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Qualitative Research in Criminology

Cutting-Edge Methods

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Chapter 6
Online Methods in Qualitative Criminology

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Introduction

Online resources have become a "go-to" for criminological researchers that developed in the evolving advancement of technology and adaption to global events. Even before the pandemic, using the Internet to support any research was well-established. Looking for bibliography and reference materials or contacting participants through email or social media are common practices. However, researchers who tend to focus on the in-person part of their methodology may fail to acknowledge or accept the use of online methods and materials. Quinton and Reynolds (2019) noted that doing research entirely online still produces doubts among academics that these methods are reliable or valid. Despite the relative novelty of online methods, researchers have used them in practice since the 1990s. The Association of Internet Researchers has developed significant procedures and processes for some time. In fact, their ethical guidelines (Franzke et al., 2020) are essential for any researcher who wants to use online methods and, in general, for anyone who collects data from the web.

Researchers may be convinced to use online methods but still must face the scepticism of others involved in the research, such as colleagues, ethics review boards, funding sources and peer reviewers. Consequently, many researchers find themselves being forced to defend their decisions on data. For example, if you decide to do interviews online, you will likely be questioned about not conducting them in person, but the opposite situation is unlikely to happen.

Recently, many researchers were forced to move their research online, creating a growing need to become familiar with online or Internet-mediated methods (Lupton, 2020). Despite this unknown environment, unless the researcher is already involved in the digital realm, many scholars still consider that in-person methods are the

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"gold standard" (Johnson et al., 2019). Moreover, some academics may view online research methods (also known as Internet research or web-based methods) as a poor replacement for traditional methods. It is a mistake to believe that the researcher can directly transfer classic methods to the digital version. The idea that any digital method will be a copy of a classical method may result in disappointment: they are not the same, but that does not imply that they are of lesser quality or reliability. We must replace that expectation and see online methods for what they are: new, different and helpful with their advantages and disadvantages. This chapter focuses on how criminologists and qualitative researchers, in general, can take advantage of new research techniques while also recognising their limitations.

Phenomenon and Method

As I mentioned earlier, it is a mistake to think that qualitative methods and techniques are directly transferable to the digital world.

The first distinction in digital research is the object of study: the research may be about the Internet and online environments. That is, the object of the study belongs to the digital domain. In that case, we face the digital world as a phenomenon (Quinton & Reynolds, 2019, p. 5). Significant works have been developed in this category, giving rise to the emergence of cybercriminology, for instance. Obviously, when employing methodological phenomena that only exist in the virtual world, the use of online tools and methods is essential.

Much of the discussion regarding Internet use arises from a second category: digital as a method or instrument. This is investigating an object outside the digital world but using digital tools to get the participants' data (Quinton & Reynolds, 2019, p. 6). In this category, all research uses virtual tools or transfers classic tools to the online version without referring to the digital world. Without a doubt, since the beginning of the pandemic in 2020, it became necessary to move to the online world many times without option.

Any online research (qualitative or quantitative) will fall into one of these two categories and can be reviewed separately.

Online as a Phenomenon

Many phenomena related to crime can be found online. Some of them are classic criminological topics like prostitution, paedophilia and frauds that evolved to be part of the digital realm and many new forms of crime-related attitudes that can only exist online, such as computer hacking, some types of sex trafficking and a great deal of child pornography.

In the cases in which cybercrime is studied, it is more likely that the information is found entirely or, largely, online. Nevertheless, in the cases of studies of criminal conduct that have been partially transferred online, there is the probability that the researcher fails to detect part of these behaviours since they are being developed outside the digital medium. Holt (2015), for example, points out that when researching a forum where sexual services and the negotiation process are discussed, it is not clear if these conversations represent the majority of consumers. Since many may not participate in the forums because they do not know them or fear being identified, this would also leave out certain forms of sex work like street workers. For this reason, it is relevant to consider the transferability of the research to the non-virtual context and the limitations that can cause certain target groups not to have access to the Internet, which is discussed more in-depth later in the chapter.

