Chapter 17

Technology and Violence Against Women

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Abstract

As the role and uptake of digital media, devices and other technologies increases, so has their presence in our lives. Technology has revolutionised the speed, type and extent of communication and contact between individuals and groups, transforming temporal, geographic and personal boundaries. There have undoubtedly been benefits associated with such shifts, but technologies have also exacerbated existing patterns of gendered violence and introduced new forms of intrusion, abuse and surveillance. In order to understand and combat harm and, protect and empower women, criminologists must investigate these practices. This chapter discusses how technology has transformed the enactment of violence against women.

Typically, studies have focussed on particular types of technology-facilitated violence as isolated phenomenon. Here, the author examines, more holistically, a range of digital perpetration: by persons unknown, who may be known and are known to female targets. These digital harms should, the author contends, be viewed as part of what Kelly (1988) conceptualised as a 'continuum of violence' (and Stanko, 1985 as 'continuums of unsafety') to which women are exposed, throughout the course of our lives. These behaviours do not occur in a vacuum. Violence is the cause and effect of inequalities and social control, which manifests structurally and institutionally, offline and online. Technologies are shaped by these forces, and investigating the creation, governance and use of technologies provides insight how violence is enacted, fostered and normalised.

Keywords: Technology; violence against women; technology-facilitated violence; sexual violence; domestic violence; misogyny

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Introduction

As the role and uptake of digital media, devices and other technologies increases, so too has their presence in our lives. Such channels have wrought changes in the speed and type of self-expression, communication, interactions and relationships which emerge and how boundaries are formulated and transgressed. There have undoubtedly been benefits associated with such social, cultural and economic shifts, but technologies have also exacerbated existing patterns of gendered violence and introduced new forms of objectification, surveillance, intrusion and harm. This chapter explores some frequently enacted forms of technology-facilitated violence performed by known and unknown persons, primarily men, against women: general digital anonymised misogyny; technology-facilitated sexual violence; and harassment, abuse and stalking via information communication technologies (ICT) and the 'internet of things', in intimate relationships.

Drawing on Kelly's (1987, 1988) model of a 'continuum of violence', I contend that the aforementioned behaviours do not occur in a vacuum. The range of technology-enacted violence discussed are both the cause and effect of inequalities and social control, which manifest structurally and institutionally. Adopting this lens ensures that digital harms are positioned in a broader spectrum; where 'online' (which could perhaps be better conceptualised as 'digital') incidents are considered alongside those which occur 'offline', in the physical world. As Kelly theorised, exercises of violence – here characterised as online/offline – are not discrete. And arguably, with the rise of new technologies we are seeing a 'context collapse' between the private and public sphere, and so the differentiation between the type and space in which violence occurs, is increasingly blurred. By opposing a hierarchical ranking of seriousness and instead emphasising prevalence, Kelly's frame allows for the frequency, cumulative impact and effect of harm to be foreground. This is important as technology-facilitated violence is commonly normalised and minimised. In drawing attention to forms, effects and impacts of digital harms, women's experiences of victimisation can be better understood.

Kelly believes that violence occurs in the context of men's power and women's resistance. Indeed, while technology has been used in efforts to subjugate women, it also offers opportunities for women to challenge this control. For those who have experienced harm (whether online or offline), digital channels provide opportunities to seek 'justice'; challenge media, popular culture and State narratives; effect change and garner support. It is beyond the scope, here, to examine the practices and participation of women, in avoiding and resisting technology-facilitated violence or, how technology has been used by advocates, practitioners and States in regulating and preventing violence, and in efforts to protect and empower women (see Harris et al., forthcoming). These areas warrant attention. There is great potential in this such avenues, but such technology may of course have limitations that need to be combated.

The forms of technology-facilitated violence identified in this chapter are by no means exhaustive. This is not all-inclusive list and, as technology and, practices of technology evolve, we must consider how these elements can be harnessed for positive and negative purposes. On frame, I note that an intersectional approach

is adopted, but still, there are scholarly and State silences or less inquiry into how women with disabilities; culturally and linguistically diverse women; and Indigenous women experience and resist technology-facilitated violence. Their accounts are included in this chapter, to different degrees, but, given high rates at which these groups encounter violence and, the particular vulnerabilities they face, studies which prioritise their voices and research, should be supported. Furthermore, I emphasise that those subjected to harm can have diverse gender and sexuality identities and there are absences in the lesbian, gay, bisexual, transgender, intersex and queer people's perspectives of technology-facilitated violence. Here, the focus is more broadly on how men have performed such acts against women, as a collective gender identity, within the parameters of gender-based violence. While this chapter does discuss and does not discount the experiences of women who identify with marginalised groups, specific information relating to their unique experiences is limited. This is both a consequence of knowledge deficits (which needs to be addressed) and so as not to negate or diminish their unique accounts of digital violence. As a priority, these gaps must be addressed; emerging research indicates that those perceived to be 'outsiders' have been disproportionately subjected to technology-facilitated violence (Fox and Tang, 2017).

