specialized competence encompasses formal and informal knowledge about processes in the respective field, necessary to understand the data describing these processes. In other words, without this contextualized knowledge, journalists cannot make use of OGD, even if they possess the necessary technical and journalistic skills. Only with political knowledge about parliamentary processes can even highly specialized journalists work with the Parliament's data.

Lastly, legal knowledge also plays a crucial role in interpreting OGD (see Chapter 6.2.3.2). This includes knowledge about data licenses, data privacy, and copyright. These legal, political, and technical skills are not just essential for users, but also for OGD providers, who need to know, for example, whether and in what form data can be legally provided.

SQ3: What role are journalists attributing to the Austrian Parliament's data platform?

Overall, the interviewed journalists attribute a significant role to the Austrian Parliament's data platform, particularly in terms of transparency and critical journalistic reporting. OGD is considered an integral part of journalism, helping journalists fulfill their role as watchdogs for society, and OGD is viewed as a means of ensuring trust in democratic institutions by promoting transparency. Interviewees describe OGD as a "basic infrastructure of a functioning state" (Hametner), and an instrument to ensure government transparency (Haslacher, Kohrs), as well as a "social fact", or "basis for decision-making" (Hack), and a "tool for critical journalism" (Klatzer).

Transparency is one of the key roles that the interviewed journalists and the Parliamentary Directorate's employee alike attribute to OGD (see Chapter 6.2.2.4). Openly available government data is understood as a "proof of performance" (Hack, Thür) that creates a system of checks and balances, allowing journalists and the public to verify and understand governmental processes and decisions, and hold politicians and public administrators accountable. Providing information openly further helps to build trust in democratic institutions and government administrations. OGD is part of the "small building blocks" of information (Kohrs) that form the basis of public trust in government and ultimately democracy itself.

Another meaning journalists ascribe to OGD is its crucial role in decision-making (see Chapter 6.2.2.4). OGD is not just information, but a "social fact" (Hack) that is negotiated and manifested, thus enabling multiple actors to agree on a basis for debate. Even if people distrust data, it can serve as a starting point for political discussion, as was observed, for example, during the COVID-19 pandemic. The way information was communicated, and whether it was public, affected how well the population followed restrictions. Furthermore, the availability and quality of OGD shape researchers' ability to provide policymakers with input.

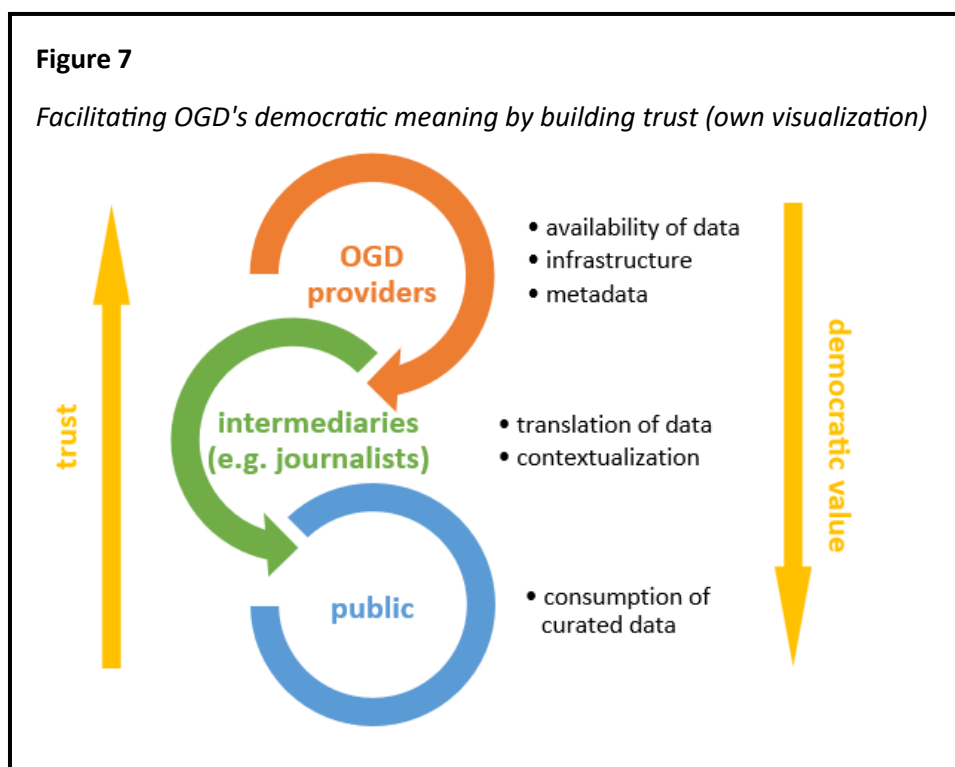
Lastly, OGD is also seen as a tool for critical journalism. Data itself simplifies journalistic work in many aspects, for example, by rendering vast amounts of information available in a machine-readable format (see Chapters 6.2.1.2 & 6.2.2.4). Many data visualizations, such as maps, would not be possible to the same extent and as fast without the corresponding (geospatial) open data. Thus, OGD can be understood as a working tool, "similar to a laptop or notebook" (Hofer), for example. But also, on a broader level, can OGD serve journalism, particularly in terms of transparency and decision-making, as data can be the "factual underpinning" of a journalistic story (Klatzer).

