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‘Never Walk Alone’: Personal Safety Apps and the Commodification of Women’s Safety under Surveillance Capitalism

Abstract (English)

Referring to discourses on technology, neoliberal governance and gendered power dynamics, this master thesis examines the commodification of women’s safety within surveillance capitalism, focusing on two personal safety apps, *bSafe – Never Walk Alone* and *I’m Safe – Women’s Safety App*. It explores how these apps operate in the context of digital surveillance and neoliberal risk management ideologies. Using feminist and surveillance studies frameworks, the research addresses how women’s safety is commodified through smartphone apps and how this commodification impacts gender inequalities. At its centre is a qualitative content analysis of the apps’ marketing materials which reveals how they reinforce postfeminist empowerment discourses while perpetuating stereotypes of women as inherently vulnerable and how the apps contribute to a culture of peer- and self-surveillance, normalising excessive surveillance by linking it to women’s safety. Furthermore, the findings show how the companies rely on neoliberal narratives of responsabilization, placing the burden of safety on women while diverting attention from systemic causes of gender-based violence and how user data are commodified under the guise of protection. Ultimately, the thesis demonstrates that safety apps promote insecurity and uphold patriarchal structures while commodifying women’s safety according to neoliberal principles.

Abstract (Deutsch)

Die Masterarbeit ist an der Schnittstelle von Diskursen zu Überwachungskapitalismus Technologieentwicklung, neoliberaler Governance, Sicherheit und Geschlechterverhältnissen angesiedelt. Im Zentrum der Arbeit steht die Kommerzialisierung und Individualisierung der (physischen) Sicherheit von Frauen, die anhand zweier Sicherheits-Apps, *bSafe – Never Walk Alone* und *I'm Safe – Women's Safety App*, untersucht wird. Die Masterarbeit fokussiert insbesondere auf eine qualitative Inhaltsanalyse der Marketing-Websites der beiden Apps, die zeigt, dass mit Hilfe von Sicherheits-Apps die Verantwortung für die eigene Sicherheit auf die Nutzer*innen übertragen wird, während die gesellschaftlichen Ursachen von geschlechtsspezifischer Gewalt ignoriert werden. Dabei werden vielfach postfeministische Empowerment-Narrative und zugleich vielfältige, Geschlechterstereotype verstärkende Darstellungen der Verletzlichkeit und ständigen Bedrohung von Frauen eingesetzt. Die propagierte permanente, App-basierte (Selbst-)Überwachung erzeugt so die Unsicherheit, die mit Hilfe der Apps angeblich beseitigt wird. Zugleich verwerten Unternehmen wie *bSafe* und *I'm Safe* persönliche Daten und ordnen Privatsphäre und Datensicherheit dem vermeintlichen Zweck erhöhter Sicherheit unter. Die Masterarbeit zeigt letztlich, wie Sicherheits-Apps Unsicherheit fördern und patriarchale Strukturen verstärken, während sie die Sicherheit von Frauen individualisieren und kommerzialisieren.

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1. Introduction

In 2020 the popular dating app *Tinder* in collaboration with the company *Noonlight* updated its app to include a ‘panic button’. Mainstream media extensively covered this addition, with most outlets either praising the company or highlighting the usefulness of the new feature (BBC 2020; DeSantis 2020; Siegel 2020). However, some publications raised concerns regarding user’s privacy and data security (Goetting 2020; Wodinsky 2020). This panic-button feature is part of a larger trend wherein smartphone apps are increasingly being integrated into everyday life as tools for personal safety. With the promise of ‘ushering in a new era of safety’ (Noonlight n.d.) companies like *Noonlight* are part of a long tradition of wearable ‘anti-rape’ or ‘anti-violence’ technologies. Early inventions were often bulky, such as cut-proof underwear, but advancements in technology have expanded the market for new ‘anti-rape technologies’. (Shelby 2021: 556)

The integration of smartphone technology into everyday life has shaped contemporary societies over the past decade. It allows users to connect to new forms of data and provides various methods of communication. As of 2023, 69% of the world’s population uses a smartphone. (Laricchia 2024) Mobile apps have also seen steady growth, with 257 billion downloads worldwide in 2023, and projected revenue reaching \$613 billion by 2025. (Ceci 2024b) As of 2024, Google Play Store and Apple’s App Store offer over two million apps each, with free apps using subscription models gaining increasing popularity. (Ceci 2024a)

As smartphones have become widely used tools for communication and entertainment, they increasingly serve as platforms for personal safety technologies. This has prompted the rise of mobile apps aimed at protecting users, particularly women, from violence. As indicated by market research, the market for smart personal safety devices was valued at \$40.8 billion in 2022 and has been projected to grow to \$74.4 billion by 2030. (Data Bridge Market Research 2023)

However, the commercialization of ‘anti-rape technology’ has drawn significant criticism from feminists, who maintain that these products often reinforce harmful gender stereotypes and perpetuate rape myths, thereby denying and justifying male aggression against women. (Shelby 2021: 556-557) While the use of devices to protect women from sexual violence is not a new concept, the advent of digital technologies has introduced more sophisticated tools. Modern safety apps now integrate prevention strategies with personal and bystander responsibility and they are often designed to collect evidence for potential criminal charges. A 2021 study found

that there were 503 apps available in the Apple App Store and Google Play Store regarding ‘personal safety’ and ‘violence prevention’ (Ford et al. 2022: 3). Another study found that most personal safety apps explicitly targeted women by either including the word ‘women’ in the title or implicitly, through terms women may relate to such as ‘Scare Him Away’ while no similar targeting of men was observed. (Maxwell et al. 2020: 240)

Smartphones have consequently become a predominant part of protective technologies for women’s safety. (Cardoso et al. 2019: 2) Women often perceive their mobile phones as effective tools for self-defence, more so than traditional weapons such as pepper spray. (Cumiskey/Brewster 2012) However, the rise of these technologies has sparked debates over privacy, surveillance, and gendered power dynamics. For example, ‘The Markup’ revealed in 2021 that the family safety app *Life360* was selling the exact location data of its users, fuelling a multi-billion-dollar industry built on brokering personal information. This included sales to U.S. state agencies like the *Centers for Disease Control and Prevention* (CDC) and corporations such as Amazon. (Keegan/Ng 2021) This commodification of data through safety apps raises troubling questions about privacy, surveillance and the exploitation of personal data.

The widespread distribution of smartphones and personal safety apps reflects a deeper societal shift, one in which human experiences are increasingly commodified under what Shoshana Zuboff (2019a) terms ‘surveillance capitalism’. She argues that the economic system has undergone a transformation, wherein human experiences and behaviour are commodified and corporations’ primary focus is the extraction of personal data for commercial gain. Personal data has become a new commodity which is being bought and sold on the market. Data is extracted from people, often without their knowledge or consent, and then used to generate new forms of economic and social value. This process has had significant implications for society, as it is embedded in a series of power relations which are established between those who control the means of data production and those who are subject to data extraction.

As Tori Monahan states: ‘The reduction of people and social practices to data that can be easily manipulated is an exercise of power that demands feminist critique and intervention.’ (Monahan 2020: 127) Women’s bodies in particular, have become central arenas for technological surveillance and commodification, raising critical questions about privacy, power and control. (Wilson-Barnao et al. 2021: 47–48) This thesis therefore, examines how personal safety apps reinforce or challenge gendered power dynamics by commodifying women’s safety under surveillance capitalism. It seeks to answer two key questions: firstly ‘How is the personal safety of women commodified under surveillance capitalism by the implementation of smartphone

safety features/apps?’ and secondly ‘How does the commodification of safety affect gender inequalities?’.

Relevance

As the prevalence of digital technology and data collection continues to grow, understanding the implications and impacts of surveillance capitalism upon society and the economy has become increasingly important. Despite the extensive coverage of personal safety apps as a form of prevention technologies in popular media outlets, the scholarly research dedicated to their study has been limited and focused on examining the effectiveness and usage of these technologies or exploring underlying gendered assumptions (see Chapter 3). However, little research has linked personal safety apps to surveillance under capitalism. Therefore, it is crucial to examine the broader social implications of personal safety apps in the context of surveillance capitalism and the datafication of everyday life.

Surveillance reinforces broader power systems by exacerbating existing power structures, including gender hierarchies. (Cinnamon 2017; Gill 2019) Surveillance often relies on pre-existing stereotypes and biases, including gender stereotypes, to categorise and control individuals. For example, women may be subject to more invasive and frequent surveillance due to preconceived notions of their vulnerability and need for protection. This reinforces gender hierarchies and perpetuates the idea that women require constant monitoring and control. (Magnet/Dubrofsky 2015; Monahan 2010) The commodification of personal safety, therefore, impacts women in unique ways, which I intend to explore in this thesis.

The introduction of personal safety apps as a tool to ‘manage’ risk perpetuates the idea that women are responsible for their own safety. The idea of ‘risk management’ as the solution to the problem of violence against women shifts responsibility away from those committing violent acts and onto women who ‘fail’ to protect themselves. This shift in responsibility is also a shift towards the individualisation of gendered violence, neglecting the patriarchal system at large. (Beck 1992; Hall 2004; Stanko 1997) For this reason, placing the surge of personal safety apps within the broader context of neoliberalism contributes to a better understanding of neoliberal narratives and mechanisms as well as the impact of neoliberalism on gender relations.

Moreover, the utilisation of personal safety applications has a direct impact on the safety and privacy of women. These applications collect and analyse personal data, which can be exploited to monitor and limit women’s movements and behaviours. Surveillance practices, including

location tracking, have been found to perpetuate violence against marginalised communities, specifically women and gender minorities. (Cinnamon 2017; Eubanks 2018; Gill 2019) For example, location tracking exposes women to potential risks such as stalking, harassment and partner violence. (Mason/Magnet 2012: 106; White/McMillan 2020: 17) Additionally, such surveillance practices can diminish women's privacy and autonomy by restricting their movements and designating certain areas as 'unsafe'. (Kennedy/Coelho 2022) This contradicts the purported benefits of personal safety apps, such as empowerment, increased freedom and self-reliance. Therefore, it is necessary to scrutinise the claims of app providers regarding safety, surveillance and privacy issues.

Theoretical framework

My thesis delves into the construction of (in-)security through the lens of Ulrich Beck's concept of a 'second modernity' and the transition toward a 'risk society' (Beck 1992). According to Beck, contemporary society has entered a new phase characterised by the centralization of risks. This paradigm shift introduces novel challenges, including the proliferation of preventive measures and the commodification of security. (Beck 2009, 1992) David Garland's theory of contemporary crime control, particularly his notion of the 'responsibilization strategy', further illuminates this. Garland explores the dispersion of security responsibilities beyond conventional law enforcement entities, resulting in a culture of fear and heightened surveillance. (Garland 1996) Additionally, drawing on insights from various feminist scholars and expanding on theories of 'fear as social control', especially Esther Madriz (1997), I delve into the gendered impacts of these shifts. Moreover, I establish connections to neoliberal risk ideology, which amplifies these challenges by emphasising individual accountability over mitigating systemic inequities.

My thesis further draws on the theoretical frameworks of Shoshanna Zuboff's (2019a) theory of 'surveillance capitalism', Christian Fuchs' works on the 'commodification of data' (Fuchs 2019; Fuchs/Mosco 2016) as well as Nick Couldry and Ulises Mejias' (2019, 2018) theory of 'data colonialism'. In her book *The Age of Surveillance Capitalism*, Shoshana Zuboff (2019a) defines surveillance capitalism as a new form of capitalism that involves the extraction of value from the surveillance and manipulation of people's behaviour. I connect Zuboff's theoretical framework with Christian Fuchs' works on the commodification of data. Similarly to Zuboff, Fuchs argues that in the digital economy, users are not customers but rather the product that is bought and sold. He suggests that users generate data through their online activities. This data

is then used by companies for targeted advertising and other forms of profit-making. Fuchs suggests that the process of datafication has led to the transformation of society, with data becoming a key resource for decision-making, governance and power. He suggests that this has significant implications for democracy and social justice, as the concentration of data in the hands of a few large corporations gives them immense power over individuals and society as a whole. (Fuchs 2019; Fuchs/Mosco 2016)

In addition, I draw on Nick Couldry and Ulysses Mejas' theory of 'data colonialism'. Couldry and Mejas argue that 'human life itself is being increasingly capitalised on in new ways' (Couldry/Mejias 2018: 342). Everything people do generates data that can be appropriated for capital. The 'datafication' of everyday life also brings about new social relations that Couldry and Mejas call 'data relations'. These relations become central to creating 'new forms of economic value' and making tracking a permanent feature of life. (Couldry/Mejias 2019, 2018) Couldry and Mejas provide a theoretical lens to analyse how data relations reinforce pre-existing inequalities and create new ones.

I link these works on surveillance capitalism, the commodification of data and data colonialism to critical feminist theories on surveillance, drawing on scholars like Rosalind Gill, Rachel E. Dubrofsky and Shoshana Amielle Magnet, Torin Monahan and Mark Andrejevic. By doing so, I analyse, through a feminist lens, the normalisation of constant surveillance and the promotion of the idea that privacy must be sacrificed in exchange for an increase in safety. Rachel E. Dubrofsky and Shoshana Amielle Magnet explore the intersections of gender, race, class and sexuality in relation to surveillance practices. In their book *'Feminist Surveillance Studies'*, feminist scholars examine various forms of surveillance. They explore how surveillance practices and technologies impact gender and other social identities and how they reproduce and reinforce systems of power and inequality. Utilising the analytical frameworks provided by the authors, I examine the distinct impact of personal safety applications upon women regarding corporate surveillance practices and profit motives. (Magnet/Dubrofsky 2015; Mason/Magnet 2012)

Furthermore, I draw on Torin Monahan's (2010) work to examine how surveillance technologies embody a gendered logic of control from a distance, that abstracts individuals from their social realities. Monahan critiques how surveillance justifies itself as protective while reinforcing gendered and social inequalities. His work is particularly useful in understanding how personal safety apps, under the guise of protection, reinforce these same controlling dynamics, distancing themselves from the societal conditions that exacerbate gender violence.

The work of Mark Andrejevic (2015, 2013, 2006, 2002) complements this critique by arguing that surveillance systems often obscure their power dynamics, presenting themselves as neutral and taken-for-granted imperatives, reinforcing patriarchal control under the guise of neutrality and efficiency. Emily van der Meulen and Robert Heynen (2016) provide further insights into how surveillance technologies are embedded in relationships of power and inequality, particularly in urban settings. They highlight how informal forms of surveillance, such as the regulation of women's access to public spaces through the threat of sexual violence, intersect with formal surveillance technologies.

Furthermore, I draw on writings by Rosalind Gill (2019), whose work on surveillance focuses on the intersection of gender, media and technology. She argues that surveillance practices are often gendered and that women are disproportionately affected by surveillance practices and technologies. Gill's writing explores how surveillance operates as a form of social control, shaping the behaviour and identities of those who are subject to it. She argues that surveillance practices often rely on stereotypical and narrow definitions of gender and sexuality. (Elias/Gill 2018; Gill 2019)

Finally, I also draw on critical works on neoliberalism. As Deborah White and Lesley McMillan argue:

Dovetailing with the neoliberal shift from state to individual 'self-help' responsibility for crime prevention (O'Malley, 1996), the historic cultural expectations placed on women for their own safety from male aggression have become intensified (see Hall, 2004), creating fertile ground for the embrace of individualized technological solutions. (White/McMillan 2020: 1133)

I link Gill's work on self-surveillance and the 'post-feminist sensibility' to Rachel Hall's (2004) writings on a new 'women's safety pedagogy', that positions women as inherently vulnerable and responsible for preventing violence against themselves. This situates women as both victims and agents, simultaneously vulnerable and tasked with avoiding danger. This paradox creates a situation where female agency is constructed solely through risk avoidance, and racialized and class-based stereotypes.

The critical examination of neoliberalism and its impact on society, particularly the individualisation of societal obligations, is crucial in understanding the context of safety apps and their connection to surveillance. Therefore, literature that critically examines neoliberalism, plays a crucial role in embedding safety apps in the broader context of self-surveillance and within neoliberal ideas of personal responsibility and risk management.

Method

The methodological approach in this thesis is a mixed-method approach based on case studies and a literature review. First, I conduct a comprehensive review of relevant literature analysing studies performed by other researchers that investigated personal safety apps. I do this with the objective of contextualising my thesis within the academic discourse of prior research conducted on personal safety apps and related technologies. The analysis of academic case studies not only facilitates a comprehensive understanding of the personal safety app market but also serves as a valuable reference point for conducting my own case studies within an informed framework.

As case studies, I analyse two personal safety apps: *bSafe – Never Walk Alone* and *I’m Safe – Women’s Safety App*. This approach is chosen to offer comprehensive illustrations of the concepts employed by personal safety app providers. I analyse the marketing materials for these apps, with a particular focus on their websites, utilising qualitative content analysis methodology inspired by Philipp Mayring (2021, 2000). This methodological framework enables a detailed examination of the messaging strategies and thematic representations present in the promotional content of these apps, elucidating the nuances of how they address the issue of personal safety, particularly concerning women.

The marketing materials for both apps are primarily aimed at cisgender women. I therefore focus on women’s safety discourse and use terms such as ‘female,’ ‘woman,’ and ‘feminine’ to reflect the user identity constructed by the apps. My study, as a qualitative content analysis, focuses on how these safety apps construct their imagined user, which is situated within a broader discourse on personal safety.

Structure

This thesis aims to investigate how the personal safety of women is commodified under surveillance capitalism by the implementation of personal safety apps, with a particular focus on neoliberal notions of safety and personal responsibility. Firstly, I delve into the construction of (in-)security, grounded in a contemporary shift towards risk management and personal responsibility. This discussion is informed by the insights of scholars such as Ulrich Beck (1992) and David Garland (1996). Additionally, I scrutinise the gendered implications inherent in this societal shift. Following this, I explore the concepts of surveillance capitalism, the commodification of data and ‘data colonialism’. Subsequently, I outline feminist perspectives

on surveillance before weaving together these interconnected concepts. I do so by exploring an emerging ‘women’s safety pedagogy’ founded on principles of risk management, self-surveillance and the ‘quantified self’. The third chapter of this thesis offers a comprehensive literature review, examining pivotal studies conducted on personal safety apps. Chapter 4 focuses on empirical case studies, starting with a detailed explanation of the methodology. This chapter outlines the reasoning of the selection of two case studies, *bSafe – Never Walk Alone* and *I’m Safe – Women’s Safety App*, and details the coding and analysis processes. Through an analysis of *bSafe*’s and *I’m Safe*’s app functions and the content of both companies’ websites, the chapter identifies key themes, such as empowerment narratives, gendered notions of risk, neoliberal responsibilization, technological solutionism and the commodification of safety. In Chapter 5, I analyse my empirical findings from the content analysis within the context of the established theoretical framework. Key themes such as the portrayal of women as empowered victims, the conceptualisation of surveillance as empowerment and the influence of neoliberal responsibilization on the perception of safety are explored. This chapter also links the empirical findings to concepts of ‘dataveillance’ and the commodification of personal safety. The chapter also highlights the ways in which personal safety apps reflect broader trends in neoliberal governance, surveillance capitalism, and gendered risk management. Finally, in the conclusion I synthesise the key findings of this thesis, reflect on their implications and delineate potential avenues for future research.

2. Theoretical Framework

2.1. The Social Construction of Risk and (In-)security

In contemporary Western societies, the acknowledgment of insecurity as a defining characteristic is widespread. (Hörnqvist 2020: 227) According to Ulrich Beck, contemporary society has entered a new phase or stage of modernity characterised by the centrality of risks and uncertainties. The ‘first modernity’, according to Beck, was marked by the industrial revolution, economic development and the emergence of class societies. However, in the second modernity, there is a shift from the production and distribution of wealth to the production and distribution of risks. Beck argues that the risks associated with technological advancements, environmental degradation and other global challenges have become defining features of this second phase. Risk and uncertainty, often associated with technological and scientific progress, are global in nature and transcend national boundaries. (Beck 1992: 19–22)

Ulrich Beck puts forth the idea of a risk society. He defines risk as ‘the anticipation of catastrophe’, existing ‘in a permanent state of virtuality’ (Beck 2009: 292) Beck argues that the true social impact of risks lies in their projected dangers for the future. This paradigm shift from past-focused to future-oriented thinking emphasises the importance of addressing future risks in organising present actions. (Beck 1992: 33). Unlike previous paradigms centred on making nature useful or freeing humanity from constraints, the risk society deals with challenges arising directly from techno-economic development, highlighting the need for managing associated risks rather than merely focusing on technological advancement. (ibid.: 20) ‘Risk-as-anticipation is the turning point for modern technology, as it has to embrace the future as an extended present.’ (Beck 2009: 293)

Beck further explores the societal implications of these risks, which have become central in global debates as they transcend national boundaries and pose irreversible threats to life on Earth. (Beck 1992: 19–22) He describes these as ‘manufactured uncertainties’, created by society itself. They exhibit a new type of social and political dynamism, characterised by supra-national and non-class-specific challenges. (Beck 2009: 297)

Thus, Beck emphasises the dual nature of the risk society: the emergence of ‘social hazards’ alongside the inherent ‘contradictions between modernity and counter-modernity within industrial society’ (Beck 1992: 13). Despite stable inequalities, individuals are now compelled to navigate their own labour market biographies, leading to the emergence of ‘reflexive biographies’ (ibid.: 88) dependent on personal decisions. This individualisation affects interpretations of social inequality, as traditional class-based distinctions diminish, giving rise to individualised forms of existence and lifestyle choices. Beck argues that capitalism is evolving towards a ‘classless society’, characterised by individualised social inequality. He states: ‘The reflexive conduct of life, the planning of one’s own biography and social relations, gives rise to a new inequality, the *inequality of dealing with insecurity and reflexivity*.’ (ibid.: 98, original emphasis)

Robert Castel argues that the shift from perceiving danger to assessing risk leads to an endless expansion of opportunities for intervention. ‘Modern ideologies of prevention’ are driven by a ‘technocratic rationalizing dream of absolute control of the accidental’ (Castel 1991: 289). This pursuit of absolute risk eradication creates a multitude of new risks, which become targets for preventive measures. These risks include not only ‘those dangers that lie hidden away inside the subject, consequences of his or her weakness of will, irrational desires or unpredictable liberty’ but also ‘exogenous dangers [...] from which the subject has not learnt to defend himself

or herself, alcohol, tobacco, bad eating habits, road accidents, various kinds of negligence and pollution, meteorological hazards, etc.’ (ibid.). Castel proposes that despite presenting itself as hyper-rational and pragmatic, this approach fails to consider the social and human costs of its interventions. (ibid.: 287–289)

Expanding on Beck, Isin highlights that the two key features of contemporary risks – the uncertainty of their actual realisation and their characteristic as manufactured uncertainties – necessitate increased knowledge production to manage the risks effectively. Isin points out that in this reflexive modernization individuals are required to make decisions and bear responsibility for them despite lacking complete knowledge of the situation. (Isin 2004: 218) Isin connects the notion of the risk society to the idea of a ‘culture of fear’ (ibid.: 219). Heightened apprehensions about certain dangers, which evolve into risks, are frequently exploited by entities like governments and corporations for their own gain. He points out how a ‘culture of fear’ has been cultivated to benefit from the commercialisation of fear, revealing a recurring pattern: by fostering a culture of fear, society is prompted to focus on relatively low-risk practices, while genuinely high risks are downplayed or normalised.

The established interests in society benefit from the production of certain risks and fuel a culture of fear, which in turn produces a society governed by risk disproportionate to actual dangers that these risks might constitute. The risk society undergirded by a culture of fear becomes vulnerable to the emergence of panics, gated communities, security industries, and an overall trend toward isolation and insularity. (ibid.)

In his 2015 book ‘The Securitization of Society’, Marc Schuilenburg defines security as an ordering concept, ‘in the hope of ensuring a safe existence’ (Schuilenburg 2018: 9). He attests a significant shift in how security is seen and implemented in everyday life. Traditionally, it was primarily the government’s role to ensure the people’s safety. However, there has been a noticeable shift away from government control towards self-reliance and privatisation. (ibid.: 30) Therefore, a growing number of other actors have taken on roles and responsibilities in this domain. Some have even fully assumed these duties, such as police-like organisations like private security firms. Additionally, institutions like schools, sports clubs and housing organisations have incorporated safety and security considerations into their policies. Consequently the ‘concern for safety has begun to direct its efforts toward affairs of a personal nature’ (ibid.: 9)

David Garland calls this the ‘responsibilization strategy’ which has led to a new distribution of responsibility for security beyond just law enforcement agencies. (Garland 1996: 453) However, as Garland points out, it is crucial to note that these elements are not the most

prominent or numerically significant in today's penal landscape, highlighting the widespread increase in incarceration and other 'law-and-order'-policies. (ibid.: 450)

Garland suggests that in modern society high crime rates have 'become an acknowledged and commonplace feature of social experience' (ibid.: 446). This is accompanied by widespread fear of crime, extensive media coverage and the politicisation of crime control. Despite crime being unevenly distributed and concentrated in certain areas, it is widely perceived as a routine aspect of daily life, 'an everyday risk to be assessed and managed' (ibid.: 446). Crime has become normalised over time, forming a standard background feature of late modernity. Garland identifies a 'new criminology of everyday life' (ibid.: 450), wherein a set of theoretical frameworks such as 'rational choice theory, routine activity theory, crime as opportunity and situational crime prevention theory' (ibid.) frame crime as a normal and commonplace aspect of modern society. They view crime as a multitude of events ingrained into contemporary social and economic life, that require no special motivation or disposition:

Crime becomes a risk to be calculated (both by the offender and by the potential victim) or an accident to be avoided [...], rather than a moral aberration which needs to be specially explained. (ibid.: 451)

The criminal becomes an 'illicit, opportunistic consumer, whose access to social goods must be barred' (ibid.) and therefore, new action programs are directed 'towards the conduct of potential victims, to vulnerable situations and to those routines of everyday life which create criminal opportunities as an unintended byproduct.' (ibid.) Garland calls this a 'supply side criminology', seeking to alter the everyday patterns of social and economic life by reducing the 'supply' of opportunities, reallocating risks, redistributing costs and establishing disincentives. (ibid.)

This comes alongside a 'responsibilization strategy', which emphasises that the state, on its own, can neither solely be responsible nor is fully capable of preventing and controlling crime. It's crucial to note that the responsibilization strategy isn't a transfer of state functions or a mere privatisation of crime control, although it has led to an increased demand for private security services. Instead, it signifies a novel approach to governance, operating from a distance. In this context, it represents a distinct mode of wielding power: the state now aims to enact marginal yet impactful changes in norms, routines and collective awareness. Crime prevention should become ingrained in the routine practices and culture of all agencies and individuals. (ibid.: 453–454) 'Self-discipline' then becomes 'central to neoliberal crime-prevention strategies', as Lise Gotell (2012: 252) points out:

The promotion of safe-keeping and private prudentialism are mechanisms for individualizing and privatizing crime control, shifting the problem of crime away from the state and onto would-be victims. Risk management technologies cultivate responsibilized, calculating, crime preventing citizens, who practice and sustain their autonomy by assembling information into personalized strategies that identify and minimize their exposure to harm. (ibid.: 252)

One significant issue Garland highlights is that the ‘responsibilization’ of non-state agencies and the routine nature of crime prevention efforts can create substantial inequalities in the availability and distribution of security. When security is no longer universally guaranteed by a sovereign state, it becomes a market-driven commodity rather than being allocated according to need. Typically, those most severely impacted by crime are the poorest and most marginalised members of society, who often lack the financial means to purchase security or the capacity to adjust their routines or organise effectively to protect themselves against crime. (Garland 1996: 463)

Circling back to Isin, the shift towards an individualised risk-society with a responsibilization of crime prevention leads to the assumption of rational citizens that can be governed through risk. In this framework, individuals are portrayed as rational actors who assess risks and minimise harm through calculated choices. (Isin 2004: 222) This means that, through technologies of the self, individuals regulate their behaviour by weighing the benefits and drawbacks of their actions in relation to themselves and others, within the context in which they exist. Self-governance through risk calculation involves the use of various technologies, but also it means that ‘governmental authorities do not simply manipulate the subject’ but they ‘govern it as a free subject by encouraging, inculcating, and suggesting certain ways of conduct that increase the health, wealth, and happiness’ (Isin 2004: 220).

However, Isin suggests that this depiction overlooks the role of affect and emotion in governance, challenging the notion of the rational subject. Isin emphasises the importance of affect and emotion in shaping individual behaviour. He argues that individuals usually make decisions in the absence of full and transparent information. The encouragement to alter behaviours in response to fears of victimisation leads to the formation of a ‘neurotic subject’. (ibid.: 222) This individual focuses on managing anxieties and insecurities, actively mobilising affects and emotions to seek ‘absolute security’ and ‘absolute safety’ (ibid.: 232). Therefore, rather than being rational and calculating, ‘neurotic subjects’ are governed through ‘neurosis’ (ibid.: 225). Isin writes:

[T]he subject at the centre of governing through neurosis is not addressed to mobilize its rational capacities to evaluate truth claims but through affects that manage its

anxieties. [...] [T]he neurotic subject is one whose anxieties and insecurities are objects of government not in order to cure or eliminate such states but to manage them. (ibid.)