Terminologies and Definitions

The terms technology-facilitated violence and digital violence has been used throughout this chapter, as have various derivatives when referring to specific forms of violence. Many of these are gender neutral words, which DeKeseredy et al. (2017) caution against, when examining gender-based violence. In this vein, Vera-Gray (2017) queries using 'technology-facilitated' to describe harms, as it focusses on and problematises technology, as opposed to the broader context of gender inequality, which underscores and fuels digital abuse against women. Alternatives – 'online gender-based violence' (Suzor et al., 2019), 'online violence against women' (Abul Aziz, 2017) and 'online abuse and gender-based violence against women' (Internet Governance Forum, 2015) – used by other academics and organisations, have specifically referenced sex or gender.

While recognising the limitations of these frames I am using, theoretically, I am positioning digital violence within the continuum of harm that women encounter and inequalities and hierarchies in gender power relations (see Connell, 1987), are thus foreground. The breadth of this term does have advantages in including a range of harms, enacted using technology. However, as Hackworth (2018, p. 58, 63) stresses, scholarship and terminology centred on 'gendered violence' 'most likely reflects the experience of specific women', that is: 'white, middle-class, heterosexual, cis-gender, able-bodied women'. This is a significant shortcoming. Some commentators do overtly recognise intersectionality in their study of technology-facilitated violence. Farrell et al. (2019), for instance, mention such as homophobia and racism their typology of online misogyny.

Technology-facilitated violence can encompass gender-based violence alongside other kinds of discrimination, harm and marginalisation based on a person's

self-identified or assumed identity. As a solution, Harmer and Lumsden (2019, p. 2) propose 'online othering', as it

> encapsulates the myriad power contestations and abusive behaviours which are manifested on/through online spaces (including e.g. racism, Islamophobia, sexism, misogyny, homophobia, ableism … [and] the rules and norms concerning which individuals and groups are endowed with status and legitimated to participate in these spaces, and those which are not.

And certainly, online inequalities mirror and can extend offline inequalities; '[c]ultural identifiers, such as race, gender, and disability enhance exclusion rather than inclusion' (Ionescu, 2012).

Other flaws in terms should also be raised. I wonder if 'online', for example, is restrictive in capturing harms, even if it is used in reference to ICTs generally. There is value in using words (like 'technology' or 'digital'), to include more media (Harris, 2018). Yet just what technology encapsulates is subject to debate. In this chapter, most attention is given to ICTs, which includes forms of communication technology (like computers) and the associated use of the internet, mobile phones and other communication and information dissemination devices, including global positioning systems, and digital audio and video recording devices (Hand et al., 2009). It also incorporates social media platforms (such as Facebook); 'micro-blogs' (e.g. Twitter, Tumblr and Instagram) and video and podcast sharing services (such as Vimeo, Snapchat, Vine and YouTube; see Harris et al., forthcoming).

It is imperative that the aforementioned list is not regarded as a complete and unchanging. In the interests of gaining insight into these behaviours, we need to recognise alternative and emerging channels through which digital violence can be performed. On this issue, examining queer experiences, we could include outing or threats to out via technology as constituting harm (Fairbairn et al., 2013). Fileborn and Ball (2018) ask if we might incorporate restricting access to, for instance, HIV medications or hormones in understandings of technology-facilitated violence. Definitions serve some purpose, in gauging the lay of the land, but should not restrict our exploration of the topic. Moreover, as discussed in the pages that follow, while as a category, technology appears to be neutral, the construction and use of technology both reflects and reinforces intersectional structural inequality.

Continuums and Spacelessness of Violence

In her watershed 1985 text, Stanko (p. 1) contends that violence is not a sudden disruption to women's private and public lives. The consistent, pervasive exercise of harm results in 'continuums of unsafety' (see also Stanko, 1990, 1995), which women 'perceive and/or experience as intimating, threatening, coercive or violent'. Kelly (1987, p. 54; see also 1988), contends that, rather than distinct periods of violence and non-violence, women's experiences can be understood to

exist on a continuum, ranging from 'choice to pressure to coercion to force'. In both Stanko and Kelly's models, violence can be emotional, physical, structural and symbolic. It features in all social domains and is constantly exercised and experienced, as opposed to episodic, and incidents both reflect and seek to reinforce male power and social control. Positioning harms within a continuum 'can enable women to make sense of their experiences by showing how "typical" and "aberrant" male behaviours shade into one another'. Focus, then, is not only on acts which are readily problematised (and criminalised), but also on acts that are commonly minimised, overlooked or normalised (Kelly, 1988, p. 75). Violence infiltrates all space of women's lives and technology provides a channel through which this can be accomplished.