The field of cybercriminology and the study of cybercrime has expanded enormously. This growth is partly associated with the increase in reports and the diversity of criminal behaviours that have been created or transferred to the virtual world. Among them are hacking, fraud, sexting, bullying and identity theft. Defined by Jaishankar (2007) as "[t]he study of causation of crimes that occur in the cyberspace and its impact in the physical space" (Jaishankar, 2007, p. 1), the field of cybercriminology has contributed immensely to the development of online research; however, there is little information about methods. Holt (2017) and Payne and Hadzhidimova (2020) discussed the interdisciplinary nature of cybercriminology. They acknowledge that two different fields have focused on the study of cybercrime: on one side, computer science and engineering and, on the other side, social sciences. This split in disciplines has caused a gap between the study of technical aspects and the study of the actors involved, which ultimately causes greater difficulty when studying such diverse methods. Additionally, this interdisciplinary nature may overlook methods from the technical knowledge of social scientists (qualitative or quantitative), which is why Holt (2017, p. 9) concludes that "multidisciplinary research is needed, drawing guidance from theories and methods from both fields so researchers can address cyber-crime in a more complete fashion".

Any criminologist embarking on cybercrime research must consider this interdisciplinary approach. In addition, it is necessary to acquire technical knowledge. An excellent example of this is the research conducted by Décary-Hétu and Aldridge (2015). They created custom software to gather online data related to hidden marketplaces to monitor online drug cryptomarkets while giving a qualitative account of the challenges and ethical considerations.

A recent study by Payne and Hadzhidimova (2020) examined trends in cybercrime research. A sample of 593 cybercrime journal articles showed that 52.4% had a criminologist as the primary author. They also discovered that most research was done using two methods: 37.4% of them used existing online records and websites, and 31% used surveys. Overall, interdisciplinary cybercrime studies were rare (Payne & Hadzhidimova, 2020). Therefore, there is an opportunity for criminologists to use innovative research methods to explore cybercrime.

Table 6.1 Online data sources

Type of online data	Online data sources
Text	Twitter, Facebook, other social media, webpages, blogs, news, documents, books, instant messaging, forum, email
Audio	Voice messages, music, audio calls, audiobooks, podcasts, audio recordings
Video	YouTube, TikTok, Vlogs, GIFTS, live streams, webinars, video calls
Pictures	Instagram, online galleries, memes
Multimedia files	Archives, databases, GIS
Interactive formats	3D, Maps, Games, virtual reality, augmented reality, rich media ads, polls

Online as a Method

The second category of online research is using it as a method, but the object of study is not necessarily part of the digital realm. Many methods have been adapted from in-person interviews, focus groups, questionnaires, content analysis and even ethnography (known as netnography or cyber-ethnography). Using online methods to support offline research is a common practice. However, social scientists are still wary of moving their research methodology entirely online, thinking that the standard might be lower than traditional in-person research. Nonetheless, considering that most traditional methods can be adapted to the online setting and new methods are emerging directly from the online environment shows substantial gains in qualitative work. The applications for criminological research are countless. Also, online data sources are vast and diverse. The combinations of image, text and audio go beyond regular video. Online media includes many interactive features that the researcher can use to develop further understanding of the topic of interest (see Table 6.1).

An incredible amount of data can be gathered from these sources, but the researcher must choose the appropriate method to collect them in advance. In the following section, I offer a brief overview of the opportunities and limitations that qualitative online methods offer, which might assist in making choices related to online data.

Using Qualitative Online Methods in Criminology

Methods are understood here as "the techniques used to conduct the collection and analysis of data" (Salmons, 2018a, p. 31). The main online methods are adaptations of traditional approaches to the online environment (e.g. interviews, surveys, focus groups), but some specific methods emerged directly from the use of technology. Below, I describe some of the most common methods and how they were adapted or created to be used online.

Online Interview (Synchronous and Asynchronous)

In a face-to-face interview, the interaction is real-time in an onsite venue and with oral and kinetic interaction. In an online interview, on the other hand, these distinctive characteristics are not necessarily part of the interaction. First, the interview can be asynchronous, sometimes referred to as epistolary interviews online (Code of Ethics, 2020; Debenham, 2007). These interviews can be conducted through diverse platforms, such as email, blog, discussion boards, or forums. This situation means that the interaction is not live or in real time. There are some advantages of asynchronous interactions, such as freeing up time constraints or allowing more time to think about the responses or even to complement them later. This approach can be handy when dealing with specific populations, for instance, people with disabilities or long-term conditions that need more time to share their thoughts (Debenham, 2007). Also, it is valuable when interviewing elites and people who tend to have busy schedules or vulnerable populations without continuous access to the Internet who can only connect sporadically (e.g. prisoners). It is essential to consider that asynchronous interviews in a context of vulnerability or low Internet access can take a long time to be completed. For instance, the interviews in a study with participants with disabilities had an average duration of 42.6 days, with the longest extending over 75 days (Seymour, 2001).