‘Neurotic’ citizens are constantly seeking ways to alleviate their anxieties, whether through economic practices like managing personal debt, body image concerns, environmental conservation efforts, or home security measures. These anxieties are perpetuated and exploited by various industries and governmental practices. (ibid.: 225–230)

Schuilenburg emphasises the future-oriented nature of risk management, identifying two main techniques: profiling individuals based on perceived risk factors and excluding those who have already violated rules. (Schuilenburg 2018: 40) Garland (1996: 461) terms this dynamic ‘the criminology of the other’, in contrast to the ‘criminology of everyday life’.

It is a criminology of the alien other which represents criminals as dangerous members of distinct racial and social groups which bear little resemblance to ‘us’. [...] There is a criminology of the self, that characterizes offenders as rational consumers, just like us; and there is a criminology of the other, of the threatening outcast, the fearsome stranger, the excluded and the embittered. One is invoked to routinize crime, to allay disproportionate fears and to promote preventive action. The other is concerned to demonize the criminal, to excite popular fears and hostilities, and to promote support for state punishment. (ibid.)

Isin suggests that the anxious and fearful individual, who harbours concerns about others, is shaped across various spheres of life. Efforts to enhance security and surveillance measures at home, aimed at easing the individual's fears, ironically heighten their anxieties. (Isin 2004: 230–231) As Nicola Roberts argues, this creates a cycle where the pursuit of security intensifies in response to perceived threats, leading to a state characterised by an obsession with security. When security measures are seen as the ultimate solution to societal issues, it perpetuates a cycle of insecurity, leaving individuals feeling vulnerable. (Roberts 2023: 542) Similarly, Isin’s ‘neurotic citizen’ living in environments saturated with security measures may continually demand absolute security, contributing to their fearful disposition (Isin 2004: 233). Roberts argues that the implementation of extensive security measures can lead to increased hostility towards outsiders or ‘others’. Once such security measures are in place, it becomes challenging to reverse them due to the perceived failure of existing measures, resulting in further escalation of security measures. This perpetuates a cycle of insecurity and embeds a form of security politics that does little to improve individual safety. (Roberts 2023: 541–542) Or as Esther Madriz suggests:

Fear of crime and its impact on the general society have arguably become a problem as serious as crime itself. Fear of crime weakens the sense of community; decreasing social solidarity among its members and creating suspicion of strangers and erosion of mutual trust and cooperation. Fear of crime paves the way for the emergence of more repressive

attitudes toward criminals. (...) Fear of crime has resulted in public demand for tougher and more repressive criminal justice policies in the belief that they will make us safer at home and enable us to walk the streets of our cities without worrying about being mugged, raped, or killed. (Madriz 1997: 6–7)

Fear of crime has also several implications regarding gender relations and has been the subject of feminist scholarship. Esther Madriz (1997) discusses how the fear of crime among women plays a significant role in shaping societal attitudes towards gender roles. According to Madriz, women are often dissuaded from engaging in certain activities due to safety concerns, while men face fewer restrictions. This fear of crime is intertwined with deeply ingrained societal beliefs and assumptions regarding gendered behaviour. Fear of crime instils in women the belief that certain 'rights', such as the freedom to use public spaces or to walk alone at night, are reserved for men. Despite these spaces being ostensibly open to all, women's access to them is often impeded by the fear of becoming victims of crime or experiencing sexual harassment. (ibid.: 19) Elizabeth Stanko further asserts that awareness of women's vulnerability in relation to men extends beyond mere crime prevention advice, permeating their everyday consciousness of adhering to societal notions of femininity. (Stanko 1997: 487) The pursuit of safety becomes a profound aspect of self-regulation, intertwined with femininities that are socially constructed, dynamic and often idealised. This process, termed as 'safekeeping', involves ongoing assessments of risk and is not solely dictated by individual circumstances but is influenced by interactions and resistance to perceived male threats. Stanko emphasises that safekeeping is performative, shaping and reaffirming notions of respectable femininities as defined within societal norms and expectations. (ibid.)

Furthermore, Madriz notes that media representations of crime contribute to the perpetuation of this fear, as stories of violent crimes are prevalent in various forms of media, shaping public perceptions of safety and security. (Madriz 1997: 2) Madriz asserts that the portrayal of women as victims by the media, coupled with a societal ideology that perpetuates the notion of men as inherently strong and women as inherently weak, reinforces women's fears and undermines their agency. This goes hand in hand with racialized imaginaries of victimhood, ideas of 'innocent' victims as well as 'risky behaviour' (ibid.: 19):

How we imagine crime is shaped by representations of faceless strangers, maniacs, 'weird looking', dark skinned men who wait for their innocent victims in the dark alleys of the city, under their beds, or inside their closets. Such images persuade women to limit their behaviors and be 'good' to avoid getting mugged, sexually harassed, raped, or killed. The images that mold women's fear of crime and influence the way in which they face such fears are all a part of the dominant ideologies of crime. These ideologies are constructed not only by stories, conversations, and media representations of criminal incidents but also by stereotypical notions of criminals and victims. So frightening are

these images that they have helped to create a strict code of behavior for women. The underlying message is that women who do not follow this code expose themselves to 'unnecessary' risk; if they are victimized, it is their fault for transgressing stringent rules so ingrained in popular culture that 'everybody knows them'. (ibid.: 152)

Magaret Gordon and Stephanie Riger highlight that women are disproportionately affected by the fear of crime and the resulting self-imposed behavioural restrictions. (Riger/Gordon 1981: 89) This fear and restriction of behaviours limit women's opportunities to actively participate in public life. (Riger/Gordon 1981: 89) As Madriz puts it:

One of the most significant mechanisms in the control of women's lives is the fear of crime. Its influence is masked by the common belief that fear of crime imposes limitations upon women's lives 'for their own sake. (ibid.: 34)

Julia Vansetti Miranda and Akkelies van Nes write, 'fear of crime, for women, is mostly a fear of men' (Vansetti Miranda/Nes 2020: 3). They attribute the fear of public spaces among women to several factors. Firstly, encounters with strangers in public are seen as unpredictable and uncontrollable, leading to a sense of insecurity. Secondly, government policies frequently advise women to steer clear of certain locations and times deemed more dangerous, further reinforcing the perception of public spaces as inherently dangerous. Additionally, societal attitudes tend to blame victims for being in the wrong place or wearing inappropriate clothing when attacked, further perpetuating fear and victim-blaming culture. This places the burden of responsibility on women to avoid attacks, rather than addressing underlying societal issues that contribute to such crimes. (ibid.)

Gill Valentine suggests that the link between male violence and specific environmental settings profoundly influences how women interact with public spaces. Many women in Western societies employ strategies to safeguard themselves, like steering clear of areas deemed risky at particular times. These precautionary measures often restrict women's use of public spaces, shaping their perception of safety in different environments. She points out that factors such as age, income and lifestyle determine a woman's ability to select these coping mechanisms and consequently influence her experiences in public spaces. (Valentine 1989: 386) Similarly, Madriz criticises that 'women's fear of crime' is often presumed as a uniform experience, overlooking the nuanced and varied nature of women's concerns, worries and fears. These emotions are not uniform or irrational; rather, they are influenced by various factors such as socioeconomic status, role within society, age, race and immigrant status. (Madriz 1997: 54) This also impacts women's responses, as, for instance, the presence of police can exacerbate feelings of unsafety among women of colour. (ibid.: 159)

Women respond to their fears of victimisation in various ways, ranging from seemingly passive actions like staying indoors and avoiding certain areas to more assertive behaviours demonstrating their resolve to carry on with their lives despite their fears. While some of these strategies reinforce traditional gender roles of vulnerability and protection, others challenge these norms and display resourcefulness in navigating societal constraints. Madriz asserts, 'Women not only resist and refuse to be passive in the face of adversity, but many also fight back'. (ibid.: 75) However, she also points out that both women and men typically respond to their fears through individual actions rather than challenging the prevailing power dynamics. Furthermore, 'men's and women's seemingly innocuous everyday rituals of protection against fear of crime reproduce and maintain gender, race, and class stereotypes and expectations' (ibid.: 156). This perpetuation of the status quo maintains existing social relations and fails to address structural inequalities. Consequently, fear of crime not only constraints women's activities but 'fear of crime is an everyday reminder of the subordinate position that women continue to occupy within society' (ibid.: 162).

Additionally, in neoliberal capitalism, social life is reorganised through 'processes that impact social relations and perceptions in order to support the underlying goals of the economic market' (Collins/Rothe 2019: 25). This implies a shift in responsibility, where the neoliberal state primarily guarantees personal and individual freedom in the marketplace and seeks out 'internal reorganizations and new institutional arrangements that improve its competitive position [...] in the global market' (Harvey 2005: 65), which leads to the degradation of social welfare. As the state retreats from healthcare, social services and education, more people face social insecurity and impoverishment. (ibid.: 76) David Harvey notes:

The social safety net is reduced to a bare minimum in favour of a system that emphasizes personal responsibility. Personal failure is generally attributed to personal failings, and the victim is all too often blamed. (ibid.)

As Harvey suggests, this 'drive towards market freedoms and the commodification of everything' (ibid.: 80–81) leads to social inequality and incoherence. This also applies to crime and the protection thereof, as 'responsibilities and protections of state are readily privatized and individualized' (Collins/Rothe 2019: 25). As Harvey puts it:

The destruction of forms of social solidarity and even, as Thatcher suggested, of the very idea of society itself, leaves a gaping hole in the social order. It then becomes peculiarly difficult to combat anomie and control the resultant anti-social behaviours such as criminality, pornography, or the virtual enslavement of others. (Harvey 2005: 80–81)

Harvey further elaborates on the consequences of unchecked market forces and individualism, which can lead to a breakdown of social cohesion and necessitate coercive measures to restore order, supported by neoconservative narratives of national insecurity and the need for militarization. (ibid.: 81–82) The neoliberal state often enacts legislation and regulatory frameworks that favour corporate interests, employing coercive measures to suppress dissent, emphasising incarceration as a solution for social problems among marginalised groups. (ibid.: 77) As Loïc Wacquant contends, the emergence of a ‘penal state’ therefore is not primarily in response to rising crime rates. Instead, these phenomena are better understood as responses to broader social insecurities. This focus on crime obscures policies that foster poverty and social inequity, essential in the neoliberal state’s development. (Wacquant 2009: 287)

Neoliberalism intertwines with repressive social control, legitimising states that abandon social welfare through a rhetoric of criminalisation and punishment. (Mariani 2001: 4) Governments exaggerate crime threats to justify punitive measures, diverting attention from structural issues with the objective to ‘sell the public on the idea that policing and punishment are the solution to all social-economic problems’ (ibid.). As Mariani writes:

The neoliberal state thus has an investment in fueling fear of crime persuading the public of imminent danger by overstating the threat, inflating or distorting crime statistics, and creating the false impression that all citizens are equally at risk of victimization. (ibid.)

Within the neoliberal state, the fear-of-crime discourse permeates political and media landscapes, fuelling support for punitive measures. This agenda infiltrates all levels of society, from grassroots initiatives like community policing to the proliferation of private surveillance technologies. This ‘enormous retreat from politics’ (Katz 2001: 55) normalises collective policing disguised as self-help but ultimately erodes civil liberties and democratic values (Mariani 2001: 4). Cindi Katz highlights that surveillance technologies offer only micro-scale, private solutions to social and political-economic problems, appealing precisely because they sidestep broader social issues. (Katz 2001: 49) They assume and perpetuate wealth disparities, fostering distrust and investments in surveillance. The ‘shrunk state’ can only monitor, not address, the problems from the retreat from social support, enduring class, race and gender inequalities and inequities in household labour and workplace policies (ibid.: 55). As Zygmunt Bauman (1989) contends, in neoliberal society, individuals are primarily integrated as consumers, a phenomenon extending far beyond market transactions to permeate all aspects of daily life. This consumerist ethos not only encompasses material goods but also extends to the symbolic realm, influencing the construction of self, identity and interpersonal relationships. (Bauman 1989: 166) Within the context of neoliberal capitalism, security and self-defence are

similarly commodified and marketed to consumers, exploiting states of insecurity as a means of social control. (Collins/Rothe 2019: 27) In this context, the private security industry emerges as a significant player, offering a range of services from personal protection to home surveillance. This pattern of consumption is exemplified in the proliferation of personal protection devices, services and products, normalising self-protection and shifting blame onto non-participants, freeing the state from its protective duties. (ibid.: 26)

As Lisa Barca argues, ‘neoliberal risk ideology is gendered’ (Barca 2018: 267). Within the framework of neoliberalism, risk-taking is associated with ideal social subjects, particularly those perceived as male. This perception leads to a greater acceptance of risky behaviour among men, compared to women. Furthermore, neoliberal ideology promotes a rhetoric of ‘choice’ that overlooks power dynamics and structural inequalities, particularly concerning gender. This emphasis on choice obscures the role of power in perpetuating inequalities, leading to a focus on individual responsibility rather than addressing systemic issues. In discussions of sexual assault, this preference for choice over power shifts accountability onto victims rather than perpetrators. Barca highlights how neoliberalism intersects with attitudes toward rape, fostering an anti-victimist stance that prioritizes individual agency over structural analysis. This approach leads to a dichotomous view of agency and victimisation, where the presence of one implies the absence of the other, ultimately undermining efforts to address the root causes of gender-based violence. (ibid.)

As Collins and Rothe note, gender-specific self-defence products exploit narratives of stranger-perpetrated assault. (Collins/Rothe 2019: 31) This fails to address broader systemic issues such as patriarchy, heteronormativity and the normalization of violence against women and it overlooks the statistical reality that sexual violence is more commonly perpetrated by acquaintances rather than strangers. (ibid.) Or as Kristin Bumiller puts it:

In the everyday context, incest and woman battering occur with remarkable prevalence without fueling mass anxieties about the illicit power of men in familial relationships. Crimes committed by people who remain honored members of their communities frequently go unpunished. The cumulative effect is to contain rather than raise uncertainties about conventional sexual norms, while the focus on horrific spectacles draws attention away from the material and psychic harms experienced by individual victims. (Bumiller 2008: 20)

Bumiller argues that exaggerated narratives of sexual violence foster a culture of panic (ibid.: 2), legitimizing ‘over the unruly practices of women, homosexuals, and others who depart from the conventions of the nuclear family’ (ibid.: 21). As Gabriele Michalitsch notes, neoliberal practices and discourses often reinforce traditional gender roles. The family is promoted as a

compensatory institution for the erosion of social solidarity and cohesion, depicted as a haven of emotional security in a competitive, conflict-ridden world. (Michalitsch 2006: 127) Neoliberal transformation thus employs a gendered governance: publicly advocating self-responsibility and free choice while linking entrepreneurial and competitive attributes to masculinity, while women's workforce integration is often marginal, designed to ensure the continuation of 'care' work framed as acts of love, despite the media propagation of the career-woman archetype. (ibid.)

Bumiller further highlights that the culture of terror surrounding sexual violence exacerbates anxieties about deviations from societal sexual norms. Victims are portrayed as having invited violence through their behaviour, reinforcing traditional gender roles and justifying control over marginalised groups. (Bumiller 2008: 20)

In sum, the fear generated by the perception of unrestrained sexual excess has the effect of making women both the source of sexual hostility and the primary subject of regulations that become necessary to protect the social organization of the state and family life from sexual terror. (ibid.: 21)

Gotell concisely outlines that the discrediting of feminist perspectives, the rise of law-and-order strategies and the redefinition of 'violence against women' are interconnected with the rise of neoliberal governance. Sexual violence, once seen as a social issue warranting government action, has now been reframed as an increasingly private matter and individual responsibility. Modern approaches to addressing sexual assault, exemplified by police alerts and media coverage, focus on creating self-regulating individuals. (Gotell 2012: 251) 'The self-managing subject produced [...] is [...] a '(re)action hero' who exercises agency only through avoidance' (ibid.: 254). Thus, 'through risk management technologies, the question of how to end rape gets deflected back onto individual women as tough targets' (ibid.) Gotell concludes:

A gendered panopticon results, with women's behaviour singled out as the principal governmental object. This focus on women's responsibility for rape prevention means that men's responsibility for sexual violence, including the culpability of the rapist himself, becomes obscured. (ibid.)

2.2. Surveillance Capitalism and the Commodification of Data

In 2019, Shoshanna Zuboff published her book '*The Age of Surveillance Capitalism*', in which she introduces the idea of a new form of capitalism: 'surveillance capitalism'. She starts her book with the following definition:

Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioral data. Although some of these data are applied to product or service improvement, the rest are declared as a proprietary *behavioral surplus*, fed into

advanced manufacturing processes known as ‘machine intelligence,’ and fabricated into *prediction products* that anticipate what you will do now, soon, and later. Finally, these prediction products are traded in a new kind of marketplace for behavioral predictions that I call *behavioral futures markets*. (Zuboff 2019a: 8, original emphasis)

As Zuboff argues, the conceptual foundation of surveillance capitalism was built upon the ‘discovery of behavioural surplus’ (ibid.: 75). Google invented targeted advertising by analysing data they collected from their users via algorithms. By doing so, they created a new ‘product’ they could sell to advertisers. The logic behind surveillance capitalism is the translation of non-market interactions with users into profitable products for the ‘genuine market transactions’ with the corporation’s ‘real customers: advertisers’ (ibid.: 93). Zuboff considers the behavioural surplus as ‘surveillance assets’. These assets serve as ‘critical raw materials in the pursuit of *surveillance revenues* and their translation into *surveillance capital*’ (ibid.: 94, original emphasis). While these assets were mere byproducts early on, they soon became ‘hunted aggressively and produced largely through surveillance’. (ibid.: 94) Users became the objects from which raw materials were extracted and expropriated, enabling corporations to sell predictions about their behaviour. Zuboff writes:

Industrial capitalism transformed nature’s raw materials into commodities, and surveillance capitalism lays its claims to the stuff of human nature for a new commodity invention. Now it is human nature that is scraped, torn, and taken for another century’s market project. (ibid.)

Machine intelligence processes the behavioural surplus into ‘prediction products’ that forecast individuals’ thoughts, feelings and actions. By translating behavioural surplus from outside to inside the market, Google established a new marketplace where its ‘prediction products’, derived from users’ behavioural data, could be traded. (ibid.) While advertising played a major role in the early stages of this marketplace, its scope extends beyond that:

By now surveillance capitalism can no longer be thought of as restricted to individual companies or even to the Internet sector. It has spread across a wide range of products, services, and economic sectors, including insurance, retail, health care, finance, entertainment, education, transportation, and more, birthing whole new ecosystems of suppliers, producers, customers, market-makers, and market players. (Zuboff 2019b: 8–9)

Christian Fuchs uses the term ‘internet prosumer – producers and consumers – commodity’ to describe the end product of the process of capital accumulation by corporations and includes ‘user-generated content, transaction data, the right to access virtual advertising space and time’. (Fuchs 2012b: 143–144) Similar to Zuboff, Fuchs identifies ‘data surveillance’ as the ‘means for [the corporations’] (...) economic ends’ (ibid.: 147). He argues that, in order to generate profit, corporations rely on unpaid labour by their users. When the ‘internet prosumer

commodity’ is acquired by advertising clients, it undergoes a transformation into monetary capital, leading to the extraction of surplus value in the form of money. Therefore, platform users are ‘double objects of commodification’; first, ‘by corporate platform operators, who sell them to advertising clients’, and second, ‘in an intensified exposure to commodity logic’ (ibid.: 146). While earlier stages of surveillance capitalism solely relied on predicting future behaviour, there soon was a shift towards influencing *future* behaviours, thus guaranteeing and maximising profits.

Zuboff argues that the objective of surveillance capitalists is not to impose prescriptive behavioural standards, like conformity or obedience, but rather to generate and shape behaviour that consistently results in desired commercial outcomes. (Zuboff 2019a: 201). As Zuboff asserts, surveillance capitalism is subjugated to what she terms the ‘prediction imperative’:

This prediction imperative drives the diversification of extraction architectures to accommodate, first, economies of scope in surplus accumulation and, later, economies of action. (Zuboff 2019b: 17)

This leads to surveillance capitalism encroaching on every aspect of people’s lives – moods, emotions and personality – as well as shaping future behaviour by relying on ‘tuning’, ‘herding’ and ‘conditioning’ human behaviour e.g. through software designed to intervene in actual human experiences and manipulate our behaviour in targeted ways. (Zuboff 2019a: 293)

Surveillance capitalists’ interests have shifted from using automated machine processes to know about your behavior to using machine processes to shape your behavior according to their interests. (Zuboff 2019b: 66)

They do so, for instance, by inserting particular phrases into social media news feeds, timing the display of a ‘BUY’ button, or even disabling a car engine if an insurance payment is overdue. (Zuboff 2019a: 200)

In her article on ‘data capitalism’, Sarah Myers West analyses the process of customers being convinced to give up their data and privacy in order to participate in online communities by relying on ‘narratives of technological utopianism’ (West 2019: 36). One such narrative is the ‘value of the free and open network’ propagated by free-to-use online services, such as Google, with the cost of ‘collecting data in increasingly invasive and invisible ways’ (ibid.: 36). Fuchs argues that providing users with free access to services and platforms, enabling them to generate content and subsequently amassing a multitude of ‘prosumers’ who are sold as a commodity to third-party advertisers, has become the most common strategy for data accumulation. ‘No product is sold to the users; the users are sold as a commodity to advertisers’ (Fuchs 2012b: 144). Zuboff argues that the availability of free services from surveillance-capitalist platforms,

such as Google and Facebook, appeals to individuals seeking resources in an increasingly challenging environment. This has played a big part in the success of online platforms. (Zuboff 2019a: 216–217) Fuchs highlights the duality of free-to-use platforms like Google:

So on the level of the productive forces, Google and other web 2.0 platforms anticipate a commons-based public Internet from which all benefit, whereas the freedom (free service access) that it provides is now enabled by online surveillance and user commodification that threatens consumer privacy. (Fuchs 2012a: 47)

He further argues that this process of data commodification blurs the lines between the private and public sphere, firstly by exploiting ‘all human time’ accumulating capital from ‘play and work time’, and secondly, by commodifying ‘private data that is used for public communication in order to accumulate capital that is privately-owned’ (Fuchs 2012b: 146–147). He argues that in capitalism, privacy is paradoxical. While it is upheld as a universal value to safeguard private property, it is continually eroded by corporate surveillance for profit and political surveillance for administrative, defence and law enforcement purposes. Capitalism protects privacy for wealthy individuals and corporations, yet legitimises privacy infringements upon consumers and citizens, contradicting its stance on privacy as a universal value (Fuchs 2017: 188). Zuboff observes:

Surveillance capitalists have extensive privacy rights and therefore many opportunities for secrets. These are increasingly used to deprive populations of choice in the matter of what about their lives remains secret. (Zuboff 2015: 83)

The other utopian narratives that West acknowledges are ‘the technocratic value placed on data and its potential to augment consumer power’ (West 2019: 36) and the process of making the web personal: ‘Data capitalism relies on the potential to foster productive intimacies between man and machine’ (ibid.). This intimacy is fostered by what Zuboff calls ‘social persuasion’, whereas surveillance capitalists employ persuasive rhetoric to promote the benefits of their innovations, such as targeted advertising, personalisation and digital assistants. Furthermore, online services are deliberately designed to influence individuals to follow predetermined courses of action, relying on social influence and persuasion. They present the developments as inevitable as well as without alternatives. Zuboff further argues that the novelty of surveillance capitalist operations made it hard to recognise surveillance practices as they were typically associated with state power. Additionally, participation in surveillance capitalism, particularly through platforms like Facebook, has become so pervasive that people feel their life is contingent on being part of these networks. (Zuboff 2019a: 216–217) Or as Sarah Myers West puts it:

Access to data, and the ability to transform raw data into useful information, is asymmetrical, and power lies in the institutions with the technical and economic

resources to render it intelligible. This has made data, and the technologies and institutions that treat it as a commodity, a site of struggle over transparency, between our inner needs for privacy and social desires for community. (West 2019: 37)

2.3. ‘Data Colonialism’ and its Impact on Social Relations

Nick Couldry and Ulises A. Mejias (2019) coined the term ‘data colonialism’ to refer to the exploitative appropriation and control of data from individuals and communities by dominant global powers in what they call an ‘emerging social quantification sector’. This includes large corporations like Apple, Microsoft, Google and WeChat, Netflix or Uber, as well as manufacturers of ‘smart’ home appliances or data brokers like Equifax:

Data colonialism is, in essence, an emerging order for the appropriation of human life so that data can be continuously extracted from it for profit. This extraction is operationalized via data relations, ways of interacting with each other and with the world facilitated by digital tools. Through data relations, human life is not only annexed to capitalism but also becomes subject to continuous monitoring and surveillance. (Couldry/Mejias 2019: xiii)

Couldry and Mejias draw a continuation from colonialist and capitalist logic to new ways of exploitation. They don’t draw comparisons to particular events of historical colonialism but focus on colonialism’s enduring function, which they see ‘as enacting illegitimate appropriation and exploitation and as redefining human relations so that the resulting dispossession comes to seem natural’ (ibid.: xviii).

Couldry and Mejias argue that data colonialism operates on four distinct levels. The first level involves the appropriation of resources, wherein human life, experiences and actions are directly exploited for capital gain. The second level entails the colonisation of social relations. Additionally, the accumulation of wealth by the social quantification sector constitutes the third level. Finally, new colonial ideologies emerge, serving to camouflage the underlying processes of data colonialism. While not explicitly framed as a notion of civilisation, these ideologies promote the necessity of constant connectivity and the conversion of all aspects of life into a data format, with the illusion that tracking and data integration are inevitable consequences of contemporary existence. (Couldry/Mejias 2018: 340–341)

Couldry and Mejias contend that human life is undergoing a ‘vast reorganisation’ (ibid.: 341) process of colonisation through data. As social interactions increasingly adopt a data-centric format, the primary objective becomes maximising data extraction for value creation. Consequently, a new social landscape is emerging, wherein susceptibility to coerced acceptance of continuous surveillance is poised to become a prominent dimension of inequality.

Similarly, Mark Andrejevic refers to the concept of ‘dataveillance’ to describe the continuous tracking of metadata, which extends far beyond traditional surveillance. Unlike specific monitoring aimed at certain individuals, ‘dataveillance’ involves unstated purposes, meaning that it penetrates every layer of social life without clear boundaries. (Andrejevic 2012: 86) This surveillance system stretches beyond mere privacy concerns, fundamentally reshaping the way data is understood and used across industries. As Andrejevic points out, the methods of ‘predictive analytics and data mining exemplify convergent strategies’ (Andrejevic 2013: 24) where large sets of data, regardless of their original context, are mined for useful patterns. The defining shift in the age of ‘big data’ is the transition from targeted to population-level surveillance. While traditional surveillance focused on individuals, ‘populational surveillance’ now seeks to capture entire populations to monitor behaviour on a broad scale. (ibid.: 35)

This shift normalises surveillance as a part of social life, where every individual’s data is captured, whether or not they are directly targeted. This type of monitoring is designed not just to watch but to ‘predict outcomes’ and potentially alter them, whether in policing or marketing. (Andrejevic 2013: 29) This ‘data mining is on a collision course with anonymity in any meaningful sense of the word’ (ibid.: 40), as all human activity, including the most personal, is monitored for patterns that can be analysed. (ibid.: 35–37) If a person’s profile aligns with traits associated with susceptibility to a certain message or likelihood of certain behaviours, he or she can be subjected to different forms of targeting, exclusion, or scrutiny without any need to personally identify him or her by name. (ibid.: 40) The shift to metadata ensures that no piece of data is irrelevant which enables a ‘function creep’ that ensures that data is continuously repurposed, regardless of why it was originally gathered. (Andrejevic/Gates 2014: 189) As Andrejevic asserts, ‘there is no dimension of human activity, no matter how private or personal, that is ruled out a priori’ (Andrejevic 2013: 37) in this new paradigm of data collection.

As José van Dijck notes, this continuous data extraction has serious and ‘profound consequences for the social contract between corporate platforms and government agencies on the one hand and citizens-consumers on the other’ (Dijck 2014: 205) as it places immense power in the hands of platforms that exploit users’ data invisibly and without explicit consent. She further notes how datafication of everyday life has entrenched itself in the fabric of contemporary society, operating through mechanisms that are mostly invisible to the users themselves. (ibid.)

Couldry and Meijas argue that in contrast to historical colonialism, contemporary manifestations of colonialism build upon the pre-existing social order of capitalism.