Technology-facilitated violence is invasive and ubiquitous, not confined to any one sphere (Harris, 2018). In any event, the public/private divide, if it exists, can be further blurred and weakened by technology. The 'context collapse' between these (and professional/personal) zones (Davis and Jurgenson, 2014), means that differentiating between the type of violence and realm in which it is enacted is difficult, if not impossible (Harris and Woodlock, 2019). Even if defamatory, harassing or threatening messages are sent to a private account or, by a known person who shares a private residence with a woman, it is rarely private. The effects of digital violence – on a woman's psychological, emotional and physical wellbeing, sense of safety and security – transcend digital spaces. Additionally, so-called private violence can be publicly visible. Vickery and Everbach (2018, p. 10) contend that 'the persistent, searchable, and scaleable affordances of social media render interactions more visible'. Thus, social media harassment and image-based sexual abuse can be widely shared, posted and broadcasted with relative permanency, exacerbating the impact on the target (Kings-Ries, 2011; Lucero et al., 2014; Watkins et al., 2016).

Various technologies (like internet addresses) may be viewed as locations, in a sense, and items (like smartphones, tablets, computers) will exist in the 'real world' (though are often mobile). Yet technology is spaceless; borderless and not bound to any particular region. Thus, women can be exposed to violence anywhere they access ICT; devices (social media), accounts or online profiles (Harris, 2018; Harris and Woodlock, 2019; Woodlock, 2017; Megarry, 2014). Digital violence may be viewed – and further perpetration performed – by family, friends, colleagues or unknown others who, for example, comment on or share an abusive post or image, or participate in technology-facilitated stalking. Networks that engage in digital violence may have offline relationships or, these may be entirely online, without any real-world association. Others may be actively recruited and act 'by proxy' or may elect to engage in violence (Dutton and Goodman, 2005; Harris, 2018). Consequently, women may feel as though they are vulnerable to abuse and under surveillance by any number of known or unknown perpetrators, who are not temporally or spatially bound or bonded. As the role and uptake of digital media, devices and other technologies increases, boundaries, both social and geographic, are more permeable than ever before. Consequently, as Mason and Magnate (2012, p. 107) emphasise, 'new technologies complicate how women experience violence as well as how they are able to protect themselves'.

The possibilities of avoiding, preventing and 'escaping' unwanted intrusions, abuse and surveillance are then, all the more difficult (Hand et al., 2009).

To capture a complete and cohesive view of violence against women we need to recognise commonalities and continuity through which harm is enacted, including, through technology, in the setting of hierarchical gender power relations (Connell, 1987). Some commentators have observed a 'digital manspreading' (male occupation of more ICT space than needed, and the side lining of women's voices and engagement) as well as digital abuse. This is, they suggest, indicative of both male sense of entitlement and every day, pervasive intrusions into women's lives (Easter, 2018; see also Jane, 2017; Mantilla, 2015). Hayes and Dragiewicz (2018, p. 115) wonder if aggrieved entitlement (men's anger 'when they are deprived of patriarchal privileges they feel they deserve, or feel their cultural superiority is under threat' and/or perceptions of sexual entitlement can explain some forms of digital violence. There are individual experiences of technology-facilitated violence but, the phenomena are indicative of broader issues of gender inequality and sexism. As Jane (2014, p. 566) explains, it is 'diagnostic not so much of a problem a particular man has with a particular woman'. Contextually, digital abuse has historical roots in 'a much older discursive tradition … which insists women are inferior and that their primary function is to provide sexual gratification for men' (Jane, 2014, p. 566).

Vickery and Everbach (2018, p. 11, 13–14) agree that '[m]isogyny as it is expressed online can never be divorced from cultural and historical contexts or the physical threats women endure on a daily basis', because technology is another channel through which men endeavour to maintain dominance. Technology-facilitated violence has real-world harms and 'is intended to remind women of their proper patriarchal place, one that is subservient to the interests of men'. In this vein, Reed (2018, p. 108) notes that

> The ways in which *offline gender issues* like sexual harassment, stalking, violence against women and sexual trafficking have migrated onto and been impacted by digital technologies and digital culture once again remind us that allegedly virtual worlds and real worlds are never really disconnected.

Despite existing within a 'continuum of violence', narratives of digital harms are commonly separated from other forms of abuse, for instance, physical and offline sexual assault (Harris, 2018). This is problematic. A fragmented picture of violence, hinders recognition of and responses to violence. Unpacking the creation, governance and use of ICT provides insight into how digital harms are fostered, normalised and institutionalised.