Second, the interaction is not necessarily oral. Usually, the communication is through text. Although it is possible to send voice messages, video, images and other forms of media on asynchronous platforms. This adds another layer of possibilities to the online interview, which is unavailable during a real-time interaction. Finally, a kinetic element may or may not be present. If the interview is through video, some kinetic information can be gathered, but it is not possible to obtain the proxemics (Salmons, 2018b, p. 48).

Synchronous interviews have evolved incredibly in recent years (O'Connor et al., 2008). Real-time interviews mediated by technology started with the use of the telephone during the 1980s. When the Internet arrived, researchers started doing online interviews mainly in a written form through chat rooms. Now, video calls are the norm. Online synchronous interviews also have become popular. Platforms for videoconferencing such as Skype, Zoom or MS Teams have facilitated this form of interaction to research online and offline topics. Video calls offer many advantages because they include at least some kinetic information and body language so the researcher can read the room despite being kilometres away, and they are easy to record. In the study conducted by Archibald et al. (2019), using a synchronous platform was better than alternative systems like email, but the participants preferred to meet in person whenever possible.

Online Focus Group

Focus groups have been used for marketing research long before academia adopted the technique (Reid & Reid, 2005). The same happened with online focus groups. However, online focus groups exist as a data collection method since the end of the 1990s (Murray, 1997). Like online interviews, they were structured using different technology and were primarily text-based through email correspondence, discussion boards (asynchronous) or chat rooms (synchronous) (Stewart & Williams, 2005). Recently, researchers have started to use web conference technology (e.g. Zoom, Skype) and it quickly became the default platform for online focus groups. Using such technology for this method is helpful to get good-quality data because "verbal and nonverbal utterances, postures, facial expressions, voice tones, and other behavioural nuances depicted in the AV recordings revealed and preserved the context of participants' contributions, cultivating richness in the meaning of the data" (Tuttas, 2015, p. 130).

However, many focus groups are still conducted through online discussion platforms and, more recently, even by using smartphone-based mobile messaging. For example, in a recent study, Chen and Neo (2019) conducted two in-person focus groups and two via group chat using a messaging application (WhatsApp). The results were mixed: "the WhatsApp focus groups represent the two most extreme cases in terms of quantity and quality of response, with the fewest average number of responses per participant, both the fewest and the highest average number of words per response, and the least and most elaborated responses" (Chen & Neo, 2019, p. 6). However, they acknowledge the potential, considering that this platform allowed them to receive a mix of audio, text and images (emojis). Also, the participants built upon each other's response and the presence of a dominant participant did not disrupt the flow of the discussion, which tends to be a usual problem while conducting in-person focus group.

Online Questionnaires and Surveys

Online surveys are prevalent in several scientific fields. This growth is because they have the advantages of "facilitating data processing, collecting data faster from more participants, having less data loss, supporting data collection tools through multimedia and different types of questions, increasing voluntary participation, and being able to research sensitive and confidential matters" (Kılınç & Fırat, 2017, p. 1479).

Online surveys are normally presented in one of two ways. One is email-based, where the researcher sends the survey to the participant (it could be attached or in the email body), and the participant must complete it and return it. The second method is using online survey platforms or web-based surveys. This approach has become increasingly popular because the researcher only needs to share the link with the participants. There are several free platforms (e.g. Survey Monkey, Google Forms, So Go Survey). It is essential to check beforehand the data security in the

platform you want to use, especially considering that some of these platforms may have ethical problems related to using personal data. This method proved to be useful when dealing with marginalised and hard-to-access populations with Internet access, like LGBTQ youth (McInroy, 2016). However, it poses new methodological challenges such as difficulties to measure attrition rates or recruitment rates, or in developing a representative sampling. There are other disadvantages such as "low response rates, external validity dangers, lack of explanations, and being bothersome/boring" (Kılınç & Fırat, 2017, p. 1479), but the possibility of targeting a large part of hard to access population even if it is geographically widespread at a low cost is appealing for criminologists.