(Couldry/Mejias 2019: 149) As Virginia Eubanks (2018) and other researchers have highlighted, it is the already marginalised groups and vulnerable and poor populations who are most likely to suffer from covert data-driven judgments made against them by governmental agencies, service providers, credit assessors, insurers and similar entities. Additionally, these marginalised groups also face greater difficulties in mounting legal challenges and often find themselves compelled to accept further surveillance when seeking employment, particularly in low-wage jobs where heightened surveillance is the norm. (Couldry/Mejias 2019: 149)

The authors suggest that digital platforms produce a new type of ‘social’, ‘that is, the social in a form that can be continuously tracked, captured, sorted and counted for value as ‘data’.’ (Couldry/Mejias 2018: 341) However, data colonialism extends beyond digital platforms. One distinct way in which the appropriation of human life occurs within novel social relations is self-tracking, a practice that may occur voluntarily or is often compulsory – due to labour obligations or vital contractual commitments like insurance or social security (ibid.: 342). Self-tracking in itself is a social process, but the meaning of sharing has been expanded since the advent of new social relations:

As Nicholas John points out, what is most striking about sharing as a metaphor is the extendibility of what is to be shared: from thoughts and pictures to information sources and life histories to everything and anything. Sharing our lives has come to imply a broader value of ‘openness and mutuality’ but at the risk of mystifying the communities we supposedly form online. In a world in which we are constantly induced to share personal information, data collection becomes part of a social life within which, somewhere, we assume that autonomous subjects still exist. (Couldry/Mejias 2019: 169)

According to Couldry and Mejias, it is through the reshaping of social relations that autonomy itself is being ‘reconfigured by capitalist data practices’ (ibid.: 168). It is within the realm of self-knowledge where the ambiguity of capitalist data relations becomes obvious:

They offer us, apparently, the chance to be more autonomous — in the sense of regulating ourselves more intensely — but at the cost of submitting to an external data system whose functioning requires the integration of its devices permanently into the space where, until now, we imagined we were truly, and only, ourselves. [...] The resulting forms of self-reflection and community exchange are, [...] relations with external entities and processes that intimately expose us to the economic forces of capitalism. (ibid.: 170)

For Couldry and Mejias the issue here does not lie in the relations with external systems, but that in contemporary data relations the systems involved insinuate themselves within ‘the self’s needs, desires and other choices’ (ibid.: 171). This is where they argue one’s autonomy is threatened as the systems we rely on to ‘know ourselves’ are arbitrary and driven by capitalistic goals that are not our own. The authors put forth that data collection and processing, rather than

strengthening individual autonomy, pose a potential threat by including increasingly personalised forms of control and management. This is driven by imperatives within the system that humans themselves lack comprehensive knowledge of, or control over. Herein, the authors claim, lies the risk of unlearning the norms associated with self-autonomy, as we often do not have a choice other than to participate in these relations that undermine autonomy itself: '[D]ata colonialism's subjects may come to unlearn freedom in time' (Couldry/Mejias 2018: 171).

2.4. Feminist Perspectives on Surveillance

With the rise of digital surveillance and the advent of surveillance capitalism, the field of surveillance studies has emerged as an area of academic expertise. Rachel Dubrofsky and Shoshana Amielle Magnet (2015) argue in their book *'Feminist surveillance studies'* that the study of surveillance is a study of power relations. To fully grasp the specific ways in which surveillance technologies and practices impact social relations, it is necessary to engage in a feminist perspective of surveillance. They argue that in the formation of surveillance studies, due to a lack of feminist perspectives, many aspects of surveillance have been overlooked. Mark Andrejevic further underscores this point, arguing that surveillance often hides its power dynamics behind seemingly neutral practices. He notes:

At the most basic level, this includes the wide-ranging scope of what ought to be counted as surveillance, especially those monitoring practices that attempt to exempt themselves from an entanglement with power or to cloak themselves in taken-for-granted imperatives. (Andrejevic 2015: xi)

Building on this critique, a feminist approach to surveillance calls for a shift away from neutral definitions to prioritising critique. Surveillance is inseparable from the oppressions that structure our society. Thus, feminist perspectives aim to highlight how power dynamics are facilitated by the texts and classifications inherent in surveillance systems. Dubrofsky and Magnet argue that studies on the surveillance of women are nothing new, nor is the regulation of women's bodies (Magnet/Dubrofsky 2015: 2–3). Privacy, for example, has never been granted equally. Women's bodies had been subject to scrutiny by state regulations but also in 'traditional media' under the male gaze, as Rosalin Gill (2019: 151) suggests. Analyses of surveillance in connection to privacy also need to consider the fact that 'privacy concerns have not kept vulnerable communities safer in the case of patriarchal violence, which often happens in the 'private' space of the home' (Magnet/Dubrofsky 2015: 4).

Torin Monahan suggests expanding the field of surveillance studies by introducing the concept of gender to surveillance subjects. He argues that 'insecurity subjects' (Monahan 2010: 113),

both those deemed in need of surveillance and those requiring paternalistic monitoring, are gendered feminine. Meanwhile, modern surveillance technologies embody a masculine, controlling logic and justify themselves by claiming to protect individuals, including women, from violence. However, this disembodied surveillance, often based on vast databases of personal information, strips away social context and reduces people to abstract representations of data. As Monahan notes, ‘the act of filtering out bodies and social contexts facilitates a kind of control at a distance that is the hallmark of modern surveillance systems’. (ibid.: 116) In the process, social inequalities and lived experiences are removed as bodies are reduced to mere data points and the complexities of gender-based inequalities are rendered invisible. This lack of representation means that systemic inequalities, whether gender-based or otherwise, are not addressed by surveillance systems, but are instead reinforced and exacerbated by their absence in the data. As a result, while surveillance technologies claim to offer protection, they ultimately perpetuate the very gendered power dynamics and inequalities they purport to address (ibid.: 113–116).

Monahan links surveillance practices to western ideals of technoscience, which privileges disembodied control at a distance, abstracting individuals from their social realities. This abstraction allows surveillance to obscure and solidify gender and social inequalities under the guise of neutrality. (ibid.) He writes:

The rationalization and potential control of people and their activities becomes even more powerful, however, as information and communication systems become ubiquitous. Instead of everyone being subjected equally to the disciplinary gaze, we are now witnessing advanced social sorting made possible by electronic surveillance in all its forms. The methods of abstraction upon which new surveillance systems are predicated are those in the spirit of the scientific revolution and Enlightenment rationality: of masculine control at a distance. (ibid.: 117)

This disembodied control creates a form of social sorting, reinforcing inequalities by using data-driven systems that appear impersonal but are deeply entrenched in gendered logic. (ibid.: 117–118) This reveals that surveillance is not only about privacy concerns but also deeply embedded in power relations. Emily van der Meulen and Robert Heynen argue that surveillance technologies are ‘deeply implicated in relationships of power and inequality’ (Van der Meulen/Heynen 2016: 4). Much of urban surveillance for instance has historically been informal, enacted through the threat of sexual violence against women. Formal sanctions, such as those targeting sex workers, were used as mechanisms to regulate women’s access to public spaces, reinforcing gendered norms of propriety. (ibid.: 21) Surveillance in urban contexts is thus part of the regulation of gendered social relations, not simply gender-neutral exercises of

power. This intersects with other inequalities, such as race. Men of colour are often rendered hyper-visible in policing and urban surveillance, while women of colour, despite being frequent targets of surveillance, remain largely invisibilized in discourses around violence. (ibid.: 18)

Expanding on the feminist critiques of surveillance, Yasmeen Abu-Laban suggests viewing surveillance through a feminist lens, linking it not only to control but also to the dynamics of care work. She highlights that home-use surveillance technology is not always about reinforcing remote masculine control. Instead, it often becomes integrated into gendered care work, especially when looking after vulnerable groups like children or the elderly. Abu-Laban suggests that care and control frequently blur into one another. Viewing surveillance from a care perspective can, therefore, offer deeper insights into why these technologies are so readily embraced and embedded in everyday life, as ‘the idea of care may be very easily mobilized and supported’ (Abu-Laban 2014: 54).

Dubrofsky and Magnet therefore propose a departure from the conventional concerns of privacy, security and efficiency towards a discussion of the ethical problem. Furthermore, they argue, a feminist lens is needed to identify issues of disenfranchisement, especially where gender and other forms of oppression intersect. (Magnet/Dubrofsky 2015: 4–5) They coined the term ‘white supremacist capitalist heteropatriarchal surveillance’ to highlight how surveillance practices need to be understood as practices to ‘normalise and maintain whiteness, able-bodiedness, capitalism and heterosexuality, practises integral to the foundation of the modern state.’ (ibid.: 7) This is especially true for state surveillance and the introduction of new surveillance technology e.g. in the legal system or by employing technologies that make use of biometrical data that excludes trans people, people with disabilities etc.

Furthermore, Magnet and Dubrofsky suggest that surveillance practices produce new ways of ‘visualizing bodily identities in ways that highlight othered forms of racialized, gendered, classed, abled and disabled bodies, as well as sexualized identities’ (ibid.: 9). By drawing on media studies, they propose connecting the politics of looking like the male gaze to current studies on surveillance. Surveillance practices do not only look at but also discipline bodies:

[S]urveillance technologies work to discipline certain bodies in particular ways, making some bodies hypervisible and others invisible, crafting regimes of intelligibility wherein what is rendered invisible is legitimized and taken for granted as an inherent part of the social fabric. (ibid.: 11)

This does not only apply to state surveillance but includes ‘peer surveillance’ through social media platforms. Magnet and Dubrofsky introduce the case of a woman who lost her disability

insurance benefits for depression after posting ‘too happy’ pictures on Facebook. Thus, Magnet and Dubrofsky urge to explore questions like:

How do questions of empowerment and responsibility become articulated when individuals operate the technologies that functionally surveil them and are used to obstruct their right to the privileges of citizenship, including assistance from the state, as well as to get them fired, to socially ostracize them, and so forth? What are the particular implications of this for female, racialized, queer, and disabled subjects? (ibid.: 13)

Similarly, Rosalind Gill (2019) writes on the surveillance of women’s bodies and new technologies. She emphasises the necessity of expanding the scope of surveillance studies beyond a narrow focus on top-down surveillance ‘in order to open up questions about peer surveillance and self-surveillance’ (Gill 2019: 148).

Gill argues that surveillance of women has increased exponentially in contemporary culture, ranging from celebrity gossip sites or social media accounts to covert filming or taking pictures of women without their consent with women’s appearances being discussed constantly: ‘It is striking to note the extent to which the surveillant gaze is becoming more and more intense’ (ibid.: 154). In addition to surveillance by media outlets like gossip sites, the emergence of social media saw a rise in horizontal or peer surveillance. Gill writes:

The rapid proliferation of social media and Web 2.0 technologies have brought horizontal surveillance to attention, but arguably it existed as a phenomenon long before the internet, seen in practices of community social control, for example, or in the way that young women ‘police’ each other’s looks and behaviors – operating through what Alison Winch (2013) has called a ‘girlfriend gaze’. (ibid.: 155)

The emergence of new technologies also gave way to a third form of surveillance that is often overlooked in surveillance studies: self-surveillance and self-tracking (see Chapter 2.4.). Rosalind Gill and Ana Sofia Elias show in their analysis of beauty apps that self-surveillance, neoliberalism and gender overlap in a multitude of ways. They underline that self-surveillance needs ‘to be understood in gendered (and racialized and classed) terms, as related to the dominant neoliberal and postfeminist sensibility circulating in contemporary society which addresses women as entrepreneurial subjects par excellence’. (Elias/Gill 2018: 60)

2.5. Women ‘At Risk’: Self-Surveillance and Women’s Safety Pedagogy

Shoshana Zuboff traces the roots of surveillance capitalism back to two historical developments: the development of a ‘second modernity’ and the spread of neoliberal ideas. Within what Zuboff calls ‘the neoliberal habitat’ (Zuboff 2019a: 37), rapidly developing digital

technologies were able to form a new mutation of capitalism. Neoliberal ideals of ‘a capitalism stripped down to its raw core’ (ibid.) proposed by economists like Friedrich Hayek and Milton Friedmann provided fertile grounds for the ‘surveillance capitalist corporation’ (ibid.: 38). The neoliberal order centred the absolute authority of the market as the regulative instrument of power, condemning any form of intervention from the state. Furthermore, neoliberal ideology proposed the maximisation of shareholder value as the main goal of corporations, replacing the idea of the ‘pro-social principles of the twentieth-century corporation’ (ibid.). This enabled big corporations such as Google and Facebook to prioritise maximising profit and to swiftly expand new modes of surveillance capitalism, largely without government oversight. The infringement upon privacy became an accepted necessity in exchange for free digital services. Corporations widely implemented ‘take-it-or-leave-it-contracts’ like terms-of-service agreements and privacy policies that were designed as a mere signal, rather than a contract that both parties are well informed upon and agree on (ibid.: 48).

The ‘second modernity’ fostered a ‘new society of individuals’ by emphasising the importance of individuality over traditional ties of kinship and community. (ibid.: 35) As discussed in Chapter 2.1, Ulrich Beck's concept of the ‘second modernity’ refers to the shift from the production and distribution of wealth to the production and distribution of risks. (Beck 1992: 19–22) In connection with neoliberalism, the instability of the ‘second modernity’ provided fertile grounds for the shift towards surveillance capitalism. Neoliberal economic reforms exacerbated economic and social insecurities, manifesting the instability of the ‘second modernity’ as a result. The ‘second modernity’ according to Beck is characterised by the individualisation of risks. Social structures that provide a sense of security and stability are challenged, leading individuals to confront risks on a more personal level.

In the welfare states of the West, reflexive modernization dissolves the traditional parameters of industrial society: class culture and consciousness, gender and family roles. It dissolves these forms of the conscience collective, on which depend and to which refer the social and political organizations and institutions in industrial society. These detraditionalizations happen in a social surge of individualization. (ibid.: 87)

By creating individuals who are solely responsible for their own well-being, ‘second modernity’ citizens became more receptive to the promises of an ‘advocacy-oriented digital capitalism’ (Zuboff 2019a: 46). Corporations, for example Google and Facebook, positioned themselves as solutions to the instability and insecurity created by neoliberalism, offering convenient access to information and human connection. Zuboff calls this the promise of an opportunity for ‘my life, my way, at a price I can afford’ (ibid.).

Neoliberalism can be broadly defined as a political and economic ideology characterised by the subjugation of all areas of society under market principles. Neoliberalism is centred around the belief that individual entrepreneurial freedoms and skills, operating within a framework of ‘strong property rights, free markets, and free trade’ (Harvey 2005: 2), are the key drivers of human well-being. Typically, neoliberalism leads to the privatisation of social support and the reduction of the state’s role regarding social provisions. (Michalitsch 2004: 144) In neoliberal societies, the notion of enterprise extends to encompass all aspects of human behaviour, thereby transforming individuals into entrepreneurial actors across all spheres of life. As a result, individuals are construed as self-managing, autonomous entities, imbued with a sense of personal responsibility (Michalitsch 2013: 47).

Rosalind Gill suggests that the surveillance of women ‘must be understood in relation to the profound grip of postfeminism and neoliberalism in contemporary culture’ (Gill 2019: 150). The ‘entrepreneurialism’ and notion of personal responsibility provide the perfect ground for self-surveillance. Self-surveillance gave rise to a ‘quantified self’ – ‘a reflexively monitoring self who uses the affordances of digital technologies to collect, monitor, record – and potentially share – a range of information about her or himself’ (ibid.: 149). Gill emphasises the pivotal role played by mobile phones and apps in this context.

Increasing numbers of people now routinely ‘track’ several aspects of their everyday lives via their phones, and applications are proliferating at an extraordinary rate with multiplying health apps [...], psycho apps [...], apps related to pregnancy (...), apps to monitor work and productivity, apps to get organized, apps to monitor finance, and even those to track one’s sex life. (ibid.: 139)

Deborah Lupton defines the ‘quantified self’ as a term that refers to the practice of self-tracking and self-measurement using digital technologies and devices. It involves individuals collecting and analysing data about various aspects of their lives, such as physical activities, health, sleep patterns and personal behaviours. The ‘quantified self movement is driven by the belief that tracking and quantifying personal data can lead to self-improvement, increased self-awareness and better decision-making’. (Lupton 2014: 12–13) Lupton argues:

Self-tracking may be theorised as a practice of selfhood that conforms to cultural expectations concerning the importance of self-awareness, reflection and taking responsibility for managing, governing oneself and improving one’s life chances. (ibid.: 12)

Gill argues that self-surveillance is also an essential part of what she calls the ‘postfeminist sensibility’. Within this sensibility, concepts of choice, agency, autonomy and empowerment are central as part of a shift towards entrepreneurial selfhood. (Gill 2019: 151) This also

includes an 'emphasis upon self-surveillance, monitoring and discipline', 'a focus upon individualism' and an 'emphasis upon consumerism and the commodification of difference' (Gill/Scharff 2013: 4). Additionally, neoliberal ideas about personal responsibility and individualisation have influenced how violence against women is observed and dealt with within society. Rachel Hall argues that neoliberalism introduced a 'risk management mentality' in social administration. Drawing on Robert Castel (1991) she depicts that within the 'new space of risk' (Hall 2004: 1), governmental approaches no longer rely on repression or welfare interventionism. Instead, they reposition the focal point for social intervention from 'dangerousness' to 'risk'. Hall argues that this leads to 'responsibility for a wide range of social, health, and environmental problems' (ibid.) becoming personalised:

The method of risk assessment can be and has been applied to almost every aspect of modern life, from drug use to unwanted pregnancy, from violent crime to child maladies preventable with vaccination, and from car accidents to chemical spills. Translated into the language of risk, these wide-ranging problems become like so many accidents that the individual should try to avoid. (ibid.)

Hall argues that this 'new space of risk implies a new mode of surveillance' (ibid.: 2), as risk is not solely associated with specific dangers embodied by individuals or groups, but rather emerges from a combination of abstract factors that influence the likelihood of undesirable behaviours. This shift towards a risk-based approach leads to a focus on preventative education for populations deemed 'at risk,' rather than providing care for dangerous individuals or those in danger. (ibid.) Castel calls this 'new form of surveillance', 'systematic pre-detection' (Castel 1991: 288). Unlike traditional surveillance methods that involve physical presence and reciprocal relationships between watcher and watched, this form of surveillance relies heavily on technology and statistical analysis to anticipate and prevent undesirable events. Castel highlights a significant shift from targeting individuals to focusing on factors and statistical correlations among various elements. This transformation, he argues, expands the scope of surveillance technologies and fundamentally alters the nature of intervention strategies. (ibid.) The aim is to 'anticipate and prevent undesirable events, such as rape' (Hall 2004: 2). This focus on prevention has also shaped the discourse surrounding violence against women. Hall argues that the shift towards risk regarding violence against women has given rise to a new form of 'rape pedagogy': 'women's safety' (ibid.: 5).

Prevention rhetoric addresses [the woman] as a conglomeration of risk factors, most notably, the risk of having/being rape space. At the same time, women's safety education programs hail her, as a modern subject, to the position of feminine vulnerability [...] In the case of 'women's safety,' women's bodies are brought into a position of vulnerability that becomes constitutive of their identity as women that becomes constitutive of their identity as women. (ibid.)

Women's safety pedagogy constructs prevailing perceptions of female agency where women are simultaneously presumed to be victims by default while also being expected to evade inevitable assaults by themselves. 'The resulting paradox is that agency is possible for women only through avoidance.' (ibid.: 6). Hall emphasises that not all women are treated equally in this position of vulnerability:

A woman's social positioning shapes both her experience of rape and her treatment as a proper or improper victim. The quintessentially vulnerable woman at the heart of the conservative dream of 'women's safety,' as well as older paternalistic models of protectionism, is specifically white and middle class. (ibid.: 6)

Hall argues that sexual violence statistics are central to the pedagogy of women's safety. Statistics strip individual rape cases of their unique details, erasing the personal narratives of the women who have experienced rape. Instead, they are reduced to mere numbers used as generic models to promote cautious behaviour and instil fear in women. (ibid.: 8) This also conceals the reality that the predominant form of violence against women is domestic violence or intimate partner violence, rendering the home the least secure place for women. (FRA 2014; WHO 2021)

Such public information and statistics on sexual violence tend to portray rape as an abstract consequence, obscuring the specific contexts surrounding each incident, including the identities and motivations of the perpetrators. This perspective positions rape as an all-encompassing and inevitable force, with the focus primarily centred on the victims rather than addressing the potential perpetrators (Hall 2004: 7–8). As women's safety becomes an area of risk prevention, women are urged towards a 'performance of diligent fearfulness' by employing 'common sense' and avoiding 'high-risk' behaviour such as going out at night (ibid.: 10). Hall argues that this leads to the assumption that 'rape prevention is the responsibility of individual women' (ibid.: 12), while also painting every woman as a victim. This image of women as victims is tightly enmeshed with racist stereotypes of perpetrators urging women to be 'suspicious of men's appearances' (ibid.: 13). In contrast, as Cynthia Cockburn (Cockburn 2013: 437–438; also: Enloe 2000) shows, masculinity includes 'competitiveness, combativeness, physical strength and assertiveness, courage, and ambition' inclining men to fighting. Within these gender relations lies one essential root of militarism:

Males are designated protector, females (and young) as protected. At the same time, perversely, males are cast as wielders of the means of coercion, women as 'natural' victims. In such a gender order, war can seem the fulfilment of gendered destinies. (Cockburn 2013: 438)

Surveillance capitalism emerged through the convergence of a ‘second modernity’ and the spread of neoliberal ideals, enabling the growth of digital technologies and the prioritisation of profit in corporations like Google and Facebook. This was accompanied by the rise of self-surveillance and the quantified self, driven by a postfeminist sensibility that emphasises individualism and consumerism. The convergence of personal accountability, risk mitigation and self-monitoring, constitutes the focal point wherein anti-violence technologies can emerge. Renee Shelby argues that anti-violence technologies have been criticised for ‘perpetuating gendered rape myths, commercializing assault, and disproportionately placing the burden of prevention on women’ (Shelby 2021: 557). Therefore, it is essential to critically examine the implications of surveillance capitalism, data colonialism, the postfeminist sensibility and neoliberal ideologies on issues of privacy, agency and gender equality when examining anti-violence technologies. The subsequent research in this thesis aims to shed light on these complex dynamics and contribute to the ongoing discourse surrounding these critical issues.

2.6. Summary

This chapter’s theoretical framework examines how risk, insecurity, and surveillance shape social dynamics in contemporary societies. Ulrich Beck’s ‘risk society’ posits that modern societies are increasingly focused on risk management, shifting responsibility to individuals for navigating their own risks. This, coupled with a growing perception of insecurity and the ‘culture of fear’ (Isin, 2004), drives individuals to adopt proactive risk management behaviours, while the state withdraws from guaranteeing public safety. Consequently, security has become a privatised commodity, exacerbating disparities in safety access. The gendered implications of this shift are profound. Scholars like Madriz, Vansetti Miranda and Valentine highlight how the fear of crime disproportionately affects women, constraining their use of public spaces and reinforcing traditional gender roles. This fear is shaped by factors such as race, class, and socioeconomic status and the focus on individual responsibility places the burden on women to avoid victimisation, perpetuating fear and restricting their agency. Neoliberalism intensifies these dynamics by promoting entrepreneurial freedoms and reducing state responsibilities in social welfare. Neoliberalism thus creates social insecurity, which is addressed not primarily through political solutions but through technical measures, such as personal safety apps, as well as increased surveillance, police, and military responses, including the expansion of security forces and militarization. (cf. Cockburn 2013, Enloe 2000, Mariani 2001, Wacquant 2009)

These developments are further compounded by what Shoshana Zuboff termed surveillance capitalism. As digital technologies have advanced, corporations have found new ways to exploit human experiences as raw materials for generating profit. Data is collected, processed, and commodified through algorithms and machine learning to predict and shape individual behaviours. This phenomenon can be understood as a continuation of colonial logic, where human life itself is appropriated and exploited for data extraction. This not only redefines social interactions but also establishes a new normal in which individuals are constantly subject to surveillance, monitoring and evaluation. Within this context, Mark Andrejevic introduces the notion of 'dataveillance', showing how surveillance now targets everyone, as all possible data is continuously mined, stored and also repurposed. This systemic data mining normalises the surveillance of every aspect of life. Furthermore, surveillance practices disproportionately affect marginalised groups. Feminist perspectives reveal that surveillance technologies often reinforce existing power hierarchies, subjecting women and minorities to heightened scrutiny. Technologies like biometrics and peer surveillance through social media perpetuate traditional gender norms under the guise of safety, positioning women as inherently vulnerable subjects responsible for their own protection.

In the realm of women's safety, this discourse manifests itself in the form of 'women's safety pedagogy', where women are instructed to adopt precautionary behaviour to avoid potential dangers. This pedagogy constructs women as perpetual victims while also holding them responsible for their own safety. The focus on avoiding 'risky' situations not only reinforces traditional gender roles but also obscures the reality that most violence against women occurs in private settings, perpetrated by known individuals rather than strangers. As a result, women are expected to exercise agency by avoiding risk, yet this very expectation reinforces their subordinate position within society.

Overall, this theoretical framework sheds light on the complex ways in which risk, insecurity, gender and surveillance intersect within contemporary capitalist societies. These processes disproportionately burden marginalised groups, especially women, who are compelled to navigate these systems through self-surveillance and responsabilization. Understanding these dynamics is crucial for critically examining personal safety technologies and their impact on privacy, agency, and gender equality. As these technologies become more prevalent, it is essential to question who benefits from their use and who may be further marginalised. The subsequent research aims to delve deeper into these issues.

3. Literature Review: Personal Safety Apps

As smartphones have become more widespread, new technologies, including mobile phone apps, are frequently portrayed as distinctive solutions to social challenges. With these advancements, women are promised greater personal independence, freedom and participation in public spaces. (Bivens/Hasinoff 2017: 1050–1051) By offering connections to friends, family, emergency services, maps and the internet, these apps seemingly make solo ventures feel less intimidating. Smartphones, along with their accompanying apps, have become pivotal in shaping perceptions and practices related to personal security. (Cardoso et al. 2019: 2) Cumiskey and Brewster argue that women perceive their mobile phones as effective tools for self-defence, even rating them higher than traditional weapons like pepper spray. (Cumiskey/Brewster 2012: 596–597) Likewise, McCarthy et al. (2016) discovered that women exhibited a greater inclination than men to download safety apps equipped with tracking features, aiming to enhance their feelings of security and reassurance. (McCarthy et al. 2016: 179–80) The proliferation of apps focused on women's safety reflects women's reliance on technology for security. However, the effectiveness of mobile phones as a tool of self-defence and crime deterrence is ambiguous and their impact on social perceptions and relationships such as 'the often-gendered expectations of constant contact, accessibility and responsibility toward others' (Cumiskey/Brewster 2012: 591) require careful examination. (ibid.: 596–597) In the forthcoming chapter, I will offer an overview of current research conducted on personal safety apps, with a particular emphasis on studies that examine safety apps targeted at women.

3.1. Typology of Personal Safety Apps

Wood et al. (2021) develop a comprehensive typology of crime prevention apps. They identify several distinct categories, including crime-mapping/alert apps that promote personal safety by (crowd)mapping crimes and providing users with alert services, child-tracking apps, designed to enhance child safety through various tracking mechanisms, and decision aid apps focused on preventing intimate partner violence. Additionally, they categorise crime reporting apps, which allow users to report various forms of crime easily and educational apps that provide users with educational materials related to crime prevention. (Wood et al. 2021: 1100–1104) Under the 'self-tracking personal safety app' category, they include apps that safeguard users by enabling location tracking by friends or family members, sending alerts to designated contacts or authorities in emergencies and automatically notifying family members if the user fails to deactivate the alert. (ibid.: 1097) As Bevan shows, these apps 'are developed predominantly for

North America or South-East Asia’; however, the ‘architectural similarities of the apps in terms of their features suggest a broader techno-cultural imaginary of technological solutionism and gender violence’ (Bevan 2023: 3).

Ford et al.’s systematic review of apps marketed for personal safety and violence prevention includes 503 apps available in the UK, with only 61% offering full functionality for free. (Ford et al. 2022) Apps targeted various demographics, with over half aimed at the general population, while 16% targeted women and 13% targeted families. While app functionality varies, the majority of apps request access to location services and user contacts upon download. (ibid.: 1) This aligns with Lucy Maxwell et al.’s finding that a significant portion of personal safety apps target women or use terms likely to resonate with them, while none of the apps specifically target men. (Maxwell et al. 2020: 240) Eisenhut et al.’s content analysis further reveals that emergency apps addressing violence against women primarily offer one-time emergency or avoidance solutions rather than preventative approaches. Specifically, 82.46% of the reviewed apps target potential or current victims of violence against women. Moreover, the review shows that a significant portion of these apps are developed by actors in the private sector. (Eisenhut et al. 2020: 1–3)

3.2. Technological Solutionism vs. Critical Approaches to Technology

Wood et al. highlight that despite the abundance of these apps, there’s a notable absence of empirical studies assessing their efficacy in crime prevention. (Wood et al. 2021: 1102) There’s a clear split in the research examining self-tracking apps, with one body of literature originating from the computational sciences and engineering. These studies present software proposals outlining the features and purpose of apps intended to enhance people’s, particularly women’s, safety in public spaces or on university campuses. (e.g. Ali et al. 2015; Just et al. 2019; Kohli et al. 2023; Vaghela/Shih 2018) This branch of research exhibits what Wood et al. call a form of ‘technological solutionism’ (Wood et al. 2021: 1101) by portraying violence against women as a social issue that can be resolved through technology. Similarly, Cardoso et al. note that existing literature primarily explores how individuals utilise technology for protection, rather than proposing technology-related policy solutions. (Cardoso et al. 2019: 2)

On the other hand, social science and public health literature approaches personal safety apps from a more critical vantage point. The majority of the literature analysed by Wood et al. centred on apps specifically designed for women’s safety. (Wood et al. 2021: 1097) This literature scrutinises the effectiveness, adoption rates and underlying ideologies of personal

safety apps. (ibid.: 1101) Importantly, they address a lack of evidence demonstrating that safety apps actually contribute to improving safety, as highlighted by Maxwell et al. (2020) (2020), Ford et al. (2022) and Wood et al. (2021). Additionally, safety app literature addresses the functional shortcomings commonly found in these applications, including various technical glitches such as problems with downloading and registration (Ford et al. 2022; Maxwell et al. 2020). Despite claims of enhancing safety accessibility, many apps limit certain features unless users pay for them, as discussed by Ford et al. (2022) and Bivens and Hasinoff (2017). Furthermore, it's noteworthy that the majority of safety apps primarily focus on aiding the victim and are typically developed within the private sector, according to Eisenhut and Wood et al. (2022). Consequently, as Alex Bevan (2023: 3) notes, these apps enter the market, encounter issues and eventually fade into obscurity. Bevan suggests that the brief life span of safety applications can be attributed, in part, to their tendency to become integrated into larger-scale infrastructure projects, as seen with *Safetipin*. According to Bevan, the app encourages users to record elements of the urban environment that impact their perception of safety, including lighting, visibility, the presence of others and the condition of sidewalks. Bevan highlights examples where cities like Bogota and Nairobi have employed *Safetipin* to evaluate urban infrastructure, such as bike paths, for sustainability projects and as a means for citizens to communicate grievances to the government, respectively. (ibid.: 3)

3.3. Personal Safety Apps as Safety Work

Scholars also critique the ideological foundations of these apps. (e.g. Beaton 2015; Bevan 2023; Blayney et al. 2018) As Wood et al. (2022) argue, personal safety apps targeted at women often reinforce 'women's safety work', referring to the various adjustments and decisions women habitually make to feel safe in public spaces. (see also: Vera-Gray 2018; Wood et al. 2021: 1101) As Bevan points out, these apps emphasise 'user agency and self-monitoring before, after and during a violent attack' while offloading the 'same personal safety labor to automated forms of threat assessment and response' (Bevan 2023: 2). The apps identify the user as being 'at risk' while simultaneously offering 'an experience of safety'. (ibid.) The user is expected to maintain a state of both heightened vigilance and calmness. 'These contradictions are circumscribed within larger neoliberal, preemptive, gendered cultures of safety labor and the digital curatorship of the self through social media' (ibid.). As Bevan contends, safety apps exacerbate these tensions and utilise them in novel ways, framing safety as a subjective experience linked to the user's perceived risk, physical surroundings and digital demonstrations of proactive behaviour. (ibid.) In order to experience a sense of safety, individuals must surrender and

meticulously control their digital data. ‘In effect, there is no right to data privacy in the business of feeling safe’ (ibid.: 6). Bevan suggests that these apps not only require safety labour but that ‘feeling safe rests on technologically-shaped, tracking practices that are presented as preemptive, responsible, and proactive’ (ibid.).