Developing and Designing Digital Violence

Earlier work on gender and technology suggested adoption of ICT could provide reveal much about constructs of gender and gender relations (Rakow, 1986) and, indeed, technology-facilitated gendered violence. Feminist scholars have

documented 'men's monopoly of technology as an important source of their power' (Wajcman, 2004), reflecting and reinforcing values and hierarchies that subordinate women (Wajcman, 1991; Citron, 2009). Herring (1999, p. 164), assessing online harassment of women, says that 'the gender that controls technology benefits disproportionately from traditional gender arrangements, and thus is motivated to preserve them'. Reviewing historical use of technology, Cockburn (1985) claims that men have consistently positioned themselves in central technological roles. The makeup of the telecommunications bodies, platforms and ICT agencies undoubtedly shapes the forms and functions of technology that is created. The internet grew out of male dominated fields (academia and the military). Chang (2018) describes the contemporary platform and telecommunication workforce as a 'brotopia'. Certainly, this is evident in the limited representation of women (women of colour, in particular) and the positions they occupy.

In the tech industry, women are more likely to work in low-skilled roles (like call centres) and (white, English-speaking, middle-class) men occupy the majority of high-skilled, decision-making roles (Herring, 1999; Ionescu, 2012). Despite women constituting the majority of social media users, Megarry (2014, p. 46, 49) insists 'the underlying system of patriarchy remains stable" in terms of "their ability to influence networked public spheres'. As a cohort, women only represent around 30% of the workforce at social media giants, like Google and Facebook. Representation of non-Anglo, culturally and linguistically diverse and Indigenous women is marginal (at around 1% or 2%). Hegemonies serve to further masculinise and anglicise technologies (Chang, 2018), including in other fields, such as gaming development (Gray et al., 2018). This has, Reed (2018, p. 102) avers, resulted in scenarios where 'straight, white, middle-class, Euro-American male cultural assumptions, values and ideas were (and often still are) unintentionally built into hardware, software and digital cultures'. In fact, it is not only the workforce and management of the ICT industry, but also the structure and features of ICT that provides a fertile ground for technology-facilitated harassment, abuse and harm.

By design, ICT may inadvertently facilitate digital violence, which is a 'uniquely gendered phenomenon' (Citron, 2009, p. 375). Women are disproportionately targeted and gender is invoked – in different ways – when enacted (Mantilla, 2015). Features of ICT (the ubiquity, social convergence and synchronous communication it affords) aid intrusion into women's lives (Baym, 2015; Dragiewicz et al., 2018). Other elements (such as the instantaneous communication; possible delays between a message is sent and then accessed by a recipient; and the absence of face-to-face contact) of some media may, Gray (2012) believes, result in senders exhibiting little empathy for recipients or dissociation from potential impacts of digital abuse. The 'ease and speed with which content can proliferate', often without any response from administrators, ensures ICT (such as Twitter) 'remains fertile ground for reinforcing existing gender inequalities and discrimination against women online' (Amnesty International, 2018, n.p.). Systematic bias has been built into databases, search engines and social media (Suzor et al., 2019). Bivens (2015) has noted the sexism embedded in the design of some platforms, such as in the gender binary code in Facebook. Massanari (2015, p. 330) claims that

the platform architecture and algorithmic politics of Reddit (an open-source site where users, 'Redditors', can create their own community of interest) 'unintentionally may enable and/or implicitly encourage these spaces to become hotbeds of misogynistic activism'. Scholars have also highlighted and problematised both the design and cultures associated with some technologies.

As Salter (2017, p. 6) observes, there is a 'fundamental congruence between the values which inform design and administration [of social media platforms] and those that inform the use of abuse and harassment'. Ideologies and structures which support violence against women then, can shape the architecture and management of ICT. boyd (2015, n.p.), reflecting on the evolution of the internet suggests: '[w]e didn't architect for prejudice, but we didn't design systems to combat it either'. Herring (1999, p. 163) identifies other ideologies that can result in the proliferation of digital violence, such as a civil libertarian stance 'that advocates individual freedom of expression and condemns all forms of regulation as censorship'. She does stress that, ultimately, the ethos and attitudes she speaks of have been 'largely inherited from pre-existing social arrangements' such as 'the practices and values of the male hackers who invented and populated the first computer networks', which 'disproportionately benefits male users' (Herring, 1999, p. 163). In this vein, colleagues and I contend that platforms and telecommunications bodies 'have traditionally presented themselves as heroic defenders of individual freedom' and, this 'fierce defence of free speech can overshadow or delegitimize claims of harms caused by online harassment and abuse' (Suzor et al., 2019, p. 89; see also Jane, 2017). Efforts to exercise male (white) privilege and the normalisation and minimisation of the continuum of violence (to which women are exposed) also serve to 'justify' a lack of response to digital violence.

