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Digital Vulnerability in Criminal Justice

Vulnerable People and Communication Technologies

Carolyn McKay

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ISBN 978-3-032-10027-6 ISBN 978-3-032-10028-3 (eBook)
https://doi.org/10.1007/978-3-032-10028-3

This work was supported by the University of Sydney. and funded by an Australian Research Council (ARC) Discovery Early Career Researcher Award (DECRA) (DE210100586).

Cover illustration: Pattern © Melisa Hasan

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG.
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Acknowledgements

Digital Vulnerability in Criminal Justice is the culmination of over four years of work across Australia and has involved many individuals and institutions whom I wish to thank. The book documents *The Digital Criminal Justice Project: Vulnerability and the Digital Subject*, a national study funded by an Australian Research Council (ARC) Discovery Early Career Researcher Award (DECRA) (DE210100586). It was ethics approved by the University of Sydney Human Research Ethics Committee Protocol 2022/142, and informed consent was obtained from all participants. Even prior to finalising my DECRA proposal, I was incredibly supported by the University of Sydney Law School's research office, colleagues, and the broader University of Sydney's research office.

I'm sincerely grateful for the recruitment assistance from various state and territory offices of legal aid, public prosecutions, Aboriginal and Torres Strait Islander legal services, law societies, and bar associations. The project would not exist without the generous cooperation of 175 Australian judges, magistrates, prosecutors, defence lawyers, witness assistance service professionals, witness intermediaries, and advocates for youth justice and victim/survivors. My findings are founded on their rich contributions and insights, and I thank them for giving me their valuable time.

Several University of Sydney Law School colleagues kindly volunteered to review specific chapters of this book. Thank you to Professors Saskia Hufnagel, Colin King, and Murray Lee, and Dr. Louise Boon-Kuo. Thank you, also, to Associate Professor Lisa Flower (Lund University) and Dr. Justin Ellis (University of Newcastle). Throughout the project, I have benefited from the feedback from numerous anonymous peer reviewers of

my DECRA proposal and later publications: thank you. It was a pleasure to finalise this manuscript while a visiting scholar at the Oñati International Institute for the Sociology of Law, following a 2025 workshop organised with my Virtual Criminal Justice Network colleagues. Regarding data analysis, I acknowledge the technical assistance provided by the Sydney Informatics Hub, a Core Research Facility of the University of Sydney.

Many thanks to research assistants, particularly Cloé Dubuc, as well as Dr. Kristin Macintosh, and Sydney Institute of Criminology intern, Jo-Ann Wang. In 2024, it was great to supervise Sydney Law School Honours student, Jack Breden, who wrote a related thesis entitled *On Line* versus *On Country: The Spatial Impacts of Audio-visual Links.*

The final period of this project presented considerable personal hurdles. Heartfelt thanks to my family, especially Alexi, Nick, Diana, and Brian, for being there for me.

Competing Interests The author has no competing interests to declare that are relevant to the content of this manuscript.

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CHAPTER 1

Introducing Digital Criminal Justice

Abstract This chapter provides an overview of the Australian Government-funded study, *The Digital Criminal Justice Project: Vulnerability and the Digital Subject*. It situates the study in the context of the increasing use of remote communication technologies by vulnerable witnesses and defendants in criminal justice. The chapter surveys extant literature and argues for the global need to take stock of how these technologies impact legal practice, court procedure and vulnerable individuals.

Keywords Digitalisation • Audiovisual links • Videolinks • Criminal justice • COVID-19 • Digital divide • Remote communication technologies

Introduction

Possibly my most prophetic academic act ever was drafting a research proposal in late 2019 regarding the increasing use of videoconferencing or videolink technologies in criminal justice. The proposal sought to expand on my earlier doctoral research into videolinks from prison, published in *The Pixelated Prisoner* (McKay, 2018a), by examining a broader range of people who use these types of remote communication technologies to connect with courts. With impeccable timing, I lodged the proposal in March 2020, just as I started hearing about 'novel coronavirus', 'social distancing' and court closures. By the end of 2020, I had been awarded a

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_1

prestigious Australian Government-funded Discovery Early Career Researcher Award (DECRA) by the Australian Research Council (ARC) for *The Digital Criminal Justice Project: Vulnerability and the Digital Subject* (DE210100586), commencing 2021.

This book, *Digital Vulnerability in Criminal Justice*: *Vulnerable People and Communication Technologies*, is a companion piece to *The Pixelated Prisoner*. It documents my national ARC DECRA project: its methods, theoretical engagement, empirical data, analysis, findings and practical recommendations for the future. The book focuses on the use of remote communication technologies in criminal courts and practice. For vulnerable witnesses, including complainants or victims, these technologies include special measures for audiovisual links (AVL) and Closed-Circuit Television (CCTV), remote witness suites and pre-recorded testimony. For vulnerable defendants and offenders, remote communication technologies include audio links and AVL when they need to participate in criminal court proceedings or engage in conferencing with lawyers. The book seeks to evaluate the interrelationship between digitalised criminal justice and vulnerability to ask: in what ways do these remote communication technologies assist or disadvantage vulnerable individuals in the criminal justice system? In examining the impacts of digitalisation processes on fair, accessible and inclusive criminal justice for all vulnerable individuals, we will see clear tensions between competing concerns.

The book's evaluation is based on original empirical research data from 175 fieldwork interviews and surveys with Australian judges, magistrates, defence lawyers, prosecutors and affiliated criminal justice professionals, such as witness intermediaries and witness assistance service professionals, as well as caselaw and legislative analysis. This comprehensive dataset is analysed through a theoretical framework of digital criminology that explores the techno-social context of digitalisation processes in criminal justice and provides a means to critically reflect on equality/inequality, marginalisation, access to justice and implicit power and social structures (Lupton, 2015; Powell et al., 2018; Smith et al., 2017). Digital criminology enables an examination of how these core criminological concerns are transformed, exacerbated or ameliorated by new digital technologies (McKay, 2022a). With this digital criminological framework, and drawing on theories of vulnerability (Dehaghani, 2020; Fineman, 2010), this book seeks to further develop the concept of 'digital vulnerability', an emergent concept that is gaining international focus in both civil and criminal justice. Digital vulnerability is used here in a techno-social context to

understand the interplay between remote communication technologies and vulnerable individuals in criminal justice: the new positive experiences as well as new potential harms and unintended consequences (McKay & Macintosh, 2024).

The book's focus on vulnerability is significant as the legal profession and judiciary recognise that the criminal justice system disproportionately impacts vulnerable individuals, their legal needs and rights (Wright, 2020). The book is situated within the context of greater engagement with vulnerability brought about by major Australian inquiries including the *Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability* 2023 and *Royal Commission into Institutional Responses to Child Sexual Abuse* 2017, as well as greater attention to legal safeguards for vulnerable persons and trauma-informed practices (Judicial Commission, 2023; KBHAC, 2021; Kendall, 2024). Despite the growing scholarship on remote criminal procedures, especially since the 2020 COVID-19 pandemic, there remain unanswered questions that make this research important. Specifically, the intersection of vulnerability with both digital technologies and criminal justice is of international interest, given the ongoing uptake of remote procedures and new untested imaginings of digitalised justice. In this way, *Digital Vulnerability in Criminal Justice* aims to generate a critical understanding of, and deep engagement with, vulnerability, as well as recommendations for ensuring fairness and the accessibility of justice in the increasingly digitalised legal environment.

Significance and Limitations

While the book focuses on criminal justice in a common law jurisdiction, it remains relevant to civil law jurisdictions that use remote communication technologies. Additionally, it is applicable to remote vulnerable people in civil proceedings, such as guardianship, child protection, immigration detention, mental health tribunals and family law matters. As such, the book is relevant to members of the judiciary and legal profession, allied justice professionals and institutions including corrections, police and court administration. It may beneficially inform governmental priorities in digital innovation.

With a sharp focus on court proceedings, the book does not specifically address the experiences of suspects in police custody. However, some interview and survey responses raise issues concerning communications with vulnerable clients in police custody.

Key Terms

An explanation of the conceptual vocabulary is useful at this point. The conceptual terms digital, digitisation, digitalisation and digital transformation are often used interchangeably. However, there are subtle differences in definitions, depending on the specific discipline and context. While *digital* refers to the expression of information as a numeric binary code of 0 s and 1 s used by computing and information technologies, in an academic context, *digital* is often used broadly to refer to digital media, formats, technologies and devices and has largely superseded the word *cyber* (Lupton, 2015).

Digitisation refers to converting physical, analogue or paper-based information into a digital format (Brennen & Kreiss, 2014). For example, in law, there has been the digitisation of vast volumes of primary legal sources (Huggins et al., 2022). The promise of digitised justice is to achieve real-time collaboration, electronic scheduling, greater use of online platforms, consistency in judicial decisions and the democratisation of access to justice (Fraley, 2020). In essence, digitised justice offers convenience, cost, efficiency and judicial productivity benefits, that is, it embraces neo-liberal discourse (Mulcahy & Tsalapatanis, 2024).

By contrast, *digitalisation* often refers to the processes of embedding digital technologies into the structures of organisations, institutions and operations within a social context of digital communications and media interactions. That is, digitalisation is less concerned with the process of converting analogue or paper-based information into digital form and more concerned with how the resulting digital media shapes the social world, recognising the circular relationship between technologies and society, with each influencing and defining the other (Brennen & Kreiss, 2014; Powell et al., 2018). Digitalisation has been described as the defining characteristic of twenty-first century 'network' society (Castells, 2010), although the rapid uptake in automation and Artificial Intelligence (AI) is simultaneously emerging as an issue of major social significance (Eubanks, 2018). Egard and Hansson (2023) utilise *digital age* as recognising the diffusion of digital technologies, while *digitalisation* embraces multidimensional, techno-social changes. Processes of digitalisation fundamentally mediate and disrupt existing paradigms, everyday practices and the physical estate, necessitating a rethinking, retooling, digital transformation or revolution (Balbi, 2023).

Digitalising Criminal Courts and Practice

Background

Digitalised justice is a natural offshoot of the broader digital revolution in society and has led to changed modes of legal adjudication and practice. General advantages include expediting justice administration, transnational benefits, enhanced security, convenience, efficient allocation of finite resources and transport cost-savings (Birkett, 2023; Rossner & Tait, 2024). With an understanding of the influences of globalisation, diminishing economic resources in justice and increasing efficiency concerns, digitalisation can be seen as relating to the criminal justice system in myriad ways. The rise of digitalised justice commenced in the 1980s with Information and Communications Technology (ICT) gradually introduced into criminal courtrooms, legal practice and justice agencies (Katsh & Rabinovich-Einy, 2017; Kramer et al., 2018); an 'entanglement of justice and internet' (Flower, 2025, p. 14). Of course, processes of digitalisation have also extended to criminal offending with new forms of perpetration and victimisation. Some scholars refer to the 'technification' of diverse offending or harmful behaviours, such as domestic abuse, and how technologies can perpetuate, intensify and broaden transgression (Sugiura et al., 2024). In turn, the employment of technologies in offending has led to transformed law enforcement, regulation and cyber-security (Powell et al., 2018). Policing has seen the greater use of surveillance technologies including facial recognition, body-worn video, AI and predictive tools. Then there are the more carceral applications: new 'smart', automated prisons, as well as digital devices for people-in-prison, and electronic monitoring in the community as an alternative to prison (McKay, 2022c). Incrementally, digital innovations are redefining crime, policing, the administration of criminal justice, legal practice and punishment regimes.

Asli (2023) argues that the digitalisation of criminal justice demonstrates, firstly, the increasing significance of risk management including modes of crime prediction and prevention, secondly, the recognition of cyberspace, and thirdly, the impacts of algorithms, machine learning and computer science. Collectively, these orientations show the connection of digitalisation with the scientisation or technologisation of criminal justice. For instance, the technologisation of criminal courts is manifested by focusing on neutralising security risks, the drive for improved productivity

and the search for consistency and objectivity in decision-making processes (Ericson & Haggerty, 1997; McKay, 2020; O'Malley, 2013).

But we can go deeper still. Conceptually, digitalisation has implications for embodiment/disembodiment, physicality/virtuality and materiality/immateriality, and the tacit 'chemistry' of 'traditional' synchronous criminal procedure that is tested by the shift to remote process. In-person and co-present interactions have traditionally been valourised as affording 'thicker information, body talk, and communication efficiency' (Rettie, 2009, p. 422). The concept of spatiality is also brought into sharp relief by processes of digitalisation that enable the distribution of court participants across remote locations. As I have queried elsewhere: 'How–and where–does the law operate when it becomes so intangible and untethered from a physical base?' (McKay & Macintosh, 2023, p. 194). That is, what is the locus of the administration of justice as court space seemingly shifts from 'bricks and mortar', to metaphysical 'digital architecture' (Donoghue, 2017, p. 1020)? This is not to idealise or romanticise the traditional courthouse as 'a pseudo-sacred' space (Mulcahy & Tsalapatanis, 2024, p. 38). Rather, it prompts scrutiny of the symbolic functions of digitalised criminal procedure: its authority, legitimacy and implications for fundamental legal principles such as open justice and fairness (Bandes & Feigenson, 2020). This form of conceptual and critical engagement might not point to specific procedural or legal reforms, but such 'conceptual legwork … is necessary to precede and underpin any substantive changes to the law itself' (Fairclough, 2023, p. 4). Conceptual engagement alerts us as to how digitalisation processes enhance or diminish different aspects of the criminal justice system. In the next chapter, we will see that the theory of digital criminology assists in unpacking the transformative impacts of digitalisation.

What becomes clear is that digitalisation is not a neutral process: it fundamentally transforms criminal justice principles and paradigms in positive, negative, contradictory and unintended ways. When we include the role of multinational technology vendors selling to state institutions, this necessitates an in-depth criminological analysis of new technological solutions or harms.

Audiovisual Links

Central to the digital courtroom (Flower, 2025) has been the gradual embedding of audio links, AVL or videolinks, and CCTV technologies.

These communication technologies enable multiple distinct geospatial endpoints, including courts, chambers, police stations and prisons, to connect simultaneously in real time. Terminology regarding such technologies varies and includes teleconferencing, virtual, remote, online, telematic, distributed and e-courts. Even before the COVID-19 pandemic, a considerable body of relevant scholarship was developing (e.g. Donoghue, 2017; Mulcahy, 2008; Rowden, 2018; Rowden et al., 2013; Skinner et al., 2018; Ward, 2015).

While the technologies enable fully remote procedures, it is the hybrid mode that is most often used (Benninger et al., 2021), combining humans with analogue and digital technologies. AVL was originally introduced in my jurisdiction (New South Wales, Australia) in 1998 to facilitate the taking of evidence and making of submissions across state borders. Successive legislative amendments have effected major conceptual shifts as the long-standing presumption of a witness' or accused's physical presence in the courtroom has, for many criminal procedures, been displaced by remote AVL appearance (McKay, 2018a) or virtual courts (Birkett, 2023; Rossner & Tait, 2023). Legislative changes seemingly manifest an assumption that AVL is the equivalence of in-person presence. Meanwhile, 'function creep', that is, the widening of the use of the technology beyond its original purpose (Madianou, 2019), has occurred in the increasing use of AVL for victim/legal conferencing, and remote psychological assessments, applications that have been non-legislated by-products (McKay, 2018a, 2022a).

Victims' Rights

Overlapping digitalisation processes, there has been a growing recognition of victims' rights, complex trauma and the experiences of complainants and vulnerable witnesses within the criminal trial (Fairclough, 2023; Fairclough et al., 2023), leading to the uptake of trauma-informed practices and charters of victims' rights (Judicial Commission, 2023). As we will see in Chapters 'What Is Vulnerability in Criminal Justice?' and 'Remote Vulnerable Witnesses, Complainants and Victims', trauma-informed courtrooms now routinely provide vulnerable witnesses with alternative means for testimony and cross-examination remotely. For instance, AVL or CCTV from remote witness facilities and pre-recorded out-of-court representations are increasingly common. In this way, individuals can be shielded from being re-traumatised by the very criminal

processes they have accessed for justice, as well as from the intimidation of the adversarial trial and physically confronting the accused (Cashmore & Shackel, 2018; Hoyano, 2015; Judicial Commission, 2023). Remote communication technologies can therefore be seen to serve two purposes: improving participatory access to justice for remote witnesses (Jacobson & Cooper, 2020), while also providing physical separation (Rowden, 2018). This latter rationale fulfils the perceived need of 'keeping humans deemed risky and dangerous … at arm's length' (Milivojevic, 2021, p. 124) through technological means.

Impact of the COVID-19 Pandemic

It took a global pandemic to massively accelerate digitalisation when, from March 2020, the COVID-19 public health emergency sent populations into enforced social distancing and cities into lockdowns (Bandes & Feigenson, 2020; Legg & Song, 2020; Sourdin et al., 2020; Townend & Magrath, 2021; Wallace & Laster, 2021). The essential services of courts around the world were immediately disrupted to such an extent that comparisons were drawn with the impacts of the fourteenth-century Black Death on English law courts (Green, 2020, citing Bennett, 1995). However, twenty-first-century civil courts readily seized ICT innovations to pragmatically transition to remote, hybrid or virtual modes of legal procedure (Law Council, 2020). While the sudden pivot to virtual justice was not without technological challenges, such as substandard connectivity, delays and poor audio/video that impacted the participation of key parties, the uptake by courts was swift, resulting in 90% of all judicial hearings in England and Wales being conducted by video link in 2020 (Fair Trials, 2020; McCann, 2020). In Australia, AVL was 'a dramatic response to an unprecedented situation'.[1]

The criminal jurisdiction faced numerous tangible and intangible hurdles and was, initially, more reticent than the civil jurisdiction to embrace remote justice, given the complexities of defended hearings, dealing with juries, people in custody, unrepresented defendants, witnesses and complainants. There were significant resourcing issues as well as a lack of unified systems across multiple justice agencies and scheduling difficulties. Issues were identified for remote witnesses without appropriate devices or internet. Then there were conceptual concerns regarding the high stakes of criminal justice that has traditionally been administered within a physically shared human space. While remote technologies were readily accepted

as useful for minor administrative matters, notions of prosecuting and defending people who were not in-person within a courtroom, taking remote evidence-in-chief and conducting remote cross-examination were seemingly antithetical, at least initially, to assumed practices of good advocacy and good lawyering (Law Society NSW, 2022; Law Society E&W, 2022). Certainly, the suspension of jury trials during the pandemic exacerbated existing court backlogs in many jurisdictions (Law Council, 2020). Nevertheless, technologically facilitated criminal procedures did eventually resume, where feasible, to avoid the administration of justice being unnecessarily delayed, people being held on remand for extended periods, and complainants, victims and witnesses being left waiting in limbo for their cases to proceed (Smith et al., 2021; Baird, 2021).

The range of criminal procedures that now make use of videolinks depends on specific jurisdictions and may include first appearances, arraignments, bail hearings, pleas, sentencing and probation or parole hearings (Benninger et al., 2021). Remote procedures are almost universally accepted as appropriate in purely procedural or administrative matters that do not involve 'unrepresented parties, defended hearings, cross-examinations, witnesses, complex evidence, and juries' (Law Society NSW, 2022, p. 15).

Critiques of Digitalisation and AVL in Criminal Justice

Despite the many benefits of digitalisation, and going beyond pragmatic, managerialist concerns, extant literature demonstrates that technological progress can disadvantage or harm some individuals. 'Digital inclusion' relates to the effective and affordable access to, and use of, digital technologies within a suitable environment (ADII, 2023), yet the 'digital divide' continues to exist throughout many nations, aggravating ingrained social inequalities (Tsatsou, 2022). 'Digital divide' relates to the uneven distribution of technologies to marginalised or socially disadvantaged individuals who lack physical and/or affordable access to suitable devices or the internet and/or competent digital skills or literacies. They, therefore, experience digital exclusion from everyday life and digital society, leading to digital inequalities (Birkett, 2023; McKeever, 2020; Nir & Musial, 2022), digital disadvantage (Mulcahy & Tsalapatanis, 2024) and disabling barriers (Egard & Hansson, 2023). Populations who may not be able to fully participate in digital society might include some remote Indigenous communities, older people and those on low incomes (ADII, 2023) as

well as those who are incarcerated (McKay, 2018b; McKay & Macintosh, 2024). Post-COVID-19 scholarship and reports reveal the implications of digital exclusion including impeding effective participation and defence, compromising the right to a fair trial, and diminishing the quality of lawyer-client confidential communications (de Vocht, 2022; Fair Trials, 2020; Kamber, 2022; Law Society NSW, 2022; Law Society E&W, 2022: Muir et al., 2024; Peplow & Phillips, 2023; Peristeridou & de Vocht, 2023; Turner, 2021; Webster et al., 2023).

Other critiques centre on a perceived inequity of support (Jacobson & Cooper, 2020) for vulnerable persons delineated between prosecution witnesses versus defendants. As discussed in Chapter 'What Is Vulnerability in Criminal Justice?', protective or supportive measures afforded to vulnerable witnesses are rarely afforded to vulnerable defendants, even though their vulnerabilities might be the same (Fairclough, 2017). Moreover, prisons are filled with people with complex human, legal and communication needs (Giuffrida & Mackay, 2021; Hughes et al., 2022). This book seeks to contribute further insights into the supports needed for all vulnerable individuals to ensure fairness and equality before the law.[2]

Structure of the Book

In Part I, I provide conceptual and methodological foundations for exploring videolinks and digital vulnerability in criminal justice. I seek to advance theoretical knowledge in Chapter 'Digital Criminology, Vulnerability Theories and Digital Vulnerability' through synthesising theories of digital criminology and vulnerability. My synthesis, specifically underpinned by a techno-social approach, contributes to emerging conceptualisations of digital vulnerability. This is beneficial in understanding vulnerability in the context of twenty-first-century digitalised criminal procedure. In Chapter 'Researching Digitalised Criminal Justice with Empirical Methods', I introduce the study's mixed-methods approach involving interview and survey responses, as well as courtroom observations, legislative and case-law content analysis. The nucleus of the qualitative national study involved 175 interviews and surveys throughout 2022–2023 with Australian judicial officers, defence lawyers, prosecutors and affiliated criminal justice professionals. Participants were from all capital cities as well as regional and remote centres. These collective methods generated an original and comprehensive dataset that I then thematically coded. Many themes, connections and paradoxes arose from the data including professional or

experiential understandings of vulnerability in practice and in court, the interplay between technologies and vulnerabilities, access to justice and forward-thinking visions. My qualitative approach has been beneficial in developing fresh insights into the complex intersection of humans, vulnerabilities, technologies and criminal justice.