To conclude, the Austrian Parliament's data portal serves as a valuable tool for journalistic work, on one hand, and, on the other hand, as a basic infrastructure that fosters transparency to inform policy decisions and build trust in democratic institutions.

MQ: How are journalists giving meaning to the Austrian Parliament's open data platform?

OGD plays a vital role as a “building block” in democratic systems (Kohrs), rendering governmental processes transparent, and as a tool for critical journalism, helping journalists fulfill their role as public watchdogs (see Chapters 2 & 6.2.2.4). Thus, the democratic meaning of OGD is constituted by intermediaries, such as journalists, in exchange for the trust the audience gives to the journalists and the trust journalists have in the data (see Figure 7). I will now explain this process of trust-building and meaning-making in detail.

At least three actors are involved in facilitating the democratic meaning of OGD: an OGD provider, intermediaries, for example, journalists, and an audience, such as the general public. In the described case, the OGD provider would be the Parliamentary Directorate that makes data available and provides the infrastructure to access this data. Intermediaries, such as data journalists, then access the data to create journalistic stories, thereby translating and contextualizing the data for an audience (Baack, 2015; Tong, 2022). This public audience then consumes the translated and curated data.



This process of passing down information in the form of OGD through intermediaries is only possible if all actors trust this process and the other actors involved. This includes, first and foremost, the public trusting intermediaries to be qualified to interpret OGD. Journalists need to acquire this “right to be heard” (Carlson, 2017) by their audience in order to fulfill their work. Especially with OGD, journalists need to establish themselves as experts in the field to gain the audience’s trust. Moreover,

intermediaries also need to trust the data from OGD providers. Therefore, journalists must possess sufficient knowledge and experience to distinguish between trustworthy and non-trustworthy data (see Chapters 6.2.2 & 7.1.2). Similarly, OGD providers must trust intermediaries and the public audience to interpret the provided data in a non-misleading way.

Thus, without trust in other actors, the knowledge flow from and with OGD is meaningless. In exchange for trust, OGD's role as a tool for critical journalism and a building block of democratic systems is established. Through this process, the authority and agency granted to intermediaries and OGD providers by the public are, indirectly, also given to the data itself.

As discussed earlier (see Chapter 7), this trust-building process is closely connected to practices of boundary work (Gieryn, 1983, 1999): There are demarcations drawn between trustworthy and non-trustworthy data, as well as between intermediaries regarded as experts and non-experts, and between exclusive journalistic information and openly available OGD. In this complex web of demarcations and trust-building, OGD lies at the center as a bridging element between seemingly demarcated worlds (Star & Griesemer, 1989). Demarcations of which data is regarded as trustworthy, for example, change constantly, depending on who uses the data in which context. Whilst a source might seem non-trustworthy and non-relevant to one journalist investigating a particular story, the same dataset can be highly relevant and regarded as trustworthy by another intermediary using the data for academic purposes, making OGD a flexible, but also stable boundary object.