Intrusions by Unknown Persons

Violence by unknown persons can take many forms, but most commonly, women experience what Jane (2014, p. 558) refers to the 'ebile'; 'venom and vulgarity'. Such speech is, she says,

> heavily laced with expletives, profanity and explicit imagery of sexual violence: it is calculated to offend, it is often difficult and disturbing to read, and it falls well outside the norms of what is normally considered 'civil' academic discourse. (Jane, 2014, p. 558)

Ebile is not solely misogynistic, when a women's racial, religious, sexual and gender identity and disability status is publicly identified or known. For Indigenous women and women of colour gendered online abuse is frequently racialised. Women who practise a religion (especially a religion other than Christianity) find their faith is often persecuted, alongside their sex or gender. Women who are not heterosexual or cis-gender may be subjected to derogatory comments about their sexuality and gender identity. Women experiencing mental illness or with disabilities can have their sex and gender attacked in negative commentary about their

bodies and perceived capacities (see Awan and Zempi, 2015; Fox and Tang, 2017; Hackworth, 2018; Madden et al., 2018).

In addition to ebile, strangers can subject women to threats of sexual, physical or fatal violence and threats to dox or, actual incidents of doxing (release of identifying or personal information). Men do experience such technology-facilitated harms, but it is usually their ideas or behaviour that is attacked and, compared to women, threats to and doxing of men is rare. For women, the spectrum of harms to which they exposed are more extensive (often sustained), overtly reference their sex, sexuality, gender and objectifies (and threatens) their bodies (Citron, 2009; Filipovic, 2007; Fox and Tang, 2017; Megarry, 2014). Critiques of women's digital gender performativity and presence are not divorced from offline critiques. In ICT, women are expected to adopt and adhere to the same gender roles as in physical realm (Ionescu, 2012). Perceived deviation from these constructs is policed and punished, with sexual violence often presented as 'corrective' to such 'transgressions' (Filipovic, 2007; Jane, 2014). The aforementioned acts may or may not be illegal in various jurisdictions, but what is noteworthy is the effect on a subject as opposed to how an act is defined or regulated by powerful actors. While women may ignore, downplay, challenge and resist technology-facilitated violence, it does not exist in isolation, but alongside other instances of harm enacted online and offline, creating a 'continuum of unsafety'.

Anonymised digital violence may target an individual, for instance, an academic conducting research or making a comment classed as feminist in frame or content. When completing a project on men's intrusion in public spaces, Vera-Gray (2017, p. 69) was sent a barrage of sexualised, abusive posts courtesy of users associated with a men's right Facebook group. 'youre [*sic*.] a perfect example of what happens when society pampers a cunt (that would be you)', one message read. Others referenced or encouraged sexual or physical violence or self-harm; 'initiatives like this [research] are nothing other than a public expression of rape fantasy and the unspoken desire to be ravaged'; 'Bitch, please find the tallest skyscraper near you, and jump off of it'; 'feminists [*sic*.] women are disgusting they bleed from those nasty holes every month and_ [*sic*.] drop that shit on the floor they need to be neutered' (Vera-Gray, 2017, p. 70, 71). Her account is mirrored in those of many of my colleagues who conduct feminist research. As well as receiving ebile (like derogatory comments about their sex or gender or with sexualised elements) and threats, they have reported finding their personal contact information posted online. While their stories are shared among social circles and supports, there has been little scholarly review of digital harms in these settings. However, it is an extension of antifeminist backlash observed by Dragiewicz (2018) which has long plagued academia and violence against women advocacy.

Digital harms can also involve more wide-scale instances with multiple perpetrators – anarchistic or organised movements – who may or may not work in concert. The 2014 #GamerGate campaigns, for instance, though sparked by an attack on a single female gamer, evolved to multimedia attacks (sexualised abuse, rape and physical violence threats and doxing) of female gamers, as a sector (Salter, 2017). Jane (2014, p. 566) believes the 'congenerous qualities' and frequency of these communications 'has the effect of erasing the individual and

coalescing all these mephitic voices into one'. This can be extended by features which link abuse, such as hashtags that unite disparate instances of misogyny into a campaign (Megarry, 2014). Identities can be shielded or fabricated with ICT; false names and the absence of profile images depicting the user are a hallmark of misogynistic communications.

Researchers theorise that the anonymity (or quasi-anonymity) afforded by digital channels disinhibits users, which can manifest in benign or toxic ways (Suler, 2005). In hiding a person's name and image, individuals have the liberty to speak without fear of social or State reprisal. Civil rights and engagement then, can be exercised. However, where identities are not visible, inhibitions can be lowered and extreme sentiments voiced – and violence enacted – without concern of consequences (Banet-Weiser and Miltner, 2016). Unsurprisingly, then, Tsikerdekis (2012) maintains that anonymity or pseudonymity can actually increase aggression. Gray (2012) believes that 'dissociative anonymity' provides users with a different persona, separate from their real-world identity. Subsequently, targets can be stereotyped and depersonalised, Fox and Tang (2017) assert. It is worth investigating how invisibility may shape both a person's actions and victimisation. The unknown element of perpetration can heighten women's anxieties; they may feel that risk, danger and distress is anywhere (and everywhere), and will emerge at any time (Fascendini and Fialová, 2011; Harris, 2018).