Part II presents the empirical data. Chapter 'What Is Vulnerability in Criminal Justice?' provides my overview of legally derived understandings of vulnerability through the content analysis of select statutes and criminal cases. While legislative definitions of vulnerability are narrow, the caselaw demonstrates a broader understanding that aligns with the empirical evidence presented in Chapters 'Remote Vulnerable Witnesses, Complainants and Victims' and 'Remote Vulnerable Defendants'. I draw on the interview and survey data in Chapter 'Remote Vulnerable Witnesses, Complainants and Victims' to highlight the advantages and challenges of using pre-recorded evidence, as well as videolinks from remote witness suites for vulnerable prosecution witnesses and complainants. In general, there appear to be real benefits for this group of vulnerable individuals to appear remotely from the physical court, suggesting that videolinks address and ameliorate the digital vulnerabilities of this specific population. The benefit of my analysis is in understanding the circumstances where videolinks can be seen as *techniques of mitigation*. However, participants' responses simultaneously temper enthusiasm for the technologies and raise questions regarding forensic disadvantage to the prosecution case. I draw further on the empirical data in Chapter 'Remote Vulnerable Defendants' to highlight the advantages and challenges of vulnerable defendants using videolinks for remote legal consultations and court appearances. As mentioned earlier, while some data mention the experiences of working with vulnerable suspects in police custody, the main focus of the chapter is on individuals who are in the custody of corrections. By thematically analysing the data, I identify certain benefits, but also explain how videolinks impact the digital vulnerabilities of remote defendants, often leading to the compounding of inequalities. Here, I find that videolinks can be *techniques of intensification*. In Chapter 'Future Visions of Digitalised Criminal Justice', I provide participants' visions for the future of digitalised criminal justice that traverse topics including courtroom obsolescence, dehumanising dystopias and recommendations for regional justice hubs. My study indicates broad support for expanding the use of, and facilities for, videolinks throughout criminal courts and justice agencies. Such communication technologies are generally seen as

supporting equitable access to courts for many participants, with an overarching caveat that they should not replace the human element, particularly for vulnerable people or substantive criminal procedures.

Chapter 'Conclusion' synthesises the key themes raised by the data, thematic coding and theoretical analysis to provide findings relevant to the courts, legal profession and criminal justice agencies. My findings indicate that the benefits of videolinks fall generally in favour of vulnerable witnesses for whom the technologies can alleviate their vulnerabilities. The benefits for vulnerable defendants are less clearcut, with the disadvantages often outweighing any advantages, leading to the compounding of vulnerabilities.

Concluding Remarks

Digital Vulnerability in Criminal Justice brings together legislation, case-law and new empirical data to engage with conceptualisations of digital vulnerability. In grounding my findings on the evidence generated by multiple qualitative methods, I provide fresh insights into the complexities of communication technologies when working with vulnerable individuals. I demonstrate how technologies may paradoxically connect and disconnect, humanise and dehumanise, mitigate and intensify vulnerabilities. This new knowledge can be used to inform policies and protocols regarding remote victim/legal conferencing, court procedures and justice innovation. It has practical benefits for people working with vulnerable individuals in the increasingly digitalised criminal justice system in understanding, firstly, how digitalised justice impacts equitable access to justice, and secondly, how to deliver digitalised justice while minimising negative impacts. As technologies will undoubtedly be further embedded throughout justice, there is good reason to identify alleviating measures for certain individuals or contexts, such as universal screening, opt-in/out systems, extended assistance services and further guidelines and training. In these ways, my research seeks to make an important difference to the justice system—its fairness, accessibility, inclusivity and humanity—especially for vulnerable people who find themselves implicated in criminal procedure.

Technologies always import their own inherent negativity, for example, 'when you invent electricity, you invent electrocution' (Virilio, 1999, p. 89). Yet, communication technologies are rapidly being normalised in courts and made invisible: 'the most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they

are indistinguishable from it' (Weiser, 1991, p. 94, cited in Milivojevic, 2021, p. 120). As videolinks become an assumed legal experience, the time is ripe to engage critically with any undesirable consequences, and imagine an optimal way forward.

Notes

1. *R v Early (No 4)* [2023] NSWSC 505, Yehia J, [34].
2. *Waters v Public Transport Corporation* (1991) 173 CLR 349, McHugh J at 402.

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PART I

Understanding Digital Vulnerability (Conceptually and Methodologically)

CHAPTER 2

Digital Criminology, Vulnerability Theories and Digital Vulnerability

Abstract This chapter merges theories of digital criminology and vulnerability to contribute to conceptualisations of digital vulnerability. It explains digital criminology as a critical criminological theory that builds on sociological literature to examine the reciprocal relationships between law, justice, society and technology. The chapter then surveys vulnerability theories to show how understandings of vulnerability are varied and contested. A merger of digital criminology with vulnerability theories gives rise to *digital vulnerability* as a framework for asking: what new social solutions or harms arise when vulnerable people, who seek access to justice, are remote from court?

Keywords Digital criminology • Cybercriminology • Zemiology • Vulnerability theories • Resilience • Digital vulnerability • Criminal justice

Introduction

This chapter centres on the theoretical underpinnings and conceptual vocabulary of the project. Here, I synthesise digital criminology and vulnerability theories to contribute to understandings of *digital vulnerability* as a framework for interrogating the new social solutions—or harms—that may arise when vulnerable people use remote communication technologies to access to criminal justice.

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_2

The chapter begins with an explanation of digital criminology as a critical criminological theory that builds on extant sociological literature to examine the relationships between criminal justice and technologies. Digital criminology provides a structure for critiquing criminal justice technologies and a way to resist dominant techno-solutionist approaches that assume that technologies necessarily solve social problems. In relation to this specific project, digital criminology provides a framework for evaluating remote communication technologies and how they impact, both positively and negatively, the administration of criminal justice and legal experiences of vulnerable individuals. The chapter then surveys vulnerability theory scholarship to show how understandings of vulnerability are contested. Connecting both digital criminology and vulnerability theories gives rise to *digital vulnerability* as a framework for asking: what new social solutions or harms arise when vulnerable people use remote communication technologies to access justice? Digital vulnerability is a conceptual framework for capturing the convergence of digital communication technologies and vulnerability with criminal procedure. What we will see is how technologies provide *techniques of mitigation* in supporting some vulnerable individuals' resilience and access to justice. Conversely, in other cases, remote communication technologies can exacerbate inequalities and diminish vulnerable individuals' effective participation: *techniques of intensification*.

Significance of Theory

Theories and concepts might seem abstract and nebulous. However, they enable the researcher to go beyond the descriptive process of merely recounting the facts or object of research, whether that be observed behaviour, events or other phenomena: through theoretical engagement, the research can be critically analysed rather than just described. Concepts are 'claims about the nature of the world and the various associations that comprise it' bundled into a representative term, and they assist in critiquing, interrogating and understanding reality and common properties of behaviour, events or phenomena (Mitchell et al., 2022, p. 653). Such conceptual engagement aids in the next steps of systematic research: articulating and problematising the object of research, identifying patterns and providing explanations, nuanced understandings, meanings, relationships, interpretations, critique and alternative perspectives (Krohn, 2018). For current purposes, criminology has a 'robust canon of theories' at hand

(Steinmetz & Nobles, 2018, p. 2) that could, potentially, be applied to the digitalisation of criminal justice in the twenty-first century, for instance: strain theory, feminist criminology, actor-network theory, surveillance theory, cultural criminology, amongst others. Can such extant theories be retooled for the contemporary techno-social, cyber or digital contexts? While there is potential for recalibrating such mainstream criminological theories (Marganski, 2018; Yar, 2018), they are perhaps deficient in contextualising lived human experience, social, cultural, gendered and political aspects, structural biases or the 'multi-dimensional qualities of the phenomena under investigation' as they interact with emergent technologies (Steinmetz & Nobles, 2018, p. 5). With these potential shortcomings in mind, I adopt an approach that draws on, and merges, the theory of digital criminology with vulnerability theories to arrive at *digital vulnerability*.

Digital Criminology as Theoretical Framework

Digital Criminology Versus Cybercriminology

Digital criminology helps to understand the techno-social realm of digitalised criminal justice and the potential for digital good or harm. Powell et al. (2018) explain that digital criminology builds on extant sociological literature to examine the relationships between law, justice, society and technologies. However, it is important to first distinguish cybercriminology. Cybercriminology focuses on computer-focused, computer-assisted and technology-enabled crimes, the targets of such crimes and crime control measures (Holt & Bossler, 2016; Jaishankar, 2011). On that basis alone, cybercriminology is not a productive framework for my study. Firstly, with its focus on crimes and control, it does not attend to the broader criminal justice issues such as the implications of digitalisation for courts or prisons. Second, cybercriminology has largely lacked an engagement with power relationships, social structures, intersectionality and inequalities including vulnerable populations. Thirdly, using the cyber- prefix, for example, cyber-fraud, cyber-porn, cyber-trespass, cybercriminology reinforces the offline/online dichotomy, that is, the perceived difference between offline, In Real Life (IRL) or terrestrial worlds, versus online, virtual realms or cyberspace. For example, Holt and Bossler (2016, p. 7) provide that online crimes have analogies 'to, but distinctions from, traditional crime in physical spaces'. However, the reality is that so-called

cyber-crimes are not detached from the material world and rely on human action for offending and victimisation (Bakken & Harder, 2024; Kaufmann & Mork Lomell, 2025). In distinguishing between virtual and physical spaces, cybercriminology ignores the uninterrupted continuum and intimate entwining of offline and online experiences in everyday life.

Contrary to cybercriminology, Brown (2006, p. 236) proposes a techno-social approach, arguing that the distinctions between real and virtual are illusory: 'there is quite simply no such thing as a "technological" crime (such as a "cyber crime") as distinct from an "embodied" crime'. A techno-social approach recognises that crimes and criminal justice issues are constructed by surrounding societal, cultural and political pressures to the same extent that they are constructed by technologies (Leman-Langlois, 2008). Digital criminology has evolved from techno-social contexts and interdisciplinary theories including Castells's (2010) conceptualisations of the network society and information age, with his assertion that society cannot be understood without reference to its technological toolkit. According to sociologist Lupton (2015, p. 2), 'we now live in a digital society', requiring a reflective and critical interrogation of technologies in digitalised society in the context of power structures and barriers to equality. In this digital society, technologies are so enmeshed in our everyday existence that they are barely visible or noticeable (Lash, 2002), yet 'actively constitute selfhood, embodiment, social life, social relations and social institutions' (Lupton, 2015, p. 2). This raises the concept of citizens as digital subjects (Krasmann, 2017), recognising the integration of our online and offline realities. Criminology as a discipline and body of knowledge has developed a digital focus to investigate 'the multifaceted role performed by digital technologies as intersectional and transformative mediums in the crime and justice field' (Smith et al., 2017, p. 259). That is, there is an imperative to understand the affordances (Wood et al., 2022), limitations and interactions of technologies in the specific context of criminal justice.

Digital technologies are ubiquitous across all criminal justice institutions and processes as well as in criminality and victimisation, giving rise to 'digital criminology', defined by Smith et al. (2017, p. 263) as:

> a criminology that concerns itself conceptually, methodologically and empirically with the task of understanding how digital devices/data are mediating experiences, impressions and processes.

The descriptor, digital, has been adopted as a multi-dimensional means to encompass ongoing technological innovation (Powell et al., 2018). However, this assertion has been challenged by the current rise of Artificial Intelligence (Schuilenburg & Peeters, 2020) and the forecast move from digital technologies towards quantum computing. Of course, it is not 'a technology's use of binary electronic signals to process information that matters', it is the technology's capacity to intensify or alleviate harms that is important (Mitchell et al., 2022, p. 664). Moreover, focusing solely on digitality ignores the confluence of digital, analogue and emergent technologies (Wood et al., 2022). Moreover, 'technologies' can be understood from various perspectives: as technical artefacts or objects, facilitators and mediators (Mitchell et al., 2022), as well as philosophically according to Martin Heidegger (1977), Donna Haraway (1987) and Don Ihde (1990), amongst many others.

Recognising the digital turn in criminology, Smith et al. (2017) argue that criminologists need to respond to the role of digital technologies in criminality and crime control as well as their applications in criminal justice agencies, institutions, legal practice and by publics. This digital turn can be even more finely tuned. For instance, Ellis (2023) proposes a 'digiqueer criminology' to address the intersection of technologies, the digital media ecosystem and the inequalities experienced by LGBTQ+ populations.

Technologies and Harms

Digital criminology provides a means to critique technologies and resist hegemonic techno-solutionist and managerialist agendas that optimistically assume that technologies necessarily act as a panacea to *solve* social problems without attending to potential new or extended *harms* (Berg, 2022; Morozov, 2013; Pink, 2022; Wood, 2025). Rather than assuming that new technologies democratise systems and institutions to enhance participation, Madianou (2019, p. 2) observes that technologies are intrinsic to the exercise of control by key stakeholders, and have the potential to skew asymmetrical power relations, particularly when entrepreneurial, multinational, private companies are involved. This connects with the digital divide, mentioned in Chapter 'Introducing Digital Criminal Justice', and the uneven distribution of technologies resulting in pronounced social inequities and barriers.

The theory of digital criminology offers connections with harms-based approaches or zemiology, organised around the concept of social harm

(Hillyard & Tombs, 2007), human-technological interactions and the cumulative, unintended harms. Whereas criminology focuses on the technology-crime nexus, zemiology places emphasis on social harms that are not necessarily criminalised—the 'technology-harm nexus' according to Wood (2025, p. 10; see also Van Brakel & Govaerts, 2024). Technologies are neither intrinsically good nor bad, but rather positioned as a 'neutral good' dependant on their application, social context, management and power relations (Halford & Savage, 2010, p. 940; Donoghue, 2017).

The Use of Digital Criminology

While recognising some conceptual limitations and contrasting emphases, I adopt the approach of Powell et al. (2018, p. 31) who propose a digital criminology as a form of critical criminology and as a theory that takes 'as its central focus the intersections of technologies and social harms, as well as a broader concern with justice and injustice'. Applying this to my specific project, digital criminology provides a framework for evaluating remote communication technologies, how they configure, manage and redefine digital, analogue and hybrid criminal justice environments and processes, generate human and nonhuman interactions and mediate the legal experiences of vulnerable individuals. Digital criminology acknowledges how technologies shape, reproduce and represent power relations and institutional processes in the criminal justice sector. It recognises our growing technological dependency and the embedding of technologies in critical infrastructure of criminal justice, leading to the networked connection between justice agencies to form a justice matrix (McKay, 2018) or digital ecosystem, ecology or entanglement (Turnbull et al., 2023). In this way, digital criminology can facilitate the interrogation of managerialist concerns of efficiency and rationalisation, securitisation and risk, and the role of private corporations (such as multinational videoconferencing vendors) in essential public services (Kaufmann & Mork Lomell, 2025). Through a digital criminological framework, this study examines how digitalisation transforms, ameliorates or exacerbates core criminological concerns of social justice, equality/inequality, access/barriers to justice and power/vulnerability.

Vulnerability Theory

The next conceptual point of reference is that of vulnerability, a contested concept yet one of great significance given that vulnerable individuals are disproportionately affected by criminal justice, as well as by civil proceedings such as guardianship, child protection, immigration detention and mental health tribunals. Here I focus on theoretically derived understandings that demonstrate how the concept of vulnerability is fluid and fraught. While Chapter 'What Is Vulnerability in Criminal Justice?' will explain legally derived perspectives on vulnerability, Chapters 'Remote Vulnerable Witnesses, Complainants and Victims' and 'Remote Vulnerable Defendants' show how judicial officers and legal professionals often have understandings of vulnerability that exceed strict legal definitions.

The starting point within a justice or legal needs context (Newman et al., 2021) is Martha Fineman's analysis of the vulnerable legal subject. Human vulnerability is 'universal, constant, and complex' and also unique to our own physical, economic and institutional relationships and thus experienced individually (Fineman, 2010, pp. 268–9). She differentiates between 'vulnerable population', that has a stigmatising 'air of victimhood, deprivation, dependency, or pathology attached to it', from her use of '*vulnerable* detached from any specific subgroups' (Fineman, 2010, p. 266). While the law aspires to treat individuals equally, Fineman (2010) argues that aspiration does not account for the hard fact that not all people are equal, whether that be on the basis of wealth, health, education, employment, social status, housing, race, gender and general life opportunities, amongst many other variables. In her analysis, Fineman raises the tensions between vulnerability, equality, dependency and the ascendent, yet hypothetical, concept of individual autonomy that both underscores legal responsibly and, simultaneously, resists state interference or support.

Vulnerability relates to our fragile corporeality, but it is not limited to bodily harms and Fineman observes that vulnerability can arise from, or be compounded by, institutions and webs of relationships. She posits that vulnerability is 'the characteristic that positions us in relation to each other as human beings and also suggests a relationship of responsibility between state and individual' (2010, p. 255). Vulnerability provides a compelling means to understand inequality and the state's obligation to respond and protect its citizens, and to ensure the even distribution of opportunities and services from societal institutions. That is, with the recognition of profound inequalities and systemic disadvantage in society, Fineman's

vulnerability necessitates social, institutional and state responsibilities to 'mediate, compensate, and lessen our vulnerability through programs, institutions, and structures' and 'to ensure meaningful equality of opportunity and access' (Fineman, 2010, p. 269). In the present study, this highlights state responsibilities to provide equitable and meaningful access to justice.

The counterpoint to vulnerability is not invulnerability, which would be impossible, but rather resilience (Newman et al., 2021), that is, the capacity to withstand or overcome adversity. This can be achieved by the state providing resources that build capabilities in vulnerable subjects (Creutzfeldt et al., 2024). Resilience can be addressed through legal protections including 'law and policy that position vulnerability as the organizing principle and seek to alleviate' harmful implications (Fineman, 2010, p. 268). Fineman's specific conceptualisation of vulnerability resonates with my focus on digitalised criminal justice institutions, and how related law and procedure need to ameliorate and compensate for vulnerability, support capabilities and ensure equality of access and opportunity.

There are many scholars who engage with vulnerability theory because 'vulnerability is a possible effect of any criminal justice' encounter (Bartkowiak-Théron & Asquith, 2017, p. 285; Fairclough, 2023). Gudjonsson (2010, p. 166) seeks a 'generic definition' of 'psychological vulnerabilities' applicable to vulnerable witnesses, victims and suspects in police interviews, finding it includes 'psychological characteristics or mental state which render a witness prone, in certain circumstances, to providing information which is inaccurate, unreliable or misleading'. Gudjonsson (2010, p. 167) also engages with 'legal competencies constructs' related to an individual's functional abilities and capacities. Understanding and identifying these issues is important in recognising how vulnerable individuals may be at a disadvantage when trying to cope with the demands and stresses of the criminal justice system including their abilities to comprehend, make informed decisions and articulate accurate information. Luna (2009) and Ranchordas and Beck (2025) recognise the cumulative, multi-layered aspects and cascading impacts of vulnerability, while eschewing the stigmatising labelling of entire populations as vulnerable.

The Australian case of Anunga v R (1976) establishes the significance of recognising the vulnerabilities of suspects during police interviews (Tudor-Owen et al., 2023) and there is considerable literature regarding vulnerable suspects in police custody (Skinns et al., 2024). In the context of suspects in police detention and citing Brown (2015), Dehaghani

(2020, p. 255) states that vulnerability has tended to focus on individual considerations—or 'deficits'—including innate or 'natural' 'physical and/or personal factors such as childhood, old age, disability, sensory impairment and mental health problems' as well as more transitory states such as pregnancy. That is, vulnerability is often framed through 'deficit discourse', as compared with a strength-based discourse (Fogarty et al., 2018). There are also situational factors or 'social, economic and living conditions' (Vironkannas et al., 2020, p. 5) that frame a person's engagement with criminal procedure. One problem in considering situational factors is that they can suggest a level of perceived rational choice, individual weakness and thereby delineate between the deserving and undeserving (Brown, 2015; Dehaghani, 2020). Situational vulnerability includes experiences of the criminal justice system and incarceration, vulnerabilities that are often overlooked by justice agencies' guidances (Brown et al., 2017; Fairclough et al., 2023; Tudor-Owen et al., 2023). Moreover, there are the broad environmental and socio-economic conditions, processes and institutions that produce and perpetuate vulnerability, requiring the recognition of the multi-dimensional 'temporal, situational, relational and structural nature of vulnerability' (Vironkannas et al., 2020, p. 19). Dehaghani argues for a holistic examination of vulnerability, namely, an approach that accounts for situational as well as individual factors within Fineman's proposition of vulnerability as an inherent human condition. That is, we first accept that all 'human beings … are universally susceptible to harm, injury and dependency' and our 'strength, weaknesses and abilities' are relevant to individual resilience when we interact with the world and institutions (Dehaghani, 2020, p. 256). So, rather than focusing on individual vulnerabilities or deficits, the focus ought to be on the state's responsiveness and how interactions and institutions deplete or support resilience. For example, resilience is supported by access to legal aid, but resilience is depleted by the law that is 'complicated, alien and often impenetrable' (Dehaghani, 2020, p. 262).

While Dehaghani applies this approach to the specific context of police detention, her approach can be applied more broadly to how criminal procedures and criminal justice interactions, environments and technologies reduce or support resilience. For instance, we shall see later how the resilience of vulnerable witnesses during a criminal trial might be built through special measures that can be considered 'assets' of support (Fairclough, 2023, p. 5) including remote witness facilities. Love (2019) argues for Fineman's conceptualisation of vulnerability to be an organising

principle in criminal procedure, that is, a basis for building witness resilience and encouraging meaningful participation so that their testimony contributes coherently to the fact-finding exercise. Bringing vulnerability theory into criminal procedure recognises witnesses as 'vulnerable subjects' and draws attention to the state's responsibility to provide effective access to justice (Love, 2019, p. 2). In this way, criminal procedure and 'the rules of evidence have the potential to mobilize knowledge from vulnerable witnesses, ensuring participation and encouraging resilience' (Love, 2019, p. 18; see also Cossins, 2020).

Conversely, we shall see later how the resilience of remote individuals might, in some circumstances, be drained by their physical isolation from their lawyer and the court, impeding their participation. For instance, Pivaty (2021), in examining vulnerable child suspects, finds that certain criminal procedures deplete the resilience of child suspects and simultaneously deepen the inequalities they face before the justice system. This is due to the coercive and traumatic experiences of arrest, police custody and interrogation, as well as the failures of the justice system to provide adequate safeguards that are specifically relevant for vulnerable child suspects. While Pivaty finds that their resilience may be enhanced through access to legal assistance and the support of a 'trusted person', she also questions the efficacy and sufficiency of these measures. That is, the basic provision of these measures legitimises the coercive criminal procedures applied to children. Other studies point to further considerations for vulnerable suspects and defendants. In Australia, Hughes et al. (2022) argue that vulnerable, over-policed and over-incarcerated groups are over-represented in bail hearings with vulnerabilities arising from the impacts of colonisation, inter-generational trauma and systemic oppression. They examine the multiple and intersecting vulnerabilities of bail applicants and how those vulnerabilities compound their interactions with the criminal justice system and lead to poorer justice outcomes.

Vulnerability, as a concept, has recognised limitations. Although vulnerability is much utilised, it remains nebulous, poorly examined and fetishized. The term can be interpreted as normative, pathologising, paternalistic, condescending and disempowering, and its overuse has led to it becoming meaningless and ineffectual. It can stereotype whole populations who are perceived as weak, deficient and lacking agency and power, while not necessarily protecting them against harms. What exactly makes individuals vulnerable is objectively unclear and highly contextual, and focusing on individual incapacities deflects attention from the structural

forces that generate and reproduce vulnerabilities (Bartkowiak-Théron & Asquith, 2017; Brown et al., 2017; Dehaghani, 2020; Dehaghani et al., 2024; Fairclough, 2023; Levine et al., 2004; Luna, 2009; Pivaty, 2021; Travers et al., 2020; van den Hoonaard, 2020; Vironkannas et al., 2020). Focusing on external and objective measures of vulnerability can reduce an individual to a series of risk factors (Dunn et al., 2008). Rather than focusing on vulnerability, Taggart (2024) argues that attention should be placed, instead, on effective participation or, perhaps, 'communicative participation' (Duff et al., 2007: 199).