As this process of trust-building and meaning-making is somewhat abstract, I would like to illustrate it with a concrete example mentioned by one of the interviewees. As described earlier (see Chapter 6.2.4.2), Klatzer mentions a story where he investigated the evaluation period for proposed laws (Klatzer, 2020). His observation was that these evaluation periods became shorter. So, he checked the respective data at the Parliament's data portal and was proven right: the data underlined his hypothesis "that evaluation periods are becoming shorter and are used for tactical reasons" (Klatzer). First, the interviewee trusted his instinct and experience to identify a potential story (Olsen, 2018), and then used a trusted data source, such as the Parliament's data portal, to validate his initial hypothesis. The story then became a relevant piece of information as it was built upon a trustworthy factual basis, the Parliament's open data, and because there was an audience that trusts the journalist and media outlet enough to read the story. Working at an established media outlet helped the journalist reach a big audience for the story easily. In other words, this article about shorter evaluation periods became relevant and meaningful because it had a readership that regarded it as such, and because it encompassed trustworthy information that the journalist was able to retrieve from a data platform and make use of. So, facilitating OGD's meaning through intermediaries like journalists encompasses several layers of trust between actors.

In conclusion, thus, OGD's meaning is retrieved from the intermediaries engaging with it. Not only is the information hidden in the data translated through them, but also, the relevance of the data itself is directly derived from the intention and meaning intermediaries attribute to the data. In the case of journalists and the Parliament's data, this meaning revolves around OGD being a tool for critical journalism as well as OGD being regarded as an essential building block in democratic systems by making governmental processes transparent. However, this meaning is not static, but relational and constantly changing as trust and authority are also constantly negotiated (Carlson, 2017; Gieryn, 1983, 1999). OGD platforms are a crucial component in the puzzle of a democratic knowledge society. Data helps connect democratic institutions, enabling and enhancing the flow of information and feedback between them, as well as fostering public debate about the controversies revealed through data. OGD platforms are not just a technology or a digital infrastructure, but an ever-changing relation that requires a community, as well as a tool for establishing democratic meaning through awarding trust.

9 Conclusion

In this chapter, I will now summarize the arguments made in this thesis and discuss how they contribute to the bodies of literature laid out earlier (see Chapter 2). Furthermore, I will highlight the practical implications of the previously discussed results in the light of current social events, such as Austria's new Freedom of Information Act, the potential of open government data (OGD) to address “wicked problems” (Grundmann, 2018), and the influence of AI on journalism and democratic discourse (Coeckelbergh, 2024; Crawford, 2021). Lastly, I will also disclose the limitations of this research and outline possible topics for further investigation.

In conclusion, as discussed earlier (see Chapters 7 & 8), making sense of OGD involves building trust between intermediaries and the data itself, as well as trust between the audience and the intermediaries' translations of OGD (see Figure 7). This trust is fostered through various demarcation practices (Gieryn, 1983, 1999), such as intermediaries distinguishing between trustworthy and untrustworthy data sources (see Chapter 6.2.2). These findings expand Baack's (2015) and Tong's (2022) arguments about the importance of intermediaries to interpret (open) data (see Chapter 2.3.4) and add to research conducted regarding OGD's potential as a tool to boost democratic processes in knowledge societies (Afful-Dadzie, E. & Afful-Dadzie, A., 2017; Kubicek, 2014; Wessels et al., 2017).

However, as laid out by the interviewees, the full potential has to be exploited. OGD has to be made into a “thing of action” (Star, 2010) with journalists “bringing the data to life in practice” (Lind), which makes OGD both contextual and performative. In other words, OGD becomes relevant information through translation and use (Star & Griesemer, 1989), and depending on who handles it, the meaning of the data shifts. For example, journalists assign a journalistic meaning to the data, making it a key control tool for public institutions and a source of information for open debates. This is only possible because journalists establish themselves as legitimate intermediaries, thereby building and reinforcing their authority and earning the right to be heard by the audience (Carlson, 2017). Extending Wooten & Kiss' (2019) findings on how journalists and politicians define open government differently, it can be concluded that it is not just the definition of the concept that ascribes a different role and meaning to the data, but also the way actors interact with the material.