'People You May Know'

The boundary between persons who are unknown and those who *may* be known is not always easy to discern. Various technologies (such as dating apps and social media accounts) offer introductions to persons with a photo and limited personal information. While this can be fraudulent, a 'name' and 'face' it is nonetheless supplied and an online and real-world connection or relationship may develop with a contact. There have been limited studies on dating or 'hook up' apps and websites, but Smith and Duggan's (2013) research indicates that digital violence performed through these platforms is gendered, with women experiencing abuse at higher rates than men (42% as compared to 17%). Gillett (2019, drawing on Stanko's 1985 frame), considers 'intimate intrusions' – which women perceive or classify as unsettling, threatening, violent – issued via the dating app, Tinder. Such behaviours may include such as sexualised messages, aggression, abuse, the sending of unwanted sexual images or harassment, but may not be so readily or easily defined. What is key to examine is not how to articulate or categorise these harms but, women's experiences and the effects of these behaviours. Notably, Gillett (2019) found that intimate intrusions on are common, routinely normalised as part of digital dating cultures and, that these everyday harms have a cumulative impact on their health and wellbeing and, can crossover into the real world (such as sexual, physical and fatal violence and stalking).

Other instances of sexual violence, like the unauthorised creation, distribution (or threats to distribute) and/or theft of intimate images, and sexual extortion (coercing subjects to take and send intimate images) can also be conducted by persons known or unknown to a woman (Powell and Henry, 2017). This can

involve a woman's actual body or, manufactured representation of her body, using artificial intelligence to digitally manipulate a person's face onto nude or pornographic images (Chesney and Citron, 2019; Harris, 2018–2019). Digital voyeurism, 'upskirting' and 'downblousing' (surreptitiously viewing, photographing or filing up a woman's skirt or down her shirt, using technology) and 'cyberflashing' (or distribution of unsolicited 'dick pics') is usually (but not exclusively) associated with strangers (Hayes and Dragiewicz, 2018; Najdowski, 2017). Other perpetrators who seek to obtain, capture, share or exact intimate images, without consent, may be drawn from associates on dating apps, isolated sexual assaults, or friendly or romantic relationships. While 'intimate' images are generally said to refer to nude or sexual graphics, Powell et al. (2017) emphasise that definitions should be broader; images of Muslim women without a hijab, for example, can be regarded as intimate. Individuals are typically targeted, but there have been wide-scale campaigns to target women. In 2015 what has been referred to as 'The Fappening' saw the illegal acquisition and circulation of nude images of female celebrities obtained from their Apple iCloud accounts. And, importantly, even seemingly isolated incidents are part of women's broader experiences of online/offline violence – the climates of unsafety – to which they are exposed (Stanko, 1985).

Women are overrepresented as victim/survivors and men perpetrators of digital sexual violence. Technology-facilitated abuses, executed by persons who may or may not be known are ultimately underscored and explained by inequalities and hierarchies in gender power relations (Connell, 1987). The sense of (aggrieved and sexual) entitlement and objectification of women's bodies apparent in digital dating and sexual violence and is not divorced from – but an extension of – activities which occur offline. Technology has not pioneered but facilitated these practices; giving rise to new forms of an opportunities for intimate intrusions. On this issue, Massanari (2015) explains that the structure and management of platforms like Reddit preferences particular (misogynistic) user accounts and agendas. User posts can achieve greater visibility via a point and up-voting system and, intimate images are widely shared and so are more heavily promoted than other posts. These communities of interest are popular, and so are marketable and monetised. There is, subsequently, reluctance (as has been demonstrated, historically), to regulate technology-facilitated sexual violence, or to consider how the design and functionality of digital media could establish and extend contact with perpetrators.

Platforms generally assume potential contacts are friendly, if not neutral, and that expanding contacts is positive. Facebook via a 'people you may know', Twitter via 'who to follow' and Instagram via a 'suggested for you' list, encourage users to friend or follow others, based on mutual associations. This may be a useful social networking function, however, there are implications and potential triggers for women who have been exposed to violence by people in broader social circles. Bivens (2015) has documented how such tools have unknowingly matched survivors of sexual violence to perpetrators and, the resulting distress experienced by women. Similarly, domestic violence survivors have described triggers when invited to connect with those in a perpetrator's social network, who

have supported or joined the perpetrator in enacting harm (Harris and Woodlock, forthcoming). And certainly, technology can assist in building perpetrator networks.