On the other hand, Brown et al. (2017, p. 15) observe that vulnerability studies tend to focus on theoretical debates and call for 'empirical realities of vulnerability' that contribute insights from relevant stakeholders including practitioners to address 'important gaps between theorisations and lived experiences of vulnerability'. Additionally, they argue that the 'careful deployment of vulnerability may have the potential to assist with theorising that animates dimensions of disadvantage and inequality'. It is certainly an aim of this study and later chapters to contribute empirical realities of vulnerability from judicial officers, lawyers and criminal justice professionals. Thus, while it is recognised that vulnerability is contextual and perhaps deficient, it still provides a useful framework for understanding disadvantage and inequality in this study's examination of digitalised legal practice, process and policy (Carney, 2018) and the social injustices or harms that can result (Gilson, 2016). This study focuses on populations who 'face persistent conditions of vulnerability' (Tsatsou, 2022, p. 1) including people-in-prison with their 'imported vulnerability' or 'life baggage' (Goyes, 2024, p. 601; Liebling, 1992), as well as those people whose multi-layered vulnerabilities might evolve and vary throughout the criminal process, such as vulnerable complainants (Mergaerts & Dehaghani, 2020). The careful deployment of vulnerability theory forces an awareness and triage of those persons who genuinely need additional resources to support their resilience, effective participation, communication needs and comprehension (McKay & Macintosh, 2024).

Towards a Framework of Digital Vulnerability

Let us now move to this book's melding of vulnerability theory with digital criminology to contribute to understandings of *digital vulnerability*. While digital vulnerability has already been applied in certain criminal justice contexts, as detailed below, instead of merely applying the prefix

digital to *vulnerability*, my conceptualisation draws explicitly from the core foundations of digital criminology. It focuses on the techno-social aspects of digital society, the ubiquity and 'centrality of digital technologies in modern political and social life', and the emergence of unintended consequences, inequalities and harms (Powell et al., 2018, p. 3). That is, my use of the term, digital vulnerability, builds on the conceptual, methodological and empirical concerns of digital criminology (Smith et al., 2017) to understand how the digitalisation of criminal procedure positively and negatively impacts and mediates the interactions with vulnerable persons and, indeed, generates new human-technology interactions (Kellmeyer, 2019). Being directly informed by digital criminology enables the theoretical analysis to capture a nuanced understanding of the transformations brought about by digitalisation in criminal courts, justice agencies, procedural protections and legal practice.

Moreover, the merger of digital criminology with vulnerability theory gives rise to digital vulnerability as a framework for asking: what new social solutions or harms arise when vulnerable people use remote communication technologies to access justice? In what ways do these technologies support or deplete resilience in criminal procedure? Do technologies replicate, exaggerate or alleviate existing inequalities? Are individuals made more or less vulnerable by these technologies? Techno-solutionism is necessarily both embraced and resisted, depending on the vulnerable person's circumstances and whether the technologies operate to enable access to justice—or generate barriers to justice.

As a starting point, although in the context of ICT, Ransbotham et al. (2016, p. 1) define digital vulnerability as 'susceptibility to harm that stems from the use of digital technologies'. In the context of European private law, Liu (2023) defines the concept as vulnerability caused by digital technologies with the concept interrogating the risks, harms, disruptions of technologies and how special legal protections might assist in addressing vulnerabilities and inequalities. Regarding vulnerable people in administrative law, Creutzfeldt et al. (2024, p. 150) propose 'the lens of digital legal consciousness' that captures the intersection of digital and legal capabilities.

There are limited extant applications of digital vulnerability in criminal justice scholarship. Betts and Spenser (2017) make reference to digital vulnerability in their examination of young people's experiences of digital technology and cyberbullying, but their application is limited to the risks of online interactions and victimisation (see also Carcelén-García et al.,

2023). Vargas et al. (2019) provide a useful and compelling conceptualisation of digital vulnerability to understand the impacts of technology in producing unequal exposure to data breaches by government agencies. Their article applies digital vulnerability as a framework to understand how electronic or digital contact with the criminal justice system may generate unequal risks of harm within the specific context of having incriminating information publicly released. While their focus is on 911 emergency calls in the US, they propose that the concept of digital vulnerability can be applied to other technologies in criminal justice for identifying hidden 'inequalities rooted in technology' (Vargas et al., 2019, p. 72). They build on Fineman's conceptualisation of vulnerability to propose that digital vulnerability 'extends prior research by emphasizing that citizen vulnerability occurs not only physically during police stops on the streets or trials in county courts, but also digitally across cyberspace and radio waves' (2019, p. 74). The authors offer insights into how technological advances can have 'detrimental and often unintended consequences for citizens' including 'producing new forms of digital racial inequalities' (2019, p. 72). In the context of suspects and defendants, Rice and Skinns's blog (2021, n.p.) suggests that they should all be treated as 'digitally vulnerable' in the face of technologically mediated criminal procedure, requiring attention to be paid to protections and adjustments aimed at ensuring fairness and equality. Finally, Ranchordas and Beck (2025) touch upon the rise of e-courts and digitalised criminal procedure as generating new vulnerabilities and exacerbating pre-existing vulnerabilities relating to individuals' communication needs. I build on these earlier engagements with digital vulnerability to conceptualise it in the specific context of remote communication technologies in criminal courtrooms and practice.

Conclusion: A New Imagining of Digital Vulnerability

In my coupling of digital criminology with vulnerability theory, I aim to contribute to extant theoretical understandings of digital vulnerability by, firstly, overtly drawing on digital criminology's attentiveness to technosociality and, secondly, by folding-in vulnerability theory's notion of resilience. This chapter has sought to chart these two frameworks separately and then, like a Venn diagram, identify their intersecting, overlapping or complementary elements to present a new imagining of digital vulnerability.

Digital vulnerability is used here to understand the interplay between digital communication technologies and vulnerable individuals in the digitalised criminal justice. It recognises the enmeshment of technologies in everyday life that necessarily flow into contemporary criminal justice agencies and institutions and that, thereby, transform interactions with vulnerable individuals. As a conceptual framework, digital vulnerability captures the convergence of digital communication technologies and vulnerability with criminal procedure. It highlights the fundamental role of technologies in shaping 'social, political, and technological processes' of institutional order and power relations (Madianou, 2019, p. 3). Furthermore, with this framework, we can understand how 'innovation is linked to experimentation and risk-taking which is particularly problematic when applied to vulnerable populations' (Madianou, 2019, p. 3). Beyond entrenched social inequalities, it is widely recognised that, even in developed nations, there is 'digital social inequality' (Halford & Savage, 2010, p. 938) and 'unequal technosocial relations' (Powell et al., 2018, p. 10) meaning a lack of parity in access to internet, suitable devices and skills due to socio-economic, age, gender, social marginalisation and racial reasons. There is a need for 'digital social inclusion' that allows populations to access the transactional and relational benefits of the digital realm for myriad purposes (Powell et al., 2018, p. 29) including access to courts and lawyers, while minimising risk and emphasising dignity.

Here the concept of digital vulnerability is applied to the content analysis and empirical data (Chapters 'Remote Vulnerable Witnesses, Complainants and Victims', 'Remote Vulnerable Defendants' and 'Future Visions of Digitalised Criminal Justice') to reveal how technologies may build or deplete the resilience of vulnerable witnesses and defendants. Through this analysis, I seek to push the boundaries in terms of the conceptualisation of digital vulnerability. As a tool for empirical analysis, the concept assists in identifying how vulnerabilities may be ameliorated by technologies, that is, *techniques of mitigation* that support resilience and enable access to justice, effective participation, engagement, comprehension and dignity. Simultaneously, the concept assists in unveiling the compounding of existing harms, potential new harms and unintended consequences and inequalities wrought by technologies: *techniques of intensification*. These harms might include barriers to justice and the amplification of asymmetrical power relationships from disconnection with human processes, unmet communication needs, lack of autonomy and control: techniques that drain resilience and exacerbate vulnerabilities.

What we will see is how these tensions can often push and pull in opposing directions so that what might be a beneficial mechanism of support to one vulnerable individual in criminal procedure might disadvantage another vulnerable individual. This polarising analysis seeks to prompt greater awareness of the diverse and uneven impacts of digitalisation, and encourage courts and lawyers to account for the risks of digitalisation. New technologies need to be designed and implemented responsibly, ethically and inclusively, and abide by the imperative of 'Do No Harm' (Australian Red Cross, 2024, n.p.).

This model of digital vulnerability is positioned as specifically relevant to processes of digitalisation in the justice system that necessitate theorists to respond empirically, conceptually and epistemologically to the role of digital technologies in criminality, control, courts and punishment. It provides a means to understand the intersection between the individual, structural and systemic vulnerabilities of individuals and social inequalities, on one hand, with the use of remote communication technologies, on the other hand. The concept engages with how the human aspects of communication in digitalised procedure may be enhanced or compromised; how some technologies might build capacity and overcome disadvantage or, alternatively, produce and reproduce inequality. These themes are woven throughout the book and the final chapter will engage with the need to ground processes of digitalisation and legal innovation in human values. With this conceptualisation of digital vulnerability, the book aims to provide a critical understanding of, and deep engagement with, vulnerability in the increasingly digitalised legal environment.

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CHAPTER 3

Researching Digitalised Criminal Justice with Empirical Methods

Abstract This chapter outlines the study's research methodology, presenting its qualitative and mixed-methods design. It details the nucleus of the data collection involving 175 interviews and survey responses from Australian judicial officers, lawyers and affiliated criminal justice professionals, along with content analysis of legislation and caselaw, and courtroom observations.

Keywords Qualitative research • Mixed method • Interviews • Survey • Courtroom observations • Thematic analysis • Legal professionals • Australia

Introduction

This chapter introduces the study's mixed-methods approach, specifically, 175 national interviews and survey responses, along with content analysis of Australian legislation and caselaw, and courtroom observations. The nucleus of my qualitative national study involved interviews and surveys, conducted throughout 2022–2023, with Australian judicial officers, defence lawyers, prosecutors and affiliated criminal justice professionals (witness assistance service officers, witness intermediaries, youth justice and victim/survivor advocates) from all capital cities and select regional and remote centres. The collective mixed methods have generated an original and comprehensive dataset that has been thematically coded.

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_3

The chapter commences with justifications for using qualitative methods as well as the limitations and challenges. This is followed by an overview of the study's design and parameters including the national fieldwork and online survey, and how interview and survey participants were recruited. Finally, I provide a summary of the data analysis and the many emerging themes and patterns. Further details are provided on the project's website: (https://www.digitalcriminaljustice.com).

Researching Digitalisation Through Qualitative Methods

To situate my research standpoint, my work draws from criminal law, procedure and criminology and is essentially socio-legal and qualitative in nature. This echoes much contemporary legal research in which there is 'a blurring of hard methodological boundaries', with an uptake of social science-based methods that consider law in action and in society, recognising that 'law does not operate in a vacuum' (Hutchinson, 2018, pp. 123, 125). While my research makes use of legislation and caselaw, it is non-doctrinal in that I seek to interrogate the machinations of digitalised justice rather than establish legal doctrine or precedent (McKay, 2022a). This socio-legal approach is suitable when undertaking research with a 'forward-looking agenda' into technologies and innovations (Hutchinson, 2018, p. 126).

Research Design

Qualitative research in the social sciences is considered a rigorous means to collect data that can then inform findings, policies and practice. Bachman and Schutt (2011, p. 16) define qualitative research methods as those 'designed to capture social life as participants experience it' rather than in predetermined categories. Such methods are often interpretative, exploratory and inductive. Qualitative methods aim to make meaningful connections and sense of social phenomena, and are appropriate when research is motivated by seeking descriptions, explanations and evaluations (Denzin et al., 2023). Bachman and Schutt (2011) argue that, because the data frequently include spoken words and observations, qualitative methods have an air of authenticity, texture and richness that is lacking in quantitative methods. Furthermore, mixed qualitative methods, involving

multiple approaches, data and views, provide triangulation. This means that 'the weakness of one method will be compensated for by the strengths of another' and build a full picture (Hutchinson, 2018, p. 160). That is, mixed methods can generate comprehensive perspectives that minimise the risks of subjectivity and optimise the goal of balanced and rigorous findings (Richards, 2009; Richards & Bartels, 2011).

The analysis of technological trends through the social sciences and humanities can challenge techno-solutionist narratives that often dominate research agendas (Pink, 2022). Qualitative research enables reflexive, socio-technological and relational perspectives to contest such hegemonic solutionist accounts and keep the focus on social issues, people, lived experience, processes and environments. Importantly, qualitative research is crucial in ensuring that technologies are 'ethical, equitable, and responsible' (Pink, 2022, p. 6). When new legal technologies are assumed to be a panacea for the many complex challenges of criminal justice, that is, 'legal tech solutionism', de Souza (2022, p. 374) suggests that assumption must be critiqued comprehensively prior to new technologies being introduced.

My study has sought to problematise and evaluate videoconferencing technologies with a research design that is typical of mixed qualitative methods in its collection of data through caselaw content analysis, interviews, survey and observations. I have previously made use of similar research methods in my doctoral study (McKay, 2018) and collaborative projects (Kashyap et al., 2018). In the current study, these different methods have assisted me in eliciting descriptive accounts that were later interpreted, coded and analysed to reveal patterns, meanings, deep understanding and new knowledge regarding videolinks in criminal justice (Bachman & Schutt, 2011; Maruna, 2010). Collectively, the mixed qualitative methods have enabled a comprehensive understanding of the real-world workings of digitalised criminal procedure and vulnerable individuals from the perspectives of criminal justice professionals.

Since 2020's notable increase in videoconferencing, there have been several qualitative studies regarding remote criminal justice that have sought the opinions and experiences of criminal justice actors, including judicial officers, legal professionals and a range of staff from justice agencies (e.g. see Alkon, 2022; Benninger et al., 2021; Fair Trials, 2020; Law Society of NSW, 2022; The Bar Council, 2024; Turner, 2021). Such studies have mostly made use of online surveys and the results have been seen as critically informing evaluations of remote procedure, policy development and advocacy for the profession and practice. Other recent studies

have used courtroom observations and interviews with relevant criminal justice actors (e.g. Hutchinson, 2021; Nir & Musial, 2022; Ross et al., 2025; Wells Robey, 2024), courtroom ethnography (e.g. Flower & Klosterkamp, 2023), experimental mock jury studies (e.g. Mulcahy et al., 2020a, 2020b; Rossner & Tait, 2023), caselaw content analysis (e.g. Turner, 2024) and surveys of public attitudes to remote courts (e.g. Lemire-Garlic & Dunbar, 2024). My research design harnesses the strengths of select qualitative methods.

Human Ethics

Because this research has involved humans, it has required close ethical attention to how participants were recruited for interviews and surveys, and how data have been collected, analysed and stored. All processes were conducted in accordance with the University of Sydney Human Research Ethics Committee Protocol (2022/142). Interview and survey participants were provided upfront with a Participant Information Statement that outlined the study and how the confidentiality of participants and privacy of their data would be protected in the dissemination of research results. Participants were also requested to provide Informed Consent if they wished to volunteer for the study. Following the Australian Research Council (ARC) research data management requirements, direct and known indirect identifiers were removed to break any links to participants' identities. In adhering to de-identification protocols, interview participants and their collected data were identifiable only by an allocated code depending on their role in the criminal justice system, as per Table 3.1. Survey participants were automatically de-identified by the online Qualtrics platform.

My original ethics was incrementally amended to update the project team including the research assistant, Sydney Informatics Hub and an Honours student. In addition, before commencing my fieldwork travel in 2022, I became aware that some potential interviewees may be impacted by COVID-19 isolation, so I modified my ethics application to include online interviews. This was fortuitous as I caught COVID-19 during fieldwork in Alice Springs and had to complete my scheduled Darwin interviews online while I was in isolation. I also became aware that criminal justice-affiliated professionals, including police prosecutors, youth justice workers, witness intermediaries, witness assistance support officers,

Table 3.1 Interview participants

Participant Category	*Interview Identification Code*	*Number Interviewed*
County Court Judges	CCJ	1
Defence Lawyers including States' and Territories' Legal Aid agencies, NAAJA, ALS, community lawyers, private barristers and solicitors	DL	39
District Court Judges	DCJ	2
Justice Advocacy	JA	1
Magistrates including Chief Magistrates and Deputy Chief Magistrates	M	6
Prosecutors including Crown Prosecutors, barristers and solicitors employed by various Offices of Directors of Public Prosecutions, police prosecutors	P	19
Supreme Court Justices including Chief Justices	SCJ	6
Videoconferencing in Justice	VJ	1
Victim Support	VS	1
Witness Assistance Service	WAS	4
Witness Intermediaries	WI	3
Youth Justice	YJ	2
TOTAL INTERVIEWS:		**85**

victim/survivor and justice advocates, would be interested in my study and offer invaluable insights, so my ethics approval was extended accordingly.

Interviewing the Judiciary, Lawyers and Criminal Justice Professionals

The richest data were generated by the national interviews. These interviews were conducted in-person and online throughout 2022–2023 across Australian cities, regions and remote locations with participants from Adelaide, Alice Springs, Brisbane, Broken Hill, Cairns, Canberra, Darwin, Dubbo, Griffith, Hobart, Kununurra, Launceston, Melbourne, Newcastle, Perth and Sydney (Fig. 3.1).

Interview participants were recruited through direct contact with all states' and territories' judicial and legal professional bodies, supplemented by some word-of-mouth referrals from legal professionals. This represented a purposive sampling method in that each participant was selected

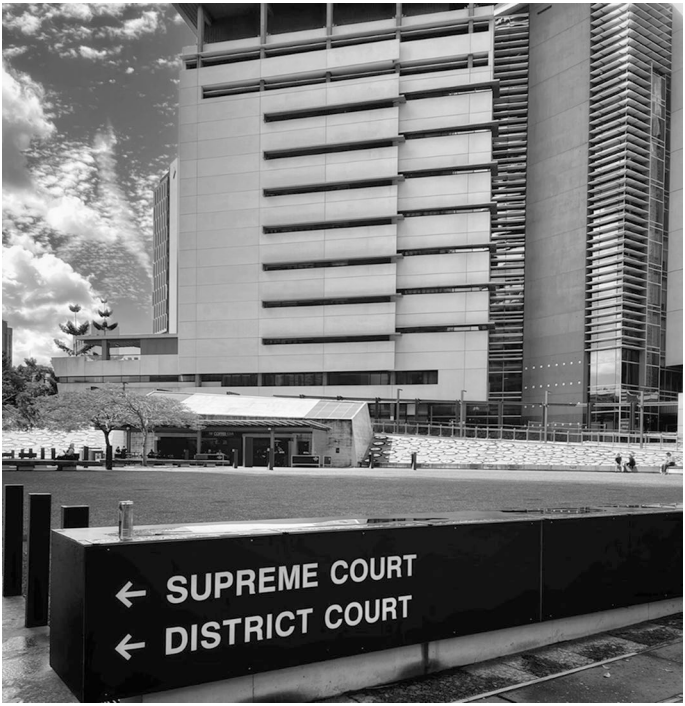

Fig. 3.1 Supreme and District Courts, Brisbane ©Carolyn McKay

as being an expert, knowledgeable about videolinks in criminal justice, and willing to talk (Bachman & Schutt, 2011). I had originally planned to recruit 10 criminal justice professionals from each jurisdiction, providing a sample of 80 participants and anticipated saturation. With 85 high-quality interviews, I exceeded my goal and, moreover, reached completeness and saturation, that is, no new issues were arising by the end of the interview processes, and there was depth and robustness in the responses (Richards, 2009).

There were challenges in recruiting participants. Some professional bodies and justice agencies were more responsive than others and, for the interviews, I elicited the greatest response from various legal aid services and affiliated services, particularly, North Australian Aboriginal Justice Agency (NAAJA) and Aboriginal Legal Service (ALS), resulting in an over-representation of defence lawyers compared with prosecutors.

However, as the next section details, the online survey was overwhelmingly completed by prosecutors and witness assistance service professionals typically affiliated with prosecution services. Accessing judicial officers for interviews was especially difficult and, disappointingly, I could not recruit any in South Australia, Tasmania or Western Australia. Access to elite, prominent or influential professionals is well recognised as challenging for qualitative researchers (Collett, 2024; Richards, 2011).

The interviews were conducted with pre-prepared prompt questions for semi-structured or 'guided' conversations (Richards, 2011, p. 70), with questions designed to elicit open, free-flowing, in-depth narrative responses. Free-flowing responses definitely resulted, and a great benefit of interviewing criminal justice professionals is that they are incredibly articulate and passionate about their work. Prior to the interview, some participants requested a copy of the ethics-approved prompt questions, but most interviews were conducted conversationally and flexibly so that they sometimes deviated or, serendipitously, revealed unexpected issues and chance insights. The interviews provided participants with the opportunity to reveal their authentic knowledge of digitalised criminal procedure and their interactions with vulnerable individuals. They could express their diverse experiences and views of the benefits, disadvantages and reform ideas.

Interview participants were asked questions along broad themes concerning their demographics, AVL experience, understandings of vulnerability, evaluations of AVL, and future visions (see project website). With permission, interviews were audio-recorded and later professionally transcribed by an external transcription service. Participants could nominate if they wished to review their own transcript. The interviews were typically 30–60 minutes in duration, and I was always appreciative of the fact that the participants were being exceedingly generous with their time, given their significant professional and court commitments. Most interviews were conducted face-to-face although, due to COVID-19 issues continuing 2022–2023, some interviews were conducted using Microsoft Teams or Zoom. Online interviews tended to be a little shorter and more transactional than the conversational face-to-face interviews. The 85 interview participants included a broad range of ages, from decades of experience in the criminal justice sector, through to several lawyers who had just been admitted to the profession and for whom the remote mode was normalised.

While the national interview process had its challenges with recruitment and scheduling, it was by far the most rewarding part of the project.

When I originally lodged my research application with the ARC, I had planned to conduct many interviews overseas. However, when funding was awarded at the end of 2020, pandemic travel restrictions were still in place, requiring the complete re-design of my fieldwork into a national study. Despite causing delays in commencing the study, this was, in many respects, a gift, enabling me to travel to parts of Australia that I'd never visited, and to experience the digitalisation of criminal justice across urban, regional and remote areas. I had the opportunity to converse with extremely dedicated and generous professionals and visit their various work environments. I chose Alice Springs in Central Australia (NT) as my first destination as I'd never been there before and guessed that it might present unique criminal justice issues.

A limitation of my research design is that vulnerable individuals were not part of project for three reasons. Firstly, I have previously undertaken empirical research with people-in-prison regarding their experiences of using videolinks to access courts and representation from custody (McKay, 2018). In this current study, I wanted to focus on the courtroom end-point and seek the perceptions of the judiciary, lawyers and criminal justice professionals regarding a broader range of vulnerable persons being vulnerable witnesses, complainants, victims and defendants. The overarching aim has been to develop conceptualisations of digital vulnerability by gathering criminal justice professionals' everyday experiences of working with vulnerable individuals, that is, I wanted to understand perspectives from the courts, prosecution and defence, so the targeted professionals were the best placed informants and experts. Secondly, a tightly focused study ensures its viability and delivery in a timely manner. Given that I conducted all interviews and analysed most data myself, it has been important that these processes were feasible for one main researcher. Thirdly, possibly insurmountable ethical, identification and recruitment issues would arise in relation to interviewing or surveying vulnerable individuals.

Online Survey

To enable the participation of a broader range of criminal justice professionals who were not available for face-to-face interviews or not in locations I visited, I conducted a survey through the web-based Qualtrics Research Suite, suitable for qualitative social science research. The survey link was open for 5 months: 4 May 2023–3 October 2023 and disseminated through state and territory legal professional bodies as well as

through the Sydney Law School's e-news, Sydney Institute of Criminology's CrimNet e-newsletter, and my own professional social media on LinkedIn and X. This online survey provided an efficient and systematic way to capture comprehensive and direct insights from target professionals.