9.1 Practical implications

I will now discuss the practical implications of these findings by discussing how they relate to current social events and what difference having done this thesis project has made for me as a data journalist.

First of all, OGD platforms can be helpful tools in understanding and addressing societal challenges. Addressing complex societal problems requires collaboration across different fields. With data journalism being a setting where inter- and transdisciplinary collaboration is promoted (Ramsälv &

Ekström, 2024), and OGD acting as a boundary object that facilitates cooperation (Star & Griesemer, 1989), OGD can, thus, be an important factor in solving “wicked problems”. Although this cannot be done directly through OGD platforms, these tools can at least help in understanding and addressing the issues. Following Grundman’s (2018) distinction between specialists, who focus on solving “tame problems,” whilst the rightful place of experts lies with addressing “wicked problems”, it can be argued that intermediaries who can work with and translate OGD platforms fulfill an important role in society in addressing such complex societal challenges. It would be interesting to explore further if and how OGD portals can be a tool in solving “wicked problems”.

For example, by investigating projects like the open data portal by the Austrian Federal Institute for Geology, Geophysics, Climatology, and Meteorology (GeoSphere Austria, n.d.), or the Klimadashboard (Klimadashboard, n.d.), developed by a volunteer team of scientists, designers, and programmers. These portals exemplify how information about a “wicked problem”, such as the climate crisis, can become accessible and understandable to the general public through OGD. The insights gained from this research could be expanded further by exploring these cases and comparing how meaning-making is supported by these platforms, as well as by examining the role of intermediaries as experts in solving “wicked problems” (Grundmann, 2018) in this process.

Moreover, OGD platforms have the potential to strengthen democracy by promoting transparency and facilitating trust in public institutions. Creating and disseminating fake news has become easier and more common (Coeckelbergh, 2024; World Economic Forum, 2025) as AI technologies advance, underscoring the need for journalists to act as watchdogs in society (Bennett & Serrin, 2005; Blum, 2014; Hargreaves, 2014). OGD platforms can serve as one of the tools supporting journalists in this effort (Hofer), as it is their job to hint at potential pitfalls of AI and educate the public in a way that it can engage with new technologies meaningfully.

Providing transparency through open data platforms is one way to build public trust and, thus, serve as an important counterbalance to AI-generated fake news and political propaganda that seek to destabilize democratic systems (Coeckelbergh, 2024). Not only can the Parliament itself gain public trust by maintaining a publicly accessible open data portal, but journalism also gains authority and agency by engaging with and making use of the data provided. So, OGD platforms facilitate public trust in democratic institutions in general, which strengthens society’s resilience against technologies with the potential to disrupt democracy.

In addition, the expertise of intermediaries in determining which data sources to trust becomes even more important amid the rise of fake news. Engaging with OGD consistently addresses questions about the credibility of information sources, which is crucial for democratic societies. Both intermediaries and the public continually challenge the credibility of OGD providers by engaging with OGD and constantly

negotiating which data are recognized as social facts, and which are not (Gieryn, 1983, 1999; Star & Griesemer, 1989; Star, 2010). Understanding this negotiation and meaning-making process is essential for making informed decisions based on these social facts, which are derived, among other sources, from OGD.

Moreover, in relation to OGD platforms and their role in society, the Freedom of Information Act, which will be enacted in Austria in September 2025, shortly after this thesis was completed, has to be mentioned. After a long tradition of official secrecy, this shift from restricting information to releasing as much as possible might serve as a powerful counterbalance to developments that threaten democratic societies. However, this potential must be realized. Without intermediaries like journalists that interpret the then public information, it could go unnoticed. Thus, it remains to be seen whether the Freedom of Information Act will be sufficiently active to influence how journalists work or how information like OGD is perceived in society.