DeKeseredy and Schwartz (1993; DeKeseredy, 1990), explain that, in patriarchal societies, those who engage in violence may have like-minded allies who develop, share and reinforce ideologies and values which support, justify and normalise violence. These peer support networks were once confined to the real world, but are now fostered by technology (DeKeseredy and Schwartz, 2016), and the functionality, ethos and lack of regulation on 4chan, Reddit (Massanari, 2019), social media and gaming communities (Harris and Woodlock, 2019; Salter, 2017). Media and scholarly research has also indicated that toxic communities have been forged on platforms. In 2019, news broke that YouTube's recommendation algorithm was connecting users viewing and discussing child exploitation material (Lacey, 2019) and, anecdotally, we know that perpetrators of sexual and intimate partner violence have connected similarly. Jiang et al. (2019) assert that the algorithmic model narrows the content promoted to users, resulting in 'echo chambers' and 'filter bubbles', which could highlight the very beliefs that support violence against women.

Digital Violence in Intimate Relationships

Thus far, academic enquiry has mainly focussed on the former two categories; violence performed by unknown actors of those who may be known or unknown. There has been little coverage of digital harms in the context of intimate relationships, but scholarship is growing. Much literature (especially that emanating from the Global North) explores what is characterised as 'dating violence' (see Dick et al., 2014; Lucero et al., 2014; Borrajo et al., 2015; Wolford-Clevenger et al., 2016). Frequently, studies do not distinguish between harms enacted by intimate partners or other social contacts (friends or acquaintances; Bennett et al., 2011) and there is conflation between aggression and abuse (Dragiewicz et al., 2019). Subsequently, sex and gender differentiation in rates, types and impacts of perpetration are overlooked, even though women are overrepresented as victims and men as perpetrators of domestic violence (Harris, 2018). It is certainly *possible* that those experiencing technology-facilitated abuse and/or stalking within their relationship will not experience other forms of abuse (physical, sexual, psychological and financial) and in person stalking. However, scholars have documented the co-occurrence of digital and non-digital violence (Barter et al., 2017; Draucker and Martsolf, 2010; Fraser et al., 2010; Marganski and Melander, 2015; Temple et al., 2016). Certainly, in my own work, all domestic violence victim/survivors consulted, experienced technology-facilitated violence among other forms of harm (see George and Harris, 2014; Harris and Woodlock, 2019).

Thus far, insight into digital domestic violence has been hampered by the varied definitions and frameworks adopted throughout the field (Harris, 2018). The preponderance of youth studies has led some to suggest this is unique to adolescents. Yet the average age of both perpetrators and victims is older in other studies; Cavezza and McEwan (2014) found the average age of cyberstalkers in their

sample was 37 years and, survivors in Woodlock's (2013, 2017) pioneering project on technology-facilitated domestic violence had an average age of 35 years. More recent studies on digital abuse have reported average ages of upwards of 30 years (Dragiewicz et al., 2019; Harris and Woodlock, forthcoming). Generally speaking, the evolution and uptake of technology has transformed communication, contact and identity in intimate relationships (Melander, 2010; Picard, 2007), which, as scholars predicted, has sparked technology-facilitated harms (Salter and Bryden, 2009). ICT has been used to escalate and amplify abuse and stalking in violent relationships (Dimond et al., 2011), providing 'convenient tools to intimate, isolate and stalk in new and damaging ways' (Wick et al., 2017, p. 25). This is not a distinct from but a part of coercing and controlling behaviour enacted offline.

Domestic relationships involve sharing of intimate knowledge, account ownership and access, and unique relational dynamics that enable insider threats to digital security in the hands of abusers. Sharing ownership of ICT, account information, accessing a partner's devices 'can be innocuous or positive in a healthy relationship and toxic or dangerous in the context of abuse' (Dragiewicz et al., 2019, p. 7). Technology-facilitated violence against intimates and family members comprises a substantial proportion of all cybercrime where the offender is known, but this area has been largely overlooked by cybercrime researchers (Goode, 2017). Victim/survivors and their networks of family and friends can be subjected to a range of behaviours including (but not limited to) defamatory, abusive or threatening communications; clandestine and conspicuous audio and visual recording (and sharing of images and video); image-based sexual abuse; doxing; unauthorised access to or function enabled on a device, or impairment of an authorised function; impersonation; identity theft; tracking of activities, movements and communications (Dragiewicz et al., 2018, 2019; George and Harris, 2014; Harris, 2018; Harris and Woodlock, 2019, forthcoming). Such acts may be accomplished through access to a victim/survivor's actual or virtual properties and accounts and can be achieved using force, coercion, deception or stealth.