Initially, it seemed that there were 144 online survey responses, but closer inspection by the Sydney Informatics Hub team, who assisted me with data analysis, revealed that only 90 survey responses were valid and complete. Another issue was that due to the survey question design, respondents' specific roles in the criminal justice system were not always clear, for instance, they could just respond with 'solicitor' or 'barrister' without stipulating 'defence' or 'prosecution'. Nevertheless, the majority were prosecutors, witness assistance service professionals or witness intermediaries and, clearly, various prosecution services had successfully disseminated the survey amongst their staff. Of the 90 responses, only 6 explicitly identified as defence lawyers. The increased engagement by prosecutors addressed the shortfall in their interviews.

The survey questions were very similar to the interview questions and most were designed to yield open-text responses. The benefit of this method was the ease of coding survey responses to specific issues. However, while most survey respondents engaged with the open field questions that required a free-form textual response, at least 46% of responses were limited to the multiple-choice style questions only. On reflection, the open-ended questions required too much effort and should have been used more sparingly and, overall, the survey was too long. Nevertheless, the majority of respondents did provide some textual responses with many being high quality, insightful and detailed. On the downside, and in comparison with the dynamic interviews, the survey responses were constrained by the questions, so that no new or unexpected themes arose.

Courtroom Observations

Throughout the 2022–2023 fieldwork stage, I travelled across Australia to not only interview people but also observe videolink technologies in diverse courtrooms (Table 3.2). Observation, as a research technique, immerses the researcher within the social site under examination to generate a direct, embodied experience. This can lead to a more profound, reflexive and nuanced understanding of the site being investigated—the digitalised courtroom—and a greater appreciation of the types of technologies being used (McKay, 2018).

Table 3.2 Courtroom observations

State or Territory	*Courts visited*
Australian Capital Territory (ACT)	Supreme Court and Magistrates Court
New South Wales (NSW)	Supreme Court and Local Court, Sydney District Court, Newcastle
Northern Territory (NT)	Supreme Court, Darwin; Supreme Court, and Local Court, Alice Springs
Queensland (QLD)	Supreme Court, District Court and Magistrates Court, Brisbane and Cairns
South Australia (SA)	Due to the interview schedule, I did not have capacity to visit any courthouses
Tasmania (Tas)	Supreme Court
Victoria (Vic)	County Court, Magistrates Court, Melbourne
Western Australia (WA)	District Court and Magistrates Court, Perth and Magistrates Court, Kununurra

These destinations provided an overview of all levels of criminal justice operating in capital cities, regional and remote locations. Collectively, they presented a snapshot of vulnerable populations, their use of audiovisual link technologies in many contexts and how digital technologies assist or compound vulnerabilities. Along the way, I also visited many judicial chambers, barristers' chambers and legal offices.

Identifying courts that had videolink appearances was often challenging. Some online daily court lists were clear, but I would usually arrive at a court and simply peer through the courtroom doors to see if a videolink was occurring. Quite often court staff were bemused by my request to watch videolinks, for instance, in the ACT Supreme Court, one court staff member dismissively told me words to the effect that 'there's not much to see; it's just like watching TV; it's great'.

Where possible, I made notes while in court with the permission of court officials. By way of example, on my first fieldwork day in Alice Springs, I spent the morning sitting in the public gallery of the Local Court where the vast majority of defendants or offenders were Aboriginal and Torres Strait Islander peoples (Fig. 3.2). I observed remote men and women being brought into the prison AVL rooms and developed a sense of those remote spaces and the sonic ruptures (McKay, 2020b):

Fig. 3.2 Law Courts Alice Springs ©Carolyn McKay

> The remote room was painted grey; it had a simple blue plastic chair for the person in prison and, next to that, was a table and chair for a prison officer … Behind was a door with a high glass window and a low window or vent through which you could see people's feet as they walked by. It was not at all soundproofed and prison noises were transmitted into the court. The people in prison all wore dark trousers and bright orange sweaters.

Being in the public gallery of the courts allowed me to observe the interactions between the judge and lawyers in court and the remote defendants:

> [An] Aboriginal accused was brought into the prison AVL room and the prison officer again sat at the nearby table, just his elbow visible. This was

> another sentencing hearing and the judge alluded to the fact that she was sentencing a violent man with a history of ingrained violent behaviour towards females in his life. The man sat mostly quite still, sometimes folding his arms behind his head, and resting his head in his hands while jittering his legs. During the sentencing, there were many noises outside the remote prison room and the prison officer got up several times to investigate what was going on.

The observations allowed me to compare in-court versus remote interactions. For instance, in the Alice Springs Local Court, a young woman wearing an oversized orange sweater appeared by AVL and did not respond at all to the proceedings. In another matter, the judge was delivering a sentencing judgement to a young Aboriginal man by AVL:

> The judge was endeavouring to engage with the young man and imploring him to desist from future criminal behaviour. During this, the young man was playing with his orange top, holding it in his mouth, putting his arms inside the top, and he had very little response towards the judge.

By comparison, an Aboriginal man was brought up from the cells into the plexiglass enclosed courtroom dock for an unopposed bail application, and I observed a much more engaged interaction between the judge and accused.

Content Analysis of Legislation and Caselaw

To understand the problems being presented in courts and how digital technology may solve or exacerbate issues of vulnerability, this stage involved reviewing Australian legislation, and mapping judicial reasoning and observations in criminal cases that concern videolink technologies and vulnerable witnesses, victims or defendants. Throughout this project, I have been collating criminal caselaw relevant to videolinks by setting up alerts on the online BarNet JADE open-access legal platform that provides Australian and international legislation and caselaw. It is designed and much used by Australian barristers. Relevant cases have been identified using keywords such as audiovisual link, AVL or videolink, the preferred terms in Australia. For focusing on specific issues, I employed Natural Language and Boolean Operators to finesse search results. I have collated hundreds of cases that have been manually coded to a multitude of themes

including access to justice, advocacy, behaviour, demeanour, fairness, intermediaries, legal conferencing, open justice, pre-recorded evidence, presence, courtroom protocols, psychological assessments, self-represented parties, technical problems, trial procedure, victims, vulnerable children and young people, vulnerable defendants and vulnerable witnesses (see project website).

As we will see in Chapter 'What Is Vulnerability in Criminal Justice?', caselaw was analysed to understand how the courts currently respond to vulnerability when AVL is in use. This stage particularly involved research assistant, Kristin Macintosh, and we ended up co-authoring publications (McKay & Macintosh, 2023a, 2023b, 2024a, 2024b). I have used content analysis of caselaw in other publications (McKay, 2020a, 2020b, 2022a, 2022c) and, of course, many other scholars have adopted similar approaches (e.g. Turner, 2024). The content analysis of caselaw is a recognised, systematic and 'uniquely legal empirical methodology' for determining patterns, meanings and insights on a particular subject (Hall & Wright, 2008, p. 64; Hutchinson, 2018). As I argue elsewhere, there is great utility in the content analysis of caselaw due to it being a publicly available resource, and the cases reveal details of participants' vulnerabilities and any special measures or responses from the court (McKay, 2022a).

Coding and Analysis of Empirical Data

I began the iterative process of thematically coding my empirical data by reading legislation, caselaw, interview transcripts and aggregated survey responses to identify emerging and recurrent themes. On the whole, these themes aligned with the focus of interview/survey questions and participants' conceptualisations of vulnerability, as well as key benefits and challenges. While it was particularly easy to manually code the survey responses given their structured format, more surprising themes emerged from the interview transcripts. For instance, in McKay and Macintosh (2024a, p. 15) we wrote how the issue of the expression of emotion and empathy during remote court matters arose 'unexpectedly and organically' out of the interviews without a direct interview question, 'demonstrating a strength of qualitative research methods in potentially revealing unforeseen matters'. Following my initial manual coding review, I then liaised with the Sydney Informatics Hub, a Core Research Facility of the University of Sydney, regarding optimal ways to analyse my empirical dataset. They developed a secure and private semantic AI tool that I used to

systematically and speedily search the interview transcripts and survey responses for a range of themes. The results of these thematic searches using the semantic tool were downloaded and have assisted considerably in identifying emergent themes (see project website), coding and structuring the empirical data in Chapters 'Remote Vulnerable Witnesses, Complainants and Victims', 'Remote Vulnerable Defendants' and 'Future Visions of Digitalised Criminal Justice'. The broad themes include understandings of vulnerability in practice; the interplay between remote access technologies and vulnerabilities; the benefits and challenges of remote participation; remote interpreting; access and barriers to justice and forward-thinking visions for the increasingly digitalised criminal justice system (Fig. 3.3).

Fig. 3.3 Kununurra Courthouse ©Carolyn McKay

Conclusion

In conclusion, this project has adopted a multi-method approach to provide rich, comprehensive understandings of vulnerability and the intersection with videolinks according to the experiences of the judiciary, lawyers and affiliated criminal justice professionals. The aim of interviewing and surveying criminal justice professionals has been to capture their experiential and professional accounts of dealing with vulnerable individuals everyday, the efficacy of technologised communication and the impacts of digitalisation on the administration of justice when dealing with vulnerable witnesses, victims and defendants. In conjunction with the caselaw content analysis and observations, the empirical fieldwork and survey data ground the conceptual analysis of digital vulnerability in the real world. Such empirical methods provide an invaluable evidence base of 'law in action' rather than just 'law in the books' or as it is in statutes (Hutchinson, 2018, p. 126). These empirical data are therefore critical in enabling an understanding of the machinations of digitalised criminal justice and the impacts on vulnerable populations. The multiple methods and data sources provide a compelling evidence base of the many repercussions of digitalisation.

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PART II

Empirical Insights into Digital Vulnerability

CHAPTER 4

What Is Vulnerability in Criminal Justice?

Abstract This chapter explores legally-derived understandings of vulnerability with a focus on legislation and caselaw. It examines statutory definitions and provisions that enable vulnerable persons in criminal justice to access special measures including remote communication technologies, while the caselaw analysis demonstrates how courts respond to and operationalise vulnerability.

Keywords Legislation • Caselaw • Definitions • Vulnerability • Special measures • Witnesses • Defendants

Introduction

Focusing on select Australian legislation and caselaw, this chapter examines legally derived understandings of vulnerability and the special measures including remote communication technologies like CCTV and audiovisual links (AVL) that are made available to those who are designated as vulnerable before the law. While legal definitions of vulnerability are narrow, caselaw demonstrates a broader approach from courts including instances where the courts do respond to the vulnerabilities of defendants.

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_4

Legislative Definitions of Vulnerable Persons

Criminal procedural and evidential legislative definitions of vulnerable persons are not uniform (Giuffrida & Mackay, 2021), and tend to be framed by, firstly, inherent characteristics and/or, secondly, factors that may make individuals vulnerable in giving evidence. In addition, legislative provisions regarding vulnerability apply, with a few exceptions, only to witnesses, complainants and victims (hereinafter, 'witnesses') who are not the accused. The legislative definitions of vulnerability determine who gains the benefit of special or protective measures which seek to enable vulnerable people to give their best evidence and to participate in criminal trials without intimidation or re-traumatisation.

Inherent Vulnerabilities

Evidence legislation generally treats children and persons with cognitive impairment as having inherent vulnerabilities.[1] While the definition of a 'child' is contextual,[2] arguably, in accordance with the *Convention on the Rights of the Child* (Royal Commission, 2023), all individuals under the age of 18 are vulnerable. 'Cognitive impairment' commonly includes a range of conditions, for instance, in New South Wales (NSW), cognitive impairment includes an intellectual disability, developmental disorder including autism spectrum disorder, a neurological disorder, dementia, a severe mental illness or a brain injury.[3] Meanwhile in Victoria (Vic), it includes 'impairment because of mental illness, intellectual disability, dementia or brain injury'.[4] Tasmanian (Tas) legislation has eschewed the 'vulnerable person' terminology in favour of 'people with communication needs' on the basis that the latter is more expansive and covers communication needs arising from multiple factors (TLRI, 2018).[5] Similarly in the Australian Capital Territory (ACT), witness 'communication difficulties', for example, a mental or physical disability that impedes speech, are recognised as disabilities.

Other Factors of Vulnerability

Beyond children and individuals with cognitive impairments, vulnerable witness definitions encompass factors that may render individuals vulnerable when giving evidence. For example, South Australia (SA) and Northern Territory (NT) legislation includes an alleged victim of violence,

threats of violence or retribution, complainants in sexual offences or domestic violence offences and a witness that the court considers to be vulnerable.[6] In the NT, a wide array of factors may be considered in assessing vulnerability and the court may have regard to any relevant condition or characteristic of the witness, including age, education, ethnic and cultural background, gender, language background and skills, level of maturity, understanding and personality, mental and physical disability, and the relationship between the witness and defendant.[7]

This is also the case with 'special witness' provisions. A person may be declared a special witness in Western Australia (WA) (see also Queensland[8]) if they are unlikely to be able to give evidence satisfactorily due to a range of other vulnerabilities: intellectual, mental or physical disability, or the person is likely to suffer severe emotional trauma by reason of age or cultural background or relationship to a party or nature of the subject matter.[9] There are also 'prescribed witnesses', for instance, in the ACT this refers to a child complainant in a sexual offence proceeding, or a child in a serious violent offence proceeding involving death.[10] In effect, this legislation creates a presumption that such prescribed witnesses are inherently vulnerable necessitating, as we will see in the following section, the appointment of an intermediary.[11]

Vulnerable Defendants

Most vulnerable person provisions only apply to witnesses, leading to the 'unequal treatment of vulnerable defendants' (Owusu-Bempah, 2020, p. 1; see also Dehaghani, 2020; Fairclough, 2017; Fairclough & Greenwood, 2023; Fairclough et al., 2023; Hughes et al., 2022; Jacobson & Cooper, 2020; O'Loughlin et al., 2024; Taggart, 2024). Yet, as Giuffrida and Mackay (2021, p. 503) argue, 'many adult defendants will share characteristics of [vulnerable] witnesses—the same characteristics that have led to witnesses being provided with special assistance'. This approach is typical around the world and possibly difficult to reconcile with legal principles regarding the accused's right to a fair trial and effective participation.

The vulnerabilities of suspects or defendants may be relevant in the contexts of initial police interactions and bail hearings (Hughes et al., 2022).[12] Regarding police detention and investigation, 'vulnerable persons' include children, people with impaired intellectual or physical functioning, Aboriginal and Torres Strait Islander peoples and people from

non-English-speaking backgrounds.[13] Legislation also recognises the vulnerability of children in police custody or when being questioned by people in authority.[14] Regarding court procedure and evidence legislation, the accused may fall within the definition of vulnerable person in limited circumstances.[15] Such legislative recognition of a vulnerable accused may have repercussions in their competence to give evidence[16] and may enable potential support. Of course, a threshold consideration regarding vulnerable accused persons is whether they have capacity to be tried, and provisions concerning fitness to stand trial, as well as the impairment defence, involve assessment of specific vulnerabilities. For example, forensic legislation provides that when a fitness inquiry is held, the court must consider 'whether the trial process can be modified, or assistance provided, to facilitate the [accused's] understanding and effective participation in the trial'.[17]

Finally, the vulnerability of an offender might be relevant at sentencing.[18] However, O'Loughlin et al. (2024, p. 8) argue that taking 'vulnerability into account at the sentencing stage is insufficient to palliate the hardships imposed by criminal investigation, prosecution and conviction'. Scholarship has identified how the vulnerabilities of defendants and offenders may be associated with poorer justice outcomes (Dunn et al., 2008; Hughes et al., 2022; Rice & Skinns, 2021; Tudor-Owen et al., 2023).

Conclusion

In summary, Australian jurisdictions have various legally derived understandings of vulnerability. At law, there are several factors considered in defining a person who is inherently vulnerable or who might become vulnerable before the court. Vulnerabilities are recognised as arising from individual characteristics, relationships between parties, the nature of the alleged offending and the adversarial trial itself. Clearly age, particularly youth, and significant impairments are universally accepted as indicating the need for support or alternative arrangements. In the next section, we will see how this identification process unlocks special or protective measures in criminal procedure.

Legislative Supports for Vulnerable Persons

Vulnerable persons may face challenges in participating, understanding and being understood in criminal proceedings, requiring interventions and supportive measures to minimise barriers to justice and ensure fairness

(Hoff et al., 2022). In general, accommodations, including technological interventions, are made available to vulnerable witnesses, that is, non-defendants, to access justice, engage in legal process and give their 'best evidence' in daunting circumstances (Royal Commission, 2017). In Australia, few jurisdictions provide similar support for vulnerable defendants.

A key rationale for the various procedural supports or alternative arrangements, particularly for witnesses, is to address the 'difficult or even harrowing experience' of giving comprehensible evidence in a formal, combative and unfamiliar court environment:

> For some people, including very young children, people with disabilities, those from minority linguistic or cultural backgrounds, and complainants in sexual cases, giving evidence in court may be not only difficult, but virtually impossible. Such people are all "vulnerable" witnesses in the sense that, without special assistance, their evidence may never be satisfactorily heard (NZLC, 1996, p. 1).

That is, without support, the evidence of alleged offences may not be dealt with by the criminal courts. Such acknowledgement enlivens measures aimed at limiting distress, trauma and intimidation, facilitating speedy resolutions, and ensuring that vulnerable witnesses are treated with dignity, respect and compassion.[19]

While there isn't a consistent approach across Australia, typical legislative supports include alternative arrangements for giving evidence via pre-recorded evidence-in-chief, out of court representations facilitated by remote communication technologies such as CCTV and AVL, physical screening and one-way glass, closed courts as well as ground rules hearings, witness intermediaries, support people and therapy dogs via various canine court companion programmes (Guide Dogs, 2024; AIJA, 2022).

Pre-recorded interviews mean that the vulnerable witness can provide a single, contemporaneous account and minimise the re-traumatisation involved in recounting difficult facts. Specific provisions are made for pre-recorded evidence hearings in child sexual offence proceedings, given the recognised difficulties that child complainants/victims experience as witnesses giving evidence.[20] Key features of this programme include witness intermediaries and ground rules hearings aimed at reducing stress and improving the accuracy and quality of evidence without diminishing fairness to the defendant (Cashmore & Shackel, 2018). Interestingly, research

from England and Wales points to lower conviction rates when pre-recorded evidence is used (Thomas, 2023), a finding disputed by the Ministry of Justice (Baksi, 2025).[21]

In NSW, vulnerable accused persons may be eligible to give evidence via CCTV from a separate location within the courthouse or a different facility.[22] If not suitable or available, there are other options to restrict contact and sightlines between a vulnerable person and another person including physical screens and seating plans.[23] In limited circumstances, support persons may be available for vulnerable defendants.[24]

Witness intermediaries are not necessarily connected with technological interventions in court, but they are very relevant for vulnerable individuals with communication needs. First introduced in England and Wales in 2004 (Cooper & Mattison, 2017; Kearns et al., 2022), variations of this facilitator scheme have been introduced in New Zealand, Northern Ireland and most Australian states and territories (Howard et al., 2020; Taggart, 2023). In Australia, intermediaries are usually officers of the Court and specialists in communication needs.[25] Their role is to impartially facilitate communication and interactions with the vulnerable witness as well as between that person and the court to ensure that the witness can understand questions and provide their best evidence.[26] A witness intermediary will evaluate the vulnerable individual to gauge their communication needs, which may require, for example, a specific style of questioning and visual aids (McLean & Elston, 2024).[27] At the ground rules hearing, the intermediary recommends how the trial should be conducted in terms of the communication and support needs of vulnerable witnesses.[28] There is limited access to intermediaries' programmes by vulnerable defendants (Giuffrida & Mackay, 2021; Dehaghani et al., 2024; ACTHRC, 2024).

In summary, while there are diverse legislated supports available to vulnerable persons, most special measures and protections focus on prosecution witnesses. Moreover, the legislative provisions certainly highlight the role of remote communication technologies in mitigating the vulnerabilities of those eligible for support. The following section provides an overview of related Australian caselaw regarding how vulnerability is understood and operationalised in criminal process.

Caselaw Understandings of Vulnerable Persons

As detailed in Chapter 'Researching Digitalised Criminal Justice with Empirical Methods', one of this project's methods involves the content analysis of select Australian criminal caselaw regarding the use of remote communication technologies (such as CCTV and AVL), by vulnerable persons. The circumstances through which caselaw understandings of vulnerable persons arise are diverse, and the cases cited below deal with a range of criminal procedures raising the courts' consideration of CCTV, AVL, pre-recorded interviews, and vulnerable individuals. This caselaw analysis is productive in (1) demonstrating how understandings of vulnerability are extended beyond legal definitions; (2) describing the uptake of communication technologies in courts and (3) examining challenges associated with these technologies.

Caselaw often demonstrates a broader understanding of vulnerability than provided in the legislation. While many legislative provisions regarding vulnerable persons are primarily directed towards supporting witnesses, the caselaw highlights how defendants often have multifaceted, compounding and complex vulnerabilities that are recognised by the courts. Factors such as age, mental illness, dementia, cognitive impairment, addiction, early life trauma, family dysfunction, victims of sexual and domestic violence, experiences of homelessness, illiteracy, poor attention and poor emotional regulation have all been recognised as sources of vulnerability in both witnesses and defendants. Caselaw thus responds to a constellation of considerations, depending on the specific factual circumstances and the exercise of judicial discretion, that extend vulnerability beyond strict legal definitions.