Online Participant Observation and Ethnography

There are different variations and names for online participant observation: ethnography online (Beneito-Montagut, 2011), virtual ethnography (Caliandro, 2018), netnography (Costello et al., 2017), digital ethnography (Hughes & Walter, 2021) and social media ethnography, (Postill & Pink, 2012) among others. However, the principle is the same with different variations: a researcher (ethnographer) collects data directly from observation by participating (overtly or covertly), listening and watching people's daily life for a certain amount of time. In this case, the daily interactions are online. That is why some researchers refer to "field events" instead of field sites to reconceptualise the space in an online environment (Ahlin & Li, 2019).

Early works in virtual ethnography were developed in platforms such as email, newsgroups or bulletin boards (Hine, 2000). However, as the Internet evolved, recent studies tend to focus their work on social media (Postill & Pink, 2012) and other more interactive platforms like video games and mobile media (Hjorth et al., 2017).

Ethnography has always been an appropriate method for criminologists, and they are not exempted from exploring virtual ethnography. For example, Zaith and De Leeuw (2010) used virtual ethnography to study how football supporters construct, recreate and experience violent and masculine identities. In their methodological reflections, they stated that "through the analysis of images, we found more insights into the subconscious meaning of violence as well as unearthing a specific aesthetics of violence. The internet provided a rich environment for analysing different dimensions of this aesthetics, a detail that would not be detected by only using more traditional (textual and face-to-face) qualitative methods of research" (Zaith & De Leeuw, 2010, p. 184).

Similarly, Banks (2014), who studied online gambling, concludes that "virtual environments certainly offer new opportunities for criminologists to engage in ethnographic fieldwork. However, they also require a considered and reflexive approach to the research process" (Banks, 2014, p. 299). These experiences gave clear examples of how virtual ethnography is successfully applied to criminology and the endless possibilities for innovation.

Mobile and App-Based Methods

So far, I have discussed methods that are adapted from non-virtual settings. In a traditional sense, mobile methods refer to methods that involve mobility like biographical walking or crime walks (O'Neill et al., 2021). However, as technology evolved, new methods appeared. Some mobile methods were created within the online setting. These are "how mobile communication technologies are used to study social phenomena. Most prominently, this involves various smartphone apps such as texting, cameras, and maps, but also custom-made apps for data collection" (Boase & Humphreys, 2018, p. 154).

The use of app-based methods is recent. A systematic review (Zhang et al., 2018) found that researchers started using them for field experiments in 2013, and most of them were conducted in health research topics. In criminology, another systematic review of app-based and crowdsourcing studies that measured fear of crime (Solymosi et al., 2020) identified some strengths of these methods. For example, to "capture the transitory and geographically-specific nature of fear of crime" (Solymosi et al., 2020, p. 12) or that "policymakers and security planners can use precise geocoded data to design environments less likely to produce fear" (Solymosi et al., 2020, p. 17). However, they also mentioned some limitations, particularly regarding sampling and selection bias: male and young citizens were overrepresented. This means that a small group of participants tends to be the source of a large part of the data. In addition, most of the research done using these methods are quantitative.

Despite limitations, there is enormous scope for innovation in qualitative research. For instance, qualitative research following the lives of football fans in the UK (García et al., 2016) created an app where participants could upload qualitative data to a photo album, an audiovisual diary and an anytime activity record. They stated that "the clearest benefit to using a smartphone is that participants can be spontaneous with what they record. This has great potential for qualitative research into people's lives. Smartphone users have (almost) permanent access to their device, so can report multiple times a day, resulting in less recall problems" (García et al., 2016, p. 520).

Video, Photo or Audio Elicitation and Diaries

Visual elicitation and diaries as data collection techniques do not have to occur necessarily online. However, they can incorporate information and communication technologies and be transferred to the online environment (Lupton, 2020). Moreover, the participants can use a camera and/or a voice recorder to record their daily life and interactions. Digital diaries, used in online platforms or apps, can collect all sorts of data, including text, or sound and image. Currently, this can be done with the participant's smartphone using the phone features or an app that can be a

standard commercial or an app specially created for the research. The video, pictures or audio recording can be posted online too. However, if the researcher uses a commercial app or plans to post all or some of the data online, they need to address possible security and ethical problems.

Copes et al. (2018) used photo-elicitation interviews to study people who use methamphetamine in rural Alabama. They used a mixed approach to complement their ethnography, and they conducted interviews showing pictures on an Ipad. The pictures were taken by the researchers and the participants (including self-portraits). The participants sent the images through texts, Snapchat and Facebook messages and the images included photographs and screenshots of Facebook and text messages. They firmly concluded that "whether criminologists are interested in studying offenders, victims, criminal justice agents or particular events, the use of photo-elicitation techniques offers a powerful addition to the more standard data collection and presentation techniques most often adopted in the discipline" (Copes et al., 2018, p. 492).