Identifying behaviours performed by domestic violence perpetrators is useful, but some behaviours are harmful because of the setting in which they occur. In my work, for instance, survivors have described, having location services on devices activated by their current or former partners and, children pressured to turn on video capabilities during phone calls with their fathers. In and of itself, these may seem to be innocuous acts. However, these were actually efforts to exert control: to stalk and, locate a woman or where a refuge or new residence was located. Thus, Woodlock and I propose that term and framework of *digital coercive control* be used to refer to 'the use of devices and digital media to stalk, harass, threaten and abuse partners or ex-partners and children'. This

> phrase specifies the method (digital), intent (coercive behaviour) and impact (control of an ex/partner) and – because the concept of 'coercive control' is central – situates harm within a wider setting of sex-based inequality. (Harris and Woodlock, 2019, pp. 533–534)

This definition includes as opposed to excluding forms of harm. Coercive control, a concept not invented but developed by Stark in his landmark (2007, p. 373) text acknowledges the 'spatially diffuse' techniques, strategies and mediums (like isolation, intimidation, threats, shaming, gaslighting, surveillance, stalking and degradation), used by abusers. As a concept, coercive control is not without limitations (Douglas et al., 2019), but is useful in the understanding the holistic behaviours enacted in abusive relationships, including tactics not commonly regarded as 'serious' forms of violence; patterns of behaviour; and the frequency and impact of harm (Harris and Woodlock, 2019; Dragiewicz et al., 2018). Ultimately, this is a gendered theory, underscored by an assumption that there is intersectional structural inequality and men engage in coercive control violence to maintain and reinforce their power and status (Stark, 2007). So, it aligns with the theoretical frameworks established by Kelly (1987, 1988) and Stanko (1985).

Concluding Thoughts

This chapter has positioned digital harms in a continuum of violence; uniting what have often been disparate fields of inquiry. In so doing, the spectrum of unsafety and intimate intrusions to which women are exposed, is made visible. Various behaviours, performed by unknown persons, those that may be known and intimate partners, have been discussed, but, to emphasise, these are by no means exhaustive. Other acts will emerge as technologies do, and subtle, normalised and context-specific intrusions can be overlooked, obscured or minimised. While there has been inclusion of marginalised women's experiences, as earlier noted, we need to better understand and foreground their accounts. On this issue, while – using Kelly (1987, 1988) and Stanko's (1985, 1990, 1995) work – focus has been on men as perpetrators, yet harms are not exclusively enacted by men. Commentators have, for instance, discussed how white women have weaponised emotions and tears, when they feel challenged or uncomfortable with what a woman of colour has said or done (Hamad, 2019). Power and privilege will influence patterns of perpetration and victimisation.

Technologies are shaped by the environment in which it is created, used and managed; reflecting and reinforcing gender relations. And, the overarching aim of technology-facilitated violence against women is to maintain structural inequalities and spaces that men have traditionally occupied. There are many impacts of these harms on women's wellbeing, safety and sense of security, and their civic and social engagement, education and employment opportunities. Yet States, justice agencies, tech industries and even communities have, so far, failed to regulate and redress these intrusions (Harris, 2018; Suzor et al., 2019). Some abuses may be illegal, but others are not. In any event, legal and justice systems are largely, jurisdictionally bound,but digital violence is spaceless. Platforms and telecommunications bodies have also maintained intervention is not possible or legitimate. Protecting consumer or user rights and freedom of speech is often prioritised, but women's can be sacrificed, in this process. Victim-blaming is all too frequent, and women are also encouraged to change their use of technology and manage their

own safety or, without support, that, to avoid violence, feel they need to disengage from technology (Citron, 2009; Harris and Woodlock, 2019; Jane, 2017).

Feminist criminologists have developed useful theoretical tools to engage with the topic of technology-facilitated violence; to think critically about power, inequality and context in investigating these harms and by extending intersectional research. Interdisciplinary work will also extend insight. On these issues, I make particular mention of the value and innovative theoretical and methodological work of black cyberfeminists, who are not necessarily criminologists, but communications, media and gender and women's studies scholars (some of whom are cited in this chapter). It is worth seeking greater understanding of the features of technologies as well as settings that foster behaviours, and the dynamics and impacts of these behaviours. Doing so can help build evidenced-informed prevention initiatives and more inclusive, less violent digital spaces.

Scholars can contribute to pushes for structural and institutional shifts and ultimately, this is needed to effect change. Other areas of enquiry can also be pursued by criminologists. Women, non-government and government actors are increasingly resisting and regulating digital violence, and using digital channels to protect and empower women (Harris et al., forthcoming). These are exciting applications for technology, but there are limitations, which need to be reviewed and combatted. A final area to explore, not included in this chapter, is spatiality. Though technology-facilitated violence is spaceless, the place (geographic location) and space (ideologies, acts and actors in a place) are not irrelevant (Harris, 2018).

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