Certainly, the caselaw attests to the growing acceptance of individuals appearing remotely using CCTV or AVL, including for key witnesses to give their evidence and be cross-examined.[29] Particularly for complainants in sexual offending cases, AVL has become standard practice. Similarly, the electronic production of defendants has become less controversial and is generally accepted as 'appearance' before the court, where permitted by legislation.[30] That said, there continue to be instances where AVL may be refused despite the witness' security and safety concerns, on the basis that a key witness is best assessed physically in a courtroom.[31] Additionally, caselaw demonstrates ongoing concerns regarding remote witnesses and 'the functional equivalence between in person and AVL evidence'.[32] Moreover, cost efficiencies and conveniences do not 'eclipse the

fundamental right of an accused to a fair trial' that might require the physical attendance of a witness in court for cross-examination and credibility assessment, particularly if their evidence is 'hotly contested'.[33]

Remote Vulnerable Witnesses

Caselaw regarding vulnerable witnesses draws on legislative understandings of vulnerability and demonstrates how remote communication technologies are employed to mitigate vulnerabilities. This is primarily by way of pre-recorded interviews for evidence-in-chief and/or the use of remote witness facilities and CCTV, especially for cross-examination. There are clear benefits afforded in vulnerable witnesses being remote from the accused and in minimising re-traumatisation. For instance, in *QX*,[34] the child complainant's suicidality was triggered by the ongoing court proceedings. Adversarial criminal proceedings undoubtedly take a toll, so AVL and associated measures can support vulnerable witnesses to participate and give their best evidence. Content analysis of caselaw reveals many beneficial uses of AVL, including remote Victim Impact Statements.[35] Caselaw recognises the need for clear directions to juries regarding remote appearances,[36] while cautioning against extending the anodyne directions.[37]

Conversely, caselaw highlights quality issues regarding AVL[38] and pre-recorded evidence. For example, during a recorded police interview of a child complainant, the camera slipped and only the top of the complainant's head was visible, undermining the simultaneity of audio and visual, and rendering the recording inadmissible.[39] In another recorded police interview of a child complainant, while the child was mostly visible, the audio component was deficient with sections inaudible or indecipherable, again rendering the recording inadmissible.[40] In a third case, the entirety of the child complainant's hand movements was not always visible as she gestured below the view of the camera. Nevertheless, the recording was accepted as an admissible audiovisual record.[41] While recorded statements to police are now routine as evidence in court, one case observed that the use of police body worn cameras for the purpose of capturing the young complainant's evidence was 'entirely inappropriate' especially given that it was not possible to see the child's facial expressions, there was poor audio quality and sometimes the camera captured the floor instead of what the child was indicating.[42]

Other issues have been raised regarding special measures. For instance, in *Smith,* the child complainant gave audiovisual recorded

evidence-in-chief in a special hearing. While the recording itself wasn't controversial, there had been a private introductory meeting, as recommended by the intermediary, the day before the special hearing between the judge, child complainant and counsel—but not the accused. The accused did not have the opportunity to watch the meeting by closed videolink and the meeting was not recorded. The Court of Appeal held that this non-public meeting with a vulnerable and key prosecution witness represented a fundamental irregularity and was 'anathema to the principle of open justice'.[43] However, on appeal to the High Court of Australia, it was found that, while there was a risk of an irregularity, no fundamental irregularity in fact occurred such as to constitute a serious departure from accepted trial processes.[44] This issue has also come before English courts.[45]

Some downsides of vulnerable witnesses appearing by AVL is that their comparative size might not be apparent.[46] Additionally, evidence by AVL from a complainant whose first language is not English and without an interpreter can cause problems with audibility in the courtroom and court transcription.[47]

Caselaw records the vulnerabilities of complainants in family, domestic and intimate partner violence cases and their beneficial use of AVL. For example, in *Gee*,[48] the complainant had been declared a special witness given her ability to understand and respond coherently would be adversely impacted by giving evidence in the presence of the accused. The trial judge was satisfied that, had she been forced to give evidence in the 'usual way', she would not only be 'likely to suffer severe emotional trauma, but is also likely to be so intimidated or distressed as to be unable to give evidence or to give evidence satisfactorily'. As a special witness, she was able to give her evidence remotely by way of a special hearing including pre-recorded evidence by AVL. On appeal to the Court of Criminal Appeal (Tas), the appellant argued that such measures led to forensic disadvantage and unfairness. In dismissing the appeal, the Court held that the legislative intent made it clear that primacy is to be given to reducing courtroom trauma for special witnesses.

Remote Vulnerable Defendants

This section builds on my earlier scholarship that distils caselaw regarding the communication needs of remote vulnerable defendants who are fit to plead but may require support, especially if they are giving evidence. McKay (2022) focuses on caselaw concerning remote psychiatric/

psychological clinical assessments of vulnerable people-in-prison. There I identify benefits concerning convenience and enhanced access to psychiatric/psychological assessments. Conversely, some judgements are damning of remote evaluations and their perceived lack of rigour, reliability and utility: an 'imperfect medium'[49] for the fulsome assessment of vulnerable individuals.[50] McKay and Macintosh (2023) analyses caselaw regarding vulnerable individuals seeking access to justice from prison. Cases reveal the advantages of AVL over prison-court escort across vast distances.[51] However, several cases comment on the lack of suitable technological infrastructure to support pre-trial and pre-appeal preparation, especially for people with vulnerabilities,[52] and unrepresented individuals.[53] Access to legal representation can be compromised for vulnerable defendants on remand when the only option is AVL.[54] Other cases reveal the impacts of AVL on effective participation and comprehension. Intellectual disability, cognitive functioning and difficulties with regulating behaviour are identified as vulnerabilities that inhibit a defendant's capacity to participate in and understand criminal proceedings. In *Honeysett,* because the accused had a cognitive impairment and distractibility, it was determined that his engagement would be better in the physical courtroom than via AVL, and it gave him the opportunity for a support person.[55] On the other hand, there are several cases where AVL beneficially assisted vulnerable people to participate in, understand and cope with proceedings.[56] Since publishing McKay and Macintosh (2023), other cases have dealt with situations where the accused is unfit to be tried and so unwell that they cannot even attend their mental health/cognitive impairment special hearing, in-person or by AVL.[57] In *White*, the remote offender, a highly institutionalised person with significant cognitive impairments, had difficulties remaining awake and was allowed to leave the prison AVL room.[58]

Caselaw reveals a range of technological contexts that can impact vulnerable defendants due to their age. Stringent requirements regarding interviewing child suspects, including the recording of admissions by police body worn cameras,[59] or Electronically Recorded Interview,[60] are imposed in relation to child defendants due to their lack of maturity and subordinate position to police. Yet, very young Aboriginal children appear by AVL for bail hearings.[61] Additionally, elderly people may be identified as vulnerable and, for an 83-year-old with dementia, it was best for them to watch proceedings via AVL.[62]

Defendants may be vulnerable due to adverse life experiences and a childhood of deprivation, activating the *Bugmy* principles that recognise

these disadvantages as mitigating factors at sentencing in reducing moral culpability.[63] Cases reveal the systemic failures to intervene at critical stages of someone's life, leading to someone becoming 'an abandoned and vulnerable Aboriginal offender' who might have benefited from alternatives such as the specialised Walama Court.[64] For instance, the Indigenous applicant in *Knight* had many vulnerabilities stemming from childhood dysfunction and deprivation. The Court allowed him to appear by AVL for sentencing although it was observed that, had proceedings been conducted through the Walama Court, there might have been a cultural imperative for the applicant to appear in-person, on country, according to the deceased's family's wishes.[65] Extreme social disadvantage is also relevant to non-Indigenous people and, commonly, cases reveal an offender's traumatic background at sentencing. There can be a raft of issues flowing from deprivation.[66] Factors include having experienced significant disadvantage, violence and abuse during childhood and throughout life, limited education and employment, psychiatric or psychotic disorders, illicit substance use and major depression, amongst many other issues. The imperative to identify defendants' vulnerabilities is made apparent when we consider deaths in custody.[67] Vulnerabilities before the courts are amplified if the person is self-represented and appearing in their legal matter from prison by AVL.[68] As mentioned above, there are few supports, technological or otherwise, for vulnerable defendants and only a few jurisdictions make provision for intermediary assistance.[69]

Conclusion

In conclusion, caselaw demonstrates the delineation of vulnerability and how courts may adapt procedures to support participation for vulnerable persons. Caselaw shows that, while legislation currently focuses on supporting vulnerable witnesses to give their best evidence using technologies, the courts can and do respond to the vulnerabilities of defendants. There are clear tensions for courts in balancing the competing interests of all vulnerable individuals and challenges in identifying the overlapping and sometimes hidden personal, social and systemic attributes that can render individuals vulnerable. The next three chapters present the empirical dataset that sheds further light on how judicial officers, lawyers and other criminal justice professionals understand and operationalise vulnerability in practice, and contemplate the future.

Notes

1. *Evidence Act 1929* (SA) s4(1), (2); see also *Evidence Act 1977* (Qld) s21AZL and *Evidence (Children and Special Witnesses) Act 2001* (Tas) s3A(1).
2. *Criminal Procedure Act 1986* (NSW) s294E; s306P.
3. *Criminal Procedure Act 1986* (NSW) s306M.
4. *Criminal Procedure Act 2009* (Vic) s3.
5. *Evidence (Children and Special Witnesses) Act 2001* (Tas) s7F.
6. *Evidence Act 1939* (NT) s21AA.
7. *Evidence Act 1939* (NT) s21A.
8. *Evidence Act 1977* (Qld) s21A.
9. *Evidence Act 1906* (WA) s106R; *Evidence (Children and Special Witnesses) Act* 2001 (Tas) s8; *Crimes Act* 1914 (Cth) s15YAB.
10. *Evidence (Miscellaneous Provisions) Amendment Act 2019* (ACT) s3B.
11. *R v QX (No 2)* [2021] ACTSC 244.
12. *Bail Act 2013* (NSW) s18(1)(k).
13. *Law Enforcement (Powers and Responsibilities) Regulations* (NSW) ss27–40.
14. *Children (Criminal Proceedings) Act 1987* (NSW) ss3, 13. See also *R v KS (No 2)* [2023] NSWSC 1475, Yehia J, [84]; *R v Diallo & Ors (No 2)* [2024] NSWSC 853.
15. *Criminal Procedure Act 1986* (NSW) s306ZC. See also *Evidence (Miscellaneous Provisions) Amendment Act 2019* (ACT) ss4AJ, 4AG; *Evidence Act 1929* (SA) s4(1), (2); *Evidence Act 1977* (Qld) s21AZL.
16. *Criminal Procedure Act 1986* (NSW) s306M; *Evidence Act 1995* (NSW) ss13–19.
17. *Mental Health and Cognitive Impairment Forensic Provisions Act 2020* (NSW) ss4, 5, 28, 44.
18. *Crimes (Sentencing Procedure) Act 1999* (NSW) s21A.
19. *Evidence (Children and Special Witnesses) Act 2001* (Tas) s3A(2).
20. For example, *Criminal Procedure Act 1986* (NSW), s294G.
21. Youth Justice and Criminal Evidence Act 1999 ss 23–30.
22. For example, *Criminal Procedure Act 1986* (NSW) s306ZC.
23. For example, *Criminal Procedure Act 1986* (NSW) s306ZH.
24. For example, *Criminal Procedure Act 1986* (NSW) s306ZK.
25. For example, *Criminal Procedure Act 2009* (Vic) s389J.
26. For example, *Criminal Procedure Act 1986* (NSW) s294L.
27. NSW District Court Criminal Practice Note 28.
28. For example, *Criminal Procedure Act 2009* (Vic) s389E.
29. *DPP v Zheng (Ruling No 1)* [2024] VSC 70, Tinney J, [36]–[42].

30. *Kelly v Fiander* [2023] WASC 187; *Pell v The Queen* [2019] VSCA 186; *Pauga v Chief Executive of Queensland Corrective Services* [2023] FCAFC 58.
31. *R v Abdaly; R v Hosseinishoja (No 4)* [2022] NSWSC 1529, Hamill J, [46].
32. *R v Walker* [2025] NSWCCA 62, Dhanji J, [32].
33. *R v Early (No 4)* [2023] NSWSC 505, Yehia J, [35], [41].
34. *R v QX (No 2)* [2021] ACTSC 244.
35. *DPP v White* [2025] VCC 154.
36. *R v NBB (No 5)* [2020] ACTSC 190, Murrell CJ, [22]; see also *R v Tesfamichael* [2020] SADC 54; *R v TL* [2024] SADC 4; *R v INS* [2024] QChC 10; *R v BEC* [2023] QCA 154; *Director of Public Prosecutions v Smith* [2023] VSCA 293.
37. *R v Walker* [2025] NSWCCA 62.
38. *R v Green* [2025] QCA 148.
39. *R v Cronin* [2018] SASCFC 61.
40. *R v O'Loughlin* [2018] SADC 73.
41. *R v Battle* [2021] Reasons for Ruling of his Honour Judge Press, 6 December 2021.
42. *R v James (a pseudonym)* [2023] QChC 22.
43. *Director of Public Prosecutions v Smith* [2023] VSCA 293, Priest JA, [54]; see also *Alec (a pseudonym) v The King* [2023] VSCA 208.
44. *Director of Public Prosecutions v Smith* [2024] HCA 32.
45. *R v Lubemba; R v Pooley* [2015] 1 WLR 1579.
46. *WARNE v THE QUEEN* [2020] SASCFC 12.
47. *Ngo v The King* [2023] NSWCCA 201.
48. *Gee v Tasmania* [2022] TASCCA 1, [16].
49. *R v RB* [2020] NSWSC 1552, Wilson J, [64].
50. *Attorney-General for the State of Queensland v Henry* [2020] QSC 296.
51. *R v Knight* [2023] NSWSC 321.
52. *Macdonald v R; Obeid v R; Obeid v R* [2021] NSWSC 1662.
53. *Simpson v R [2021]* NSWCCA 264*; Edwards v The Queen* [2020] NSWCCA 141.
54. *DPP (NSW) v Van Gestal* [2022] NSWSC 973; *Guest v DPP* [2020] VSC 218.
55. *R v Honeysett (Fitness to Stand Trial)* [2023] NSWSC 76.
56. *Knox-Cumming v MacDonald* [2018] WASC 164*; Treloar v The Queen* [2020] VSCA 6; *The State of Western Australia v Evitt* [2022] WADC 107.
57. *R v Richard Caine (No 3)* [2024] NSWDC 387.
58. *The State of Western Australia v White* [No 8] [2025] WASC 194.
59. *R v Diallo & Ors (No 2)* [2024] NSWSC 853.
60. *R v KS (No 2)* [2023] NSWSC 1475, Yehia J, [83].
61. *R v GW* [2023] NSWSC 664, Yehia J, [44].

62. *Pound v The Queen* ([2019] VSCA 279.
63. *Bugmy v The Queen* [2013] 249 CLR 571.
64. *R v Turnbull* [2020] NSWSC 1785, Hamill J [45]; NSW District Court Criminal Practice Note 26: Walama List Sentencing Procedure.
65. *Knight (No 1)* [2023] NSWSC 195; *R v Knight* [2023] NSWSC 321.
66. *DPP v Lazzaro* [2019] VCC 884.
67. *Inquest into the death of Luke Anthony Rich* [2024] ACTCD 3.
68. *Guy v The Queen* [2020] VSCA 163; see also *Simpson v R* [2021] NSWCCA 264; *Incandela v The Queen (No 3)* [2022] ACTCA 63; *Edwards v The Queen* [2020] NSWCCA 141.
69. *R v KQE* [2022] ACTSC 69.

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CHAPTER 5

Remote Vulnerable Witnesses, Complainants and Victims

Abstract This chapter draws on the interview and survey data to highlight the advantages and challenges of using pre-recorded evidence, CCTV and videoconferencing for vulnerable witnesses. Overall, the dataset shows real benefits for vulnerable witnesses in being remote from the intimidatory and re-traumatising courtroom. In this context, digital communication technologies can be seen as *techniques of mitigation*, supporting resilience, ameliorating vulnerability and enabling best evidence. However, the empirical data also reveal complexities that challenge the wholesale use of remote communication technologies.

Keywords Vulnerable witnesses • Witness intermediaries • Remote testimony • Remote cross-examination • Pre-recorded evidence • Human connection • Emotion • Nonverbal communication • Participation • Interpretation • Efficiency • Technological issues

Introduction

So far, this book has surveyed relevant literature, legislation and caselaw to provide theoretically derived (Chapter 'Digital Criminology, Vulnerability Theories and Digital Vulnerability') and legally derived understandings of vulnerability and the range of special measures available for vulnerable individuals (Chapter 'What Is Vulnerability in Criminal Justice?'). But what happens in practice and courts? Chapters 'Remote Vulnerable

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_5

Witnesses, Complainants and Victims', 'Remote Vulnerable Defendants' and 'Future Visions of Digitalised Criminal Justice' draw on 175 interview and survey responses from judicial officers, lawyers and affiliated criminal justice professionals to reveal professionally derived understandings of vulnerability, and the use of remote communication technologies, now and into the future.

In this chapter, the empirical dataset is thematically analysed to highlight the rationales and advantages of using pre-recorded evidence from police interviews as well as remote communication technologies, including CCTV and AVL, for vulnerable witnesses, complainants and victims (hereinafter, 'vulnerable witnesses') for giving their best evidence. In this chapter, the dataset shows real benefits for such vulnerable witnesses in being remote from the intimidatory and re-traumatising courtroom, and accused person. In this context, digital communication technologies can be conceptualised as *techniques of mitigation*, supporting resilience (as explained in Chapter 'Digital Criminology, Vulnerability Theories and Digital Vulnerability'), ameliorating vulnerability and enabling best evidence. However, interview and survey respondents also identified complexities and some disadvantages that challenge the wholesale use of pre-recordings and remote witness facilities.

What Is Vulnerability?

While Chapter 'What Is Vulnerability in Criminal Justice?' demonstrated strict legislative definitions of vulnerability, survey and interview data reveal broader understandings of vulnerability in practice. Survey respondents expressed concern that some people do not fall within narrowly defined provisions and may be ineligible to make use of special measures. As we saw in literature reviewed in Chapter 'What Is Vulnerability in Criminal Justice?' (e.g. Owusu-Bempah, 2020), almost everyone that enters the criminal justice system, on either side, falls 'into a category of vulnerability. Not the defined legislation definition, but most people would be [vulnerable]' (P11). According to P11, vulnerabilities stem from mental and physical disabilities, or learning/coping inabilities, as well as the court's 'very foreign, sterile environment that's incredibly formal'. Many interviewees focused on the innate vulnerabilities of children, and vulnerabilities arising from the nature of the offending, including sexual matters, family violence and fatalities (WAS1). Vulnerabilities arise because 'a lot of kids have had a difficult start … difficult home life', often having

been in state care, so: 'we see a lot of additional layers of vulnerability and challenge and poverty' (P18). WAS2 explained that if someone is a victim/survivor of family violence or sexual assault, they would be automatically considered vulnerable, noting there may be compounding layers of vulnerability arising from cognitive impairment, mental illness, substance abuse and communication needs, rendering them 'more vulnerable'. The speech, language and communication needs of individuals were highlighted by a witness intermediary as leading to vulnerability. Such communication needs might arise from a developmental language disorder, autism, foetal alcohol syndrome, intellectual disability, mental health difficulties, stroke, neurological or neurodegenerative conditions, or motor neurone disease (Wi1). P16 suggested that Aboriginal and Torres Strait Islander peoples dealing with the justice system present 'probably the biggest, one of the greatest areas of vulnerability. Partly because of the lack of interpreters'. DCJ1 summed up their experience of vulnerability:

> in terms of greatest degree of complexity, it would be five-year-old child, English as a second or third language, raised on a remote island in the Torres Strait. Interpreter in Torres Strait Creole.

How Is Vulnerability Identified?

Survey respondents detailed how the assessment of vulnerability is framed by the legislative definitions meaning that certain individuals are automatically treated as vulnerable. This is the case for sexual assault complainants who, after being flagged, work closely with the witness assistance staff who are 'well trained in identifying particular vulnerabilities' (P9). The survey responses highlighted the significant role of these witness assistance services, in addition to police officers and intermediaries, in identifying vulnerability. For instance, a Witness Assistance Officer explained the process:

> I conduct a social work assessment upon commencement of the prosecution process—looking at their family circumstances, housing/financial circumstances, mental health, the impact of the crime, disability/health issues, concerns about court, and their formal and informal support network.

Survey respondents referred to psychosocial assessments, cognitive capacity testing, the importance of pre-trial conferencing as well as self-identification. Some surveyed lawyers commented that they drew on their

professional experience in assessing an individual's ability to understand, interact, communicate, explain and repeat information. P13 stated that vulnerabilities often become apparent when screening the brief for the nature of the crime, indications of cognitive impairment, or if the witness is a First Nations person. Witness intermediaries focus on assessing witnesses' 'ability to participate in the legal processes' (Wi1) and then make recommendations for the ground rules hearing based on that assessment process (see Jacobson & Cooper, 2020).

A survey respondent suggested that vulnerable individuals are not always identified, flagged or supported properly. This is not the fault of the technologies, which can pick up 'even the most subtle markers', but 'rather a lack of awareness… meaning vulnerability markers are missed'. According to survey responses, there are barriers to assessing vulnerabilities including time pressures, police sometimes lacking training in identifying vulnerability, and the 'ad hoc' use of witness intermediaries and justice advocacy services. There are barriers in legal teams' understanding and resources. Some vulnerabilities are not obvious, for instance, difficulties in 'reading and writing often fall through gaps', and some individuals 'may not want to highlight vulnerabilities'. Whether an individual is to be treated as vulnerable is, according to one respondent, 'subject to the views of the judiciary. These views are not always consistent,' suggesting a level of unpredictability.

How Are Vulnerable Witnesses Supported?

Most survey responses related to vulnerable witnesses and highlighted the many beneficial supports: pre-recorded interviews, remote witness suites, AVL/CCTV, victim/survivor and witness assistance services, and intermediaries. As discussed in preceding chapters, these measures are supported by considerable scholarship (e.g. Cashmore & Shackel, 2018; Fairclough, 2023). Survey respondents highlighted diverse individual needs for support, for instance:

> It clearly depends on the vulnerability. As a prosecutor, I specifically make time and room to discuss a person's vulnerability with them and any measure they would like or consider receiving to assist the individual. I then often rely on legislative entitlements to those adjustments, or seek the consent of defendant representatives where there is no legislative provision. Generally speaking, most practitioners engage in positive dialogue and in

good faith about vulnerabilities of witnesses etc. without much adversarialism—most people want to get the best from a witness.

Interview responses recognised the 'heightened need' for additional supports at the problematic time of court activity (WAS2). Courts have benefited from being less traumatic due to greater attention being paid to the communication needs of witnesses (DCJ1), the use of remote witness suites and the presence of support people (survey respondent). Beneficial supports identified by survey respondents include court companions, structured breaks in proceedings, processes of familiarising the witness with the court facilities, trauma-informed specific court planning, assistance dogs, hearing loops, interpreters, comfort strategies (e.g. fidget toys and drawing materials), coloured post-it notes and signs to communicate distress, adjustment of questioning style, clear language, visual aide-memoires, and liaison with support services, psychoeducation and crisis counselling. Despite all the supports, P15 felt that nothing 'makes this process easy' for vulnerable witnesses because the criminal justice system is just so hard when they have to re-live 'horrific events'. But P7 was optimistic that 'all these strengthening factors' support witnesses to get 'some meaning out of this system'.

Witness Intermediaries

In conjunction with remote modes, interviewees were supportive of witness intermediaries, stating they're 'very, very helpful' (M4), 'amazing' and 'everyone should have a witness intermediary' to reduce stress (P12). Wi1 emphasised the intermediary's role as 'making communication between an individual with communication needs and the police or the courts as effective as possible, so that the witness … is able to give as accurate, complete and reliable evidence as they're able to do'. Such trauma-informed approaches support individuals' coping mechanisms and abilities to coherently testify (Judicial Commission, 2022; Kendall, 2024).

Judicial perspectives showed how intermediaries are useful in framing questions that a witness can be fairly expected to respond to and proposing creative solutions 'which the court wouldn't have thought of' such as using picture cards, improving the quality and reliability of the witness' evidence (SCJ5). SCJ6 had encountered very good witness intermediaries who assisted parties and counsel to structure questions appropriately and who were circumspect in interrupting proceedings.

On the other hand, SCJ1 argued that the use of witness intermediaries is 'all bunk … a nonsense, woke idea' because the prosecution and police 'should be trained to question child witnesses, vulnerable people, properly themselves. We shouldn't need some intervening person'. SCJ1 described witness intermediaries as 'introducing an extra complication' that insulates the vulnerable witness from 'really deep scrutiny'. DCJ2 was cynical about intermediaries, suggesting that they 'provide props', a comment made in reference to an interview with a remote child, presented on a bed with a dog and fluffy toys. Defence lawyer, DL22, suggested that witness intermediaries prepare almost identical, 'cookie cutter' reports and intrude unhelpfully into cross-examination.

What Is the Interplay Between Vulnerability and AVL?

Getting to the crux of this study, participants were asked about the interplay between vulnerability and remote modes (hereinafter referred to as AVL). For remote vulnerable witnesses, the thematic analysis points to circumstances where AVL promotes resilience, that is, the capacity to withstand or overcome the adversity of criminal process, and provides a technique in mitigating digital vulnerability. However, there are also some complexities and limitations revealed by the dataset.