Lastly, this thesis also influenced how I understand my role as a data journalist and how I use OGD. If I had not worked as a data journalist myself, I probably would not have chosen this topic initially, or I might have approached the research focus and process differently. Just as the interviewed journalists also incorporate their personal perspectives, even unconsciously, when interpreting OGD, I cannot simply ignore my experiences as a data journalist, especially with the Parliament's data platform. At the same time, my connection to the topic made it easier for me to access the research field (Haraway, 1988; see Chapter 5.3). And vice versa, conducting this research has also changed the way I engage with and think about OGD. This project reminded me of the importance and potential of OGD platforms. It sharpened my understanding of journalism in general and data journalism in particular, and made me aware of the journalistic privilege to access and utilize information like data portals. At the same time, I have reflected a lot on how data journalists do not see themselves as OGD experts. I am curious about how much this hesitance to label oneself is linked to sociodemographic factors like age, gender, or social background. I can only speculate that female data journalists like myself might be even more hesitant to claim expertise in the field of data and regarding technical skills. As I will discuss shortly, these questions offer an interesting starting point for further research based on these findings.

In summary, this research has demonstrated that OGD, originating from key public institutions such as the Austrian Parliament, has significant potential to stabilize democratic information flows. Although the concept of open government presents challenges, such as limited accessibility, especially when intermediaries must translate OGD first, these platforms become important sources of knowledge production and public debate. A key aspect of this process is fostering trust in actors such as public institutions, intermediaries, and the data itself.

9.2 Limitations and Future Research

I will now outline some limitations of this research and describe how further studies on this topic could be conducted. Naturally, this research is tailored to the scope of a master's thesis, which is why I had to focus on a specific area and leave out related interesting aspects.

Firstly, the decision to concentrate on the role of journalists was not entirely unaffected by the fact that I am more familiar with the topic due to my profession. Whether the conclusions about the handling and importance of OGD by intermediaries can also be applied to other user groups, such as researchers, can only be partially inferred from the present results. A potential next step in exploring this topic would be to examine the role of other intermediaries regarding OGD, in comparison to the role of journalists, to see whether similar mechanisms for building trust and creating meaning are observable.

Moreover, this work primarily focuses on OGD practices and (data) journalism in Austria. Although comparisons to Germany came up in the interviews, the work is also influenced by my background as an Austrian data journalist. Similar dynamics can be observed in Germany, particularly since its political system is similar. However, this work cannot determine the role of OGD in societies where free journalism is restricted and government information is only released as filtered data for propaganda purposes. Although exploring how OGD practices are developed and promoted in authoritarian regimes presents an opportunity for further research, this could be very challenging, as the concept of open government is primarily focused on democratic societies, and freedom of information is a prerequisite for the concept of OGD to be effective.

Another limitation of this research, and a possible perspective for further research, is how socio-demographics are shaping how individual journalists can do boundary work (see Chapters 4.1 & 5.3). How factors such as class, race, gender, or sexual orientation impact one's ability to set boundaries (Pereira, 2019) was not examined in this research due to the small and homogeneous sample of interviewees. In general, journalism is not a very diverse field (Kaltenbrunner & Lugschitz, 2021), which is why it would be even more interesting to analyze whether there are differences in the way demarcation practices are done and recognized between journalists with different ethnic backgrounds, for example.

Finally, it is worth noting that the Freedom of Information Act was mentioned in this thesis, both in the research focus and in the interviews themselves. Nonetheless, this legal perspective provides another opportunity to expand the available results. Once the Freedom of Information Act has been in effect for a sufficient period, which was not the case at the time of writing this thesis, it would be interesting to see the impact of such a law on OGD practices and whether the new law also alters the understanding of open data platforms.