3.4. Apps as Networked and Peer Surveillance

In contrast, Beaton et al. contend that safety apps ‘promote and encourage a new form of bioconvergence between information, technology, and people’ (Beaton 2015: 105). These apps shift the focus away from ‘personal vigilance and preparedness’, characteristic of traditional women’s self-defence culture, towards creating a ‘networked, crowdsourced self’ (ibid.).

The apps appear to alter pre-digital approaches to sexual assault and rape in two interesting and promising ways: first, they rely on geographically-distributed social networks to combat violence against individual women, and second, they serve as new evidence-generating solutions that document sexual violence through the instantaneous creation, circulation, and storage of incident data, metadata, and media (ibid.).

However, as Beaton et. al. point out, these applications have their drawbacks. Designed primarily for smartphones, they encourage continuous group surveillance of women by their social circles, limiting individual autonomy and therefore they ‘eradicate, or at least heavily complicate, the end user’s ability to make decisions without open comment or judgement by others’ (ibid.: 105–106). Additionally, while these apps involve women’s social networks in ensuring safety, they fail to address the underlying societal issues. (ibid.) As Bevan puts it:

The apps domesticate, contain, and detach gender violence from its cause: patriarchal ideology and its embeddedness in lived experience and institutions of power. The apps mobilize violence as an opportunity for exploring an expanding security and media technological infrastructure that has little to do with the lived reality of gender violence. In return for this service, the user is offered an abstraction of safety that reduces sexual wellbeing to the absence of sexual harm and the vague promise of a feeling. (Bevan 2023: 13–14)

3.5. Reinforcement of Rape Myths in Safety App Design

Bivens and Hasinoff and argue that the design of personal safety apps often reinforces pervasive rape myths, primarily targeting potential victims and emphasising the dangers of strangers. (Bivens/Hasinoff 2017: 1050) The features of these apps mainly focus on incident intervention for victims, such as alerting preset contacts, monitoring the user’s environment for signs of an incident and providing actions for victims to take during an incident. (ibid.: 1054–1056) Despite claims that some apps target known perpetrators, the majority of features are primarily useful

against attacks by strangers (ibid.: 1060) and are perpetuating the myth that potential victims are responsible for preventing sexual violence (ibid.: 1052). They suggest that ‘a large majority of features in rape prevention apps reflect and reinforce the rape myth that potential victims (as opposed to bystanders or perpetrators) are the most capable of reducing the incidence of sexual violence’. (ibid.: 1061)

Nicole Kalms (2018) highlights how women’s behaviours and relationships are influenced by personal safety apps, often intentionally. Despite being marketed as tools for women’s safety, many of these apps have features that actually restrict women’s freedom in public spaces. (Kalms 2018: 114–115) Kaushiki Das (2021) agrees that safety apps restrict women’s freedom of movement in urban spaces, as apps often prescribe routes and safety parameters, limiting the spaces women access and heightening their fear of assault while diminishing ‘the pleasure of loitering’ (Das 2021: 8). Additionally, the GPS tracking feature of these apps ‘mimics ways that women have historically been monitored and may mirror the controlling behaviour of perpetrators, which is part of the disempowerment of women’ (Kalms 2018: 115)

3.6. Apps and the Logic of Neoliberal Responsibilization

The apps also reinforce the idea that ensuring safety is solely women’s responsibility, which ultimately curtails their independence and contributes to gender-based violence. (ibid.: 114–115) Or as Wilson-Barnao et. al. (2021) put it, the discourse surrounding safety apps ‘presents unrealistic and oppositional refrains of vulnerability and responsibility, with prevention strategies that require women’s labour’ (Wilson-Barnao et al. 2021: 46). They argue that contemporary safety devices such as safety apps tend to shift the burden of protection onto women, rather than public institutions, reflecting a longstanding trend. These devices, often embraced in a neoliberal framework, emphasise individual responsibility for crime prevention and documentation. (ibid.)

Furthermore, scholars criticise that many of these apps are reactive rather than proactive, responding only after a crime has occurred, despite being marketed as tools for enhancing personal safety. (Maxwell et al. 2020: 245; Wood et al. 2021: 1102) Deborah White and Lesley McMillan (2020) point out the potential for a new form of responsibilization of women who have been sexually assaulted, particularly within the criminal justice system. They argue that in addition to the long-standing interrogation of a ‘victim’s character, past, lifestyle, clothing choices, and activities’ (White/McMillan 2020: 1131), there may be an expectation for victims to justify why they did not utilise precautionary devices or technologies to prevent the assault.

This could involve questioning why the victim did not inform family and friends of their whereabouts, resist the assault with anti-rape gadgets, or record their assault with their phone. This exacerbates existing tendencies of criminal investigations and prosecutions doubting the victim and questioning their efforts to resist or prevent the assault, further burdening the victim with the responsibility for their own safety. (ibid.)

White and McMillian also highlight the possibility that anti-rape technologies could potentially produce evidence that could be used against the victim. They point out that some mobile apps are designed to audio and video record interactions, which may lead to discrepancies between what is recorded by the technology and what the victim recounts to professionals regarding the details of an assault. This variation in narrative consistency could affect the victim's credibility in the criminal justice process. Additionally, there is a risk of 'over-activating' these devices, leading to fatigue or suspicion among those who are alerted to potential danger. This could result in legal complications such as claims of entrapment or wrongful convictions. (ibid.: 1135)

As Maxwell et. al. note, even if personal safety apps reduce fear of crime, they do not reduce vulnerability to victimisation, 'as the majority of apps intervene when the criminal event is already taking place or help to render assistance after it has already occurred' (Maxwell et al. 2020: 245). Bevan points out that safety apps introduce a data-driven approach to tracking users' movements, social interactions and phone activity after the fact, yet their marketing portrays them as proactive measures. (Bevan 2023: 13) This creates a tension between self-responsibility and automated decision-making within the apps. While they provide protocols for assessing risk and responses, they often rely on automated reactions to biological or environmental cues, sidelining the perpetrator's role in sexual violence. Consequently, the female user becomes little more than an object attached to a smartphone, with her testimony potentially overridden by the apps' supposedly more reliable evidence. 'To be vindicated after an attack, the user must preemptively offer the app complete access to their body and environment'. (ibid.: 13–14)

3.7. Perceived Vulnerability of 'Women at Risk'

Liam Kenedy and Madelaine Coelho (2022) further oppose the view that apps reduce fear of crime effectively, as 'simply living (or driving, walking, or working) alone or being out in the world after dark were regularly framed as risky behaviours'. (Kennedy/Coelho 2022: 132) This reinforces the idea that women in public spaces are most vulnerable to crime and require protection. (ibid.) Kennedy and Coelho's analysis reveals that personal safety apps often frame

crime as inevitable and routine, suggesting that ‘safety apps provide users with the promise of security and knowledge that facilitates responsible risk management, employing a neoliberal rhetoric of empowerment and self-reliance through digital security consumption’ (ibid.: 127). Similarly, Wilson-Banaro et al. suggest that ‘feminine empowerment and agency are constructed through consumer and surveillance technology which produces the trackable and risk-prone feminine body’ (Wilson-Barnao et al. 2021: 48). As White and McMillan show, ‘much of the discourse behind these devices is based on creating a state of fear, one great enough to impel a woman to adopt tools deemed to be for her protection’. (White/McMillan 2020: 1130) They write:

The technologizing of rape prevention, in large part, represents the commodification of women’s safety [...]. In fact, the hypernormalization of the threat of sexual violence is highly intertwined with gendered lifestyle consumerism. (ibid.: 1131)

Kennedy and Coelho show that companies behind personal safety apps tend to portray crime as pervasive in urban areas, particularly targeting women, children and the elderly as vulnerable to victimisation. (Kennedy/Coelho 2022: 137) By focussing on urban violence, these apps often fail to address instances of sexual violence perpetrated by known individuals like romantic partners or family members. (ibid.) Kennedy and Coelho conclude:

In essence, they provide users with foresight and guardianship that enable them to be responsible and productive neoliberal citizens who are self-reliant and able to rationally assess and manage risks. This is supplemented by lateral surveillance that offers those willing to pay a fee some extra protection. These tech companies individualize the issue of crime and risk management and disregard the structural variables linked to crime and victimization. Here, risk is associated with random stranger violence in urban centres. However, these apps fail to consider structural factors underpinning criminal offending and, in the process, distort the current criminal landscape by focusing disproportionately on specific examples of criminal offending. (ibid.)

3.8. Reinforcing Racial and Socio-economic Inequalities

Wood et. al. further express concerns about crime-mapping apps potentially exacerbating racial and socio-economic profiling, as users’ biases may be reflected in the technology and subsequently influence state actions through naturalising the entered data ‘as information rather than anecdote or affect’ (Wood et al. 2021: 1102). As Kennedy and Coelho argue, the widespread availability of mobile safety resources does not benefit everyone equally. The collaboration between law enforcement and companies reinforces a criminal justice system that disproportionately impacts racialized and marginalised groups. The promised safety and security from these companies are not realised by all communities. (Kennedy/Coelho 2022: 138) Therefore, ‘digital security consumption’ (ibid.), may exacerbate racial inequalities, as

indicated by reports of racist language present in user reviews of apps and the targeting of racialized individuals for surveillance. (ibid.) Moreover, these apps overlook the diverse conceptions of safety based on social background, potentially proving to be disadvantageous to marginalised communities. Das notes:

What counts as a safe neighbourhood for one may be considered unsafe by another. The subjective evaluations in safety apps tend to present a lopsided notion of safety which may tilt the scales against localities frequented by people hailing from minority communities. This may have other cascading effects such as overpolicing, non-access to goods and financial services, etc. (Das 2021: 80)

Similarly, Kennedy and Coelho write that ‘surveillance technologies’ are ‘mobilized to disproportionately criminalize racialized and otherwise marginalized individuals’ (Kennedy/Coelho 2022: 132). Safety apps as surveillance technologies ‘lend themselves to the expansion of policing and punishment and, therefore, the further entrenchment of racial, class, and other social inequalities’ (ibid.).

3.9. Apps and Technology Facilitated Abuse

Delaine Woodlock (2017; also Woodlock et al. 2020), Nicole Kalms (2018) and Kaushiki Das (2021) explore the dangers personal safety apps pose when abusers use the apps as extensions of power and control to track their partners. In a 2017 study on the abuse of technology in domestic violence and stalking, Woodlock highlights the significant use of mobile technology for location tracking, with 56% of participants reporting using it for this purpose. (Woodlock 2017: 591) The study underscores the challenges faced by women under surveillance, making it difficult for them to safely exit abusive relationships. Disabling location tracking or removing GPS devices can pose dangers as it may alert the perpetrator to the victim’s attempt to leave, potentially escalating violence. (ibid.: 593)

White and McMillian highlight the potential consequences of increased surveillance of women through GPS communication technologies embedded in safety apps raising privacy concerns and perpetuating historical patterns of monitoring and policing women’s bodies. Many apps rely on a ‘guardian system’ where users designate ‘guardians’ who receive GPS tracking information through the app. This implies an underlying and often inaccurate assumption ‘that anyone a woman may contact through an app would have only her safety and best interests at heart’ (White/McMillan 2020: 1129). As White and McMillian show, research suggests that mobile devices, including safety apps, may actually increase users’ vulnerability to attack. (ibid.: 113)

According to Cardoso et al., most technologies that enable electronic monitoring and location tracking, place the responsibility on women to safeguard themselves against abuse, as tech companies shift the burden of protection onto women, with limited attention given to the companies' role in addressing misuse. They argue that the emergence of corporate messaging and profit motives has intensified the issue of holding women responsible for their safety. (Cardoso et al. 2019: 4) Kalms similarly states:

Making safety women's 'thing' to manage and negotiate does little to address the crisis of sexual assault in cities. Problematically, women's perceived fear of violence in urban space may be amplified by the Apps' use of geospatial technologies. By using 'an App that turns your friends into digital chaperones' the tool mimics ways that women have historically been monitored and may mirror the controlling behaviour of perpetrators, which is part of the disempowerment of women. [...] I suggest that the personal safety App reinforces self-surveillance and discipline – now a normative requirement for women to ensure that the problems of women's bodies are controlled and monitored. (Kalms 2018: 114–115)

As Doria et al. argue, various forms of sexualized violence, including harassment, stalking, intimate partner violence and dating abuse, have been facilitated by the use of social media, personal tracking apps and smartphones in general. (Doria et al. 2021: 21) However, they also argue that women who have encountered sexualized violence through technology still 'feel a sense of independence when using technology' (ibid.). They found that women who have faced sexualized violence feel that safety apps offer them increased awareness, anonymity, validation and a sense of empowerment. (ibid.: 20)

3.10. Summary

Smartphones and personal safety apps have become central to discussions on women's safety, with companies promoting them as effective self-defence tools. However, while these apps promise to enhance security, their effectiveness remains ambiguous. Many safety apps are reactive rather than proactive, failing to address the structural factors underpinning crime. They follow a neoliberal logic of responsabilization, shifting the burden of safety onto women. This approach reinforces surveillance and self-monitoring, perpetuating gendered assumptions that women are always at risk in public. Despite their promise of safety and freedom, research shows that personal safety apps paradoxically restrict movement and heighten the fear of crime.

Moreover, the ideological underpinnings of these apps reinforce rape myths and exacerbate inequalities, promoting racial and socio-economic profiling and can facilitate coercive control in abusive relationships. These apps inhabit a paradox, utilising neoliberal narratives of

empowerment and individual responsibility while reinforcing gendered norms and increasing surveillance by requiring women to offer GPS tracking information and consent to data sharing. As Alex Bevan summarises, safety apps can be conceptualised as ‘coding and data farming experiments’ (Bevan 2023: 3) that go hand in hand with other interests, whether that be municipal projects or abusive partners. She states:

While safety apps are widely viewed by scholarship as ineffective, they continue to attract academic and public discussion. I would argue this is due to the persistence of the stranger rape narrative in popular imagination. In other words, they persist because of the symbolic function they perform. In addition, the prospective state of feeling safe that they promise is deeply entangled with other techno-affective neoliberal practices of self-management already ubiquitous in digital culture. (ibid.)

4. Empirical Case Studies

4.1. Methods

In order to explore the commodification of women’s safety under surveillance capitalism I analyse two personal safety apps marketed towards women. I do so by analysing the apps’ content and the marketing material found on the companies’ websites. This is not a unique approach. Alex Bevan (2023) analyses ‘the marketing and design of safety apps to make an argument about their gendered techno-affective logics around expectations of safety’ (ibid.: 6). I similarly look at the apps’ content and marketing to outline their ideological underpinnings.

4.1.1. Case Studies: *bSafe – Never Walk Alone* and *I’m Safe – Women’s Safety App*

By focusing on two apps, my research follows the idea of using case studies as a research strategy. (Kohlbacher 2006: 4–5) According to Robert Yin ‘the distinctive need for case studies arises out of the desire to understand complex social phenomena’, as case studies allow ‘to retain the holistic and meaningful characteristics of real-life events’ (Yin 2003: 2).

I analyse two personal safety apps: *bSafe – Never walk alone* and *I’m Safe – Women’s Safety App*, reducing the content to a corpus relevant to the research question, as

[...] research questions in content analysis can often not be answered with a random sample. Instead, researchers systematically include content that is ‘informative’, and exclude content that is not. (Schweitzer 2019: 270)

Corinne Schweitzer notes, ‘sampling the content for analysis is a multi-step process’ (ibid.). In qualitative research, the selection of data should be guided by a sampling strategy designed to identify the most suitable cases. This purposeful sampling method aims to choose cases that are

rich in information, providing valuable insights and a deep understanding of the central issues under investigation, rather than focusing on empirical generalisation. (Puppis/Bulck 2019: 30)

Initially, I conducted searches for ‘women’s safety apps’ on both the Apple App Store and the Google Play Store, examining the search results to identify popular safety apps. I specifically looked for apps with names or descriptions that indicated they were targeting women, excluding those aimed at parents and children or focused on neighbourhood safety. Additionally, I sought out apps frequently suggested in web searches related to ‘women’s safety apps’ and various online articles such as ‘Women's Day 2024: List of 15 Best Women's Safety Apps’¹ or ‘Six of the best safety apps for women walking alone at night’². This approach aligns with similar research conducted on mobile applications e.g. Kennedy and Coelho (2022) or Hasinoff (2017). Subsequently, I downloaded these apps to explore their features. Furthermore, I collected company-created content from their official websites (www.getbSafe.com and www.women.imsafe.app) to discern how they articulate their objectives pertaining to women’s safety. This approach allowed me to comprehensively examine both the functionalities of the apps and the strategic messaging employed by the companies.

bSafe – Never Walk Alone and *I’m Safe – Women’s Safety App* are explicitly marketed towards women, emphasising features tailored to enhance their personal safety. Investigating apps catering specifically to women concurs with the research goal of exploring how ‘gendered safety’ is commodified within the digital space. Furthermore, both apps are available in most countries, while many other apps are only available in one country. However, *bSafe* is designed by a Norwegian company, while *I’m Safe* is owned by a company located in India, while also having an Australian address listed. Thus, examining these apps may help in discovering specifics as well as similarities in their framing of women’s issues, ‘making findings more robust’ as examining ‘multiple instances of a phenomenon’ increases ‘the validity of findings’ (Broughton Micova 2019: 78).

4.1.2. Qualitative Content Analysis

I use a qualitative research design, as a qualitative approach is best suited to understand how gender is constructed and how forms of engendering are articulated in texts (Lünenborg/Maier 2013: 98) From a qualitative standpoint, the focus is not on making generalisable statements

¹ mobileappdaily.com/products/best-women-safety-apps (retrieved 09.10.2024)

² metro.co.uk/2021/03/13/six-of-the-best-safety-apps-for-women-walking-alone-at-night-14233244/ (retrieved 09.10.2024)

and frequency distributions, but rather on forming types and categories and highlighting patterns. I employ qualitative content analysis based on Philipp Mayring. Mayring states that qualitative content analysis aims to systematically analyse communication material, moving beyond just the verbal content to include formal aspects and underlying meanings. (Mayring 1995: 209) A key aspect of this systematic approach involves breaking down the analysis process into distinct steps, which are then compiled into a procedural model that directs the practice of content analysis and its validation. (ibid.: 210) Qualitative content analysis thus provides a structured framework for analysing text-based data in qualitative social research. Its strengths include facilitating access to subjective realities by emphasising interpretative processes, offering non-reactive application to minimise biases that may occur in data collection and scalability to handle larger volumes of material effectively. However, this method requires integration with other data collection and preparation techniques within a broader research plan. Ultimately, maintaining flexibility and prioritising contextual relevance over rigid adherence to systematic procedures is crucial for conducting meaningful qualitative research. (ibid.: 213)

4.1.3. Data selection

In my analysis, I centre my attention on the written content accessible on the companies' websites. Both websites include a description of the app's features which proves more useful than solely looking at the app itself. Websites are considered as 'an effective marketing and advertising tool to provide information about products and services' (Hwang et al. 2011: 897) as well as 'materialized expressions of culture' (Pauwels 2011: 571). As Luc Pauwels argues, 'deliberate constructs and mediated forms of interaction are not necessarily less significant for studying culture and social life' (ibid.) and websites are an important form of 'identity construction, impression management, and conscious self-presentation' (ibid.: 572). He writes, 'when researching websites, clearly one is looking at contemporary forms of 'material culture' rather than at human behavior as it unfolds in interaction' (ibid.: 574).

4.1.4. Coding Process

Uwe Flick emphasises the central importance of coding as the process to accurately depict the data while also enabling researchers to discover and represent structures relevant to the research question. (Flick 1995: 166) By combining a 'concept-driven way' that follows the theoretical considerations of the study with the 'data-driven way' (Schweizer 2019: 272) qualitative

content analysis benefits from a blend of deductive and inductive approaches. (Puppis 2019: 376) My approach is guided by Mayring's method of 'structuring content analysis' (Mayring 2021: 90) as well as Puppis' expansion of it to include more inductive elements (Puppis 2019: 373). 'Structuring content analysis' aims to extract particular elements from the material and create a representative sample or evaluate this material based on predetermined criteria. The fundamental concept is that by formulating definitions accurately, identifying typical text excerpts ('anchor examples') and establishing coding rules, a coding guide is crafted to enhance the precision of the structuring process. (Mayring 1995: 213)

Following Puppis' recommendation, I combine deductive and inductive coding. As Puppis suggests, 'main categories are often, deductively created whereas the subcategories (and additional main categories) are then inductively developed.' (Puppis 2019: 376) In the context of my study, I derive initial categories from recent studies on personal safety apps, as well as categories deduced from my theoretical framework. This approach allows for a comprehensive exploration of the data, ensuring both a theoretical foundation and the flexibility to capture emergent themes.

My coding process commences with a trial coding of the content, 'to see whether the categories are exhaustive and practicable' (ibid.: 377). This is necessary in order to test the reliability of the coding scheme as 'several modifications [...] might be necessary to receive acceptable reliability measures' (Schweizer 2019: 271). Accordingly, I generate additional categories inductively out of the text material as suggested by Mayring (2021: 92). Subsequently, I apply the final coding scheme to the whole text material. (Puppis 2019: 379) For the coding process I use the software MAXQDA.

4.1.5. Data Analysis

After coding the data, I continue to analyse the text segments within the categories included in my coding scheme. Firstly, I evaluate frequencies and recurring themes. While Schreier (2014: 181) contends that qualitative content analysis primarily remains descriptive, suggesting it may not be ideal for theory-building, Puppis argues that this criticism primarily targets literal interpretations of texts, which confine analysis to surface-level content. He asserts that qualitative researchers aim for interpretative readings, delving deeper into the data to uncover underlying meanings, making qualitative content analysis extend far beyond mere data description. (Puppis 2019: 371) In order to do so, I extract the text segments per code and move

on to interpret my findings organised thematically. This approach enables contextualising the results within a broader framework. (Flick 1995: 169)

For my analysis of websites, I have developed top-level codes (categories) and refined them inductively to effectively capture the nuances of the content. The sub-codes represent specific themes, arguments, or frames present in the text. For example, the category ‘C’ includes two sub-codes, which I define with explanations and examples, as shown in Figure 1.

Figure 1: Excerpt from the codebook

Code	Definition	Examples
C Commodification of Safety		
C1 Cost Reduction/Raising Efficiency	Emphasizing that the app can lead to cost savings, increased efficiency, better resource utilization, and improved productivity for companies and organizations.	“Our solutions will provide substantial cost savings for companies and municipalities and at the same time provide better resource utilization, better quality of services, better working environments, safer employees and users, and ultimately less sick leave.”; “Creating a safe and secure work environment is crucial for the growth and development of any organisation.”
C2 Emphasis on App's Market Value/Success	Highlighting the app’s market potential, investment opportunities, advanced technology, and its success in the market.	“Competent people call bSafe ‘a game changer needed in the world today’ and a ‘unique opportunity for investors.’”; “From rape to world-leading technology: The global emergency response market will experience disruption during the next 1-5 years in the same way that occurred with tourism (Airbnb) and taxis (Uber) 10 years ago are striking.”

I extract relevant text segments by sorting them according to their corresponding sub-code as shown in Fig. 2. For example, the sentence from *bSafe* (Doc. 25), ‘Crime and violence against women, sexual abuse, and rape are increasing globally. It creates insecurity, fear, and dread for women all over the world’, aligns with sub-code G5, ‘World as unsafe/crime on the rise’. I assign one code to each segment of meaning. If new codes emerge during the process, I add them to the codebook and restart the coding process. Similarly, if two codes overlap or are redundant, I merge them and begin the coding process anew.

Figure 2: Example of the coding process

...	1	Bsafe - Problem
	2	<i>John Chr. EldenNorwegian Supreme Court Lawyer and Investor</i>
..G5 World as unsafe/crime on the rise	3	Crime and violence against women, sexual abuse and rape are increasing globally. It creates insecurity, fear and dread for women all over the world.
..A5 Emphasis of the app being based in real li	4	An essential part of what makes bSafe unique and creates such positive reactions in the market is the fact that the features are based on the rape of Rich Larsen's own daughter, Charlen, and the father-daughter team's desire to prevent others from experiencing similar traumatic situations.
..R2 Company's taking on societal goals	5	Charlen was raped. She struggled with guilt, shame anxiety and suicidal thoughts for many years, until one day when her father Rich sat down with her. Together, they reflected on how the incident could have been avoided.
..G2 Emphasis of women's vulnerability		
..N3 Personal responsibility for safety		

This process allows me to systematically identify and categorise the key messages conveyed by each website. Analysing the results involves examining these sub-codes and the content associated with them to understand what the text communicates. By assessing the prevalence of these themes – such as how often they are repeated, how often they appear across different texts – and the nature of the arguments they contain, I can draw meaningful conclusions about the messaging strategies of both companies. This process also facilitates a comparative analysis between the two companies' texts, allowing me to identify similarities and differences in their narratives, uncover underlying assumptions and explore the distinct or shared themes they use to frame their products and messages.

4.2. App Descriptions and Website Structure

Within my content analysis, I examined 123 web pages (44 *bSafe*, 79 *I'm Safe*), coding all written content as well as one transcript of a promotional video from the homepage on the *I'm Safe* website (*I'm Safe*, Doc. 121). Appendix I contains a complete list of the documents analysed, including URLs and the dates they were collected.

Before presenting my key findings, I will first provide an overview of the functionalities of both apps and a brief summary of the structure and content of their respective websites.

4.2.1. *bSafe* – *Never Walk Alone*

bSafe – *Never Walk Alone* (*bSafe*) is an app available for iOS and Android devices, developed by the Norwegian company 'bSafe Group AS'. The *bSafe* app offers a range of features,

including voice activation, location tracking, fake calls, a ‘follow me’ mode and a timer alarm. To complement the app, *bSafe* also offers additional devices, such as a Bluetooth button and wristband, which enable the activation of SOS alarms and video recordings in the app. Beyond personal use, *bSafe* offers solutions for emergency responders and a platform for corporate clients to integrate their safety solutions such as the app into their company’s infrastructure. The integration of the app enables features like 24/7 monitoring, live streaming of audio and video, automatic recording, real-time incident sharing, two-way communication and the transfer of information to emergency centres and first responders. Their API integration connects systems or services (such as corporate security systems, campus safety platforms, or public safety networks) to the *bSafe* app, facilitating an automated data exchange between the company or emergency service and the app. They further aim to automate emergency response processes, calling their solutions ‘‘Uber’ for Rapid Emergency Response’. (*bSafe*, Doc. 30) The *bSafe* website provides detailed descriptions of the app and related safety solutions. It also features an ‘Our News’ section, where the company frequently shares blog posts on crime statistics as well as interviews and updates on the company’s activities. *bSafe* primarily features content that showcases potential applications of their products.

The *bSafe* app is free to download and opens with a map showing the phone’s current location. However, to access any of the features, users need to subscribe to the premium plan priced at €5.99 per month, or they can unlock these features for 24 hours with a one-time payment of €0.99 at the time of writing. The app includes several functions: The SOS alarm sends an emergency alert and GPS coordinates to selected contacts, starting automatic audio and video recording. Users can enable live streaming for up to five minutes and set up voice activation to trigger the SOS alarm with a specific phrase. The timer feature triggers the SOS alarm after a set period if not cancelled, while ‘Follow Me’ allows contacts to track the user’s live GPS location. The ‘I’m Here’ option sends the GPS location via SMS and the fake call feature simulates an incoming call to help users exit uncomfortable situations. Emergency contacts, referred to as ‘guardians’, are symbolised by a small angel-shaped icon in the app and will receive an invite link to download the app when added as a contact.