However, it is not enough to understand the basic principles behind these qualitative online methods and how criminologists can use them in their research projects. It is also important to acknowledge their advantages and be aware of their limitations.

Advantages for Criminologists in the Use of Online Methods

I already mentioned some advantages in the use of specific methods and techniques. However, there are some general benefits that criminologists can obtain by using online methods.

Asynchronous Possibilities

The greatest particularity and advantage of online methods is the possibility of using them asynchronously. This can be, for example, through email, messaging or forums. In this way, participants can respond or participate when it suits them. It is advantageous if you have participants with different time zones and for expanding the number of participants. One of the advantages of accessing forums and other asynchronous platforms is that it is possible to minimise "contamination or bias that might arise through participant observation or other naturalistic research methods that are traditionally used offline" (Holt, 2015, p. 174). James and Busher (2006), who conducted a review of previous studies, found that participants who took part in email-based research considered that it was an advantage that they could control when to respond and that they had time to elaborate more thoughtfully reflective answers. Nevertheless, there were some setbacks, like discontinuous responses or difficulty getting clarifications (James & Busher, 2006, p. 407).

Particularly, using email-based communication can be useful. Since email is one of the earliest technologies, it is widely used even by people unfamiliar with other forms of Internet interaction, like social media. Most people have an email address so they can be approached this way: "Email, for example, is likely to reach a broader and more diverse user group compared with online chat or social networking spaces where the user demographic is likely to show greater bias toward younger, more technologically proficient and highly computer literate users" (Hewson, 2014, p. 434). Also, in terms of technical requirements, email interviews are one of the simplest online interactions (O'Connor et al., 2008), and they can be convenient when working with some vulnerable populations, with people with only basic online skills or without easy access to the Internet. However, as mentioned before, they can take a long time to complete.

Other techniques can also be used asynchronously, like focus groups (Tuttas, 2015). However, synchronous technology has improved in recent years, and researchers tend to prefer real-time communication, but the potential for asynchronous use is still there and it is an essential component of online interactions. In addition, it is useful to work with specific participants.

Recruitment, Costs and Logistics

Recruiting participants is often one of the most exhausting parts of research. Recruiting online offers the advantage of finding defined groups with specific interests in some form of online community (O'Connor et al., 2008). In addition, there is a tendency for people to search for others on the Internet with whom they have an affinity, and social networks are particularly useful for this purpose. Thus, researchers can search, for example, for groups on Facebook (Fileborn, 2016) or hashtags on Twitter that allow them to identify virtual communities with potential participants. Also, the number of participants you have access to is usually much higher than what you could get in person. Prospective participants can even be geographically remote to the point that it would be impossible or challenging to access them in any other way. Buchanan and Hvizdak (2009), in their survey of universities' Human Research Ethics Boards, found that respondents considered a common strength of using the Internet is the easy recruitment, which allows many participants from any part of the world.

In addition, other aspects of the research along with recruitment can benefit from this cost- and time effectiveness. Using online methods can facilitate the whole research process, including data collection and analysis. Solymosi et al. (2020) discovered in their study that 11 of the 27 papers reviewed mentioned the reduced cost of data collection while generating large samples by using app-based and crowdsourcing methods. However, if the research includes developing a tailored software or app, it can be expensive to work with a software company (García et al., 2016), but most of the time it is not necessary to create a new app or tool. Many available software programs are safe to use for research and can be obtained generally by

paying a fee. The researchers should consider this cost when they create the research design.

In general terms, it is possible to simplify most of the logistics. Without the need to travel to move equipment or data, the cost can be considerably cut, and the risk for the researchers is low. Also, it is more flexible, for instance, in terms of interview time. It is even possible to offer a mixed approach and an online approach to participants who are hesitant to take part in person (Deakin & Wakefield, 2014). For example, Chen and Neo (2019) recruited for in-person focus groups and those who were unable to attend were given the option to participate in the WhatsApp focus group. Similarly, Hanna (2012) gave the interviewees the option to choose between face-to-face, telephone or Skype interview: 10 chose face-to-face, three telephone and three Skype.