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Annex A: AI Usage Table

AI Tool	Work Phase	Prompts/How was the AI used?	Reasons for Usage	Comment and Reflection on the Results
Deepl	Translation (e.g. interviewee quotes)	I used Deepl to translate interview quotes from German to English.	I wanted to have as precise translations as possible.	The output was good, but in some cases I had to adapt sentences or words to a more fitting translation in that context.
Whisper	Transcription	I used Whisper to transcribe the interview audiofiles.	I did not have time to transcribe everything from scratch.	This worked surprisingly well, however, I listened through all interviews again and adapted/corrected the transcript where necessary.
Grammarly	Proofreading & Writing	I used Grammarly's word plug-in to enhance my writing.	I used Grammarly to help with correct spelling and sentence structure, and most importantly right usage of commas (a weakness of mine).	This was very helpful, as Grammarly, for example, noted where the grammar or spelling was wrong, or what possible synonyms are for word repetitions. Since I am not a Native English speaker, this was very helpful.
ChatGPT (v.4)	Writing (literature review)	When revisiting an earlier version of my State of the Art at a later point in time, I used ChatGPT to summarize some papers that I had read a while ago and was not sure if they still were relevant for my topic. The prompt I used was: "Summarize the following text. What are the key arguments brought forward by the author(s)?"	This saved times as I did not have to read everything again and it was a good tool to help remind myself again what other arguments an author addressed in a text.	In most cases this worked well, in some cases I was skeptical of the exact arguments ChatGPT outlined. In those cases, I then read the whole article/paper again.

This table was put together by the STS TAs based on the "Documentation Table" developed by the Writing Center of UniGraz (available [here](#)).

Annex B: Interview guides

Questionnaire journalists

- **Persönliche Informationen**

- Würdest du dich als Datenjournalist bezeichnen?
 - Nein: Wo sind deine Berührungspunkte mit Datenjournalismus in deiner Arbeit?
 - Ja: Warum?
- Verwendest du OGD in deiner Arbeit oder privat?
 - Ja: Wie häufig? Zu welchen Zwecken? -> Beispiel?
 - Nein: Wieso nicht?

- **Rolle OGD 1**

- Welche Bedeutung haben OGD für dich (als Datenjournalist...)?
- Hat sich die Rolle von OGD in den letzten Jahren verändert?
- Welche Kompetenzen braucht es, um mit OGD zu arbeiten?
 - Können alle Menschen mit OGD arbeiten?
 - Wodurch unterscheiden sich OGD-Experten von Laien?

- **Nutzung Parlamentsdaten**

- Wie oft arbeitest du mit den Daten des Parlaments?
 - Stehst du in Kontakt mit dem Open-Data-Team des Parlaments?
- Kannst du mir zeigen und beschreiben, wie du die Datenplattform des Parlaments nutzt?
 - Wie greifst du auf die Plattform zu?
 - Wo/Wie greifst du die Daten ab?
 - Welche Daten verwendest du? Woher weißt du, welche Daten du wo suchen musst?
 - Wofür verwendest du die Daten? (Beispiele)

- **Rolle OGD 2**

- Welche Rolle spielt für dich OGD für demokratische Entscheidungsprozesse?
 - Kann man die Rolle bzw. den Auftrag des Journalismus (Stichwort: vierte Säule der Demokratie) mit der Rolle von OGD vergleichen?
 - Wie bewertest du den Beitrag der Parlamentsdaten zur demokratischen Teilhabe von Bürger:innen?
- Hängen OGD und Bürger:innenbeteiligung zusammen?
 - Warum gibt es diesen Fokus auf Experten?

- *Wie gut kann Journalismus diese Vermittlerrolle erfüllen zwischen dem partizipativen Gedanken von OGD und der Idee der Expertise, der gleichzeitig damit einhergeht?*
- *Welche Rahmenbedingungen beeinflussen die Fähigkeit von Journalist:innen dieser Vermittlerrolle in diesem Fall nachzukommen?*
- Weitere Anmerkungen?

Questionnaire journalists (translated)

- **Personal information**

- Would you describe yourself as a data journalist?
 - No -> Where are your points of contact with data journalism in your work?
 - Yes -> Why?
- Do you use OGD in your work or privately?
 - Yes -> how often? For what purpose? (example?)
 - No -> Why not?

- **Role of OGD 1**

- What does OGD mean to you as a journalist/...?
- Has the role of OGD changed over the last years?
- Which skills are needed to work with OGD?
 - Can everybody work with OGD?
 - How are OGD experts different from laypersons/non-experts?