4.2.2. *I’m Safe – Women’s Safety App*

The *I’m Safe – Women’s Safety App* (*I’m Safe*) developed by Free2live Tech Solutions Pvt Ltd, operates out of India and Australia. The app is currently available in 146 countries, boasting over 25,000+ downloads (*I’m Safe App* 2024). The company’s website provides a detailed

overview of the app's features, a blog that covers a wide range of topics pertaining to women's safety and company information including a roadmap for future developments. Some content is less relevant to women's safety, such as '10 Kid-Friendly Games you can Play this Christmas as a Family' (*I'm Safe*, Doc. 46) or '20 Motivational Quotes to Encourage Women' (*I'm Safe*, Doc. 48). The website also hosts the 'Men for Women' initiative, allowing men to sign an online pledge committing to 'respect and value women' and to 'commit to providing a safe atmosphere for them' (*I'm Safe*, Doc. 88). At the time of writing, this pledge has gathered 127 signatures. Additionally, the website offers two webinars as well as the '*I'm Safe* Academy', which offers free online courses such as 'Digital Product Mastery' and 'Anxiety Busters: Tools and Techniques'. However, the academy's website remains unfinished and with the focus of my research in mind, the webinars and academy courses were not analysed as they do not directly relate to personal safety. The company also offers '*I'm Safe Org*', a web app designed for organisations like colleges, companies and NGOs (*I'm Safe*, Doc. 90). Similarly to *bSafe*, through a subscription, organisations can register their employees and other affiliates, who can then raise safety requests through the *I'm Safe* app. Like *bSafe*, *I'm Safe* also sells safety devices, including SOS trigger devices and has announced an upcoming *I'm Safe* smartwatch. (*I'm Safe*, Doc. 97)

The *I'm Safe* app is free to download and opens with a map interface, where most features are accessible from the home screen. All features are free to use. However, users can only be added as friends if both phones have the app installed. The 'Track Me' feature shares the user's live location as well as their phone's battery status, their signal strength and information if the user's phone is in silent mode. The recording option captures audio and photos from both the front and back cameras and can be synced to the smartphones 'motion & fitness activity' to use the user's motion information (either via smartphone or smartwatch) to share with contacts. All recordings are also stored in order to 'retrieve this information and use it in a court of law. (*I'm Safe*, Doc. 112). The SOS feature alerts selected contacts, sending them the user's location, photos and audio recordings. The app also includes a fake call feature, simulating an incoming call and a helpline feature, listing national emergency numbers, which change according to the country code of the registered phone number. However, some discrepancies exist, such as the listing of the German police emergency number instead of the Austrian one when registering with an Austrian phone number or listing the international emergency number 112 as a 'helpline'. Certain helpline functions are restricted to specific regions, like the 'Ask for Help' feature, wherein users can report issues such as sexual harassment and domestic violence and receive assistance within 24 hours is only available in Mumbai, Tamil Nadu and Southern

Australia. (*I'm Safe*, Doc. 85) Additionally, the app regularly sends the user push notifications containing inspirational quotes.

The website also highlights several upcoming features, such as a 'safety marker' that uses crowdsourced data to rate areas from 'unsafe' to 'safe' creating a 'safety map'. Other approaching features include '*I'm Safe* Chat', which will enable users to chat, call, or video call their contacts, an expanded helpline linking users to various support numbers and trained professionals, quick tips for emergency situations, '*I'm Safe* Social', a social media platform within the app, and '*I'm Safe* Marketplace', a 'women-driven online shopping platform'. (*I'm Safe*, Doc. 85) According to the website's roadmap, some of these features were expected to be implemented by now, but no updates have been provided on their release. The roadmap also mentions plans for '*I'm Safe* Men' and '*I'm Safe* Seniors', but no further details are available. (*I'm Safe*, Doc. 52)

4.3. Results

The final codebook (Appendix III) comprises seven top-level codes (categories), each encompassing a variety of sub-codes (Fig. 3). These sub-codes were used to tag specific segments of text that reflect the arguments or themes defined in the codebook. To categorize the content of the websites, based on the theoretical framework I analysed the text using the following guiding questions: First, I examined how the websites address gender from two key perspectives. I assessed how they incorporate neoliberal narratives of empowerment and entrepreneurialism, and how they construct gender in relation to crime and insecurity. The second guiding question explored how the companies portray safety, specifically how they link the concept of safety to consumption and profit generation. This involved analysing frames directly related to commodification as well as examining the text through a theoretical lens of risk. Specifically, I looked at how the websites portray state responsibility, public safety, and the role of private companies. During this process, I developed the category of 'technological solutionism' to describe how technology is presented as the primary solution to safety concerns. Additionally, I analysed the text through the lens of individual responsabilization, considering who is depicted as being responsible for ensuring personal safety. Finally, I investigated how the websites address data security and whether they acknowledge surveillance as a potential issue. This analytical approach led to the development of the following coding system:

Figure 3: Coding System

Categories	Codes
A	Anti-Victimization and Empowerment Narratives
	A1 Anti-Victimization Narratives
	A2 App as a Community of Women/Part of a Movement
	A3 Emphasis on Empowerment and Feelings of Safety Caused by the App
	A4 Emphasis on the App Being Based on Real-Life Events
	A5 Emphasis on Strong Women, Female Empowerment, Entrepreneurship, and Self-Optimization
	A6 Safety/Feeling Safe as Women's Right
C	Commodification of Safety
	C1 Cost Reduction/Raising Efficiency
	C2 Emphasis on App's Market Value/Success
D	Data and Surveillance
	D1 Balancing Security and Privacy
	D2 Emphasis on App's Customization and Being in Control
	D3 Location Information as Safety-Enhancing Information
	D4 Positive Framing of Data Collection and Surveillance
	D5 Reassurance of Data Security and Privacy
G	Gender, Risk, and Insecurity
	G1 Emphasis on Women's Need for Protection
	G2 Emphasis on Women's Vulnerability
	G3 Promotion of "Stranger Danger"
	G4 Women Are Unsafe at Home/Threat of Domestic Violence
	G5 World as Unsafe/Crime on the Rise
N	Neoliberal Responsibilization Strategy
	N1 Peer Group as Responsible for Personal Safety
	N2 Personal Responsibility to Avoid Risky Behaviour
	N3 Personal Responsibility for Safety
	N4 Personal Responsibility to Collect Evidence
	N5 Promotion of Self-Reliance and Vigilance
	N6 User Responsibility for App's Functionality
R	Neoliberal Risk Management/Shifting State Responsibility
	R1 Call for Systemic Solutions/Legal Solutions/State Responsibility
	R2 Companies Taking on Societal Goals
	R3 Emphasis on Public-Private Collective Responsibility/Call for Collaboration for Effective Solutions
	R4 Privatization of Security/Promotion of Market-Driven Solutions vs. State as Inefficient
	R5 Systemic Failures/Violence Against Women as a Systemic Issue
T	Technological Solutionism
	T1 App as a Tool of Self-Defence
	T2 App as Conviction Support
	T3 App as Crime Deterrence
	T4 App Improves Quality of Life/Mental Health
	T5 App Prevents Loss of Life and Health
	T6 App Prevents Violence Against Women
	T7 App Promotes Gender Equality
	T8 App Promotes Safety

4.3.1. Code Frequencies and Distribution

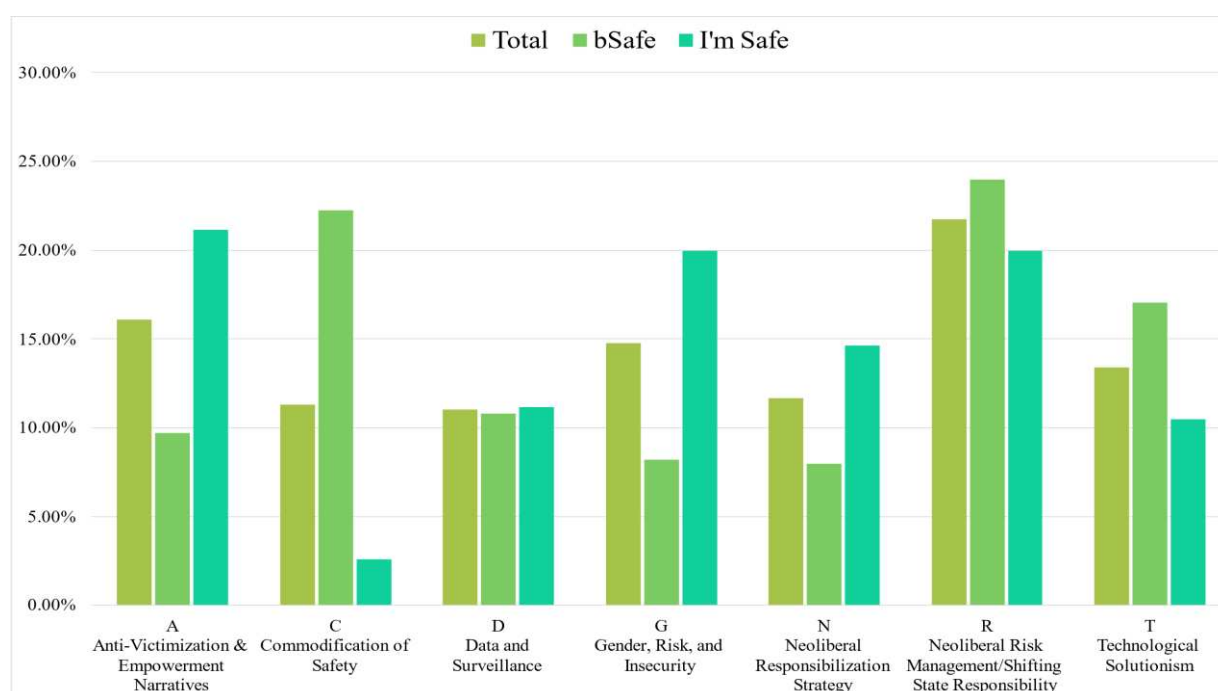
In the following section I provide an overview of the statistical findings such as code frequency and code distribution, before delving into the content of the coded segments. Figure 4 visualizes the prevalence of each category in relation to the total number of documents analysed for each company and across all webpages. This overview shows that both companies use similar framing, as all categories appear on both websites. However, differences in their approaches become evident: *bSafe* adopts a more commercially oriented strategy, with a greater emphasis on frames related to the commodification of safety. In contrast, *I'm Safe*'s marketing focuses more on gender and empowerment narratives, aligning with its self-presentation as a tool for women's empowerment rather than as a profit-driven company.

Figure 4: Table of top-level code frequencies

Top-level Codes	Total		<i>bSafe</i>		<i>I'm Safe</i>	
		%		%		%
A Anti-Victimization and Empowerment Narratives	168	16.09%	45	9.72%	123	21.17%
C Commodification of Safety	118	11.30%	103	22.25%	15	2.58%
D Data and Surveillance	115	11.02%	50	10.80%	65	11.19%
G Gender, Risk, and Insecurity	154	14.75%	38	8.21%	116	19.97%
N Neoliberal Responsibilization Strategy	122	11.69%	37	7.99%	85	14.63%
R Neoliberal Risk Management/Shifting State Responsibility	227	21.74%	111	23.97%	116	19.97%
T Technological Solutionism	140	13.41%	79	17.06%	61	10.50%

Figure 5 shows both the percentage and the total segment count for each category, providing a breakdown of how many segments are coded with each category for *bSafe*, *I'm Safe* and overall content.

Figure 5: Top-level code frequencies



As shown in Fig. 4 and 5., ‘Neoliberal Risk Management/Shifting State Responsibility’ stands out as the most emphasized category, making up 21.74% of all segments. While *I’m Safe* places a strong focus on ‘Gender, Risk, and Insecurity’ (19.97% of its content versus just 8.21% in *bSafe*), *bSafe* highlights ‘Commodification of Safety’ (22.25%) far more than *I’m Safe* (2.58%). Similarly, ‘Technological Solutionism’ is more prominent in *bSafe* (17.06%) compared to *I’m Safe* (10.50%). On the other hand, *I’m Safe* underscores ‘Anti-Victimization and Empowerment Narratives’ (21.17% vs. 9.72%) and ‘Neoliberal Responsibilization Strategy’ (14.63% vs. 7.99%). ‘Data and Surveillance’ shows a balanced presence in both, with 10.80% for *bSafe* and 11.19% for *I’m Safe*.

Finally, Figure 6 illustrates the distribution of categories across all coded documents. For instance, anti-victimization narratives were found in 103 out of 123, thus 84% of all documents, within *bSafe*’s content they were found in 73% of the documents (32 of 44), in *I’m Safe* in 90% (71 of 79). This further indicates the prevalence of the theme, as some categories are concentrated in only a few documents but are emphasized heavily within them, while others appear consistently across all content, suggesting a more pervasive narrative presence. However, direct comparisons between the companies’ numbers are not particularly meaningful, as differences in the number and length of documents does not allow for direct comparison. Instead, examining the distribution of themes within each company’s content as well as overall provides valuable insights into which topics are most relevant to their overall messaging.

Figure 6: Distribution of top-level codes across documents

Codes		Total	%	<i>bSafe</i>	%	<i>I'm Safe</i>	%
A	Anti-Victimization and Empowerment Narratives	69	56%	25	57%	44	56%
C	Commodification of Safety	36	29%	27	61%	9	11%
D	Data and Surveillance	44	36%	17	39%	27	34%
G	Gender, Risk, and Insecurity	57	46%	19	43%	38	48%
N	Neoliberal Responsibilization Strategy	49	40%	21	48%	28	35%
R	Neoliberal Risk Management/Shifting State Responsibility	73	59%	31	70%	42	53%
T	Technological Solutionism	50	41%	29	66%	21	27%

Themes related to ‘Neoliberal Risk Management’ appear in 59% of all documents analysed, with *bSafe*’s content reflecting an even higher emphasis on this theme, appearing in 70% of its documents. *I’m Safe*’s content broadly features ‘Anti-Victimization and Empowerment Narratives’, present in 56% of its documents, and themes of ‘Gender, Risk, and Insecurity’ in 48% of its documents. Similarly, *bSafe* also addresses gender-related themes in 57% and 43% of its documents, respectively, signalling that gender remains a consistently addressed topic for both companies. However, while *I’m Safe* includes ‘Technological Solutionism’ and the ‘Commodification of Safety’ in fewer of its documents, *bSafe* emphasizes these themes much more strongly, with ‘Technological Solutionism’ appearing in 66% of its content and ‘Commodification of Safety’ in 61%. This suggests that *bSafe*’s approach to safety is more closely tied to technological solutions and commercialization, indicating a more market-oriented strategy. These thematic distinctions reveal the companies’ differing focuses and offer insights into how each frames safety and risk management within their broader narratives.

4.3.2. Narratives and Frames

In the following chapters, I analyse the content within the coded segments to identify prevalent narratives and frames. I summarize emerging themes, compare *bSafe*’s and *I’m Safe*’s content, and highlight both similarities and overlapping frames. The analysis begins with an exploration of the frames within the ‘Anti-Victimization and Empowerment Narratives’ category, followed by ‘Commodification of Safety.’ Next, I examine how both websites address ‘Data and Surveillance’ before discussing themes related to ‘Gender, Risk, and Insecurity.’ I then delve into the segments coded under ‘Neoliberal Responsibilization Strategy’ and ‘Neoliberal Risk

Management/Shifting State Responsibility,’ and conclude with an analysis of the narratives surrounding ‘Technological Solutionism.’

Anti-victimisation and Empowerment Narratives

In examining how women are characterised in the companies’ content, two contrasting images emerge. The first presents women as empowered, strong, and independent. Anti-victimization and empowerment narratives (A) constitute a significant portion of the discourse, comprising 15.99% of all coded segments. This theme is especially prominent in *I’m Safe*’s messaging, where it makes up 20.80% of all coded segments, compared to 9.94% in *bSafe*’s content.

Both *bSafe* and *I’m Safe* emphasise anti-victimization narratives (A1). *bSafe* frequently highlights stories of resilience, focusing on how women have overcome trauma and adversity by taking proactive steps. The narrative centres on the idea that women, who have traditionally been blamed or shamed for their victimisation, are now reclaiming their right to safety and empowerment: ‘Today, she says, women refuse to be victimized.’ (*bSafe*, Doc. 27). This message is reinforced by referencing high-profile cases and figures associated with the MeToo-movement, positioning the app as a tool that aids in empowering women who have been victimised.

This ties in with the emphasis of the creation of the app being due to real life events (A4) with the app’s goal being to prevent further victimisation. This frame is mostly utilized by *bSafe*, who built its founding narrative around Charlen Larsen’s personal story of being raped:

Charlen was raped. She struggled with guilt, shame, anxiety and suicidal thoughts for many years, until one day when her father Rich sat down with her. Together, they reflected on how the incident could have been avoided. Based on Charlen’s experience, they started to develop features that could have prevented the rape, warned her friends and family, and collected evidence for later use in court. (*bSafe*, Doc. 25)

I’m Safe also promotes anti-victimization narratives (A1) but does so through inspirational messages and advice, motivational quotes and real-life stories that highlight women’s ability to overcome challenges. Its content often encourages women to assert their strength and resilience in the face of adversity, whether through self-defence, speaking out against harassment or using the app as a first step in self-defence. This becomes evident in segments like:

But how long are we just going to sit back and watch, while men take advantage of our bodies and mind, without consent? (*I’m Safe*, Doc. 72)

Victims are blamed for being victims in the first place. Remember, it's not their fault. The guilt and shame can be off the window. Women cannot control other's actions but they can always fight back when required. (*I'm Safe*, Doc 87)

Closely related to the anti-victimisation narrative is the notion that the app is a tool of female empowerment (A4). *bSafe* frequently emphasises how its products empower users by ensuring that 'help is just a press away', so users can 'enjoy peace of mind with a device that's ready for action whenever you need it' (*bSafe*, Doc. 5). *bSafe* explicitly uses the term 'empower' in their articles targeted towards potential buyer groups, e.g. 'Ready to empower your healthcare staff with *bSafe*?' (*bSafe*, Doc. 14) Testimonials from users reinforce the idea that having the app installed contributes to feelings of strength and security, reducing fear and anxiety in potentially dangerous situations. *bSafe* appeals to empowerment through the promotion of feeling safe due to the app.

So if everyone of us, young men and children included, used *BSafe's* game changing and revolutionary systems we could cut down the amount of rapes and domestic abuse because we would feel – and be – stronger. We would never be alone, says Valentino. (*bSafe*, Doc. 27)

I'm Safe uses the idea of empowerment prominently throughout their material. Its main page opens with the line 'Empowering Women, One Tap at a Time' (*I'm Safe*, Doc. 121). *I'm Safe* paints its app as a tool for empowering women: 'Mechanisms, like *I'm Safe*, are the perfect tools for ensuring women's safety and promoting women's empowerment.' (*I'm Safe*, Doc. 56) The company typically argues that the app empowers women by eliminating the fear and insecurity placed on women's lives, allowing them to focus on their careers and personal growth without the constant worry that their safety will be compromised. Safety or feeling safe in this context is occasionally presented as a fundamental women's right (A7). *bSafe* explicitly states that women are entitled to feel safe and positions itself as a crucial tool in upholding this right. Similarly, the promotional content for the *I'm Safe* app emphasises that women deserve to live in a secure environment, free from violence and discrimination, underscoring safety as a vital aspect of gender equality.

A framing strategy uniquely employed by *I'm Safe* is the portrayal of the company as being part of a broader movement toward women's empowerment and safety (A2). The company frequently presents itself as not just a safety app but as a platform for women to connect, share resources and support each other. It claims to foster a sense of community through upcoming features like group chats and social circles, presenting itself as a 'hub for women' (*I'm Safe*, Doc. 121)

The concept of female empowerment is closely linked to portraying women as strong, independent individuals, particularly emphasising their role as entrepreneurs (A5). This theme is evident throughout *I'm Safe's* content. The website is filled with motivational quotes, practical advice on balancing work and personal life, and self-care tips, all designed to foster a sense of empowerment while also tapping into notions of self-optimization. This is highlighted by quotes like, 'Gender doesn't decide who is stronger, our willpower does' (*I'm Safe*, Doc. 54). The focus on women's entrepreneurship along with the emphasis on self-confidence and resilience as keys to success further reinforce this message. Conversely, the company claims that women face more significant challenges with mental health and balancing life and work compared to men. The solutions offered are often individualised, such as advocating self-care to prevent burnout and embracing the idea of 'girl power' (*I'm Safe*, Doc. 72). Additionally, *I'm Safe* commends corporations like Nestlé and Starbucks for their progressive policies, praising them for empowering women, but they do not clarify whether these mentions are part of a paid partnership. While it does not seem to be a formal partnership, this lack of transparency makes it difficult to conclusively determine why these companies are highlighted. (*I'm Safe*, Doc. 79) *I'm Safe* aligns its app with entrepreneurial interests, stating, 'Women safety apps like *I'm Safe* is designed for women and women entrepreneurs to leave behind safety issues and concentrate on their businesses.' (*I'm Safe*, Doc. 53)

Commodification of Safety

The category 'commodification of safety' (C) includes segments that highlight how safety products can be leveraged to enhance profits and segments that emphasise the company's success or market value. These commodification frames are more prevalent in *bSafe's* content, where they play a significant role, particularly in articles aimed at potential investors, making up 22.25% of its coded segments. In contrast, this theme appears far less frequently in *I'm Safe's* content at only 2.45%. Overall, segments fitting this category represent 11.34% of the coded segments and appear in 36 documents (29%).

bSafe and *I'm Safe* connect safety to market value by promoting their security solutions as cost-efficient and productivity-boosting, particularly for businesses (C2). *bSafe* emphasises how the implementation of its app decreases sick leave, thereby lowering costs:

By providing security to an organization's employees this is proven to generate less sick leave for the organization, increased attendance, and higher engagement from employees ultimately reducing costs for the company. (*bSafe*, Doc. 19)

I'm Safe focuses on the benefits of creating safe environments for women, arguing that such measures not only reduce workplace violence but also improve morale and productivity, contributing to economic growth:

With *I'm Safe* app, women can feel safe and protected, which can lead to increased productivity and better retention rates and ultimately contribute to the growth of the economy. (*I'm Safe*, Doc. 84)

bSafe places significant emphasis on its market value (C1), portraying itself as a 'game changer' with global potential and high returns for investors, even describing its solutions as the 'Uber for Rapid Emergency Response' and 'aspirin on steroids'. (*bSafe*, Doc. 33) Its marketing is backed by endorsements from experts and investors who project significant revenue growth: 'Profit, people and planet are equally important for us. That said, our disruptive business models have global potential for high return on investments.' (*bSafe*, Doc. 1) In contrast, *I'm Safe* highlights its use of advanced technologies, such as blockchain, but focuses more on societal impact than financial gain. The app is framed as a tool for empowerment and safety, with less emphasis on attracting investors, reflecting a more socially driven narrative compared to *bSafe*'s commercially oriented approach.

Data and Surveillance

The following section focuses on the ways in which *bSafe* and *I'm Safe* address user data, privacy and surveillance. The analysis compares how these aspects are addressed and communicated by the two companies. Data and surveillance themes (D) account for 10.27% of the total coded content, featuring equally across both companies' content. However, only 36% of all documents contain segments of this category (Fig. 6) and only 14% of all documents contain segments explicitly addressing privacy concerns (D5), with *bSafe* only mentioning them across two documents (cf. Appendix IV).

I'm Safe includes data security and privacy in its marketing strategy, emphasising that their 'privacy and security features are among the most stringent in the industry' (*I'm Safe*, Doc. 121). Therefore, *I'm Safe* places emphasis on reassuring users about the security and privacy of their data (D5), emphasising the use of advanced encryption technologies:

User's privacy is our top priority. With the help of Amazon's cryptographically secure Quantum Ledger Database, we ensure that your data is stored in an extremely secure and trustworthy location. (*I'm Safe*, Doc. 117)

bSafe addresses data security only in its privacy policy, in which they emphasise that user privacy is a priority, outlining measures such as secure servers and limited data access.

However, these reassurances often come with caveats, such as the acknowledgment that user data might be transferred outside the EU as well as the use of third-party data tools. The fact that data security is only addressed in the privacy policy suggests that the company does not consider data security a significant focus in its marketing efforts.

Both apps aim to project an image of user control, primarily by emphasising the customization of their features (D2). They present customization as a way for users to tailor the app to their individual needs, thus enhancing their sense of security. However, these customization options primarily pertain to minor features, such as setting timers or selecting voice activation phrases. In reality, users are still required to grant the app full access to their phone's location, camera, microphone and contacts to function properly. Moreover, by using the app, users inherently consent to the collection and analysis of their usage data.

Both companies also frame privacy in terms of balancing it with security (D1). This frame however is seldom found in the websites' content, as they rarely address data collection as negative. *bSafe* acknowledges ethical concerns related to constant surveillance and the need for ethical considerations once:

But the more we control where everyone is at all times, the less freedom we have as humans, so there are lots of moral and ethical questions to be discussed moving forward and I'd like to be part of that conversation. (*bSafe*, Doc. 1)

Outside of this statement, discussions around data and privacy are typically confined to the company's privacy policy, fulfilling legal obligations and detailing their data-handling practices. *bSafe* justifies data collection under the principle of 'legitimate interest' and granting third party access by stating that user safety takes precedence even if personal information must be disclosed to third parties. *I'm Safe* states that user data is collected primarily to improve service quality and to comply with legal obligations. The company stresses the necessity of gathering only relevant and up-to-date personal data, but also admits that in certain circumstances, such as compliance with law enforcement, privacy cannot be guaranteed.

More commonly, *bSafe* and *I'm Safe* frame data collection and surveillance positively (D4). *bSafe* frames its surveillance features positively by highlighting their role in ensuring user safety. The company emphasises that features like location tracking, automatic recording and live streaming during emergencies provide critical evidence and enhance real-time responses. This framing portrays surveillance as a vital, proactive, technologically advanced measure that can prevent harm. The language used by *bSafe* often emphasises the immediacy and reliability

of its surveillance capabilities and seeks to reassure users that constant surveillance is not only necessary but beneficial:

Community members actively participate in safeguarding personal safety. (...) Surveillance technology is welcomed. (...) Half of smartphone users surveyed would like to see more police and surveillance technology in public places. (*bSafe*, Doc. 37)

I'm Safe also adopts a positive framing of data collection and surveillance, emphasising the utility of the information gathered. Additionally, the company stresses the benefits of storing all recorded data securely and for a long period of time:

The app should be a safe space for women's stories, and those stories should be protected. If women's information is erased, it will only further silence them and make it harder for them to get the justice they deserve. Additionally, this information can help to raise awareness about the situation so that others can be more vigilant in the future. (*I'm Safe*, Doc. 63)

This framing positions surveillance as a means of empowerment, particularly for women. The company's focus on ensuring that captured data is safe from deletion, suggests that surveillance is not only about immediate safety but also about long-term empowerment and the ability to hold perpetrators accountable.

Another common framing strategy employed by both *bSafe* and *I'm Safe* is presenting location information as essential for enhancing user safety (D3). *bSafe* frames location tracking as a crucial component of real-time protection, embedding it deeply into the app's functionality. The continuous tracking through features like 'Follow Me' is presented as an effective way to prevent harm. The company underscores the immediacy of response, positioning location data as vital for mobilising help during emergencies.

I'm Safe presents location tracking as a tool for empowerment and continuous monitoring, framing it as a preventive measure against harm. The company markets its tracking features as a way to stay connected with loved ones, particularly in potentially risky situations, such as night shifts or lone working. The framing shifts the focus away from immediate emergency response and towards the idea of ongoing protection that continuous location tracking can supposedly offer, both as a deterrent to potential threats and as a means of providing evidence if a crime is committed. In both cases, the framing of location information as safety-enhancing emphasises the benefits of surveillance. However, the subtle differences in each app's approach reflect their broader brand strategies: *bSafe* focuses on immediate, technology-driven protection, while *I'm Safe* prioritises empowerment.

Gender, Risk and Insecurity

Gender, risk and insecurity narratives (G) play a considerable role in both apps' content, making up 14.63% of all coded segments and is featured in 46% of all documents (Fig. 6). However, *I'm Safe* places much more emphasis on this theme (19.76% of all coded segments) than *bSafe* (8.21%).