Accessibility

Regarding access, several researchers describe that online methods allow access to communities that are hard to reach or have less physical mobility, like people in prison or hospital (Gough, 2017; McInroy, 2016). Moreover, people with disabilities or problems with mobility can find it easier to communicate through the electronic system (Debenham, 2007). However, this approach can happen only if they have access to the Internet, which is not the case in most places where vulnerable populations are located. So, there is an access paradox: the same groups that would be easier to access online than offline are the same ones that have less access to the Internet.

Also, the number of households with Internet access is constantly increasing around the world. However, there is a large variability. There are countries with access in almost every household such as, for instance, Korea (99.7%), Iceland (98.5%) or the United Kingdom (97.3%), while there are other countries where only half of the households have access. Such is the case of Mexico (56.4%) or Colombia (52.2%) (OECD, 2021). Despite this difference, the numbers look favourable for researchers. Never have researchers had access to half of the world population while sitting at their desks.

The use of smartphones has proven to be effective to work with certain hard-to-reach groups. For example, a study researching men recently released from prison found out that "Smartphones also facilitate the collection of detailed behavioral measures that are often not possible to obtain with other methods, such as measures of everyday geographic mobility and social networks. Moreover, they enable the collection of frequent self-report answers, which is a particular benefit for researchers studying groups, topics, or contexts that are characterized by irregular or changeable experiences" (Sugie, 2018, p. 479). There is no doubt that the accessibility will continue to increase with the development of new technologies.

Disadvantages for Criminologists in the Use of Online Methods

Now that the benefits and advantages have been discussed, we need to address some of the problems, challenges and disadvantages that the researcher can face if they decide to use online methods.

Ethics and Consent

First, ethics must be considered with the same emphasis that is required in offline research. Also, new ethical challenges arise from online research methods. For instance, if you are collecting data by observing a closed online community (closed means that the user needs to access with a password or it is behind a paywall), it is essential to consider if the researcher will reveal their identity to the community or if it will remain anonymous. Concealing the researcher identity or objective must be adequately assessed by the ethics committee. This issue seems obvious when you are researching people; however, there has been some discussion about how to proceed in online research to minimise the researcher contamination (Holt, 2015, p. 175). Also, there is a difference between public posts in forum or blogs, where publicity and global access is considered part of it, and information posted in personal social media or discussion group spaces, where the participants expect some level of privacy (Hewson, 2014, p. 444).

The ease with which it is possible to keep anonymity online is not necessarily a problem. On the contrary, it usually is very beneficial because it helps ensure participants' anonymity. Especially in criminology, considering that we usually deal with sensitive matters and vulnerable populations, it is harder to link the participants if they are never in the same place with the researcher. Furthermore, it makes it easier to reach participants who can be reluctant to participate in person because they fear being identified. Of course, this anonymity is not intrinsic to online research. The researcher still needs to design a proper research and data management plan to ensure ethical standards.

In general terms, the main ethical problems that arise within online research are data security, getting consent online and online identity because it can differ from the corporeal identity (Deakin & Wakefield, 2014). Data security is a crucial part of any research. Even if the research is not online, at least some of the data will likely be stored online. Therefore, creating a good data management plan beforehand is essential. I strongly recommend using DMPOnline (n.d.) to create a plan that meets the standard required.

Getting informed consent from participants also poses some specific challenges. Without their physical presence, the process may not be straightforward because, for instance, it is harder to get a signature. Unless the participant is willing to (and knows how to) print and scan the document, the researcher must look into other

ways to get the consent. A common approach is to include consent through an online survey. Another way is to get the verbal consent recorded if the method includes a conversation with the participants. In addition, as we mentioned before, a large quantity of data is public, and the researcher does not need consent to use it. However, the person posting the information may be expecting some privacy or anonymity in specific settings like private forums or personal social media profiles.

Another problem arising is that it is harder for participants to withdraw from the data collection, especially if the method used has no direct contact with the researcher (e.g. surveys, questionnaires). So the researcher must include a visible withdraw option at different stages (Snee et al., 2016, p. 210).

In addition, there are some cases where people pose as someone else or create new personalities and roles online. Also, bots can manipulate data (like creating fake trending topics on Twitter), so the researcher must consider strategies to assure that the participant's identity is somehow reliable. One way is to increase the number of participants. Another is to use methods that include a closer interaction with at least some of the participants. Still, this is a challenge for online research, and the researcher should consider that some of the participants might not be who they say they are.