Victim Conferencing

Regarding establishing trust and rapport with remote vulnerable witnesses during victim conferencing and victim proofing meetings, interviewed prosecutors discussed the challenges when there is no physical or emotional proximity. P2 stated that AVL:

> just made it so much harder for me to connect with [a remote complainant] to be able to reassure her … there came a point at which I realised she was actually crying and I hadn't been able to gauge that. So that was a failure.

P3 shared that they prefer 'that one-on-one, that face-to-face conversation' with their vulnerable witnesses for rapport building. There are difficulties in establishing rapport during sensitive victim proofing meetings by AVL with people who do not speak English as their first language or where there is a 'cultural disconnect' (P16). Some child victims cannot engage

well with the AVL (P18). WAS4 thought that proofing for children 'needs to preferably be done with everyone in one shared space' because 'it's really difficult to build a rapport over the screen'.

Pre-recorded Police Interviews

While legislation enables pre-recorded evidence hearings for certain vulnerable witnesses,[1] many participants raised issues regarding pre-recorded police interviews. Pre-recorded evidence can assist in contemporaneously capturing a complainant's experience, supporting recall and minimising their need to repeat the evidence, however, there are limitations where the complainant is difficult to engage with, the police interviewer is less experienced, or when technical issues arise (P17). Following my caselaw analysis (Chapter 'What Is Vulnerability in Criminal Justice?'), my dataset reveals issues when the complainant cannot be well seen, or it cannot be determined who is speaking. P17 explained that in police interview rooms, the camera might be poorly placed, providing blurry images and bad audio. P15 had experienced a pre-recorded police interview being in such 'a really darkened room', it was inadmissible. P17 felt that police need greater training in interviewing vulnerable witnesses if pre-recorded interviews are to be used as evidence-in-chief. P17 had a pre-recorded interview ruled inadmissible because some prerequisite questions weren't asked of a child to confirm that they knew the difference between the truth and a lie. DCJ2 had seen pre-recorded interviews with 'all manner of technical problems, … staging problems, … leading questions, prompting undue elevation of the heroic status of the police officer in the eyes of the child which can be quite intimidating'. Moreover, as discussed in Chapter 'What Is Vulnerability in Criminal Justice?', there are conflicting reports regarding the impacts of pre-recorded evidence on conviction rates (Holt, 2025).

AVL as a Remote Safe Space

SCJ1 observed that 'it's intolerable … for … someone who's suffered at the hands of someone else to be in the same room as them and all the risks of re-traumatization'. Going to court is 'scary' and 'anxiety-inducing' (VS1). Survey responses show how AVL is a 'form of protection' against being re-traumatised by being in a shared courtroom with the accused. It provides an environment that is 'safe, less formal', private, calm, comfortable, supportive and convenient, according to survey respondents. One

respondent argued that there should be a focus on how AVL promotes greater participation by creating safety for vulnerable witnesses: 'witnesses who feel comfortable and safe understand questions better, require fewer breaks, and can be more articulate in their responses, which ultimately assists the court'. With such technologies, 'the witness is more likely to be within their "window of tolerance" (i.e. not in a heightened emotional state) and better able to understand questions and answer them articulately and truthfully'. These perceptions accord with interview data. For instance, a witness intermediary observed:

> [we] are doing everything that we can to reduce distress and further traumatizing somebody in that environment, which is a complex, hierarchical traditional environment that is confusing for adults … it's a no brainer that it's a better system (Wi3).

SCJ2 agreed that AVL 'must facilitate to a much greater extent a vulnerable witness, like a child, being able to speak about things that they would really struggle with if they were sitting in the courtroom in front of trial juries and a Judge'. AVL can ameliorate vulnerability and support resilience according to P12 who said that 'once complainants understand that they're not going to be in the same courtroom as an accused and they're not going to have to see them … you just see the relief on their face'; their relief is palpable. P18 added:

> it's great for victims to give evidence via CCTV, particularly children. I mean, who wants to be in the same room after … for example, a biological dad has sexually abused you?

Without remote modes, many vulnerable witnesses would simply not be able or willing to participate in the process. SCJ5 queried whether it's better to have a young complainant's evidence in the courtroom or by AVL: 'In the courtroom, you have them in 3D, but you also have all of the anxiety and stress surrounding that 3D person'.

WAS3 advocated for AVL as a means for vulnerable witnesses to give their best evidence because they 'need a sense of not only physical safety, but emotional safety … we're talking about people who have … lots of vulnerabilities'. Survey respondents argued that more vulnerable people ought to be able to give their testimony remotely and automatic rights to AVL should be expanded, for example, victims of assault or kidnapping

can be severely traumatised by being in the same space as the accused. The 'intimidating atmosphere of the court and the need to confront the accused' can be detrimental and P16 spoke of how giving evidence by AVL, with a court companion, was beneficial for a victim of trespass and assault. Even though this individual was not within 'one of the typical categories or statutory closed categories of vulnerable people … it's clearly evident … that they benefit from having that distance from the court and … accused' (P16).

Confronting the Accused

Conversely, WAS3 discussed how some vulnerable witnesses opt to give their testimony in court on the basis that: 'I need to stand up for myself, and I need to be there physically in court to do that in front of him'. During the reading of victim impact statements, 'you'd be surprised at the number of people who want to eyeball the perpetrator' and tell them directly how they have 'fucked up their lives' (DCJ2) and the 'harm that has befallen them' (VS1). CCJ1 explained 'some witnesses want to be in the presence of the person who harmed them' to get closure. M1 said that it's paternalistic to assume that a vulnerable witness doesn't wish to be present in court, while VS1shared that victims should be allowed to make that informed choice if they wish to be in court. It is a very personal decision regarding what will work best for vulnerable witnesses. Even though the legal outcome is out of their control, WAS3 suggested that:

> what is within their control is … that once they finished giving their evidence, they can walk away feeling proud of themselves … Some people actually have the view that they need to do it in-person because … it would be weird on the screen … for them, it's important to be seen in-person in court; other people will do it because they actually want to face the accused person and be able to tell their story in front of the accused. … there's always a level of a little hope … very often complainants will say, "I want to see … how he reacts to what I say," or, "I just want him to admit to it."'

No matter how 'vulnerable' or 'resilient' a witness might be, they can be astute in knowing what they want (P7). VS1 said that many survivors of sexual assault want to have their experience validated and acknowledged, and spoke about a complainant who 'gave all her evidence in court for the purpose of wanting to give her case the best chance of being

believed and getting the outcome that she wanted'. However, the verdict was not guilty. While giving evidence in-person instead of remotely is no guarantee of a guilty verdict in sexual assault cases, being present in the courtroom enables the complainant to gauge the 'mood shifts' of the jury (VS1). WAS2 discussed how some prosecutors try to encourage vulnerable witnesses to give their evidence in court in-person, but the advice that WAS2 gives to victim/survivors is to think about where they will give their best evidence, where they will be less distracted by the accused or jury, and therefore able to speak coherently. WAS3 shared that it's important for vulnerable witnesses to be in a location where stress hormones are not clouding their thinking as they have 'one shot to do the best job that they can as a witness, and they should do it where they feel safest'.

AVL: Technical and Spatial Considerations

Not only does AVL provide a physically and emotionally safe space, it enables measures aimed at blocking images and sounds of the accused person. However, according to a survey respondent, even if the vulnerable witness is remote from the courtroom, there are challenges in blocking the screen image of the defendant requiring 'placing post-it notes on the complainant's screen to cover the square where the defendant appears'.

There are spatial considerations when vulnerable witnesses are allowed to give their testimony from a remote witness suite within the courthouse but must still enter/exit the courthouse and wait in a communal area where the accused and/or their supporters might be present. Circulation routes can overlap and be intimidating. However, one respondent commented that there is sometimes resistance to allowing vulnerable complainants to appear from locations remote from the courthouse 'despite genuine fears of intimidation, re-traumatisation, or even basic accessibility needs'. There is scope for remote witness facilities that are separate from the courthouse. Private videoconferencing service provider, VJ1, spoke of their provision of 'nondescript', anonymised rooms in undisclosed sites outside the court complex. This ensures the protection of vulnerable witnesses and gives them confidence that no one can identify their location. On the other hand, giving evidence from home can cause issues 'as the traumatic material "intrudes" in their home environments' and it can be isolating to give evidence at home without support during or after giving evidence.

Digital Exclusion

Remote vulnerable witnesses require technological literacy, internet stability and access to suitable devices (Kretowicz & Powell, 2024) if they appear from home. However, it is a privileged perspective to assume that people can access appropriate technology and there is an issue concerning equality of access. Even for court-controlled facilities, P14 expressed concern that, rather than remote appearance 'being a trauma-reducing experience, it could be an alienating experience', for people who are less familiar with technologies.

Access to justice is not necessarily guaranteed by online procedures, and a survey respondent relayed an example of digital exclusion of a victim's family:

> Indigenous next-of-kin in a murder trial were unable to observe trial proceedings due to not having access to a computer, and not being able to afford to … make the … journey to the city-based courtroom.

Another respondent mentioned the need to sometimes pay for internet connections for vulnerable witnesses to give evidence from home or to arrange for evidence to be given from a police station. However, this can be problematic for complainants with 'a cultural distrust of police', rendering them more vulnerable. One survey respondent provided the following:

> I have had appearances via AVL regularly objected to because the only option was from the person's mobile phone and the court deemed this unsuitable and only police stations and court houses were suitable. This then meant vulnerable people were … accessing traumatic and difficult locations.

The issue of 'police trauma' arose in interviews too and P11 stated:

> Often, witnesses and complainants in criminal matters are also accused people or have been accused people and don't have a great relationship with police … there's … trauma that's raised when you're sending them off to a police station.

DCJ2 added: 'I won't let a witness give evidence from a police station either because that legitimates them as being potentially more bona fide

and it demonstrates the court can't bring people before it unless the police facilitate it'. On the other hand, P16 suggested that witnesses in remote communities are generally comfortable in using police AVL facilities: 'because they're such small communities … they have a pretty close relationship with the police most of the time'.

Court Authority, Cross-Examination and AVL

According to survey respondents, there are possibilities of informality, interruptions and inappropriate conduct, and concerns regarding whether the gravitas of the situation is still conveyed via AVL. These issues have been examined in other literature (e.g. Rowden & Wallace, 2018). For instance, SCJ4 spoke of a witness appearing from an Indonesian island while smoking a 'reefer'. P11 noted that the court lacks overall control regarding 'what's happening on the other side of the screen' when a witness appears from a non-court site. There can be problems in ensuring there is no one else in the room with a remote witness who could influence or taint their evidence (P4). It is, therefore, preferable to have vulnerable witnesses appear by AVL from controlled environments: a police station or a courthouse, with secure links and a sheriff (SCJ6, M6), where 'you know that they are not getting coached' (M5). The issue of remote witness management was also raised by M4 who said the absence of the 'authority of the court' leads to 'a greater propensity … for people to prevaricate … avoid answering questions'. By contrast, 'the aura of a courtroom … deliberately … puts parties into an element of awe at the authority of the court' (M4), and compels them to observe the gravity of the situation (DCJ2). M4 stated that it's good for witnesses to be 'a little bit uncomfortable [in the physical witness box], because then they tend to be more honest'. M3 advised that 'if you take a traditionalist approach, witnesses ought be in court, within arm's length, where you can … see the dynamics that play out when being examined-in-chief and … cross-examined'. Nevertheless, M3 said that most remote individuals understand that they are appearing from 'an extension of the courtroom' and are respectful.

The authority of the court may be further diminished during cross-examination if remote witnesses switch off the link or 'storm off' (DCJ2; DL25; P9). Both M6 and SCJ5 spoke about remote witnesses appearing from private locations who, when pressured during cross-examination, decided they'd had enough, turned off the computer screen, and left. From a defence perspective, remote vulnerable witnesses have more scope

to leave the AVL if 'questions get dicey', perhaps take unnecessary breaks, raising questions as to whether they need the breaks to collect themselves, or just to gain more time to formulate answers to difficult questions (DL22). This makes assessing credibility difficult and disrupts the flow of cross-examination (DL22). Additionally, when a vulnerable witness is not in the courtroom, the 'fallout' from cross-examination cannot readily be perceived (DL22). While it is triggering for complainants when defence lawyers suggest they're lying (WAS4), a survey respondent observed that it is 'incredibly difficult to cross-examine witnesses and on many occasions the support worker needs to be directed to stop instructing the witness. The presumption of innocence is being slowly eroded'. Similarly, DL39 shared: 'any defence lawyer will say [AVL] makes cross-examination much harder', and harder to get at the truth, because AVL 'emasculates … the violent power' of criminal courtrooms (DL4). For example, if a client instructs their lawyer that the witness is not telling the truth, the lawyer wants to have that 'opportunity to really put to them this didn't happen, this isn't correct' (DL39). AVL diminishes the efficacy of the cross-examination 'artform', whereas, in-person, DL39 suggested that it's easier to gauge a witness' responses, demeanour and body language. In terms of 'the truth', DL39 felt that being in a room full of people makes witnesses more honest, while it's easier to 'lie if you're alone in a room'. On that basis, DL39 said remote modes can be detrimental to the accused's case. The combination of AVL and intermediaries 'really hamper' the cross-examination of vulnerable witnesses. Yet, defence lawyers acknowledged that AVL is an 'incredibly important' safeguard (DL22), especially for young sexual assault victims, taking 'the sting out of the inherent intimidation' (DL33). There is increasing recognition that 'zealous advocacy' and 'cross-examination as an engine of truth' can be secondary abuse (Lee et al., 2025).

The Human Elements in Court

Human Connection

According to survey respondents, AVLs can alleviate stress for vulnerable witnesses but simultaneously lead such individuals to feel disconnected, to feel 'not present' or 'out of sight, out of mind', and they cannot be easily shown documents. One survey respondent commented 'I often see little

concession and or value placed on how difficult it is for many people to give evidence … with this level of disconnect'.

DCJ1 raised the points that they 'don't get the whole picture' of the remote witness or 'their respective size relative to other people,' for instance, 'if it's a child witness, you don't get the same sense of physical smallness that you would if they're being brought in in-person'. Remote witnesses can seem 'so far away and so small' and not adequately perceivable: 'at distance, you can't see their face … sometimes you can see that they're emotional, but … you will completely lose attachment' (SCJ3). DCJ1 suggested that technology creates a disconnecting and disassociating barrier in perceiving evidence from remote witnesses. The actual lighting can be problematic in just perceiving the witness. For instance, P2 said that they once had to use 'community corrections AVL. The lighting there was appalling so we ended up getting the fire brigade to bring in their spotlight, the big lights they have for night-time work, and we … angled them so that the jury could see the face of the victim properly'.

P10, too, suggested that whether best evidence is provided by AVL is an issue on which 'reasonable minds differ'. SCJ4 expressed concerns that, when pre-recorded evidence is replayed to a jury, if 'it's like seeing somebody on TV, whether it actually does have the same impact on … a group of human beings being the jury'. SCJ6 also stated that remote witness testimony is 'not as confronting or as powerful as when it is expressed in the courtroom … there's … depersonalisation … it's like you are watching something … on a monitor that isn't quite happening'. SCJ5 compared a first trial, in which a child complainant gave evidence via AVL, versus a second trial, in which the child was cross-examined in-person. Half an hour into the in-person cross-examination, the child suddenly said that none of the incidents had occurred and the accused was immediately acquitted. SCJ5 said:

> I'm not sure whether or not the accurate evidence was the one given by AVL, or … the one given in-person … I suspect her accurate evidence was probably the evidence given [originally] in the AVL room rather than in the courtroom, but it's impossible to tell. It's certainly a lot more intimidating giving evidence in a courtroom compared with an AVL room, so that the additional pressure, the passing of time might have made a difference as her memory … I don't know but it's a fairly stark illustration of a case where under AVL she gave a consistent account from beginning to end, and then in the courtroom, the account changed.

Clearly, several judicial officers had questions whether remote or pre-recorded testimony magnifies or diminishes the weight attached to it by juries, and there were questions whether remote evidence is accurate. While I did not interview jurors, the perceived impacts indicate judicial reservations and the impacts on them when acting in judge alone matters.

Emotion and Empathy

The one-dimensionality and the rupture to live, spontaneous courtroom interactions can impact the expression of emotion and empathy in court and during legal consultations (Bandes & Feigenson, 2020; Flower, 2025; McKay & Macintosh, 2024). One defence lawyer suggested that the introduction of AVL plus intermediaries for vulnerable witnesses means 'added layers of signalling to the jury that this is a vulnerable person. It is absolutely detrimental to our [defence] case, because any person who sees a vulnerable witness is going to be more empathetic towards them' (DL22). This perceived forensic disadvantage to the defence case is challenged by the following responses that suggest the remote appearance of a vulnerable witness may, instead, produce a forensic disadvantage for the prosecution case (M1).

Engagement with vulnerable witnesses in the courtroom is 'more compelling' (P18) as their emotional state can be sensed (M1), and the jury members are seeing 'literally the tears … hearing their voice while they're in the same room' (P18). Regarding in-person vulnerable witness testimony:

> there's a lot of emotive weight that comes with their evidence … it can be quite a persuasive aspect of their evidence, not just what they say, but how they say. And to hear the little things, voice, little trembles in the voice, or the deep breaths … that might be lost over an AVL link. (DL33)

Conversely, the remote mode diminishes the emotional potency of vulnerable witness testimony: it's 'less confronting or powerful' when testimony is akin to watching television (SCJ6). This is so pronounced that defence lawyers may consider that remote witness appearance is 'prejudicial to the prosecution's case and therefore beneficial to their case' (SCJ3). For instance, SCJ2 suggested that remote or pre-recorded evidence from a child complainant in sexual offence matters is a 'little bit less confronting' as the technological mode takes 'all the emotion out of it', that is, AVL or pre-records are a 'buffer to the impact' of distressing testimony.

DL26 suggested that remote witness testimony can feel 'sterile' and DL33 stated:

> In terms of what might be lost for the vulnerable witnesses, the most common kind of vulnerable witness is a child who is the victim of a sexual offence … sometimes the emotion that is inherent … isn't totally translated [by AVL]. And from a defence perspective, sometimes the evidence can come across even about very horrific things, a little bit emotionally flat. And I wonder to the extent to which either jurors or whoever the trier of fact might be, put any weight in that.

DL4 said they liked pre-records because the jury are 'less likely to be impressed by somebody on a screen than up close and personal, face-to-face', suggesting a disadvantage to the prosecution case. Despite the ongoing assumption that AVL enables vulnerable witnesses to give their best evidence, SCJ1 was sceptical and stated that when they were a prosecutor:

> this is going to sound terrible—that you knew you were on a winner when your witness cried … you were going to get a much more sympathetic jury … You get less of that happening of course when they're on the screen. So there's a jaded cynicism about the idea … but in terms of persuasion, something can sometimes be lost by them not being in court and not being as obviously upset.

While DCJ1 appreciated why all children cannot be physically present in court for beneficial reasons, simultaneously:

> one of the disadvantages is—and I think a lot of judges hold this view—it's actually much harder for a jury to empathise with a witness if their evidence is presented on a video screen. It's easier for a jury to disconnect from the evidence they're hearing if the person is not physically present before them. So, the advantages to the vulnerable witnesses in being physically remote in a separate room appearing on the screen, are to some extent offset by some disadvantages.

A survey respondent agreed regarding the impact of remote evidence on juries:

> I think AVL is being far too widely used. It dilutes the impact of the evidence. When juries watch video recordings, they appear to pay less attention and become tired more quickly.

DCJ2 said that 'a witness who is not there in three dimensions is a less potent witness' because criminal trials are about 'real people, real stories … It's not a TV show'. One survey respondent argued that while AVLs might expedite procedures:

> I am unsure at what cost for the defendant. Sometimes for the victim. Technologies can sanitise a person's evidence because it removes the jury from having to see them in-person and ask for breaks when they are struggling. I'm unsure as to whether it might actually result in more acquittals because the evidence is sanitised through technology. But then maybe the complainant may not have been able to give their evidence if the technology was not available.

On the other hand, P14 felt that remote evidence from vulnerable witnesses was well received now by jurors because 'it's standard procedure' and the 'mystique and problem around witnesses appearing by video link' has dissipated. Remote witnesses still 'break down and cry' (M2) and their 'emotional charge' surges through the courtroom (P9). A survey respondent stated that AVL 'assists in allowing the vulnerable witness to speak about their horrific experiences in a safer environment'.

A final issue regarding emotion relates to Victim Impact Statements (VIS). WAS4 said it's unacceptable when an offender remains in custody and appears by AVL during a sentencing hearing because this forces the victim to read their VIS to a screen without the opportunity to directly convey the emotional impact. SCJ1 spoke about the need to have the offender in court for sentencing for serious offences where 'there's a real-life identifiable victim' and the victim's family want to be 'present … angry … hateful … towards the accused'. Importantly, justice must 'appear to be done from the point of view of the victims' (SCJ1). However, victims and supporters can benefit by watching proceedings remotely: 'participate in the hearing without feeling vulnerable about coming into the room with the offender' (CCJ1).

Nonverbal Communication

Survey respondents commented on nonverbal communication, suggesting that AVL has some negative impacts including 'body language cues may not be visible to tell when a witness is becoming distressed or agitated', meaning that vital support for that remote vulnerable witness might be missed. Wi1 stated that technologies can generate additional barriers to communication due to the lack of visual cues, added stress and complexities in understanding who is speaking during remote hearings and audio issues. As an example, Wi1 spoke of a very vulnerable complainant who was happy to be remote from the accused person, but a layer of 'technology glitches and breakdowns just made communication generally a lot harder'. This intermediary suggested that, had the complainant been in the physical courtroom, it would have been easier to monitor the language, ensure 'she understood what was being asked of her, and [that] she had … every opportunity to give her responses to the best of her abilities'.

Remote communication technologies do not always assist vulnerable witnesses. DL22 spoke about a vulnerable prosecution witness who had a competence issue:

> He was effectively non-verbal and was in a remote witness room and so basically gave his evidence via gestures. The prosecution made an application for him to use a program where words were pre-programmed in … We resisted that, because they're not his words, so we don't know if he's been led to conclusions because he may not have used the word 'choke' and he may not use the word, 'shove'. He may use a different word … Eventually the magistrate agreed … that he wasn't competent and so his evidence was rejected … [and] AVL wasn't going to solve it.

The dataset also reveals insights into judicial officers assessing the evidence of remote witnesses. Demeanour and other cues are 'more obvious in the courtroom' (DCJ1), while credibility assessments are 'handicapped' by witnesses being remote from court (M1). However, SCJ1 and SCJ2 considered that demeanour assessments are over-rated so the imposition of AVL does not specifically challenge that process. According to SCJ1, what is more important is the content, 'the substance of what they're saying. Does it have the ring of truth? Is it consistent … is it inherently believable?'. SCJ2 emphasised that it is what witnesses say, 'how that fits with other objective pieces of the puzzle', that is crucial. M3 explained that 'a judicial officer would [not] ever base an ultimate determination on

demeanour only, but sometimes these types of discrete aspects of one's evidence can be lost via AVL, because it is a very one-dimensional manner through which to give evidence'. These observations echo concerns expressed in scholarship regarding the loss or mediation of nonverbal communication by AVL (e.g. Denault et al., 2025).

Participation over Vast Distances

AVL is beneficial for vulnerable witnesses in providing convenience and in reducing vast distances, an issue of great significance in Australia. SCJ4 said:

> The issues of distance and provision of services is very big in very remote areas … I mean, Elcho Island. One of the hardest places for service delivery in the world, not just in Australia. So [AVL's] great when it works.