A prevalent theme in both companies' content is the idea that crime is rising or ever-present and the world is unsafe. This is conveyed through crime statistics and statements about the increasing insecurity of our world, emphasising rising crime rates to construct a narrative of a world where danger is ever-present and escalating, highlighting the need for safety solutions:

The escalating incidents of criminal activities, robberies, domestic violence, and partner murders have become pervasive issues, leading to significant disruptions on a global scale. These events cast profound socio-economic impacts, affecting individuals, workplaces, schools, and entire communities, with repercussions on mental health, quality of life, corruption levels, and overall productivity. (*bSafe*, Doc. 10)

I'm Safe adopts a similar approach, depicting the world as fraught with threats like modern slavery and human trafficking, further justifying the necessity of its safety app:

The dystopian world we live in does not guarantee safety to a child who rides the elevator in his own apartment or to a woman who walks down her street. Perversion is on the rise. Organ theft is shockingly as common as pickpocketing. Child traffickers are masked as neighbours. Nobody is safe, not even men. That is why safety apps are so vital, especially for women and children. We cannot always guard our children 24/7, but we can keep an eye on them with safety apps and security tags. (*I'm Safe*, Doc. 55)

Both companies prominently emphasize the idea that women are perpetually at risk of sexual violence, depicting a world that is unsafe for women everywhere and at all times. *bSafe*, for example, states: 'Crime and violence against women, sexual abuse and rape are increasing globally. It creates insecurity, fear and dread for women all over the world.' (*bSafe*, Doc. 25) Similarly, *I'm Safe* reinforces this narrative with statements such as: 'Women across the globe are harassed and abused every minute.' (*I'm Safe*, Doc. 74) and 'However, women are not safe anywhere. Be it on a deserted street or a crowded bus or train.' (*I'm Safe*, Doc. 72) Violence against women is often portrayed as an inevitable reality, devoid of a specific perpetrator. Instead, the fear and threat of violence are often presented as inherent aspects of women's lives. As one *I'm Safe* blog entry states:

There has not been a day when women across the globe worried about their safety. From the youngest to the oldest, we are harassed, abused, and even verbally attacked by people despite being in a civilised nation. (*I'm Safe*, Doc. 84)

Throughout both companies' content, there is a notable emphasis on women's vulnerability (G2). This focus is reinforced, not only through the use of statistics related to violence against women, but also by describing effects of sexual violence such as mental health issues and long-term trauma. *bSafe* strongly underscores women's vulnerability, the narratives of rape survivors are central, illustrating the psychological and emotional consequences of rape or sexual assault. This not only emphasises women's vulnerability but also positions *bSafe* as an essential tool for preventing such life-altering events. The portrayal of women as particularly vulnerable serves to justify the need for the app's features. *I'm Safe* addresses women's vulnerability in the same way, but its focus extends beyond sexualised violence, to include workplace harassment, societal discrimination and other issues such as burn-out syndrome. The app depicts women as constantly in danger in various aspects of their lives, from public spaces to professional environments. It is presented as a holistic solution to these issues, aiming to empower women by providing tools to navigate and mitigate these vulnerabilities.

In both companies' content, the theme of women's need for protection (G1) is central. The need to safeguard women is woven into the functionality of both apps and is prominently reflected on their websites, especially on *I'm Safe*. *I'm Safe* takes a more explicit approach, emphasising the importance of protection and placing much of the responsibility on men. Their 'Men for Women' campaign underscores this by asserting that men have a duty to protect the women in their lives.

It is our duty as men to protect and provide for the women in our lives. We are not only willing but excited about this responsibility, because it's part of who we are as fathers, husbands, sons, and brothers. Women are the foundation of a home and we are responsible to create a world where all women are safe, respected, and valued. Together, we will ensure that every woman has the opportunity to reach her full potential. # Real Men For Women's Safety. (*I'm Safe*, Doc. 88)

They explicitly connect notions of masculinity to the role of protector: 'A Real man values and respects a woman and strives to keep her safe at all times.' (*I'm Safe*, Doc. 88) The content largely focuses on women's lack of safety in public spaces (G3), either by explicitly warning of the dangers posed by strangers or by implicitly portraying public areas as unsafe for women. For example, *I'm Safe* illustrates this point:

Women are the target in the night, but we are not left alone in crowded places either. Every woman will have their story to share, about sexual harassment that took place in a crowded public space – when someone fondled and touched her private parts without consent, making it look like an accident. Women are forced to stay quiet because the society is watching. (*I'm Safe*, Doc. 72)

bSafe reinforces the ‘stranger danger’ concept by highlighting the risks of being alone, particularly in unfamiliar or unsafe environments. This narrative justifies the app as a necessary safeguard. *I’m Safe* widens this perspective by addressing a wider range of scenarios in which women are vulnerable, from public transportation to home invasions. The company stresses the unpredictability of danger, urging women to remain vigilant, even in seemingly safe surroundings.

Both websites briefly touch on the issue of domestic violence (G4) addressing it in only seven instances across five documents. They tend to gloss over the fact that most violence against women is perpetrated by intimate partners, rendering many functions of the app ineffective. *bSafe*, for example, highlights the prevalence of partner murders and domestic abuse but quickly pivots to emphasise the importance of having a protective system in place, such as the *bSafe* app, without addressing the complexities of intimate partner violence. In a section titled ‘Can We Help Reducing Domestic Violence and Murder?’, *bSafe* states:

If we manage to prevent partner violence, it can help to avoid partner murder. The *bSafe* Button utilizes cutting-edge technology to establish a secure and rapid connection. Whether you're at home, on the go, or in an unfamiliar environment, help is just a press away. (*bSafe*, Doc. 2)

While *bSafe* mentions the prevalence of domestic violence, it doesn’t explain how its functionalities can support victims in such situations. In contrast, *I’m Safe* takes a broader approach, focusing on identifying and escaping abusive relationships. The company asserts that the app provides guidance on recognizing signs of domestic abuse and offers discreet tools for women to seek help, aiming to empower victims to act safely and privately. How the app’s features could assist domestic abuse victims is not discussed.

Neoliberal Responsibilization Strategy

The category ‘Neoliberal Responsibilization Strategy’ focuses on the concept of responsibility in ensuring one’s own safety. It explores how *bSafe* and *I’m Safe* frame responsibility, unveiling implicit assumptions about societal and systematic vs. individualised responsibility. Both companies predominantly stress that personal safety is largely determined by the actions and vigilance of individuals and their support networks. This narrative shifts the burden of responsibility for safety onto the individual, suggesting that safety is a personal concern rather than a broader societal issue. This theme is more prevalent in *I’m Safe*’s content (14.86% of all coded segments) than in *bSafe*’s (7.99%).

bSafe and *I'm Safe* place significant emphasis on the responsibility of the user's immediate circle (N1) in ensuring personal safety, a theme present in 41 segments across 26 documents. This is inherent to the functionality of both apps, as their features are designed to instantly alert predefined contacts. *bSafe* prioritises immediate, real-time involvement from close contacts, referred to as 'guardians', during emergencies which positions the user's peer group as a primary line of defence. By leveraging the emotional and practical support of this close-knit group, the app promotes the idea that safety is a shared responsibility of the user's immediate circle, shifting it from a societal concern to one managed at the individual level. As *bSafe* states, 'We are all engaged in impacting the safety of our loved ones, as it is everyone's responsibility.' (*bSafe*, Doc. 22)

I'm Safe similarly underscores the importance of peer involvement but broadens the scope to include community and workplace settings, advocating for bystander intervention and collective vigilance in preventing and addressing unsafe situations. The content highlights the need to educate both immediate peers and the wider community on how to respond to harassment or danger, fostering a supportive environment where safety is a collective concern. Despite this broader framing, the app itself relies on trusted contacts for emergency alerts, reinforcing the notion that immediate peer groups bear responsibility for the user's safety. *I'm Safe* also emphasise how the user's immediate circle is most suited to handle emergencies. This becomes apparent in statements like the following:

With the touch of a button, you're able to notify your personal support network because nobody understands the urgency of what you're going through like friends, family, and other women. (*I'm Safe*, Doc. 121)

In summary, both apps promote the idea that personal safety is significantly enhanced by the active involvement of trusted peers, while still depending on individualised, privatised solutions like safety apps.

bSafe frequently emphasises personal responsibility for safety (N3), by referencing personal experiences and reflections on how past incidents could have been prevented. This narrative encourages individuals to reflect on their own role in preventing danger, reinforcing the idea that personal safety is largely the result of proactive decision-making. *I'm Safe* similarly emphasises steps users can take to protect themselves, such as advocating for self-defence training and making informed choices about safety apps. The emphasis is on preparation, placing the responsibility on users to be ready for potential threats. This framing subtly shifts responsibility onto victims, implying that failure to adequately address potential threats contributes to victimisation.

The reality is that any threat, no matter how minor it may seem, has the potential to escalate into something much more serious. Until we learn to take all threats seriously and put our own safety first, women will continue to fall victim to them. (*I'm Safe*, Doc. 104)

Both apps also stress personal responsibility in avoiding risky behaviour (N2). *bSafe* promotes early risk identification and preventive measures, suggesting that staying aware and using the app effectively can significantly reduce potential harm. *I'm Safe* provides more direct advice on specific safety behaviours, such as practical tips for women, including avoiding 'unsafe' areas, linked to their upcoming 'safety map' feature. Both apps ultimately encourage behaviour modification to minimise risks in public spaces.

This emphasis of personal responsibility extends to a broader advocacy for self-reliance and constant vigilance (N5). *bSafe* urges users to take personal safety 'into their own hands' (*bSafe*, Doc. 42) by using their technology. *I'm Safe* places heavy emphasis on individual preparedness, stressing the importance of being cautious in unfamiliar environments and constantly aware of one's surroundings. It encourages users to be on guard constantly, with the app serving as a tool to stay prepared and alert.

Moreover, both platforms highlight the responsibility of the user to collect evidence during assaults (N4), a feature central to their SOS recording functions. This is presented as a critical aspect in future legal situations. Both platforms suggest that the burden of collecting evidence rests heavily on the victims, while simultaneously pointing out the failure of prosecution in court cases due to insufficient evidence. Although both apps underscore this functionality, neither addresses the systemic legal issues that hinder successful prosecutions, leaving broader challenges inadequately explored.

In code N6, both *bSafe* and *I'm Safe* emphasise user responsibility for the proper use and functionality of their apps. *bSafe* outlines that users are accountable for adhering to the 'terms of use', handling technical issues and ensuring the app works as intended, while disclaiming liability for network failures or misuse. Similarly, *I'm Safe* shifts responsibility to users for security practices and risks associated with platform malfunctions. This approach reflects the concept of responsabilization, placing the burden of managing both personal safety and app functionality on the individual user.

Neoliberal Risk Management/Shifting State Responsibility

A recurring theme on both websites is the notion that public safety concerns can and should be addressed by private companies like *bSafe* and *I'm Safe*. This idea aligns with the concept of technological solutionism (T), where technology is positioned as the primary tool for solving complex societal issues. However, the arguments presented under this theme extend beyond simply offering technological fixes, they also implicitly or explicitly critique the state's role in public safety. By promoting private solutions, the companies reveal deeper narratives about the perceived inadequacies of public safety systems and the increasing reliance on privatised approaches. Neoliberal risk management and the shifting of state responsibility (R) is the most prominent theme overall, making up 22.77% of all coded segments across 73 documents. This theme is heavily emphasised by both apps, accounting for 23.97% of *bSafe*'s content and 21.68% of *I'm Safe*'s.

Both companies advocate for the privatisation of security by promoting market-driven solutions (R4), while shifting traditionally state-held responsibilities to private entities. They often frame the state as inefficient and inadequate in responding to safety needs, positioning private solutions as more effective and reliable. *bSafe*, for instance, markets its services as essential upgrades to outdated public emergency systems, frequently highlighting the inefficiencies of state-run emergency responses. It criticises these systems for their failure to provide real-time, accurate information, arguing that integrating *bSafe*'s technology would enhance overall safety and reduce costs. This narrative is reinforced through statements like:

Emergency response is often slow or unreliable. Crucial information is not reaching responders. We will provide you access to instant emergency response, anywhere, anytime. We will give citizens, students and employees access to instant emergency response services through our easy-to-integrate solutions. We automate key processes that eliminate time-consuming manual work, reduce costs and improve productivity. (*bSafe*, Doc. 33)

The company's frequent portrayal of its technology as a 'revolutionary' advancement underscores its belief in the superiority of private-sector innovations over public safety infrastructure, evident in claims such as: '*bSafe* will change the way you think about safety. Because public safety is not working.' (*bSafe*, Doc. 16)

In contrast, *I'm Safe* focuses its critique on the limitations of public systems, particularly in the context of women's safety and workplace harassment. The company argues that legal frameworks like India's PoSH Act are ineffective, describing them as a 'toothless tiger' due to 'inefficient functioning and a lack of clarity in the law' (*I'm Safe*, Doc. 56), positioning its app

as a tool to empower women and to bypass supposedly state inefficiencies. This is exemplified by statements such as:

More victims and survivors that she worked with, as well as her partners, testified that dialling 100 never helped when they were in trouble. According to her, a women's safety app like *I'm Safe*, which has a global reach, can help to foster an environment in which women and girls feel safe and secure. (*I'm Safe*, Doc. 99)

Both companies acknowledge violence against women as a systemic issue (R5). Unlike R4, this framing does not call for private solutions but merely points to supposed or proclaimed public or state inefficiencies in addressing women's safety. While this argument appears only once in *bSafe*'s content, indicating its limited emphasis, *I'm Safe* adopts a more comprehensive critique. It examines not only legal and institutional failures but also the societal and cultural factors that perpetuate gender-based violence:

Gender-based violence is often rooted in unequal power dynamics between men and women and can occur in both private and public spaces. (*I'm Safe*, Doc. 102)

Gender-based violence is a phenomenon deeply rooted in gender inequality, and it is the most notable human rights violation within societies. This violence is directed against a person for the gender they belong to. Both women and men experience gender-based violence, but the majority of victims are women and girls. (*I'm Safe*, Doc. 74)

I'm Safe advocates for both technological interventions and broader cultural shifts to combat the issues of violence and discrimination against women. This approach aligns with the company's marketing strategy as an organisation committed to advancing women's rights.

Another facet within this category is the emphasis on public-private collaboration for effective safety solutions (R3). Both *bSafe* and *I'm Safe* promote the idea of collective responsibility, positioning their apps as part of a broader solution alongside public services and individual action. This stands in stark contrast to claims in R4 and R5, which often present conflicting narratives. *bSafe* highlights the integration of digital infrastructure with public emergency services and private organisations, stressing collaboration between governments, companies and individuals. They emphasise public responsibility for safety while positioning *bSafe* as a part of the solution to safety issues, stating that '*bSafe*'s state of the art functions and technology should be implemented by all democratic governments to better help themselves and their people'. (*bSafe*, Doc. 1)

Meanwhile, *I'm Safe* focuses on workplace and individual safety, rather than on emergency response systems. It advocates for safe workplaces through internal workplace policies, reporting mechanisms and awareness programs, emphasising the need for organisational commitment to gender equality and safety. *I'm Safe* advocates for internal organizational

guidelines that align with existing frameworks, such as the Indian PoSH Act, rather than expanding or altering current public policies. In contrast to the general emphasis on individual responsibility both companies frame violence against women as a societal issue requiring a collective response, in which they claim to play a crucial role.

This connects to the theme of companies adopting societal goals (R2), claiming to address broad issues like gender inequality. Both *bSafe* and *I'm Safe* align their missions with global objectives, particularly the UN's Sustainable Development Goals (SDGs). *bSafe* asserts its products contribute to achieving gender equality, with promises such as:

We will reduce all forms of discrimination and violence against girls and women worldwide. We will reduce all forms of violence against girls and women, both in the public and private spheres, including human trafficking, sexual assault and other forms of exploitation. We will strengthen the use of technology for girls and women to help develop a more gender equitable society. (*bSafe*, Doc. 19)

Additionally, *bSafe* claims to support goals like good health, sustainable cities and climate action by reducing emergency response needs and, consequently, greenhouse gas emissions: 'With our solutions, we might reduce the number of emergency calls by 20-30% resulting in a decreased need for emergency vehicle support such as police vehicles, ambulances and fire trucks.' (*bSafe*, Doc. 19) Their vision statement for 'safe and sustainable societies for individuals and businesses' (*bSafe*, Doc. 19) reinforces this claim:

We are all engaged in impacting the safety of our loved ones, as it is everyone's responsibility. *BSafe* is not just a business; it is a mission to make a globally significant and tangible impact on people's lives and safety. Everyone everywhere has the right to feel safe. (*bSafe*, Doc. 22)

I'm Safe, meanwhile, places a stronger focus on the empowerment and protection of women. It integrates its mission with the SDGs, particularly in addressing gender-based violence and inequality. The company emphasises creating 'a globally safe community where women are free from being a victim of physical and emotional abuse'. (*I'm Safe*, Doc. 52) They present the company as a 'team of passionate and committed members working towards empowering women'. (*I'm Safe*, Doc. 121) This becomes apparent in statements such as:

Believing that the first step towards empowerment is safety, we harness the power of technology and trust to bring about transformation in the lives of women. (*I'm Safe*, Doc. 121)

In contrast, there is also a call for systemic solutions and an appeal to state responsibility (R1), recognizing the state's role in crime prevention and advocating for comprehensive approaches to address violence against women. *bSafe* does not adopt this narrative, only positioning its app as part of a broader security solution that assumes state-like responsibilities. Contrastingly, *I'm*

Safe consistently emphasises the importance of state responsibility in protecting women, advocating for societal change through education, legal reforms and gender equality enforcement. This aligns with *I'm Safe*'s marketed identity as a women-centred organisation focused on empowerment.

Technological Solutionism

Both *bSafe* and *I'm Safe* present their personal safety apps as solutions to a broad range of issues. A typical blog post by *I'm Safe*, for instance, highlights a significant societal or workplace problem and either explicitly positions the app as part of the solution or promotes it more generally, implying that the app plays a crucial role in addressing many of the challenges women encounter. Technological solutionism (T) makes up 13.18% of all coded segments, featuring more prominently in *bSafe*'s marketing (17.06%) than in *I'm Safe*'s (9.97%).

Within this category, gender specific issues play an important role. A central theme promoted by both companies is the belief that technology can solve the issue of violence against women (T6). *bSafe*, for example, markets itself as a 'security system for individual rape prevention' (*bSafe*, Doc. 1), using testimonials from rape survivors who express that their assaults might have been preventable with access to the *bSafe* app: 'If I had *bSafe*, my rape could've been prevented and I wouldn't have had to struggle as much as I've done, says Charlen.' (*bSafe*, Doc. 25)

Similarly, *I'm Safe* suggest that use of their technology can prevent violence against women and reduce incidents of sexual harassment:

However, to save our women from heinous acts of exploitation, the *I'm Safe* app is here to save women and their league from being harassed, exploit[ed], or abused in any way. If you hold a smartphone in hand, you can save yourself from mental trauma, and earn peace and happiness in one go. All you need to do is Install our app. (*I'm Safe*, Doc. 59)

Both apps include various forms of gender-based violence such as sexual harassment, rape, domestic abuse and human trafficking in their content, reinforcing the companies' messaging that their apps play a critical role in addressing all gender-based violence.

Another, less pertinent but still important, gender specific claim pertains to gender equality in general (T7). *bSafe* occasionally presents its app as a means of reducing inequality and fostering gender equality. More prominently, *I'm Safe* positions its app as a vital tool for advancing gender equality, particularly in the workplace. It connects the app's use to broader social outcomes, such as improving women's access to education and fostering inclusive work

environments. *I'm Safe* portrays itself as enabling women to pursue their goals without fear of violence or discrimination:

Thanks to patriarchal society and its different unstable mentalities that have been passed down through the generations, the women's safety app helps in addressing safety and walking towards gender equality. When women are provided with a tool for their safety, they are enriched with confidence, empowerment, and the confidence to walk in society instead of back footing it and hiding in our [sic] safe space. (*I'm Safe*, Doc. 84)

Both *bSafe* and *I'm Safe* claim that their apps promote safety in a broader context, extending beyond women's safety (T8). *bSafe*, in particular, markets its app as a revolutionary tool for enhancing general safety, often citing real-life examples to demonstrate its potential impact. For instance, it suggests that the app could have altered the outcomes of major events like the 9/11 terror attacks:

bSafe would have been a significant benefit to many of our loved ones that day, it really would, says Erik Ronningen, who was the last person to escape the South Tower of the World Trade Center on September 11th 2001, before it collapsed. (*bSafe*, Doc. 3)

Similarly, *I'm Safe* positions its app as a comprehensive solution to safety challenges, emphasising its role in fostering a broader culture of safety. Beyond women's safety, the app promotes general safety, particularly through its integration into organisational settings, where it aims to create safer workplaces.

Regarding the prevention of loss of life and health (T5), *bSafe* positions itself as an essential tool in life-threatening situations. The company highlights its potential to save lives across various scenarios, ranging from everyday emergencies to large-scale disasters like terrorist attacks and wars. *bSafe* refers to its solutions as 'New Smart Technology That Can Save Lives' (*bSafe*, Security and Safety Solutions, Doc. 30): 'From sexual assault to emergencies and crisis like accidents and wars – saving the life of millions.' (*bSafe*, Doc. 22) In contrast, *I'm Safe* doesn't explicitly claim that it can prevent deaths, but it implies this through suggesting that the app plays a crucial role in helping people escape dangerous situations, such as claiming that it could be helpful in escaping scenarios like modern slavery.

Another claim found in the promotional material, is the statement that the use of the app improves the quality of life and specifically promotes mental health (T4). With only seven segments this frame is not prominent across the content, although *bSafe* specifically highlights its ability to prevent incidents that could lead to psychological distress, such as crime, violence and rape. Consequently, the app claims to enhance mental health and overall well-being on a global scale.

Occasionally, the apps are presented as active tools for deterring crime (T3), with only *bSafe* explicitly stating that their app acts as a ‘deterrent for potential perpetrators’ (*bSafe*, Doc. 1), referring to their ‘siren-like alarm (...) that will prompt the perpetrator to consider whether to carry out whatever act he or she has initiated’. (*bSafe*, Doc. 36) The recording function is also presented as a means to discourage criminal acts by ensuring incidents are documented and can be used as evidence in legal proceedings.

Another aspect highlighted by both companies is the role their apps play in supporting convictions during criminal prosecutions (T2), particularly through the use of the recording feature. While both apps promote this function, *bSafe* places greater emphasis on it, frequently underscoring how its documentation capabilities can be pivotal in court, potentially making the difference between conviction and acquittal.

John Chr. Elden has invested in my solutions and believes the documentation features would be a deal breaker in court – a place where many victims have not been properly heard. (*bSafe*, Doc. 17)

Although academic literature links personal safety apps to other self-defence tools, this narrative plays a less central role in the companies’ content (T1). Only *I’m Safe* promotes its app as an essential first step in self-defence, specifically in one blog post, where it highlights the app as a proactive measure for individuals who may not have access to traditional self-defence training. (*I’m Safe*, Doc. 55) The app is described as providing users with an advantage over potential threats, likening its installation on a phone to taking a significant step toward self-defence.

4.3.3. Summary

The analysis of *bSafe* and *I’m Safe* has revealed common themes prevalent throughout the marketing of both personal safety apps. As I have shown, both apps employ frames of empowerment and anti-victimization, emphasising inspirational stories and resilience. However, both apps simultaneously portray the world as inherently unsafe, stressing a rising threat of violence against women and positioning their apps as essential tools for protection.

The analysis makes clear that both apps spotlight personal responsibility, encouraging users to rely on close contacts during emergencies, thus shifting the burden of safety from a societal issue to an individual one. This theme reflects a neoliberal perspective where safety is framed as a matter of personal vigilance rather than public provision.

Furthermore, technological solutionism is another prominent theme in both apps, as they portray themselves as essential tools for combating violence against women and enhancing general safety. As I have demonstrated, *bSafe* particularly focuses on its market potential, presenting itself as a groundbreaking product for investors. In contrast, *I'm Safe* leans more toward social impact, positioning the app as part of a broader movement for women's empowerment and safety. Additionally, as the analysis has shown, *bSafe* stresses the commercial and market value of its safety products more so than *I'm Safe*, framing its app as a high-return investment opportunity. Pertaining to data safety, both apps also justify data collection as a necessary element for ensuring user safety, with location tracking being particularly emphasised as a key feature for real-time protection.

In conclusion, both apps promote a privatised, technology-driven approach to personal safety, with *bSafe* adopting a more commercial narrative, while *I'm Safe* focuses more on women's empowerment. This distinction highlights the broader strategies used by the companies to market their apps as essential in the fight against gender-based violence.

5. Discussion

This chapter provides a critical discussion of the empirical findings presented in Chapter 4.3., focusing on the broader implications of personal safety apps like *bSafe* and *I'm Safe*. Through the theoretical lens of neoliberal responsabilization, surveillance capitalism, neoliberal feminism and the commodification of safety, the chapter explores how these apps frame safety as an individual responsibility while reinforcing traditional gender roles and power dynamics. By examining the intersections of empowerment, surveillance and privatisation, this discussion highlights the ways in which these technologies both reflect and perpetuate existing societal structures.

5.1. Neoliberal Responsibilization

Safety apps like *bSafe* and *I'm Safe* function within the logic of neoliberal responsabilization, further amplifying the idea. By positioning individual women as solely responsible for their own safety, *bSafe* and *I'm Safe* shift the focus away from systemic solutions and onto personal decision-making. Rather than framing safety as a societal issue, safety is seen as a product of individual actions, enhanced through the use of private surveillance tools. They utilise neoliberal rhetoric that promotes autonomy, agency and self-determination. This masks the

systemic nature of gender-based violence and reinforces the status quo by placing the onus of safety on women. As Alex Bevan notes, the apps mobilise violence as an opportunity to expand security infrastructures, but in doing so, they detach gender violence from its roots in patriarchal ideology and lived experience. (Bevan 2023: 1183)

The marketing narratives of both apps imply that failing to use their products equates to neglecting one's own responsibility for personal safety, subtly shifting the blame from perpetrators to women. The layered functionality of the apps, offering features that range from simple check-ins to emergency SOS alerts, further complicates this dynamic. Users must evaluate and select the correct function based on their perception of the threat, opening up additional avenues for victim-blaming if harm occurs. As Bevan points out, this approach 'implements self-monitoring in the form of elaborate decision-making trees for managing fear and responding to escalating levels of threat' (ibid.: 1180).

This exemplifies the centrality of self-discipline in neoliberal crime-prevention strategies. Risk management technologies like *bSafe* and *I'm Safe* foster a type of citizen, who is responsibilized, calculating and constantly managing his or her own exposure to harm through personalised safety strategies. (Gotell 2012: 251) The constant tracking promoted by these apps contribute to this dynamic, where individuals monitor their own behaviour to conform to societal expectations. In this way, these apps perpetuate a mode of power that operates 'from a distance', where citizens are encouraged to integrate crime prevention as part of their daily lives without direct state intervention. (Garland 1996: 453–454)

The apps encourage individuals to become consumers of security, transforming their sense of safety into a matter of personal consumption through purchasing safety products. (Monahan 2010: 57) As such, companies like *bSafe* and *I'm Safe* not only offer tools for protection but also reshape how individuals conceptualise security itself, making it a matter of self-management and responsibility. Self-monitoring thus becomes a new form of discipline, not only reinforcing traditional gender roles but also serving the interests of private corporations. This dynamic further entrenches surveillance into the very fabric of daily life, allowing private entities to profit from societal insecurities while framing safety as an individual responsibility. The promotion of self-monitoring and self-reliance leads to an 'internalisation' of 'surveillance structures' (Dennis 2008: 348).

Moreover, the intertwining of neoliberalism and surveillance encourages individuals to view others as inherently dangerous, pushing them to take pre-emptive actions to protect themselves, even when those perceived dangers may be exaggerated or unfounded. Madriz argues that this

fear is constructed and perpetuated through a discourse that positions the figure of the ‘outlaw’ – often represented as an immigrant, racialized or impoverished – as a constant threat to society. In doing so, this narrative not only reinforces harmful stereotypes but also legitimizes discrimination by making these biases appear as reasonable responses to fear. (Madriz 1997: 97) Surveillance plays a crucial role in this process by intensifying perceptions of danger and dictating specific market-oriented responses, such as investing in high-tech security ‘solutions’ that further entrench divisions and exclusions. (Monahan 2010: 11) As a result, the inequalities and exclusions that arise ‘become mere collateral damage in the battle for the semblance of personal safety, not political problems for which society shares collective responsibility’. (Monahan 2010: 11)

5.2. Postfeminist Sensibilities and Marketing Empowerment

Personal safety apps like *bSafe* and *I’m Safe* operate within a neoliberal framework that places responsibility for safety on the individual, encouraging self-discipline and self-surveillance. The emphasis on self-surveillance and autonomy is further reinforced by what Rosalind Gill calls ‘postfeminist sensibilities’, inherent to the marketing strategies of these apps, which co-opt feminist language to supposedly promote empowerment. This appropriation of feminism co-opts feminist ideals for superficial or commercial purposes, stripping them of their transformative potential. Feminist principles are repurposed to align with neoliberal interests, prioritizing self-sufficiency and market-based solutions. Rather than addressing structural gender inequality, feminism is hollowed out and reduced to an individualized, commodified version that emphasizes personal empowerment over systemic change.

Within postfeminist discourse, concepts of choice, agency, autonomy and empowerment are intertwined with an ‘emphasis upon self-surveillance, monitoring and discipline’, ‘a focus upon individualism’ and an ‘emphasis upon consumerism and the commodification of difference’ (Gill/Scharff 2013: 4). The rise of self-surveillance, fuelled by the entrepreneurial ethos and the notion of personal responsibility, creates a fertile environment for technologies like *bSafe* and *I’m Safe*. The ‘reflexively monitoring self’ (Gill 2019: 149) aligns with the neoliberal idea of self-regulation, where effects of systemic power and oppression are attributed to personal choice and responsibility.

This emphasis on self-regulation and individual responsibility within postfeminist discourse aligns with the framework of neoliberal feminism. Catherine Rottenberg highlights how this

‘hyper-individualising neoliberal feminism (...) construes women not only as entrepreneurial subjects but also as individual enterprises’ (Banet-Weiser et al. 2020: 9).

As Nancy Fraser critiques, ‘the dream of women’s emancipation is harnessed to the engine of capitalist accumulation’ (Fraser 2015: 709), transforming feminist ideals into marketable commodities while stripping feminism of its oppositional force. (Banet-Weiser et al. 2020: 9) This underscores how neoliberal feminism shifts the responsibility for structural inequalities onto individual women, aligning with the individualistic logic of safety apps. As Rottenberg writes:

And while it [neoliberal feminism; author’s note] might acknowledge that the gendered wage gap and sexual harassment are signs of continued gender inequality, the solutions it posits elide the structural or economic undergirding of these phenomena. (ibid.)