- **Usage of Parliament's OGD**

- How often do you work with the Parliament's OGD?
 - Are you in contact with Parliament's open data team?
- Can you show me (or describe to me) how you use the Parliament's data platform?
 - How do you access the platform?
 - How/Where do you access the data?
 - Which data do you use? How do you know which data you look for?
 - What do you use the data for? (*examples*)

- **Role of OGD 2**

- What role does OGD play in your view in democratic decision-making processes?
 - Is it legitimate to compare the mission of journalism (speaking of the fourth estate) with the role of OGD? Why (not)?
 - How do you assess the contribution of Parliamentary data to the democratic participation of citizens?
- Is OGD connected to citizen participation, in your view?
 - Why is there such a focus on experts?
 - How well can journalism fulfill its role as translator in this constellation between accessible, open information and the idea of expertise?
 - What framework conditions influence the ability of journalists to be intermediaries in this case?

- **Other remarks?**

Questionnaire Parliament's spokesperson

- **Persönliche Informationen**

- Was ist deine Rolle im Open Data Team des Parlaments?
- Verwendest du OGD in deiner Arbeit oder privat?

- **Rolle OGD 1**

- Welche Bedeutung haben OGD für dich als ...?
- Hat sich die Rolle von OGD in den letzten Jahren verändert?
- Welche Kompetenzen braucht es, um mit OGD zu arbeiten?

- **Nutzung Parlamentsdaten**

- Gibt es eine bestimmte Zielgruppe, die mit den Parlamentsdaten erreicht werden soll? Warum (nicht)?
- Wie wird entschieden, welche Daten zur Verfügung gestellt werden?
 - Welche Restriktionen (rechtlich, legal) gibt es, die der Veröffentlichung von Datensätzen im Weg stehen?
- Wie oft steht ihr in Kontakt mit Personen, die mit den Daten arbeiten wollen und Fragen dazu haben?
 - Sind das immer die gleichen Menschen?
- Wird festgehalten/aufgezeichnet, oder kannst du ungefähr abschätzen, wer die Plattform am häufigsten benutzt und welche Datensätze besonders beliebt sind?
- Warum werden auch Showcases mit Beispielskripts zur Verfügung gestellt? Was ist da die Intention dahinter, was soll dadurch erreicht werden?

- **Rolle OGD 2**

- Welche Rolle spielt für dich OGD für demokratische Entscheidungsprozesse in einer Wissensgesellschaft wie der unseren?
 - Kann man die Rolle bzw. den Auftrag des Journalismus (Stichwort: vierte Säule der Demokratie) mit der Rolle von OGD vergleichen?
 - Wie bewertest du den Beitrag der Parlamentsdaten zur demokratischen Teilhabe von Bürger:innen?
- Welche Rolle spielen Intermediäre oder Expert:innen wie Journalist:innen, die die verfügbaren Daten einer breiteren Bevölkerung zugänglich machen?
 - In einer idealen Welt: Wie würdest du die Plattform verändern/gestalten und wer hätte Zugriff/würde die Plattform nutzen?

- Weitere Anmerkungen?

Questionnaire Parliament's spokesperson (translated)

- **Personal information**
 - What is your role at the Parliament's data team?
 - Do you use OGD in your work or privately?
- **Role of OGD 1**
 - What does OGD mean to you as a ...?
 - Has the role of OGD changed over the last years?
 - Which skills are needed to be able to provide OGD?
- **Role of Parliament OGD**
 - Do you have a specific target audience? Why (not)?
 - How do you decide which data to provide on the platform?
 - What kind of restrictions (e.g. legal, technical) do you encounter when wanting to publish data?
 - How often are you in contact with people who want to use your data and have questions?
 - Is it always the same people?
 - Do you keep track of, or can you roughly assess who uses the platform and which data is the most "popular"?
 - Why do you provide showcases with code examples? What was the intention behind that?
- **Role of OGD 2**
 - What role does OGD play in your view in democratic decision-making processes in a knowledge society like ours?
 - Is it legitimate to compare the mission of journalism (speaking of the fourth estate) with the role of OGD? Why (not)?
 - How do you assess the contribution of Parliamentary data to the democratic participation of citizens?
 - What role do intermediaries or experts such as journalists play that make the provided data available to a broader public?
 - In an ideal world: in what ways would you change the platform and who should be the users?
- Other remarks?