P16 spoke about how AVL can facilitate the participation of remote victims' families in Aboriginal sentencing when there was a 'logistical nightmare' with families from Alice Springs and Anangu Pitjantjatjara Yankunytjatjara (APY) Lands needing to get to Adelaide. When working in Tamworth NSW, P19 was struck by how witnesses come from interstate as well as from towns hours away such as Boggabri, Moree and Mungindi. Then there are often witnesses appearing from overseas because they've left Australia before giving evidence (SCJ4).

Participation and Interpreters

There is a critical need to facilitate interpreter services for remote individuals (Ran, 2023). Many interviewees commented on the issue of remote interpreting, especially for Aboriginal and Torres Strait Islander peoples for whom the language of the court—English—might be their second or third language. Apparently, much interpreting occurs by telephone without any visuals or the opportunity to meet beforehand to understand the exact needs: 'Do they need word-for-word interpreting? Do they need just every sentence? Is it going to be … just a summation at the end? They don't have that that sort of the benefit of meeting with the person beforehand to be able to gauge that' (P16). SCJ4 mentioned that they 'work with interpreters a lot because we have so many Indigenous languages', but also many overseas languages.

Remote interpreting by telephone is particularly challenging and sometimes the witness has 'concerns about how the interpreter is interpreting … [or] it's [clear] that maybe they have a different dialect' (P18). P2 explained the complexities of remote victim conferencing and some of the reasons that a vulnerable witness might not want an interpreter for cases concerning sexual assault:

> Interpreters can be a bit of a vexed issue … Because often the victim actually doesn't want to have another person listening to their private business and because there's quite close relationships with interpreters and the general Aboriginal community that they're interpreting for, even though the interpreters have signed up to and being trained in their confidentiality, people still have suspicion around it.

M5 categorised the use of multiple technologies for interpreters as going 'double remote'. For vulnerable witnesses, P3 explained that interpreters would usually sit beside them in the vulnerable witness space, but there are still problems around interpreting legal terms and conveying all information to the witness. Magistrate M4 said:

> Of course, having interpreters just complicates everything by an exponential factor, because everything has to be done more slowly and takes twice as long … Having an interpreter online, particularly if they're not with the party in the same room … that just aggravates the difficulty … where possible, where you've got an interpreter, having the interpreter present with the person online, in the same room is better, but ideally, they should all be present in court.

Efficiency and Technological Issues

Most survey respondents believed that AVLs expedite criminal proceedings. Vulnerable witnesses can be more readily involved and there are fewer 'no shows', especially from regional and remote areas. Put simply, without remote modes, some complainants would not be able to give their evidence in open court:

> Remote access technologies can expedite criminal proceedings because the vulnerable witness is in a safer, less stressful space than the courthouse and therefore is more emotionally regulated and requires fewer breaks during evidence. (Survey respondent)

There are major travel and accommodation cost efficiencies, too, that AVL alleviates according to P3: 'hundreds of thousands of dollars' are saved in minimising witness travel. DL33 noted that AVLs are convenient and 'relatively cheap, compared to potentially having to fly witnesses, who would otherwise have to travel great distances to come to court and give their evidence'.

However, there are downsides to AVL: technological failures can cause delays (Smith et al., 2021) and heighten witness anxiety (Kretowicz & Powell, 2024). According to survey respondents, there are faulty links sent by the court, cutting off a victim straight after their VIS, limited or lack of access to suitable technologies and, finally, 'everything that could go wrong, does go wrong'. Some respondents felt that technological faults and 'significant delays are an issue and have serious negative effects on the witnesses, whether they are vulnerable or not'. Others stated that technological faults can heighten stress, anxiety, fatigue, hesitation, confusion, distress and frustration for vulnerable individuals. Faults can impact participation, the flow of proceedings, fluent communication, connection and comprehension, as well as lead to a distrust of court process. Particularly in regional areas, 'unreliable connectivity' makes 'the court experience clunky and disjointed'. The internet and facilities in places like Kangaroo Island can be 'trying' (P17). P14 observed that there needs to be greater attention given to services outages and 'sometimes it's not easy to tell whether it's the technology itself or the people who are operating' it that causes problems.

Delays in proceedings are sometimes caused by operator error and pre-recorded evidence (Kretowicz & Powell, 2024), including court officers who press the wrong buttons and then panic (SCJ1). Delays are also caused by 'logistical problems with exhibits' and access to documents, although one survey respondent said that can be easily overcome if lawyers prepare adequately. Undoubtedly, 'doing something in real-time with a witness, while they're in court, is easier' (SCJ1). DL17 pointed to occasional problems with pre-recorded evidence: 'there can be issues with voices being delayed … and we have to stop the recording, start again, kind of reset it. We definitely have had technological problems with those pre-recorded things'. In addition, sometimes support people may disrupt proceedings according to a survey respondent:

> A challenge can be that the support person may create a distraction which either breaks the concentration of the witness, or worse, makes them seem

> as though they don't care about the proceedings (I have had a support person make a complainant laugh during [proceedings]).

AVL might cut costs, 'but … it's exhausting at the end of the day' (SCJ4), referencing the cognitive overload—or 'Zoom fatigue'—of excessive screen time (Feigenson, 2022, p. 464).

Conclusion

This chapter reveals broad understandings of vulnerability amongst judicial officers, lawyers and criminal justice professionals. Children are considered the most vulnerable and, while some of these vulnerabilities are automatically flagged by the legislation, there are suggestions that more training on the 'markers of vulnerability' would be beneficial to avoid the 'ad hoc' treatment of vulnerable witnesses. Significant supports are made available to those designated as vulnerable witnesses, and the general consensus is that the use of pre-records, CCTV and AVL enable people to attend the proceedings remotely and give their best evidence (Jackson et al., 2024; Kretowicz & Powell, 2024). Such special measures ought to be celebrated (Fairclough, 2022). The minimisation of stress and retraumatisation provided by physically and emotionally safe remote spaces means that the 'sting' is taken out of the intimidatory and formal process. Vulnerable witnesses can be within their 'window of tolerance' and better able to coherently and truthfully respond to questions, leading to fewer breaks and more efficient proceedings. There are benefits in terms of convenience and in straddling vast distances, and the general conclusion is that the remote modes provide *techniques of mitigation*.

Participants' responses simultaneously temper enthusiasm for the technology. Concerns were expressed about the lack of the court's authority (Rowden & Wallace, 2018) when witnesses appear from inappropriate and unsupervised sites, particularly during cross-examination, when 'questions get dicey' and the remote witness may be tempted to just switch off the link or prevaricate. Some expressed concern that the 'artform' of cross-examination is hampered by videolinks. While some argued that remote appearance disadvantages the defence case by the amplified 'layers of signalling' of vulnerability, more participants raised questions regarding perceived forensic disadvantages to the prosecution case. There is the perceived diminution of the emotional impact, or sting, of pre-recorded or remote evidence-in-chief such that even 'horrific things' come across as

'sanitised', 'sterile' and 'emotionally flat'. However, it is unresolved whether conviction rates are impacted (Baksi, 2025; Holt, 2025; Thomas, 2023). There are additional barriers to communication for vulnerable witnesses when the technology malfunctions and complications when interpreters are also remote. Overall, there are trade-offs, and, as one judge suggested, the advantages of being remote might be offset by the disadvantages.

Note

1. For example, *Criminal Procedure Act 1986* (NSW), s 294G.

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CHAPTER 6

Remote Vulnerable Defendants

Abstract This chapter draws on the interview and survey data to highlight the advantages and challenges for vulnerable defendants using videoconferencing for remote legal conferences and court appearances. The thematic analysis of the qualitative dataset reveals benefits in terms of convenience and efficiencies for vulnerable defendants, defence lawyers and courts. However, significant challenges arise in the interplay of vulnerable defendants and communication technologies including compromised lawyer-client conferencing and confidentiality, as well as disadvantages in connection, communication, participation, engagement and comprehension. In this context, digital communication technologies can be conceptualised as *techniques of intensification*, diminishing resilience and compounding vulnerabilities.

Keywords Vulnerable defendants • Lawyer-client relationship • Legal conferencing • Confidentiality • Human connection • Communication • Comprehension • Participation • Efficiency • Convenience

Introduction

This chapter continues the empirical component and thematic analysis of the 175 interview and survey responses from judicial officers, lawyers and affiliated criminal justice professionals. Here, attention is turned to the advantages and challenges for vulnerable defendants, people-in-prison and

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_6

offenders ('vulnerable defendants') using videoconferencing (hereinafter, audiovisual links (AVL)) for remote legal consultations and court appearances. In some instances, the dataset touches upon vulnerable suspects in police custody, but the overwhelming focus is on legal practice and court. In general, the dataset shows that, for vulnerable defendants, AVL is frequently convenient for defence lawyers and their clients alike, less disruptive, usually functional, avoids transport to/from court, and potentially enables family video visits (Hanley et al., 2024). On the downside, there is insufficient infrastructure for confidential legal conferencing and instructions (Bellone, 2024), the technology can be detrimental to participation, engagement and comprehension (De Vocht, 2022), and there is inadequate and uneven support in custody for vulnerable defendants (Fairclough, 2017), especially for intermediaries and interpreters (Braun et al., 2018; Plotnikoff & Woolfson, 2015). On balance, the technologies seemingly compound, rather than mitigate, the digital vulnerabilities of remote defendants. Building on my earlier pre-pandemic doctoral research (McKay, 2018), this new empirical dataset highlights fresh areas of concern, and confirms continuing challenges for remote defendants regarding connection, communication, comprehension and confidentiality.

What Is Vulnerability?

Regarding vulnerable defendants, Chapter 'What Is Vulnerability in Criminal Justice?' examined how legal definitions are narrow, focusing on age and impairments, and legislated measures that accommodate vulnerabilities primarily benefit non-defendants (Dehaghani, 2020; Fairclough, 2017; Giuffrida & Mackay, 2021; Hughes et al., 2022; Jacobson & Cooper, 2020; O'Loughlin et al., 2024; Owusu-Bempah, 2020). While DL2 adopted a legalistic approach to defining vulnerability 'always revert[ing] back to the law', SCJ5 concluded 'I don't think the legislation has to draw bright lines … anybody who walks into a courtroom is vulnerable because the process is hard and … stressful'.

My dataset indicates broad understandings of vulnerability, given that 'accused people are just people from the community' (DL33). As discussed in Chapter 'Remote Vulnerable Witnesses, Complainants and Victims', there is an overlap between vulnerable witnesses' and vulnerable defendants' attributes, and between victimisation and offending: 'there [is] a saying, "Defendant one day, witness the next"' (DL11) and Wi1

stated that 'the line between victim and accused is very blurry'. DL32 spoke of clients who had been victims of violence and abuse.

The dataset shows that suspects can be vulnerable simply due to arrest (M5), the 'power disadvantage with the state' (DL32), and the sudden loss of agency (DL33), often building on a history of institutionalisation and incarceration (DL19). It is well recognised that 'the vast majority of people … in prison have some level of trauma … that makes them very vulnerable' (DL36). In the prison population, DL36 noted that 'women are particularly vulnerable in prison' because most are also victims. People with 'particular affiliations' and child sex offenders are vulnerable, noting that segregation can mitigate risks (DL36). These comments introduce systemic and structural vulnerabilities regarding powers of arrest, state power and gendered aspects when considering vulnerable defendants (Dehaghani, 2020).

Youth was emphasised as a vulnerability: 'you've got the young cohort of … 10 to 13, who are just particularly vulnerable' (DL8). Vulnerabilities stem from the trauma of detention that can be 'horrible, horrible, horrible places' (YJ2). Children are pulled 'into the criminal justice system really quickly and really brutally', and 10-year-olds might be remanded without ever appearing in court, or having anyone explain the process (DL8). Children often have the 'standard vulnerabilities … ADHD, FASD, expressive receptive language disability, Asperger's, a combination of … cognitive issues' (DL8). Many have hearing difficulties especially 'young people coming in from country … often, overlapping in multiple diagnoses' (DL7). DL14 and DL15 explained that 'First Nations kids … [are] the most vulnerable … [and with] the worst outcomes'. Often young defendants have experienced homelessness with 'histories of terrible trauma and terrible abuse and terrible neglect' (DL9).

Defendants' vulnerabilities commonly include mental illnesses, borderline personality disorders, socially deprived backgrounds, limited education and illiteracy (DCJ2). There are 'low levels of comfort with government systems … almost universal domestic violence, almost universal substance abuse' (DL31), as well as trauma from institutional sexual abuse (DL17). DL23 spoke of clients with 'drug addiction: one case that we had was someone in drug court who was appearing in their car and was consuming drugs on the videolink. That's a particular vulnerability'.

Certainly, my thematic analysis revealed social marginalisation as a factor, SCJ6 estimating that '70-80% of those appearing before the court' come from marginalised communities. In this regard, the dataset raises the

over-representation of Aboriginal and Torres Strait Islander peoples, while acknowledging that they are not a homogenous or inherently vulnerable population (DL11, DL12). Similarly, SCJ6, sought to refrain from stereotypes:

> under our Bail Act, an Aboriginal person is a vulnerable person. Now I say that without at all trying to generalise or insinuate that every Aboriginal person has vulnerabilities, of course, that's not the case. But many of the Indigenous persons who come before the court, either as a complainant or as an offender or an accused, do have vulnerabilities by virtue of their trauma; by virtue of poverty; by virtue of mental illness or cognitive impairment, etc. So, without seeking to generalise … some … Indigenous people that appear before the court can also be placed in that category of vulnerable.

Others highlighted Australia's 'huge closing-the-gap problem' (M5) between Indigenous and non-Indigenous populations, and DL6 explained that many in the Northern Territory (NT) 'would be very quick to label all Indigenous defendants as vulnerable'. DL3 argued that the level of vulnerability in remote parts of Australia is appalling: 'people on the east coast would be shocked by the level of vulnerability of the clients in Central Australia' on the basis that many people in remote areas have had limited engagement with the 'whole different world' of white people and white systems. DL18 referenced the *Anunga*[1] guidelines, 'created as a result of the vulnerabilities of Indigenous clients' especially in relation to police interviews, including vulnerability to coercion and gratuitous concurrence. Gratuitous concurrence involves agreeing to a proposition even if it's incorrect, due to a desire to assist (Eades, 2015), and can lead to 'miscommunication, misunderstandings and unjust outcomes, that is, vulnerabilities before the court' (DCJ2). SCJ1 said that vulnerabilities stemming from the intimidation of court process is 'doubly so [for] Indigenous people, triply so [for] Indigenous people who … live in isolated communities'. In Western Australia (WA), 'it's generally accepted that … [Indigenous] clients in the East Kimberley are a bit more complex, more entrenched in the justice system' and they commonly experience language barriers (DL37). DL2 alluded to communication difficulties: '[The client] might be saying one thing and you think you're understanding what they're saying [but] … you're not … Someone from Papunya [might] have a different word, and you really need to … get an interpreter involved … communication's key'. Communication was also key for

DL32: 'in a court setting … not speaking English as a first language', and needing a 'level of sophistication with the western justice system would be factors' indicating vulnerability. In addition to cultural and language barriers, DL8 in Darwin, NT, spoke about 'the vulnerability of distance' referring to the situation of 'taking a child off country … a huge level of vulnerability … [basically] a range of compounding factors of age, disability or difference in ability, language, location-based vulnerabilities'. Based in Kununurra, WA, DL38 discussed the vulnerabilities of children being transported to Banksia Hill Juvenile Detention Centre near Perth, thousands of kilometres away. The intersecting vulnerabilities were summed up by DL3: 'when it compounds, it just turns into an absolute shitshow … a real clusterfuck'.

Are Vulnerable Defendants Supported?

As Chapter 'What Is Vulnerability in Criminal Justice?' detailed, few supports are available to vulnerable defendants (Dehaghani, 2020; Fairclough, 2017; Owusu-Bempah, 2020), and this is borne out by the empirical data. One survey respondent commented that 'there is little assistance for vulnerable accused persons in gaol apart from being escorted to the AVL suite'.

DL22 spoke about trying to support a client with multiple vulnerabilities including autism, bipolar, ADHD and police trauma. Police trauma was described by DL22 as relating to clients' experiences of alleged brutality, unlawful arrests and racism. Given the hearing centred on police evidence that was going to be very triggering, the lawyer sought to mitigate the client's trauma by applying to use the remote witness room during proceedings. However, that application was denied, leading to adjournments every 15 minutes to de-escalate the client.

There are some accommodations available for vulnerable defendants and one survey respondent commented that they had been in a trial where the accused was fit to be tried, but required support. In that instance, the trial judge 'allowed the accused person to have more frequent breaks to ensure he was understanding the proceedings and able to speak regularly with his lawyers'. However, DCJ2 stated that many defendants' vulnerabilities are ignored: 'unless you're unfit to plead … then you're left to your own devices, I'm afraid'. According to SCJ4, there are challenges for defendants in that grey area between not being 'so damaged that they're unfit to plead', but are 'around the edges' of vulnerability. Support 'probably varies depending on how engaged they are with their lawyer' and that

support is undermined if the defendant appears remotely (SCJ4). As Giuffrida and Mackay (2021) detail, few jurisdictions enable vulnerable defendants to be supported by witness intermediaries, despite their communication needs being the same as vulnerable witnesses (Plotnikoff & Woolfson, 2015), and the fact that criminal proceedings are conceptualised as communicative endeavours (Ashworth & Horder, 2013). Yet, the ACT judiciary is conscious of defendants' vulnerabilities (SCJ5) and enable access to the witness intermediary programme.

Interviewees mentioned the Blurred Borders picture/story cards for accused people, being visual explanations of key criminal procedures (Legal Aid WA, n.d.), designed by NT and WA justice agencies (DL38) (Fig. 6.1). The cards explain the criminal justice system which is 'a mystery for lots of Aboriginal people in terms of what's happening to them and what the criminal justice system means … those cards are one great way of enhancing understanding' (DL37). There are specific cards for children that provide a visual representation of bail conditions (DL7). In 'the interview rooms at the Youth Justice Court, they're actually printed up on the wall, so you can point to them while discussing bail conditions' (DL7) and what happens if bail conditions are breached (YJ1). The ability to make effective use of these cards is enhanced by being 'one-on-one' with a client (DL38), whereas they are not used by AVL (DL37). Other visual aids, including drawings and maps of court process, assist vulnerable defendants when they are in the same space as the defence lawyer (DL7).

What Is the Interplay Between Vulnerability and AVL?

Getting to the heart of this study, participants were asked about the interplay between vulnerability and AVL. For remote vulnerable defendants, the thematic analysis points to many circumstances where AVL may promote resilience and act as a technique in mitigating defendants' digital vulnerability, as well as where AVL may be a *technique of intensification* and compound barriers to justice. This new empirical dataset confirms challenges for remote defendants that can be broadly summarised as relating to connection, communication, comprehension and confidentiality.

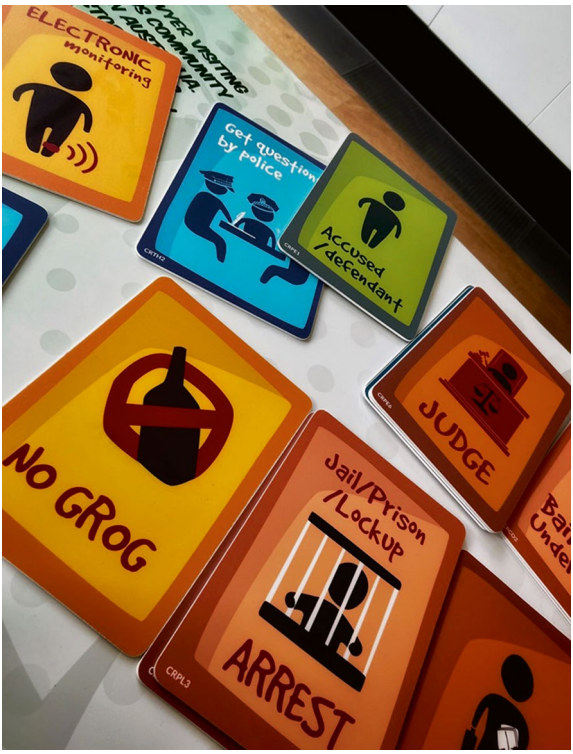

Fig. 6.1 Blurred Borders picture/story cards ©Carolyn McKay

AVL Evaluations of Vulnerability

Defendants' vulnerabilities might be identified at various stages by lawyers following arrest, or on remand when clients might also be assessed by a mental health nurse (DL13). Physical proximity can assist lawyers in identifying the 'markers of vulnerability' and it's easier to engage with clients 'one-on-one' (DL38), but what happens when lawyers and clients only ever meet on AVL or telephone? Some surveyed lawyers drew on their professional experience in assessing an individual's ability to understand, interact, communicate, explain and repeat information. One survey response addressed how vulnerability is identified:

> Many of our clients are from remote communities with English as a second language; … [they] have … significant disadvantage … and we have already got flags on our system for language or disabilities. For new clients, it can be very apparent by presentations and behaviour that someone struggles to comprehend English or may have a disability.

Even by AVL or telephone, vulnerabilities can generally be intuited and identified, for instance, some vulnerabilities are 'obvious', while others 'can be invisible and really need some level of expert analysis' (DL32). The identification of defendants' vulnerabilities by lawyers is crucial as judicial officers rely on defence lawyers to raise any vulnerabilities that impact their client's understanding and communication (DCJ1). M4 commented: 'often, we're not fully informed about the totality of that person's circumstances', and DCJ1 looks for 'contextual … information which might suggest a vulnerability or … prompt me to ask questions'. SCJ2 spoke of getting 'a sense' of whether someone is coping or struggling and how 'we would also expect and be assisted by legal practitioners … flagging that this person might have a particular challenge'. A surveyed prosecutor commented that whether defendants are 'identified as vulnerable largely depends on the quality of their legal representation' and they had seen some 'matters where it has appeared to me … that an accused person may have vulnerabilities that have not been fully explored by his/her legal representative'.

However, SCJ2 mentioned that lawyers do not necessarily have this information if they only engage with their clients remotely, and my thematic analysis reveals barriers to remotely identifying vulnerabilities. One survey respondent stated that too many vulnerabilities 'are missed and this is reprehensible' and that is because most people appear via video from their first mention onwards. While one respondent felt that 'things can easily be missed when Prosecution and Defence are both only seeing someone on the screen at all stages of the process', others suggested systemic issues 'not solely attributable to AVL'. Further, survey respondents argued that 'in busy courts', vulnerable individuals 'are left behind' and not always identified in a timely manner. AVL makes it more difficult to identify vulnerabilities, so lawyers need to be 'alive to the vulnerabilities, if they're not … seeing people in-person' (DL12).

According to survey respondents, vulnerable clients in custody might 'fall through the cracks' due to a lack of in-person legal conferencing because, by AVL, lawyers cannot effectively assess their remote clients'

disabilities, mental health and cognitive issues and injuries, vulnerabilities that might be relevant to defences. For instance, injuries relevant to self-defence might be missed and 'the necessary immediate photos of injuries' cannot be taken in prison. DL27 spoke about how weekend bail court by AVL is efficient and fast in processing perhaps 70 people, however:

> you do lose something in the translation … you can't actually get a gauge of what these people look like … people will come on screen …the first time you've seen them … And sometimes they have injuries. Sometimes they have giant divots in their head that you can't see. And so, they've clearly got an acquired brain injury, and had you been able to see them face-to-face … you'd be able to get a gauge of that and get instructions … significant for their bail app. (DL27)

Strict timeslots for AVL conferencing limit the assessment of vulnerabilities (DL24), but assessing remote clients by telephone is even more fraught when it's just 'a voice on the end of a phone' without any visual cues (DL18). DL25 spoke of the benefits of still visiting vulnerable clients in-person at correctional centres and police stations to witness their conditions first-hand: 'especially in relation to complaints about police brutality' or their conditions, for example: a 14-year-old client 'told me that he hadn't been provided with a t-shirt, a pillow, or a blanket. Police assured me that he had, and it was only on my insistence of going into the police station … that I discovered that [the child] was telling the truth'. Nevertheless, DCJ1 observed that practitioners increasingly rely on AVL to conference.