The marketing strategies of *I’m Safe* and *bSafe* further illustrate this by co-opting feminist language and reframing empowerment through a neoliberal lens. For example, *I’m Safe* appeals to notions of ‘girl power’ and positions self-improvement through time-management to maintain a work-family balance as a feminist ideal. This aligns with what Gill critiques as postfeminist discourse, where women are portrayed as fully autonomous agents, supposedly free from structural constraints and power imbalances. (Gill 2007: 153) As Gill notes, within this discourse the ‘notion of a happy work-family balance is central’. This ‘balance based on a cost-benefit calculus’ is ‘being bandied about all over the mainstream and popular press as a feminist idea’ (ibid.: 7). This framing, however, obscures persistent societal inequalities by suggesting that personal empowerment and self-regulation alone can address these issues. (Gill 2007: 153) As Catherine Rottenberg writes:

Neoliberal feminism thus operates as a kind of pushback to the total conversion of educated and upwardly mobile women into generic human capital. By maintaining reproduction as part of middle-class or so-called aspirational women’s normative trajectory and positing balance as its normative frame and ultimate ideal, neoliberal feminism helps to maintain a discourse of reproduction and care work while at the same time ensuring that all responsibility for these forms of labour – but not necessarily all of the labour itself – falls squarely on the shoulders of so-called aspirational women. (Banet-Weiser et al. 2020: 8)

The repurposing of feminist rhetoric can also be understood through Sarah Banet-Weiser’s concept of ‘popular feminism’, which refers to a ‘media-friendly’ (ibid.: 10) and ‘corporate-friendly’ (ibid.: 11) expression of feminism that has become increasingly common. Companies, particularly those selling consumer products, increasingly use women’s issues as a marketing tool. High-profile female entrepreneurs frequently promote products with messages urging women to ‘lean in’ and overcome ‘imposter syndrome’. (ibid.) This rhetoric is mirrored in the

marketing strategies of *I'm Safe* and also of *bSafe* to a certain extent, which cater to a form of 'feminism' centred on empowerment and positivity. Their messages mostly lack any critique of larger societal structures, or such critiques are relegated to an afterthought.

This kind of 'popular feminism' tends to support, rather than challenge, neoliberal values like personal success, market growth and self-entrepreneurship, ultimately reinforcing neoliberal trajectories that focus on individual success rather than collective or systemic change. (ibid.) This approach amplifies the belief that safety is the result of individual choices, diverting attention away from the broader systemic causes of violence against women. However, as Frazier and Falmagne put it, 'individual 'choice' in the context of misogyny, sexism, and racism proves to be an illusion as neoliberal logic denies the systemic nature of oppression and privilege'. (Frazier/Falmagne 2014: 482)

Furthermore, the messaging of these apps contributes to what Gill refers to as the 'reassertion of sexual differences' (Gill 2007: 158) within postfeminist discourse. This is done implicitly by contrasting vulnerable, weak women with male perpetrators or male protectors as aforementioned, and explicitly e.g. through claims that women are more prone to burn-out or have to put in extra work in areas like time management. This reflects the postfeminist shift that positions sexual difference not as biological but as psychological, using modern metaphors to recast traditional gendered notions. *I'm Safe* even states this explicitly: 'Men and Women have roles – Their roles are different, but their rights are equal' (*I'm Safe*, Doc. 50) As Gill notes, these discourses not only reinforce power dynamics between men and women but also the idea that gender differences are natural and inescapable. In doing so, they serve to 'freeze in place existing inequalities by representing them as inevitable' (ibid.: 159).

In conclusion, personal safety apps like *bSafe* and *I'm Safe* exemplify the neoliberal responsibilization of safety, shifting the burden of protection onto individual women while masking the systemic roots of gender-based violence. By co-opting feminist language, these apps function within the logic of neoliberal feminism and reduce safety to individual, technology-based decision-making under the guise of empowerment. Consequently, the logic inherent to the apps obscures the systemic nature of gender-based violence, solidifying patriarchal structures while creating the illusion of control. In that sense, safety apps are inherently anti-feminist. These apps transform a collective societal responsibility into a matter of personal consumerism, where safety is marketed as a private, individualised responsibility while co-opting feminist language for marketing purposes and stripping feminism of its transformative force.

5.3. Women as Empowered Victims

Following the discursive praxis embedded within neoliberal feminism, both apps adopt the language of self-empowerment and anti-victimization. At the same time, they rely on the pervasive notion that women are perpetual victims, specifically of sexualized violence, thereby reinforcing gendered assumptions about safety. This contradictory framing is central to the narrative both apps promote, where women are simultaneously framed as empowered agents and perpetual victims. Thus, the empowerment these apps offer is inherently tied to women's constructed vulnerability, creating 'contradictory subject-positions for women, simultaneously framing them as empowered and victimized' (Frazier/Falmagne 2014: 480), offering empowerment only within the confines of women's constructed vulnerability.

This is part of a new women's safety pedagogy Hall (2004: 5) outlines, which constructs perceptions of female agency where women are presumed to be victims by default but are also expected to evade supposedly inevitable assaults on their own. This paradox reflects the idea that 'agency is possible for women only through avoidance' (ibid.: 6) and through a performance of fearfulness, women are compelled to adopt practices aimed at reducing personal risk. Frazier and Falmagne describe this dynamic as one where 'women are then compelled to prevent or avoid the position of victim (and instead occupy the position of the self-determined, empowered citizen) via the enactment of a number of personal safety practices' (Frazier/Falmagne 2014: 482).

However, this empowerment is narrowly defined and largely focuses on avoiding public threats rather than addressing the full spectrum of gender-based violence. Both apps prioritize public violence, such as rape and harassment, overlooking domestic abuse and other forms of violence that occur in private spaces, leading to a skewed perception of gender-based violence, that perpetuates the wrong belief that women's greatest threats come from strangers in public spaces. Therefore, as Alex Bevan notes, 'safety apps are part of a larger trend in cybersecurity where assumptions around gender violence reinforce false binaries of public/private and intimate/stranger' (Bevan 2023: 1174). Similar to safety apps, cybersecurity often focuses on external threats, downplaying intimate abuse enabled by technology like cyberstalking or revenge porn as individualised concerns. Feminist research, however, shows that tech-enabled abuse is a growing form of gender violence, including compromised devices used to track partners. (cf. Bailey et al. 2021; Cardoso et al. 2019; Dragiewicz et al. 2018; Rogers et al. 2023; Woodlock 2017; Woodlock et al. 2020) Thus, safety apps are part of a 'growing ecosystem of digital technologies that shape and are shaped by social imaginaries of gender violence,

individual responsibility, and misled hierarchies of harm that exist within a broader climate of intensifying self-datafication and self-management'. (Bevan 2023: 1174)

The content of both *bSafe* and *I'm Safe* reinforces a gendered dichotomy between women, who are portrayed as victims, and perpetrators, implied to be men. This framing constructs women as a homogenous group, assuming that all women regardless of age, race or class face similar risks, while simultaneously overlooking the experiences of people with disabilities, trans- and non-binary people as well as those of men, particularly queer men. By presenting safety in this oversimplified binary, the apps ignore the structural and intersectional differences that shape individual experiences of safety. Their near-global availability perpetuates this one-size-fits-all approach, overlooking the varied ways in which safety concerns manifest across different groups of women. This aligns with Madriz' observation that women's fear of crime is often treated as a universal experience, neglecting how factors such as socioeconomic status, race, age and immigrant status influence perceptions and experience of safety. (Madriz 1997: 54)

In the context of these apps, men are typically positioned as protectors, standing in opposition to the faceless, nameless perpetrators, who are implicitly male. *I'm Safe*, in particular, appeals to men's sense of responsibility, especially in their roles as fathers concerned about the safety of their daughters. This narrative reinforces gender stereotypes by portraying women as the 'weaker sex' and men as either benevolent guardians or dangerous outsiders, despite the fact that the greatest threat to women's safety often comes from their own partners, not unknown assailants. By focusing on external threats, these apps divert attention from the pervasive issue of domestic violence and reinforce a hierarchy where women are in need of protection. Moreover, these apps could even increase risk for women, as abusive partners might exploit tracking features to monitor their movements. In summary, by presenting women as vulnerable victims and empowered agents simultaneously, these apps reinforce societal narratives about women's roles in their own protection, contrasting them with men as protectors/perpetrators on an individualised level, while ignoring the deeper structural causes of gender-based violence.

5.4. Empowerment Through Surveillance? Heightened Anxieties and Technological Solutionism

While the apps construe women as empowered, this empowerment is closely tied to the pervasive surveillance they endorse. *bSafe* and *I'm Safe* utilise surveillance technologies as a means of fostering empowerment, yet simultaneously promote anxieties about safety, embedding control and monitoring into daily life.

Surveillance technologies embedded in these apps extend beyond individual users, assigning safety responsibilities to their peers and social networks. The reliance on peer surveillance to manage personal risk therefore reinforces neoliberal ideals that shift care work (back) into the private sphere, upholding traditional gender roles and presenting the family as a haven of emotional security. This depoliticizes the issue of safety and obscures the potential risks within the network itself. This dynamic can also (unintentionally) reinforce power imbalances within relationships, as surveillance mechanisms enable certain individuals to exert control over others. In turn, this normalises a culture of surveillance where women, in particular, are constantly being watched and monitored by their social networks under the pretext of safety. (Dennis 2008: 350; Reynald 2019: 20)

However, the dynamic promoted by safety apps is not limited to men watching over women. Frequently, those tasked with tracking women through these apps are other women. For example, *bSafe*'s user testimonials (*bSafe*, Doc. 40) consistently depict female friends as potential guardians, or emphasise the app's use by parents monitoring their children, thereby linking the app to child-rearing responsibilities.

Alex Bevan suggests these apps demand an affective form of labour, extending the 'safety work' wherein women engage in constant self-monitoring in public spaces. The apps digitise and intensify this gendered self-surveillance, adding layers of digital tracking to the safety practices many women routinely perform. (Bevan 2023: 1171) The guardian-system extends this 'safety work' to other women, combining the traditional 'safety work' with emotional labour expected of women. This labour, which includes not only self-surveillance but also the task of watching over others, becomes another burden placed on women under the guise of care. Apps like *bSafe* and *I'm Safe* therefore, to a degree, digitise gendered, emotional labour, normalising the expectation that women should manage their own safety and the safety of those around them.

By positioning women as both the subjects and agents of surveillance, the apps not only reproduce and reinforce gendered expectations of care but effectively position surveillance as a form of care work. Surveillance in this context is reframed as protective instead of oppressive or controlling. This duality is also present in the gendered experience of surveillance, wherein women are more often subject to purportedly 'protective surveillance', while men are more frequently regarded with suspicion. (Abu-Laban 20: 52) This distinction is embedded in the apps, where women are monitored for their safety and men, when involved, are often seen in relation to potential threats.

Furthermore, the ‘techno-affective ritual of cross-tracking’ (Bevan 2023: 1178) that these apps rely on is part of a longer historical tradition of controlling women’s mobility. As Bevan argues, ‘the desire to make the female body trackable and quantifiable has long historical precedent. Anxieties around the location and trackability of women’s movements are baked into the history of women in public space’ (ibid.). By embedding surveillance through location-tracking into everyday life, these apps reinforce patriarchal structures that seek to monitor women’s behaviour in public spaces. Similarly, Mohanan points out:

Because most institutions, workplaces, and public and private spheres are already deeply patriarchal, new technological systems that are introduced into those arenas take on those values and reinforce those relations. This is why the finding of men watching women with surveillance systems is so prevalent. (Monahan 2010: 125)

Ultimately, the promise of safety through surveillance, as promoted by *bSafe* and *I’m Safe*, contributes to the normalisation of peer monitoring that modern systems of risk management rely on. As Andrejevic (2006: 406) writes, ‘we are invited to become spies for our own good’, extending surveillance from law enforcement into intimate social spheres such as dating, parenting and everyday social life. This normalisation of surveillance, particularly peer surveillance, reflects the broader societal trend toward accepting intrusive monitoring technologies as a necessary part of personal safety, while at the same time reinforcing existing power dynamics and traditional gender norms.

bSafe and *I’m Safe* assume that surveillance, particularly through location tracking, enhances personal safety. Within their content, both companies position location-based monitoring as a key tool for empowerment as well for providing safety, implying that surveillance equates control over potentially dangerous situations. However, as Maxwell et al. note, ‘if contacts use the information sent to them immediately, it is likely that the user will have already been victimized before their contact or police can intervene’ (Maxwell et al. 2020: 240–241).

Both apps’ promotional material also positions location information as a tool to alleviate anxiety for the user and the user’s peer group. Both *bSafe* and *I’m Safe* highlight the ‘peace of mind’ their apps offer, encouraging the belief that safety can be guaranteed through constant monitoring of loved ones. However, reliance on these apps may inadvertently fuel anxieties, creating a cycle where constant tracking becomes a necessity for reassurance. This, in turn, can lead to new anxieties when such surveillance is unavailable due to technical issues or personal preferences. (Hasinoff 2017: 506–508) This cycle of fear and surveillance fits within the broader framework of what Isin calls the ‘neurotic subject’, which lives in a ‘culture of fear’ that has been cultivated by several factors, including the private security sector to benefit from

the commercialisation of fear. (Isin 2004: 219) The pursuit of absolute safety amplifies anxiety, creating a cycle where security measures, such as constant monitoring, intensify fears rather than alleviating them. This mirrors how reliance on safety apps may perpetuate the very anxieties they aim to reduce, as disruptions to surveillance introduce new layers of insecurity. (ibid.: 225–233; Roberts 2023: 542) Ultimately, the belief that safety can be guaranteed through constant surveillance reinforces the cycle of fear and vulnerability. This contributes to the production of insecurity by instilling a constant sense of danger, particularly for women, who are made to feel unsafe and vulnerable in public spaces. The very idea that women need to be monitored for their own protection reinforces the notion that they are always at risk, leading to a feeling of unease and restriction. This construction of danger and fear, which these apps claim to counteract, actually serves to manufacture the insecurity they purport to solve, generating profit in the process. By promoting a heightened sense of danger, the apps create a demand for their own services, capitalizing instead of challenging the structures that underlie insecurity.

5.5. ‘Dataveillance’ and the Commodification of Safety

Throughout this discussion, it has become evident that personal safety apps rely heavily on surveillance supposedly as a means of fostering empowerment and managing safety. This reliance not only heightens anxieties and reshapes social interactions but also precludes another key aspect: the commodification of personal data. Personal safety apps promote the idea that surveillance is necessary and effective for ensuring safety. This thus reinforces a cycle of dependence on surveillance technologies, surveillance becomes normalised and the collection and commodification of personal data emerges as a central component of this framework, turning safety into a marketable commodity.

In order to understand how personal safety apps operate under surveillance capitalism, it is essential to analyse how safety apps like *bSafe* and *I’m Safe* operate within a broader neoliberal framework where safety is increasingly privatised and commodified. Both *bSafe* and *I’m Safe* exemplify the privatisation of public safety by marketing themselves not only as complementary to public systems but as an essential alternative to state-run emergency responses, particularly as solutions to perceived inefficiencies within those systems. In this way, these apps reflect a neoliberal approach to risk management, outsourcing surveillance and control to private entities. In *bSafe*’s case, a private entity serves as a ‘gatekeeper to emergency response’ (Larsson 2017: 102). This creates a profit-driven model of security, where private entities benefit from supposed public insecurities by commodifying the very concept of safety.

This ‘hybridization’ of public and private security domains reflects a significant shift in the governance of safety, where private interests and state power intersect, yet profit motives and market dynamics increasingly guide the response to public safety concerns. (ibid.)

This shift signifies a broader transformation in governance, where private companies assume roles traditionally held by the state, fundamentally altering how safety is managed. As Kennedy and Coelho note, personal safety apps promote a form of privatised safety, ‘that offers those willing to pay a fee some extra protection’ (Kennedy/Coelho 2022: 137). Within the logic of personal responsibility, ‘the ‘choice’ not to consume is not only irresponsible – it is criminal’ (Monahan 2010: 53). This redefinition of the citizen’s role alters the relationship between individuals and the state. Instead of the state being responsible for ensuring public safety, individuals are now expected to manage their own safety through consumption. (ibid.: 57)

The shift from collective security to individual risk management has paved the way for a deeper reliance on private surveillance technologies, further blurring the line between public safety and corporate interests. As safety becomes commodified, apps like *bSafe* and *I’m Safe* emerge as key examples of this shift, reinforcing the privatisation of both safety and surveillance. As private companies assume a greater role in security, this privatisation also leads to a critical issue: an imbalance in monitoring, with individuals often unaware of how extensively their data is collected and used. Individuals become the subjects of invisible, non-transparent forms of data collection, often framed as tools for safety and empowerment. (Andrejevic 2006: 393)

Both apps frame their data collection as indispensable for user protection. For example, *bSafe* justifies its data gathering and third-party sharing through the legal principle of ‘legitimate interest’³. This framing positions privacy concerns as secondary to safety, suggesting that the value of data collection outweighs potential privacy risks. *I’m Safe* similarly concedes that while it complies with legal obligations, privacy cannot always be guaranteed, especially in instances of law enforcement intervention. This leads to an assumption that privacy must be relinquished in exchange for security – a notion that pervades the messaging of both apps. This acknowledgment of possible data sharing with law enforcement agencies can be critically

³ ‘Legitimate interest’ in this context is a legal concept, particularly important in the context of data protection laws such as the GDPR (General Data Protection Regulation) in the European Union. It allows a company or organization to collect and use personal data without the user’s explicit approval provided they can demonstrate a legitimate reason for doing so. This justification must balance their interest in using the data against the potential impact on the individual’s privacy. The assessment of whether data collection falls under legitimate interest is typically carried out by legal professionals, considering EU law or similar regulatory frameworks. Initially, this assessment is usually performed by a company’s internal legal team to ensure compliance with applicable data protection laws. (cf. Regulation (EU) 2016/679 of the European Parliament and of the Council. (2016). General Data Protection Regulation. Official Journal of the European Union, L 119, 1–88. <https://eur-lex.europa.eu/eli/reg/2016/679/oj>)

analysed with what Andrejevic describes as ‘rampant surveillance creep’ (Andrejevic 2013: 30), where data collection practices gradually become normalised. As a result, this facilitates population-wide surveillance, once deemed intrusive or overreaching, by capitalising on the ‘new normal’ of digital, interactive monitoring. (ibid.)

Neither *I’m Safe* nor *bSafe* offer users a straightforward option to opt out of data collection. For instance, with *I’m Safe*, while users can technically refuse certain data analyses, the process however is not integrated into the app itself. Users must read the privacy policy, then email the company directly, with no clear indication of whether they can continue using the app afterward or are simply advised not to. Other forms of data collection are required for the apps’ functionality, further reinforcing the notion that users are effectively compelled to trade personal privacy for perceived convenience and security. The normalisation of data collection is supported by these ‘take-it-or-leave-it’ contracts embedded in terms of service agreements and privacy policies, which have become standard practice for most digital services. These agreements are rarely negotiated or fully understood by users, reducing privacy policies to a symbolic gesture rather than a genuine contractual agreement. (Zuboff 2019b: 48)

By using these apps, users enter a ‘voluntary panopticon’ (Humphreys 2011: 577), where safety is perceived at the cost of ‘the voluntary submission to corporate surveillance’ (ibid.). Their personal data is commodified, subject to corporate control and users, as Lupton notes, frequently lack a full understanding of what happens to their data once they have entered it into the app. (Lupton 2021: 3) This process obscures the power imbalance in the exchange, where corporations extract value from personal data with minimal transparency. Even though users willingly submit to these surveillance mechanisms, the implications extend far beyond personal safety. As Lee Humphreys notes, the ‘voluntary panopticon’ is powerful precisely because it is consensual and decentralised. (Humphreys 2011: 591) People willingly permit corporate entities to monitor their behaviours because the services they provide offer convenience and reassurance. This reflects Zuboff’s concept of ‘social persuasion’, where the benefits of data-extracting practices and innovations are promoted, emphasising personalisation and convenience, while simultaneously outweighing concerns about data privacy. (Zuboff 2019a: 216–217) The perceived benefits of digital convenience often overshadow the risks associated with extensive data collection and corporate surveillance. (Andrejevic 2013: 33) This dynamic masks the reality that users are subjected to a pervasive and continuous form of ‘dataveillance’ (Dijck 2014: 198), where their data is collected for unstated purposes and shared with third parties.

Central to the commodification of user data by *bSafe* and *I'm Safe* is the use of third-party tracking tools either to maximise advertisement revenue or to optimise user engagement. *I'm Safe* uses Google AdSense, a tool that 'allows platform publishers to deliver advertisements to site visitors in exchange for revenue calculated on a per-click or per-impression basis.' (*I'm Safe*, Doc. 24) By using *I'm Safe*, users permit Google to track their activity within the app and across other websites and apps to deliver personalised advertisements, thus building a user's advertisement profile. Both *bSafe* and *I'm Safe* also employ Google Analytics to monitor user behaviour, using the third-party tool for tracking how users interact with their websites and apps. Google Analytics allows companies to analyse user engagement, to identify how users arrive at their platform and to assess how different marketing channels perform. Tools like Google Analytics analyse how users engage with platforms, collecting data IP-addresses and device IDs to identify users or to gather broad demographic information. The collected data is then analysed with the goal to optimize marketing strategies by understanding user demographics and preferences. Additionally, this data enables the companies to predict future actions of their target audience, maximizing the profitability of their data. The ultimate goal is to refine their market strategies and increase profit. (Google Marketing Platform n.d.) *bSafe* further reserves the right to share aggregated demographic data with partners and advertisers, relying on cookies to collect user data. If users block cookies, 'some portions of the services may not function properly' (*bSafe*, Doc. 39).

While *bSafe* asserts to use only aggregated, anonymised data, Andrejevic critiques this type of anonymity as largely symbolic. Third-party advertisers can still target users based on anonymous data such as past searches, location and purchase history. The anonymity offered is limited, as the data can often be traced back to a unique device like a smartphone. In many cases, reverse engineering the data can lead to the re-identification of users, thereby undermining the perception of true anonymity. (Andrejevic 2013: 39) However, as Andrejevic states:

Reverse engineering is often not necessary, given the development of 'digital fingerprinting' techniques that profile users' online behavior in order to create profiles that allow them to be tracked across different devices. (ibid.: 40)

In this context, surveillance becomes a lucrative commodity, as user data can be utilised for corporate gain, perpetuating the logic of surveillance capitalism where privacy is systematically undermined for profit. Data collection practices within these apps reflect the system of surveillance capitalism, where users effectively 'pay' for these apps not with money but with their personal information (cf. Zuboff 2019), forming the foundation of what Idil Abdillahi

describes as the ‘financialization and monetization’ of users’ most personal experiences, particularly during moments of crisis. (Abdillahi 2024: 24) The commodification of user data not only erodes individual privacy but also speaks to the broader framework of data colonialism, where continuous tracking extends far beyond specific purposes, pervading every aspect of social life. (cf. Couldry/Mejias 2019) Whenever individuals turn to these technologies for safety, they lose meaningful control over how their personal data is collected, used or monetized. Safety itself becomes a product and individuals, in trading personal privacy for convenience, find themselves in a cycle of dependence on these surveillance systems.

In sum, *I’m Safe* and *bSafe* embody the fusion of security consumption and surveillance practices, where the neoliberal responsibilization of safety converges with the commodification of personal data. Through this dynamic, individuals are not only tasked with managing their own safety but are also drawn into a system where their data is continuously harvested for corporate gain. These apps contribute to a culture where safety is equated with continuous monitoring and users are persuaded to exchange personal data for a sense of protection – often without fully understanding the broader implications. This dynamic speaks to a neoliberal responsibilization of individuals, where they are tasked with managing their own risks through digital tools, even if it means sacrificing their digital privacy. (Andrejevic 2002: 485) Such a framework not only shifts the burden of safety onto the individual but also amplifies the role of corporate and governmental surveillance in everyday life (ibid.: 495), reflecting the deep entrenchment of surveillance capitalism in modern security practices.

The gendered dynamics embedded in safety apps like *bSafe* and *I’m Safe* ultimately perpetuate patriarchal power structures under the guise of empowerment. While these apps claim to promote women’s empowerment, they do so within a framework that commodifies safety and embeds surveillance into the fabric of everyday life. By framing safety as a personal responsibility that requires constant monitoring, these technologies reinforce traditional gender roles, portraying women as weak and vulnerable while simultaneously commodifying insecurities they promote for profit. Moreover, the privatization of safety promoted by such apps further entrenches power imbalances where women’s safety becomes both a marketable commodity and a site of intensified surveillance.

6. Conclusion

This thesis set out to investigate how personal safety apps commodify women's safety under surveillance capitalism and how these processes impact gendered inequalities. The research aimed to answer two central questions: 'How is the personal safety of women commodified under surveillance capitalism by the implementation of smartphone safety apps?' and 'How does the commodification of safety affect gender inequalities?' By analysing two personal safety apps, *bSafe* and *I'm Safe*, through feminist and surveillance studies frameworks, I have explored how the commodification of women's safety is intertwined with surveillance capitalism, 'dataveillance' and neoliberal ideologies of risk management and responsabilization. I have demonstrated how these technologies embed crime prevention into everyday digital practices. Personal safety is reframed as an individual responsibility and the apps reinforce gendered narratives and power relations by positioning women as inherently vulnerable as well as empowered and responsible for managing their own safety, often at the cost of privacy.

Personal safety apps like *bSafe* and *I'm Safe* exemplify how individual women are positioned as solely responsible for their safety, transforming security into a commodified good. Marketed under the guise of empowerment, these apps are ultimately rooted in self-surveillance, reinforcing postfeminist narratives. This commodification is underscored by the apps' reliance on user data, repurposed for commercial interests, further entrenching the commodification of safety. Operating within a digital economy embedded in surveillance capitalism, these apps subject users to continuous tracking under the guise of protection. In essence, personal safety apps not only commodify security but also turn everyday activities into streams of data that can be exploited for profit.

Moreover, these apps reinforce paradoxical postfeminist narratives of empowerment and responsibility, where women are simultaneously painted as empowered, self-reliant individuals and burdened with the expectation of managing their safety through consumption and self-surveillance. Or as Torin Monahan aptly puts it:

The privileged mode of individual self-protection is consumption, or the self-transformation of citizens into insecurity subjects. The modes of consumption are purchasing products and services (...) and actively exposing oneself to and internalising fear. The modality of self-protection is disciplinary. It requires individuals to regulate their practices, their homes, their loved ones, and their data. It conscripts them as citizen-soldiers in the wars on crime, drugs, terror, and weak national economies. Such citizen-consumer-soldiers really are armies of one. If they fail in any way, they will be blamed and – at least discursively – held guilty for their shortcomings. (Monahan 2010: 57)

By connecting these findings to the broader theoretical framework of surveillance capitalism and feminist critiques of surveillance, this thesis contributes to understanding how technology, neoliberal governance and gendered power dynamics intersect. This analysis demonstrates how neoliberalism operates not only as an economic system, but as a mode of governance that prioritises self-management and responsabilization over collective safety solutions. As I have shown, the marketing strategies of these apps rely on the co-option of feminist language, especially regarding individual empowerment. In this context, the thesis contributes to discussions on how neoliberal governance appropriates feminist rhetoric of empowerment, while perpetuating systemic inequalities. By expanding the analysis of surveillance beyond the act of watching, the analysis of personal safety apps reveals how personal safety technologies aim to embed themselves into the very fabric of women's lives, shaping their behaviour and responses to perceived threats.

Contributions to the Field

By situating personal safety apps within the framework of surveillance capitalism, this thesis adds to existing feminist critiques of digital surveillance. While much of the literature on surveillance technologies has focused on privacy violations and state surveillance, this research highlights how the commodification of women's safety contributes to the normalisation of corporate, peer and self-surveillance. By incorporating insights from Shoshana Zuboff's theory of surveillance capitalism and Christian Fuchs' work on the commodification of data, this research shows how personal safety apps not only commodify women's safety but also normalise the extraction and monetization of personal data as a form of economic value. This intersection of gender, technology, and neoliberal governance contributes to the growing body of knowledge on the ways surveillance technologies reinforce patriarchal structures under the guise of protection. Finally, the thesis offers a critical feminist analysis of how new digital technologies not only reinforce gendered power dynamics but also introduce new forms of surveillance and control that disproportionately affect women. By examining how these apps rely on the emotional labour of self-surveillance and responsabilization, the thesis opens up new avenues for exploring the cultural impacts of surveillance technologies on gendered subjectivities. In doing so, it extends the conversation around the politics of digital technologies in ways that foreground feminist critiques of power, autonomy, and commodification.

Societal Implications

The commodification of safety under surveillance capitalism has significant societal implications. Firstly, it highlights how neoliberal ideologies reframe social issues, like gendered violence, as individual failures rather than systemic problems. This responsabilization of women for their own safety, central to personal safety apps, detracts from addressing the root causes of violence. Secondly, by embedding surveillance into everyday life, these technologies reinforce existing power structures. While marketed as tools of empowerment, they produce a culture of fear and anxiety, benefiting from the insecurities they claim to address. The results demonstrate that users are often drawn into a cycle of constant surveillance, where safety becomes equated with continuous monitoring, both by peers and private companies.