For best ethical practices, I encourage researchers to check the General Data Protection Regulation GDPR (General Data Protection Regulation (GDPR) – Official Legal Text, n.d.) and the ethical guidelines created by the Association of Internet Researcher AoIR (Franzke et al., 2020).

Transferability

Data and research validity represent one of the main concerns since the introduction of online methods, and it has been hard to remove the idea that face-to-face methods are "the gold standard" in qualitative research (Deakin & Wakefield, 2014, p. 604). Several issues arise in establishing contextualisation.

Transferability is the degree to which qualitative research can be shifted to another setting, and it is one of the criteria to assess the validity of qualitative research. So the problem of transferability in qualitative research is a crucial issue to consider in every study. However, when doing online research, this aspect is even more relevant. Researchers must not only ask themselves if it is possible to transfer the results to other contexts but must also clarify whether or not these results can be transferred to the non-digital sphere. Although the study is being carried out on elements that do not belong to the digital world, we cannot lose sight that we will only have participants who have access to and can use digital tools. This situation can produce a bias excluding participants who cannot or do not want to participate in online activities for reasons such as Internet access, education, culture or age.

Meanwhile, we find the opposite phenomenon: those who participate in the Internet research may fail to divide their lives between real and virtual. So "the issue no longer is how much of society and culture is online, but rather how to diagnose

cultural change and societal conditions by means of the internet. The conceptual point of departure is the recognition that the internet is not only an object of study but also a source" (Rogers, 2013, p. 21). Therefore, the researcher must identify the differences between both identities (corporeal and virtual) while identifying the harm that can be caused by confusing them (Deakin & Wakefield, 2014) and simultaneously acknowledging that participants do not separate their on- and offline lives.

Methodological and Technical Challenges

In general, the researcher must have some technical knowledge to use any method, but in the case of online methods, a certain level is also required of the participants since they must be able to use technology and avail themselves to adequate equipment and Internet access (Sullivan, 2012). Even if the participants have the necessary skills and access, there is the possibility of various technical failures. Archibald et al. (2019) describe the challenges involved in working with a videoconferencing platform (e.g. Zoom). Among them, 25% of the participants reported problems with the audio or video quality during the call. They also had set-up problems caused by unreliable Internet connections, software incompatibilities, low battery or trouble listening without headphones. However, most participants blamed these problems on their lack of skill in using technology rather than the technology itself. These issues could delay or postpone the investigation. For example, Hanna (2012) had to suspend and reschedule an interview due to a faulty webcam.

Another problematic aspect is that there were some interruptions caused by the setting of the participants (Archibald et al., 2019). It is essential to consider that the researcher has no control over the participants' environment and location. Criminologists must address this, especially when dealing with a vulnerable population. A situation could arise in which the person does not have the privacy necessary to give their answers honestly, as it would be in the case of a victim of domestic violence responding to an interview from home or a prisoner who is being monitored by the prison service.

Finally, another recurring problem is that there is a larger number of absentees than in face-to-face methods. Tuttas (2015) believes that the cause is that they have distanced themselves from "a compelling sense of commitment to attend" (Tuttas, 2015, p. 129). This lack of sense of commitment may be because participants know it is easier to reschedule an online meeting and because there is a lack of familiarity with the researcher. There are two ways of overcoming this problem: first, to increase previous communication (Deakin & Wakefield, 2014) to create a closer rapport with the participants and, second, to anticipate an attrition rate up to 50% (Tuttas, 2015). Despite these difficulties, we must not forget that conducting online research allows recruiting a more significant number of people at a low cost, making it easier to overcome this situation by inviting more people than necessary.

Concluding Comments

The increased use of online methods is inevitable, bringing with them endless possibilities for criminological research. Such possibilities include not only the development of cybercriminology but also of all areas of research in which traditional methods can be adapted or emerging digital techniques can be used. Of course, like any method, limitations and ethical questions exist and the researcher must solve them or, at least, acknowledge them before embarking on a study. However, in many cases, advantages of online methods make them an ideal option due to lower costs, easier logistics and data analysis and increased possibility of recruiting a greater number of participants or geographic areas, among other benefits. Researchers need to familiarise themselves with these methods before starting a project since it is a common mistake to think that the classic methods are directly transferable to the digital medium. For example, if the researchers are adept at conducting in-person interviews, that does not mean they can immediately conduct online interviews. In addition, technology is constantly evolving and improving, so researchers should include new methods created especially in the online environment.

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