Third, both apps operate by collecting and analysing user data, which is then repurposed for targeted advertisements and other commercial interests. Their integration into a digital economy dominated by surveillance capitalism inevitably subjects users to tracking and data analytics. Additionally, the potential collaboration of these apps with law enforcement raises concerns about the intersection of corporate and state surveillance, further blurring the lines between public safety and private interests. These developments echo feminist concerns about the normalisation of surveillance in women's lives and its role in reinforcing patriarchal control.

Limitations and avenues for future research

While this thesis provides a critical exploration of how personal safety apps commodify women's safety under surveillance capitalism, certain limitations must be acknowledged. The fast-paced evolution of technology means that the apps and platforms analysed here may quickly change or disappear, thus complicating efforts to provide a comprehensive and up-to-date analysis. Furthermore, while the focus of this research has been on the gendered dimensions of personal safety apps, future studies could investigate how different intersectional identities, such as 'race', class, and sexual orientation, influence the ways in which women engage with or resist these technologies. Furthermore, consequences for marginalised communities who may be disproportionately affected by both surveillance and digital safety technologies, such as women of colour, queer individuals and those from deprived socioeconomic backgrounds, could be the focus for further research.

Additionally, within the constraints of this thesis I have focused on the personal safety apps offered by *bSafe* and *I'm Safe*, sidelining their workplace integration platforms. Future research

should explore how these safety technologies are deployed in professional settings, particularly in relation to workplace surveillance, labour dynamics, and power hierarchies. The implementation of these apps in workplaces raises distinct concerns about privacy, misuse of these platforms as well as the promotion of excessive monitoring, making it an essential area for further investigation.

Finally, this thesis has incorporated a global perspective by analysing *bSafe*, which operates primarily within a Western context, and *I'm Safe*, which focuses primarily on India and Australia, even though both apps are available globally. This dual analysis underscores how notions of gender and personal safety overlap in the global capitalist system. However, due to the constraints of this thesis, the analysis has remained focused on overarching themes. Future research could deepen the analysis of local contexts and how surveillance and personal safety technologies intersect with socio-political contexts such as caste, class and regional disparities. Additionally, the collaboration between safety apps and law enforcement may pose distinct challenges related to state surveillance and the use of such technologies. Exploring these localised contexts would significantly broaden our understanding of how surveillance capitalism adapts and manifests in various contexts.

Final Thoughts

In conclusion, this thesis has contributed to the understanding of the commodification of women's safety within the framework of surveillance capitalism. It reveals the entanglement of neoliberal capitalism and patriarchy in shaping contemporary digital practices and offers critical insights into how personal safety apps, marketed as tools of empowerment, perpetuate gendered power structures and function within the logic of a culture of fear. These apps reinforce gender stereotypes that portray women as the 'weaker sex' and men as either benevolent guardians or dangerous outsiders, not only overlooking the fact that women are most at risk from intimate partners rather than strangers, but also reinforcing a patriarchal hierarchy where women are in need of protection. These technologies sustain harmful gender norms and, paradoxically, increase risks for women by enabling potential misuse of tracking features by abusive partners.

Moreover, the reliance on constant surveillance creates a heightened sense of danger, producing insecurity by instilling a persistent sense of threat, especially for women who are made to feel unsafe and vulnerable in public spaces. The notion that women must be monitored for their own protection suggests they are perpetually at risk, generating feelings of unease and restriction. While these technologies promise to resolve issues of violence, they ultimately benefit from the

insecurities they supposedly address, promoting a continuous cycle of self-surveillance and control.

As technology continues to evolve, so too must the frameworks through which we analyse its impacts. The commodification of women's safety demands ongoing critical examination, particularly as surveillance technologies become more embedded in everyday life. Future research must focus on dismantling these systems, advocating not just for greater privacy protections, but for systemic solutions to the root causes of gendered violence and inequality.

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Appendix II: List of Documents

Group	No.	Document Name	URL	Collect date
bSafe	1	“Aspirin on Steroids” – Solving Huge Headaches in Today's Society	https://www.getbsafe.com/blogg/aspirin-on-steroids-solving-huge-headaches-in-todays-society	03/06/2024 15:33
bSafe	2	1 in 4 Murders in Norway Is a Partner Murder	https://www.getbsafe.com/blogg/1-in-4-murders-in-norway-is-a-partner-murder	03/06/2024 15:35
bSafe	3	9/11-Survivor Could Have Changed Our Story	https://www.getbsafe.com/blogg/9-11-survivor-could-have-changed-our-story	03/06/2024 15:33
bSafe	4	ABC News February 12th 2024 About bSafe and the Story Behind	https://www.getbsafe.com/blogg/abc-news-february-12th-2024-about-bsafe-and-the-story-behind	03/06/2024 15:35
bSafe	5	bSafe Button	https://www.getbsafe.com/bsafe-button	03/06/2024 15:31
bSafe	6	bSafe Change the Game in an Explosive Market	https://www.getbsafe.com/blogg/bsafe-change-the-game-in-an-explosive-market	03/06/2024 15:36
bSafe	7	bSafe Presented Innovative Security Solutions at NAR 2023	https://www.getbsafe.com/blogg/bsafe-presented-innovative-security-solutions-at-nar-2023	03/06/2024 15:35
bSafe	8	bSafe Spotlighted by Google Play #WeArePlay	https://www.getbsafe.com/blogg/bsafe-spotlighted-by-google-play-weareplay	03/06/2024 15:35
bSafe	9	bSafe Unveils New Portal to Enhance Collaboration and Growth	https://www.getbsafe.com/blogg/bsafe-unveils-new-portal-to-enhance-collaboration-and-growth	20/08/2024 16:40
bSafe	10	Could New Smart Technology Save Lives	https://www.getbsafe.com/blogg/could-new-smart-technology-save-lives	03/06/2024 15:35
bSafe	11	Digital Infrastructure for Safety and Rapid Emergency Response	https://www.getbsafe.com/blogg/digital-infrastructure	03/06/2024 15:35
bSafe	12	Education	https://www.getbsafe.com/education	20/08/2024 18:01
bSafe	13	Groundbreaking Emergency Management Solution Ready	https://www.getbsafe.com/blogg/groundbreaking-emergency-management-solution-ready	03/06/2024 15:36

bSafe	14	Healthcare	https://www.getbsafe.com/healthcare	20/08/2024 18:01
bSafe	15	Help	https://www.getbsafe.com/help	03/06/2024 15:31
bSafe	16	How to Calm a World Champion	https://www.getbsafe.com/blogg/how-to-calm-a-world-champion	03/06/2024 15:34
bSafe	17	I Was Raped	https://www.getbsafe.com/blogg/i-was-raped	03/06/2024 15:35
bSafe	18	I Was Raped, and Created a Preventive System	https://www.getbsafe.com/blogg/i-was-raped-and-created-a-preventetive-system	03/06/2024 15:34
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bSafe	23	Possible Unicorn – Could Touch One Billion	https://www.getbsafe.com/blogg/possible-unicorn-could-touch-one-billion	03/06/2024 15:34
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bSafe	29	Revolutionary Solution for Rapid Emergency Response Is Now Ready for Sale	https://www.getbsafe.com/blogg/revolutionary-solution-for-rapid-emergency-response-is-now-ready-for-sale	03/06/2024 15:36
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bSafe	43	Total Costs of Domestic Violence in Norway Amounted to 92.7 billion NOK	https://www.getbsafe.com/blogg/total-costs-of-domestic-violence-in-norway-amounted-to-92-7-billion-kroner	03/06/2024 15:35
bSafe	44	Your Ultimate Safety Companion	https://www.getbsafe.com/blogg/your-ultimate-safety-companion	20/08/2024 16:40
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I'm Safe	56	Augmenting PoSH Laws with New Technologies – Blog	https://www.women.imsafe.app/blog/augmenting-posh-laws-with-new-technologies	07/06/2024 14:05

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I'm Safe	76	How Can Youngsters Help in Women Empowerment – Blog	https://www.women.imsafe.app/blog/how-can-youngsters-help-in-women-empowerment	07/06/2024 14:14
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I'm Safe	122	Women Who Suffer from Domestic Violence: How to Get Help – Blog	https://www.women.imsafe.app/blog/women-who-suffer-from-domestic-violence-how-to-get-help	07/06/2024 14:19
I'm Safe	123	Women's Safety App Launch Event – Blog	https://www.women.imsafe.app/blog/womens-safety-app-launch-event	07/06/2024 14:16

Appendix III: Codebook

Code	Definition	Examples
A Anti-Victimization & Empowerment Narratives		
A1 Anti-Victimization Narratives	Emphasizing women's shift from victimhood to empowerment, rejecting the portrayal of women as victims	“Now, after centuries of women having been victimized, blamed and filled with shame instead of all those negative notions being put on the offender – we are in a place where we feel entitled to be safe – as we should be, she says.”; “Women have learned to dream big and accomplish them despite the fear society instills in them”
A2 App as a Community of Women/Part of a Movement	Portraying the app as a platform that fosters a supportive community or movement among women, allowing them to connect	“Solutions like I’m Safe, a women’s safety app takes several steps to address the issues women face and provide a platform for women to meet, interact, contribute, and grow together.”; “As women, our first priority is to ensure our personal safety. By coming together and creating ground-level communities, we can provide a safe and supportive environment for women to share their concerns and challenges. The I’m Safe app is designed to help women stay safe.”
A3 Emphasis on Empowerment and Feelings of Safety Caused by the App	Highlighting how the app enhances women's empowerment and sense of safety, providing peace of mind and control over their well-being.	“I love this app! It gives me and my girlfriends peace of mind everywhere we go.”; “Mechanisms, like I’m Safe, are the perfect tools for ensuring women’s safety and promoting women’s empowerment.”; “I’m Safe takes things a step further and puts women in total control of their well-being. Features like location tracking and anonymous reporting help women take control of their safety.”
A4 Emphasis on the App Being Based on Real-Life Events	Stating that the app was inspired by real-life incidents, particularly tragedies, framing it as a response to victimization and a means of empowerment.	“I was raped and created a preventive system - bSafe. Charlen Larsen was raped. It ruined years of her life. Until she developed a preventive system which can help others.”; “Our solutions have from the beginning been built on real life incidents and actual user needs.”

A5 Emphasis on Strong Women, Female Empowerment, Entrepreneurship, and Self-Optimization	Encouraging self-confidence, perseverance, and entrepreneurship among women	“Life is not easy for anyone. There are challenges and we can overcome them through perseverance and self-confidence.”; “Women entrepreneurs are on the rise, but every woman faces crisis and struggles to keep up.”; “Gender doesn’t decide who is stronger, our willpower does.”
A6 Safety/Feeling Safe as a Woman's Right	Asserting that safety and the feeling of being safe are fundamental rights for women.	“Everyone everywhere has the right to feel safe.”; “Women deserve to live in a secure and confident environment.”
C Commodification of Safety		
C1 Cost Reduction/Raising Efficiency	Emphasizing that the app can lead to cost savings, increased efficiency, better resource utilization, and improved productivity for companies and organizations.	“Our solutions will provide substantial cost savings for companies and municipalities and at the same time provide better resource utilization, better quality of services, better working environments, safer employees and users, and ultimately less sick leave.”; “Creating a safe and secure work environment is crucial for the growth and development of any organisation.”
C2 Emphasis on App's Market Value/Success	Highlighting the app's market potential, investment opportunities, advanced technology, and its success in the market.	“Competent people call bSafe ‘a game changer needed in the world today’ and a ‘unique opportunity for investors.’”; “From rape to world-leading technology: The global emergency response market will experience disruption during the next 1-5 years in the same way that occurred with tourism (Airbnb) and taxis (Uber) 10 years ago are striking.”
D Data and Surveillance		
D1 Balancing Security and Privacy	Addressing the need to balance safety with personal privacy, acknowledging moral and ethical questions related to control and surveillance.	“But the more we control where everyone is at all times, the less freedom we have as humans, so there are lots of moral and ethical questions to be discussed moving forward and I'd like to be part of that conversation.”; “We only collect and use such information from you that we consider necessary”

D2 Emphasis on App's Customization & Being in Control	Emphasizing that the app is highly customizable, giving users control over their safety features and settings.	“Tailor the bSafe Button to suit your needs. Set up emergency contacts (guardians), define your notification preferences, and personalize the response protocol. Your safety, your rules.”
D3 Location Information as Safety-Enhancing Information	Stating that sharing location information enhances safety	“Security for our users to know that designated guardians can follow you on the map when you are in an unsafe environment.”; “The predator’s eyes are not the only ones watching them. Their loved ones are tracking their location live”
D4 Positive Framing of Data Collection and Surveillance	Portraying continuous tracking and surveillance as normal, beneficial, and desirable for safety.	“Half of smartphone users surveyed would like to see more police and surveillance technology in public places.”; “Installing advanced security cameras: Many houses in India now have personal security measures. IP-enabled cameras are great for homes and beneficial to colleges.”
D5 Reassurance of Data Security and Privacy	Assuring users that their data is secure and their privacy is protected.	“Your privacy is important to bSafe Group AS.”; “We are committed to respecting your online privacy. We further recognize your need for appropriate protection and management of any Personal Information you share with us.”; “User’s privacy is our top priority.”
G Gender, Risk, and Insecurity		
G1 Emphasis on Women's Need for Protection	Depicting women as needing protection and highlighting the role of men in ensuring women's safety.	“I’ve seen Rich step up for his daughter in an inspiring way, says rape survivor Victoria Valentino.”; “A real man values and respects a woman and strives to keep her safe at all times. We as real men are committed to creating a safe environment for women.”
G2 Emphasis on Women's Vulnerability	Portraying women as vulnerable to violence and abuse, emphasizing the emotional and psychological impact.	“In NORWAY, one of the wealthiest nations on the planet, 23% of its female population has been raped. One can only assume that the rest of the world is even less safe for women.”; “Women and girls between the ages of 16 to 19 are four times more likely to be a victim of rape than the general population.”

G3 Promotion of 'Stranger Danger'	Emphasizing that public spaces are unsafe, focusing on attacks by strangers.	“bSafe Button provides you with an extra layer of security and safety, no matter where you are. It can be especially useful for people who travel alone, go home late at night, or work in risky areas.”; “Women and Sexual Harassment at Public Places: Women are the target in the night, but we are not left alone in crowded places either. Every woman will have their story to share, about sexual harassment that took place in a crowded public space.”
G4 Women Are Unsafe at Home/Threat of Domestic Violence	Highlighting the threat of domestic violence and portraying the home as an unsafe place for women.	“1 in 4 murders in Norway is a partner murder.”; “Is There Any Safe Place for Women? Well, if we talk about safety and women, there is no safe place for her to survive including her own house.”
G5 World as Unsafe/Crime on the Rise	Asserting that the world is increasingly unsafe, with rising crime rates and violence being a part of women's experiences.	“The rising criminal activities, robberies, violence, rape, domestic violence and partner murder leading to major disruption.”; “The dystopian world we live in does not guarantee safety to a child who rides the elevator in his own apartment or to a woman who walks down her street. Perversion is on the rise. Organ theft is shockingly as common as pickpocketing. Child traffickers are masked as neighbours. Nobody is safe.”
N Neoliberal Responsibilization Strategy		
N1 Peer Group as Responsible for Personal Safety	Emphasizing the responsibility of peers or guardians in ensuring personal safety, promoting 'guardian' systems.	“We are all engaged in impacting the safety of our loved ones, as it is everyone's responsibility.”; “Love knowing I have all my friends with me whenever and wherever I need them ♥”; “SOS is designed to help you out of a dangerous situation. When activated, it sends out alerts to all your trusted contacts so that they can provide help or call for backup if needed”
N2 Personal Responsibility to Avoid Risky Behavior	Stressing individual responsibility to avoid risky behaviors that could lead to harm.	“One of the most important things to do is to identify potential risks. This means being aware of factors that can contribute to violence and harassment, such as gender inequality, alcohol consumption, and mental health issues. By identifying potential risks, one can take action

		to mitigate them and create safer environments for everyone.”; “Walk Simple: When in public, avoid flashing valuable items. Limit talking to necessary conversations, and don’t give open invitations by being flashy.”
N3 Personal Responsibility for Safety	Emphasizing that individuals are responsible for their own safety and should take proactive measures.	“There are numerous women’s safety applications to choose from, and it is our duty as individuals to make an informed decision.”; “Along with technical knowledge and experience, we women also need to be well aware and educated about our safety.”
N4 Personal Responsibility to Collect Evidence	Highlighting the individual's responsibility to collect evidence in case of an incident.	“A recording presented in court will provide key insights into circumstances that will make it easier to achieve a verdict, says Mr. Elden.”; “Smartphones are readily available to everyone and they all come equipped with a powerful camera. Always have your phones ready to record the problem so that there’s proof. This intervention technique is especially helpful if the victim decides to pursue legal action against the perpetrator.”
N5 Promotion of Self-Reliance and Vigilance	Promoting constant vigilance and self-reliance in personal safety measures.	“Always carry pepper spray while walking to and from the stores. Remain alert at all times. Be aware of your surroundings. Beware of any suspicious activities.”
N6 User Responsibility for App's Functionality	Stating that users are responsible for ensuring the app functions properly, including device readiness.	“bSafe Group takes no responsibility for the proper functioning of any networks or servers, or any communications that occur over such networks and servers.”
R Neoliberal Risk Management/Shifting State Responsibility		
R1 Call for Systemic Solutions/Legal Solutions/State Responsibility	Recognizing the role of institutions and the state in crime prevention and calling for systemic solutions.	“Organisations can start with the implementation of guidelines and laws against women’s sexual harassment in the workplace.”; “At an institutional level, policies and procedures should be implemented that support those impacted by violence, as well as proactively monitor the

		implementation of these policies to ensure that they are working as intended.”
R2 Companies Taking on Societal Goals	Companies claiming to address societal issues and contribute to broader social goals.	“We will reduce all forms of discrimination and violence against girls and women worldwide.”; “Vision: To create a globally safe community where women are free from being a victim of physical and emotional abuse”
R3 Emphasis on Public-Private Collective Responsibility/Call for Collaboration for Effective Solutions	Framing violence against women as a societal issue that requires collaboration between individuals, companies, and public services.	“bSafe’s state-of-the-art functions and technology should be implemented by all democratic governments to better help themselves and their people.”; “We bridge the gap between Personal and Public Safety and Security.”
R4 Privatization of Security/Promotion of Market-Driven Solutions vs. State as Inefficient	Asserting that private solutions are more effective than state services, which are portrayed as inefficient.	“Cottingham knows that today, both first responders, hospitals, and crisis management centers are not capable of having the complete and accurate view of the reality of even smaller emergency situations.”; “Emergency response is often slow or unreliable. Crucial information is not reaching responders. We will provide you access to instant emergency response.”
R5 Systemic Failures/Violence Against Women as a Systemic Issue	Describing institutional shortcomings and systemic issues contributing to violence against women.	“And imagine, that in Norway – one of the most liberal, equal and democratic countries in the world, only 1 in 10 rapes are reported. Possibly because we know the police do not even touch 8 out of 10 cases.”; “The PoSH laws were created with good intentions and are essential in ending sexual harassment in the workplace. However, the many weaknesses in the laws make it hard to fully implement.”
T Technological Solutionism		
T1 App as a Tool of Self-Defence	Presenting the app as a form of self-defense tool	“But of course, not every woman or child is privileged enough to undergo self-defense training. That is why safety apps exist. It’s the first self-defense move anyone can ever make.”; “Get your first self-

		defense move now—install I’m Safe on your phones and smart watches today!”
T2 App as Conviction Support	Claiming that the app aids in legal proceedings by providing evidence.	“The most well-known Supreme Court lawyer in Norway, John Chr. Elden, has invested in bSafe and believes the documentation features of the app would be a deal-breaker in court – a place where many rape victims have not been properly heard.”
T3 App as Crime Deterrence	Asserting that the presence of the app can deter potential perpetrators.	“I both hope and believe bSafe’s solutions will be a deterrent for potential perpetrators.”; “It serves as a deterrent with its siren-like alarm.”
T4 App Improves Quality of Life/Mental Health	Claiming that the app improves overall quality of life and mental health by preventing harm.	“They wanted to develop features and solutions that can prevent pain, self-harm, anxiety, depression, and suicide among young girls and boys.”
T5 App Prevents Loss of Life and Health	Claiming that the app can prevent loss of life and serious harm.	“bSafe is guaranteed to save lives, many lives all over the world.”; “From sexual assault to emergencies and crises like accidents and wars – saving the lives of millions.”
T6 App Prevents Violence Against Women	Asserting that the app can prevent violence against women and could have prevented past incidents.	“If I had bSafe, my rape could’ve been prevented and I wouldn’t have had to struggle as much as I’ve done, says Charlen.”
T7 App Promotes Gender Equality	Claiming that the app contributes to gender equality	“We will strengthen the use of technology for girls and women to help develop a more gender equitable society.”
T8 App Promotes Safety	Stating that the app enhances overall safety for users.	“The bSafe Button ensures that your safety is never compromised.”; “I’m Safe app enhances security and helps users stay protected. It has cutting-edge technology with reliable solutions for women all around the world!”

Appendix IV: Code Frequencies

Codes		Total		bSafe		I'm Safe	
		Instances	Percentage	Instances	Percentage	Instances	Percentage
A	Anti-Victimization & Empowerment Narratives	168	16.09%	45	9.72%	123	21.17%
A1	Anti-Victimization Narratives	35	3.35%	7	1.51%	28	4.82%
A2	App as a Community of Women/Part of a Movement	15	1.44%	0	0.00%	15	2.58%
A3	Emphasis on Empowerment and Feelings of Safety Caused by the App	40	3.83%	20	4.32%	20	3.44%
A4	Emphasis on the App Being Based on Real-Life Events	18	1.72%	16	3.46%	2	0.34%
A5	Emphasis on Strong Women, Female Empowerment, Entrepreneurship, and Self-Optimization	53	5.08%	0	0.00%	53	9.12%
A6	Safety/Feeling Safe as a Woman's Right	7	0.67%	2	0.43%	5	0.86%
C	Commodification of Safety	118	11.30%	103	22.25%	15	2.58%
C1	Cost Reduction/Raising Efficiency	43	4.12%	30	6.48%	13	2.24%
C2	Emphasis on App's Market Value/Success	75	7.18%	73	15.77%	2	0.34%
D	Data and Surveillance	115	11.02%	50	10.80%	65	11.19%
D1	Balancing Security and Privacy	8	0.77%	4	0.86%	4	0.69%
D2	Emphasis on App's Customization & Being in Control	19	1.82%	15	3.24%	4	0.69%
D3	Location Information as Safety-Enhancing Information	24	2.30%	7	1.51%	17	2.93%
D4	Positive Framing of Data Collection and Surveillance	34	3.26%	18	3.89%	16	2.75%
D5	Reassurance of Data Security and Privacy	30	2.87%	6	1.30%	24	4.13%
G	Gender, Risk, and Insecurity	154	14.75%	38	8.21%	116	19.97%
G1	Emphasis on Women's Need for Protection	17	1.63%	1	0.22%	16	2.75%
G2	Emphasis on Women's Vulnerability	75	7.18%	18	3.89%	57	9.81%
G3	Promotion of 'Stranger Danger'	17	1.63%	2	0.43%	15	2.58%

G4	Women Are Unsafe at Home/Threat of Domestic Violence	7	0.67%	3	0.65%	4	0.69%
G5	World as Unsafe/Crime on the Rise	38	3.64%	14	3.02%	24	4.13%
N	Neoliberal Responsibilization Strategy	122	11.69%	37	7.99%	85	14.63%
N1	Peer Group as Responsible for Personal Safety	41	3.93%	14	3.02%	27	4.65%
N2	Personal Responsibility to Avoid Risky Behaviour	15	1.44%	1	0.22%	14	2.41%
N3	Personal Responsibility for Safety	32	3.07%	11	2.38%	21	3.61%
N4	Personal Responsibility to Collect Evidence	5	0.48%	2	0.43%	3	0.52%
N5	Promotion of Self-Reliance and Vigilance	16	1.53%	1	0.22%	15	2.58%
N6	User Responsibility for App's Functionality	13	1.25%	8	1.73%	5	0.86%
R	Neoliberal Risk Management/Shifting State Responsibility	227	21.74%	111	23.97%	116	19.97%
R1	Call for Systemic Solutions/Legal Solutions/State Responsibility	35	3.35%	0	0.00%	35	6.02%
R2	Companies Taking on Societal Goals	50	4.79%	35	7.56%	15	2.58%
R3	Emphasis on Public-Private Collective Responsibility/Call for Collaboration for Effective Solutions	44	4.21%	15	3.24%	29	4.99%
R4	Privatization of Security/Promotion of Market-Driven Solutions vs. State as Inefficient	73	6.99%	60	12.96%	13	2.24%
R5	Systemic Failures/Violence Against Women as a Systemic Issue	25	2.39%	1	0.22%	24	4.13%
T	Technological Solutionism	140	13.41%	79	17.06%	61	10.50%
T1	App as a Tool of Self-Defence	4	0.38%	0	0.00%	4	0.69%
T2	App as Conviction Support	19	1.82%	14	3.02%	5	0.86%
T3	App as Crime Deterrence	7	0.67%	5	1.08%	2	0.34%
T4	App Improves Quality of Life/Mental Health	7	0.67%	6	1.30%	1	0.17%

T5	App Prevents Loss of Life and Health	13	1.25%	12	2.59%	1	0.17%
T6	App Prevents Violence Against Women	38	3.64%	19	4.10%	19	3.27%
T7	App Promotes Gender Equality	16	1.53%	4	0.86%	12	2.07%
T8	App Promotes Safety	36	3.45%	19	4.10%	17	2.93%
TOTAL		1044	100.00%	463	100.00%	581	100.00%

Appendix V: Code Distribution

Codes		Code Distribution					
		bSafe	% of Doc.	I'm Safe	% of Doc.	SUM	% of Doc.
A	Anti-Victimization & Empowerment Narratives	25	57%	44	56%	69	56%
A1	Anti-Victimization Narratives	3	7%	16	20%	19	15%
A2	App as a Community of Women/Part of a Movement	0	0%	8	10%	8	7%
A3	Emphasis on Empowerment and Feelings of Safety Caused by the App	14	32%	15	19%	29	24%
A4	Emphasis on the App Being Based on Real-Life Events	13	30%	2	3%	15	12%
A5	Emphasis on Strong Women, Female Empowerment, Entrepreneurship, and Self-Optimization	0	0%	26	33%	26	21%
A6	Safety/Feeling Safe as a Woman's Right	2	5%	4	5%	6	5%
C	Commodification of Safety	27	61%	9	11%	36	29%
C1	Cost Reduction/Raising Efficiency	16	36%	7	9%	23	19%
C2	Emphasis on App's Market Value/Success	23	52%	2	3%	25	20%
D	Data and Surveillance	17	39%	27	34%	44	36%
D1	Balancing Security and Privacy	2	5%	1	1%	3	2%
D2	Emphasis on App's Customization & Being in Control	7	16%	4	5%	11	9%
D3	Location Information as Safety-Enhancing Information	5	11%	12	15%	17	14%
D4	Positive Framing of Data Collection and Surveillance	12	27%	13	16%	25	20%
D5	Reassurance of Data Security and Privacy	2	5%	15	19%	17	14%
G	Gender, Risk, and Insecurity	19	43%	38	48%	57	46%
G1	Emphasis on Women's Need for Protection	1	2%	9	11%	10	8%
G2	Emphasis on Women's Vulnerability	10	23%	29	37%	39	32%
G3	Promotion of 'Stranger Danger'	2	5%	8	10%	10	8%
G4	Women Are Unsafe at Home/Threat of Domestic Violence	2	5%	3	4%	5	4%
G5	World as Unsafe/Crime on the Rise	10	23%	16	20%	26	21%
N	Neoliberal Responsibilization Strategy	21	48%	28	35%	49	40%

N1	Peer Group as Responsible for Personal Safety	11	25%	15	19%	26	21%
N2	Personal Responsibility to Avoid Risky Behaviour	1	2%	8	10%	9	7%
N3	Personal Responsibility for Safety	10	23%	15	19%	25	20%
N4	Personal Responsibility to Collect Evidence	2	5%	3	4%	5	4%
N5	Promotion of Self-Reliance and Vigilance	1	2%	8	10%	9	7%
N6	User Responsibility for App's Functionality	3	7%	3	4%	6	5%
R	Neoliberal Risk Management/Shifting State Responsibility	31	70%	42	53%	73	59%
R1	Call for Systemic Solutions/Legal Solutions/State Responsibility	0	0%	18	23%	18	15%
R2	Companies Taking on Societal Goals	14	32%	13	16%	27	22%
R3	Emphasis on Public-Private Collective Responsibility/Call for Collaboration for Effective Solutions	13	30%	23	29%	36	29%
R4	Privatization of Security/Promotion of Market-Driven Solutions vs. State as Inefficient	24	55%	11	14%	35	28%
R5	Systemic Failures/Violence Against Women as a Systemic Issue	1	2%	11	14%	12	10%
T	Technological Solutionism	29	66%	21	27%	50	41%
T1	App as a Tool of Self-Defence	0	0%	2	3%	2	2%
T2	App as Conviction Support	7	16%	4	5%	11	9%
T3	App as Crime Deterrence	3	7%	2	3%	5	4%
T4	App Improves Quality of Life/Mental Health	6	14%	1	1%	7	6%
T5	App Prevents Loss of Life and Health	8	18%	1	1%	9	7%
T6	App Prevents Violence Against Women	13	30%	14	18%	27	22%
T7	App Promotes Gender Equality	3	7%	4	5%	7	6%
T8	App Promotes Safety	15	34%	11	14%	26	21%
		44	100.00%	79	100.00%	123	100.00%
		<i>Number of documents</i>					

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