Finally, vulnerabilities are identified via remote psychiatric and psychological assessments (McKay, 2022). Some survey respondents thought remote assessment was functional, efficient and offered better security. However, other respondents mentioned that AVL means that the person being assessed is framed by 'newsreader mode' without seeing their non-verbal communication, body language, their physical cleanliness and health. The assessments are also limited in efficacy and utility by the AVL timeslots, and a surveyed prosecutor commented that they express concern to the court if any AVL assessment is short in duration. Other respondents felt such assessments should only be done in-person as AVL diminishes their accuracy: 'As a professional who conducts these assessments, I am aghast that these assessments are still conducted via remote access technologies'. A respondent mentioned that 'in the case of

cognitive impairment, it's extremely difficult to do the full range of testing via AVL' while other respondents wrote that AVL can lead to miscommunication and misleading information. DCJ1 mentioned that, sometimes, pre-sentence reports with young people are actually conducted only by telephone which is 'a poor means for obtaining information', leading to deficiencies in the reports. DL25 spoke about a remote psychological assessment for an incarcerated client who said he could hear voices. Although the court decided that the client was delusional, the voices were real and coming from builders repairing the prison roof. This demonstrates the dangers of not fully appreciating the remote location of a vulnerable defendant.

Lawyer-Client Relations

Instructions

Lawyer-client communications are impacted by digitalisation, and a survey respondent stated that 'taking instructions is MUCH more difficult by AVL'. On arrest, DL35 spoke about instances when clients use AVL which is 'less than ideal because obviously, you have the police officers standing there and they hear your advice and … everything the client says'. While AVL is better than telephone for taking full instructions from a remote client, sometimes telephones are the only option. In WA, DL35 spoke of the difficulties in seeking instructions when clients are arrested hundreds of kilometres and hours away. Taking instructions by telephone alone presents many difficulties, according to survey respondents, to show 'video or photo evidence' or 'use the services of interpreters', and this intensifies 'frequent challenges our clients already are subjected to, such as hearing issues, language barriers, little trust not knowing who they are talking to over the phone'. Taking instructions without an interpreter can be a 'disenfranchising experience' for defendants: 'an extreme area of vulnerability' (P16).

In relation to children, they may be overwhelmed by being in a detention centre and won't have any understanding of their charges or criminal process: 'all that has to be explained via a videolink, which is almost impossible' (DL8). DL38 spoke about taking instructions from a remote child in a juvenile detention centre, where the child was seated at the end of a long boardroom table, a distance from the AVL camera, making it difficult

for both parties to hear and see each other or visual evidence. DL14 said that 'it's just abhorrent doing videolinks, particularly for First Nations kids'.

Regarding getting instructions during court hearings, AVL may be detrimental to lawyer-client communications, especially when the client is in prison and the lawyer is in court (Bellone, 2024; Pivaty, 2024). Remote clients can't simply tap their lawyer on the shoulder (DL17), they 'can't easily … get the attention of their legal representative' (SCJ2), making it 'entirely unsatisfactory' for a remote client to instruct lawyers (M1). P18 had observed that 'defence counsel can't get their instructions' easily by AVL. M3 said it's much easier to take instructions 'from a client who is seated opposite you', to 'read the set of facts on which the prosecution relies, give some advice, … and turn the documents over to the client and ask him or her to sign them …. That becomes a lot more complicated via AVL'. 'A hearing is a movable feast' and AVL stops the usual whispered lawyer-client conversations, making AVL 'not compatible with an adversarial system' (DL26). DL22 said that many clients 'feel disadvantaged by the AVL, because they're not there [in court] with you in-person'. If a client is in court in-person, messages can be scribbled on paper and pleas can be more readily changed, but the perception is that AVL removes these opportunities. According to SCJ3, AVL renders vulnerable defendants 'even more vulnerable' when they don't have physical proximity to their lawyers, and they 'lose any meaningful opportunity to ask their lawyers anything, they just can't'.

Rapport

Lawyers' legal and emotional support for clients may be compromised by AVL (McKay & Macintosh, 2024; Turner, 2021; Walsh, 2018). Regarding young people, DL21 spoke of the difficulties in building rapport and trust, and reinforcing confidentiality over AVL. Similarly, DL27 said that it's difficult to build rapport with children on a telephone in police custody, and 'even if they're on videolink, it's still a bit challenging', but at least they can be seen. DL29 said that establishing rapport remotely is 'really difficult. … people don't get a sense of who you are … that you're somebody that they can trust. Some of that is … those non-verbal cues that we would use, probably without even realising, when we see our clients face-to-face, to put them at ease … it can be difficult to get them to open up and trust you'. It's very difficult for Indigenous clients who 'definitely need … face-to-face interaction to build that trust' (DL13). DL10 spoke of trying to build rapport and trust through a mix of face-to-face

visits, AVL and telephone only if AVL isn't available: 'video's a step up from telephone but there's nothing like a face-to-face conference'. One survey respondent emphasised that many clients won't discuss their mental health/intellectual impairments 'as they can't trust talking through a phone to someone they don't know'. These issues raise the need for lawyers to be skilled in developing rapport over AVL (DL36).

Confidentiality

With increasing client conferencing via AVL, SCJ4 questioned the impact on 'people's trust in the system … is everything going to be confidential?' While AVLs enable faster appointments, the downside is that clients lack trust and may be unwilling to talk in full (DL28). This can be particularly significant for initial conferencing when the client is in police custody. DL35 explained that the remote client will be on speakerphone which makes it difficult to confidentially discuss sensitive matters including sexual offending. What is overheard by police might not be used in evidence, but it can help police in directing their questions (DL35). In addition to managing sometimes fraught interactions with police, defence lawyers also have to:

> manage the client, who is often vulnerable, distressed, potentially drug affected, and try and make sure they don't say anything that's going to damage them. Meanwhile, you can't get proper instructions because what they're trying to tell you is probably relevant to bail, but they're surrounded by police. So, you don't want them to tell you … it impacts the information you get off the client … the police are hearing it, and they can feed it back to the prosecutor. (DL27)

So, too, DL26 said that 'police stations are the real problem' without sufficient AVL facilities, lawyers must use telephone communication with very anxious clients who accept the 'lack of confidentiality … and ability to see their lawyer'. DL26 relayed a situation when they asked a remote client:

> Are you alone? I can't see you, but I just need to make sure that there's no police around you' … And he said, 'Yes, it's all okay.' … [later] when he was out on bail … he said, 'You know when you asked me that question, I was standing in front of a police officer and I was on loudspeaker with you, and he was making gestures that indicated, don't tell them that I can hear you.

Similarly, DL25 spoke of a police officer interrupting a confidential telephone call to say why a bail condition wouldn't be appropriate. This situation impacts client/legal privilege and self-incrimination (DL9).

Regarding prison AVL studios, various defence lawyers mentioned how the acoustic dimensions and lack of soundproofing impact confidential discussions (McKay, 2018, 2020). Just being able to adequately hear a remote client is compromised when they're in an echoing, inadequately soundproofed, concrete prison AVL room. Many clients wish to keep AVL discussions to a minimum due to concerns about being overheard by prison officers or other people-in-prison: 'I wouldn't go into sensitive information via video … anything of a sexual nature, rapes … anything related to children … because of the repercussions it could have on the clients in custody' (DL13). This lawyer was aware that the sound bleed from the AVL room not only breaches confidentiality, but also can make their client vulnerable in custody. Clients are 'way more open and willing to talk about things' during an in-person prison visit (DL17).

In court, P4 spoke about the difficulties for remote defendants including the need for 'all those confidential conversations that need to happen during a trial or … hearing'. Many judicial officers spoke about how, at the end of a court matter, they try to facilitate confidential communications for defence counsel by telling the remote defendant to stay in the prison AVL room while the court is vacated to enable a lawyer-client conversation. This is even though 'strictly the court's links are not to be used for legal representatives to conference', but this practice overcomes problems with leaving the defendant with questions that no one will answer for weeks (DCJ1). SCJ2 also mentioned the need to kick everybody out of the court and switch off the transcription.

The analysis indicates challenges in the lack of confidential space. This impacts the ability of remote clients to have full and frank disclosure with their legal representative, potentially detrimental to advice regarding available defences and mitigating factors. However, DL19 said that confidentiality is always compromised when someone is in police or corrections custody, even during in-person meetings.

Conclusion

To conclude this lawyer-client section, face-to-face conferencing involves an 'energetic swap' (P2) in lawyer-client communication that is 'diminished on a video link-up' (DL10). Remote legal conferencing is a 'different mode … it's not a substitute … what you'd make up in time and

efficiency, you might lose something else … there's something inherently different about seeing a client in-person … compared with seeing them on the screen … it needs to be viewed as an alternative but not a substitute' (DL24). DL19 suggested that legal conferencing 'is a fundamental, very human process which requires human communication', and the nuances of the interaction might be diminished by AVL. DL36 observed that the mode of communication is dictated by the specific client and, because in-person legal visits can be disruptive to the prison schedule, many clients prefer AVL due to its convenience (Turner, 2021). DL36 said that 'it's always better to be able to see your client … in-person' but telephone calls assist when access to legal advice is paramount and urgent. Moreover, 'we have to start embracing these video technologies. Gone are the days of face-to-face appointments' (DL36).

The Human Elements in Court

SCJ6 identified the following four concerns regarding AVL and remote participation: (1) defendants are more disengaged by AVL; (2) they're not part of the court setting, rather, they're part of the gaol setting; (3) they don't have proper access to their lawyers and (4) AVL is depersonalising and dehumanising making them 'peripheral to the proceedings when they should be central'. This comment connects well with the following findings.

Human Connection

The 'human component' of criminal procedure underpins its legitimacy and fairness (De Vocht, 2022), and is particularly significant for child defendants. In most jurisdictions, there is a presumption that children will always appear by AVL for all procedures, but YJ2 suggested that 'when they're in-person, the judge … has a much deeper awareness' of the child. AVL brings about a 'reduced interaction between the child and the judge' and this is critical, especially if the client is a 'tiny, tiny child' (DL8). DL27 spoke of very young children appearing by telephone for court, meaning that they are not even seen on a screen by the remote magistrate: their very young age 'gets lost on magistrates … they don't have a clue how little they are'. M1 said that all bail hearings for children were by AVL and 'it's awful'. M1 compared seeing a defendant by AVL for bail and then later, in-person, for sentencing and was struck by: 'what I saw was a tiny little girl really, when I was sentencing her. In the AVL room, she just

looked like a young woman … [but, in-person,] her physical condition was part of her vulnerability'.

By videolink, DL37 had observed 'disconnection' and 'extra barriers' for remote clients, leading to diminished comprehension. Remote people-in-prison become 'just someone on a screen' (DL13) seemingly devoid of humanity. According to DL19, most defendants are already disconnected from society through processes of institutionalisation, so AVL further alienates people when their entire life is being 'decided on a television screen'. The lack of human connection is 'quite dystopian' (DL19), and there's 'a lingering sense in the defence community … that the accused has been deprived of the right to come face-to-face with [their] accuser' (DL4). This references the diminishing significance of the 'right'– or principle—of confrontation (McKay, 2018; Turner, 2021).[2]

Inadequate screen configurations impact human connection from the remote defendants' perspective, given that prison AVL might not fully display the remote courtroom (DL23). For judicial officers, connecting with remote vulnerable defendants is challenging. According to SCJ3:

> it is hard to make a connection to someone via videolink because … in my courtroom the defendant is on a video screen that's … three, four metres away from me … so I'm looking at a blurry man doing my best to engage, but it's unlikely to be fruitful because of the technology.

The remote person is 'a little person on the screen' (M2). SCJ2 also commented on the lack of the immediacy of human eye contact especially when the AVL sound and/or vision are poor: AVL 'amplifies the distance and the divide between the accused person and the court'.

SCJ4 said that they like to see an accused person in court at some stage, to check that they're physically well. For instance, SCJ4 had once noticed that a young female defendant had been assaulted while in custody and hinted that the woman's black eyes might not have been visible had she appeared remotely because the lighting in prison AVL suites is substandard. DCJ1 also spoke about how: 'depending on the lighting, and the person's skin colour, it can actually be really difficult to see the person's face'.

Many criminal procedures, especially sentencing, were considered by participants to be 'very human' exercises that are negatively impacted by AVL (DL33):

> I don't think it's an unimportant thing that is lost … there is a lack of human connection between the sentencing judge and the person to be sentenced, when it's done over a TV screen. … it's … lacking … the inherently human act of sentencing someone for a crime.

Sentencing in-person is 'more effective … more impactful' due to the 'sense of gravitas and the authority of the court' and allows the judicial officer to get a 'sense of the whole person' (M1). SCJ2 said that there are 'definitely members of this court … who [feel] quite strongly that sentencing is a very important procedure that should only take place in the physical presence of the person who is being sentenced'. The judiciary value the immediacy and directness of in-person communication when delivering serious messages that involve 'the loss of somebody's liberty' (SCJ2). In-person, seeing the judicial officer, prosecutor, public gallery, jury and victim or victim's family all there 'affords [offenders] the gravitas of what has happened and can inform them of the clear social transgression. Whereas if they're sentenced by video link, that can be lost' (DL19). The loss might translate into the opportunity to make a difference to the offender's life during sentencing, although SCJ3 said 'that probably fancies us as having more power than we in fact have, but if you believe that sentencing as a public exercise has some effect on the defendant personally … that is really difficult to do remotely'. If one of the principles of sentencing is denunciation, that is more effective face-to-face (DL4) because sentencing in-person involves the 'shame factor' and discomfort, especially important to first-time offenders (P4).

Connection is not just about lawyers and courts but also connecting with the families (Hanley et al., 2024). YJ1 spoke about how 'so many children are … transferred up to Don Dale [detention centre], so they're 1,500 kilometres from family … [AVL has] always then been an avenue … for their families to be able to connect with them'. For a vulnerable child defendant, a family video visit is most welcome although tinged with sadness: 'You would see the beautiful joy on kids' faces when they would get to see family through that audio-visual link, but at the same time, so incredibly heartbreaking that they're not getting to visit in-person' (YJ1).

Communication

While AVL is a technology of communication, it is not always effective for vulnerable defendants, even if they only need 'receptive communication' (DL32), that is, they're not necessarily required to address the court over

AVL. Communicating instructions remains important, and SCJ1 spoke about 'the single greatest problem with [AVL] for vulnerable people is the barrier to contemporary communication on the minutiae', that is, dealing with unexpected issues that arise in court, and on which the remote client might have a view.

Regarding child defendants, they all have some form of complexity requiring in-person communication (DL8). DL14 and DL15 said that, while 'videolinks work well in Brisbane for adults, do they work well for a First Nations 13-year-old in Child Safety care in Mount Isa? The answer is, "Of course it doesn't."' One communication problem is that when children are on AVL, 'they get spoken *at* … as opposed to being spoken *to* or spoken *with*' (DL14 and DL15). Communication problems with the remote court can be exacerbated by the conditions of youth detention AVL facilities. DL3 explained:

> the AVL room is currently demountable, there's limited acoustic treatment … my client was being sentenced over [AVL], and the judge was handing down the sentence, and suddenly on the audio-visual link, you heard, "X judge is a slut." And the window to the AVL room was open, and it wasn't my client, it was … another kid shouted through the window, which was picked up by the AVL, and then heard in open court. And the judge initially thought it was my client who had said that, which she was horrified about, and my client was horrified.

Remote incarcerated clients often can't hear 'because someone's been banging behind them in the cells' (DL27). What I previously termed the 'soundtrack of incarceration' (McKay, 2018) often intrudes into the prison AVL suite, and then into the remote courtroom, disturbing communication (M1). DCJ2 mentioned the noisy prisons and all the associated 'clanging and crashing' and the impact on courtroom gravitas. Once DCJ2 asked for the prison noise to be stopped, they heard over the AVL: 'can you blokes just fucking turn it down?', leading DCJ2 to ponder: 'Hang on, is this a courtroom?'

Worse than AVL for communication with a remote vulnerable defendant is the telephone. While AVL is a 'poor second to actual real-life presence', telephone is 'clearly inferior' to AVL (SCJ1) and 'the worst of all the options' (DCJ1). SCJ1 told me that 'you lose more by telephone than by videolink because you've got one less dimension'. M1 spoke of sentencing a person by telephone during the pandemic and how it was

'horrendous' because 'if I'm making a decision that's going to impact significantly on someone's life … I want them to know that I take it seriously'.

Other communication vulnerabilities stem from clients who are part of the digital divide (Mulcahy & Tsalapatanis, 2024). Not only do some clients have cognitive impairments and disabilities requiring lawyers to 'tailor the technological experience for them' (DL23) but, in relation to AVL, they 'just don't understand what this camera thing is, like this video thing' (DL1). DL6 identified 'a significant digital divide in Australia between the accessibility … affordability and the skills needed to use AVLs'. So too, DL23 acted for people 'with generational disadvantage. There's a lot of people who are completely unable to use technology' in their daily lives. There is 'digital poverty' meaning that non-incarcerated clients cannot afford sufficient data plans for online meetings (DL35), or they lack home computers leading to difficulties in paying online fines (DL38). DL37 also said that the digital divide is evident as most of their clients would have a simple phone, albeit, not a smartphone, shared between a large family group.

Comprehension

For remote vulnerable defendants, the conflation of vulnerability with AVL, a lack of connection and compromised communication can lead to diminished comprehension. Gauging if a vulnerable young defendant comprehends can be difficult and youth justice worker, YJ1, said: 'it's a lot of work outside of court to reaffirm a young person's understanding of what happened in court' due to language barriers and trauma. Blurred Borders picture/story cards are not used during AVL which is generally an 'extra barrier' in terms of people understanding what's happening to them (DL37). DL7 preferred to have young defendants in-person, immersed in the court environment, as more support can be provided in terms of their understanding and participation. In court, they benefit from proximity to their lawyer, family and the judge; they can 'see the whole courtroom at the same time and understand who is in there and what is going on', all important to their comprehension (DL7). AVL also does not provide the 'continual feedback loop' between lawyer and client, essential for comprehension (DL14 and DL15).

Of course, there are some defendants who are at 'that extreme end' of vulnerability: 'They're starting from so far behind the ball in terms of understanding the process generally, that the introduction of AVL to that

relationship may be of limited consequence' (DL33). Similarly, DL26 spoke about how people with cognitive impairment and intellectual disability 'don't understand what's going on during a court case, even when they're in-person, let alone when they're on the screen'. Regarding the conflation of vulnerability and AVL:

> all of these things, whether it's cognitive … addiction … they all contribute to perhaps a lesser understanding of the proceedings … a sort of muted understanding of things. (SCJ4)

Engagement

DCJ2 said that defendants need to engage and 'face the music'. To have any therapeutic justice outcome in sentencing, DCJ1 said that the person has to be 'fully engaged' but it's easier for offenders 'not to be engaged, if they're disconnected by video, and it's easier for them not to be fully present in the moment'. Remote appearance from prison can impact a vulnerable defendant's engagement in their own legal matters. For instance, DL26 said that vulnerable clients don't 'feel like they are part of the process' because it's 'very dehumanising being in a box, listening to people in a courtroom, and trying to follow'. Many defendants feel disengaged from the system and, according to judges and lawyers, AVL exacerbates this experience (SCJ6, DL18). Moreover, some vulnerable defendants may have 'paranoia about appearing via AVL' (DL25). Regarding sentencing, in-person engagement is more important with first-time offenders compared with 'hard-nosed recidivists' or 'frequent flyers' who just want to know the 'transaction', that is, the sentence (SCJ1), or release date (M3).

Concerning children on AVL, YJ2 said they seem 'distracted, blurry, often disengaged or disassociated because the nature of the AVL'. DL7 said that young people are 'not able to communicate in the best way with the judge either, which also puts them at a disadvantage … there is a forensic benefit to being there in-person'. SCJ2 said that their own engagement is 'better with somebody in real life, in real time, in-person'. M1 said that during bail hearings by AVL, 'I'm talking to a lawyer most of the time, so I'm not even engaging with that [remote] person'. The remote defendant might not feel confident to interrupt or to clarify proceedings, and can be completely disengaged.

Participation

AVL has forced the profession to 'look very carefully at what it means to participate in the court process' (DL11), and whether or not AVL fosters or hinders participation. Moreover, does AVL afford people 'all of the rights that they would have if they were actually present at court?' (DL11). Participation can mean different things and Wi1 spoke about participation in justice processes:

> true participation, you have to be able to understand what is happening, what is being said, and what your role and your rights are in that process, and then be able to act on those rights if I want to. So, the accused, for example, it's not participation to me if they are literally just sitting there while witnesses are being questioned, but … not understanding anything that's actually going … participation is an active process, and for that active process, there has to be proper understanding of what's happening.

SCJ3 added that if the system is genuine about participation, that becomes 'very unofficial' on AVL. For remote defendants, DL21 felt that AVL is 'disengaging, disempowering, and ultimately they probably feel more like a pawn in a game of chess' such that they become observers rather than participants. The ability for children to participate by AVL is 'completely hamstrung' due to their elevated stress and the lack of social cues and body language (DL14 and DL15).

Several interviewees spoke about participation in Aboriginal sentencing conferences and P16 described such conferences as involving everyone sitting around a table, in-person, as a form of restorative justice. DL4 said that these types of procedures are 'the very opposite of AVL as a means of advancing the justice system, because the community courts are … a sentencing proceeding involving not just the judge and the accused or the offender, but also members, senior members of a community who participate in fashioning a culturally appropriate sentence'. Despite some successful uses of AVL in Indigenous sentencing courts, SCJ6 emphasised that the point was to have everyone in-person for personal and community interaction: it's more powerful and the offender is more likely to be participatory, 'more capable of understanding and acknowledging the wrongfulness of their actions and being accountable for what they have done. You cannot get that over a screen'. SCJ6 concluded that 'personal interaction can really enhance therapeutic and restorative models of justice'.

Participation over Vast Distances

AVL is sometimes used in specialised Indigenous sentencing courts to span vast distances (Wallace, 2008). P16 spoke of an offender from the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands who couldn't travel to the sentencing conference so he and a Pitjantjatjara interpreter participated via AVL, while others were in Port Augusta, bridging over 1500 kilometres. P16 said the conference was 'not as effective' as having him in-person, and stilted due to the interpreter, but the offender could still participate and provide direct input. DL32 also spoke about:

> an Aboriginal sentencing conference where the client actually appeared by AVL from Mimili, which is quite unusual because the whole point of sentencing conference is to gather everyone around a table to have a more informal discussion before the formal sentencing proceedings.

DL32 continued to explain how the client was unable to arrange transportation from a very remote community to the court and was allowed to be sentenced by AVL because they were not going to receive a custodial sentence. This was an 'example of someone who would have otherwise got [an arrest] warrant for not being able to appear' with the AVL providing a means to address their 'geographical vulnerability' (DL32).

AVL is not the only solution for addressing participation from very remote areas. Several interviewees spoke about the beneficial role of circuit and bush courts. For instance, in the NT, DL5 spoke how clients who 'live out bush' and can't easily get to Alice Springs can have their matter 'listed out bush' in places including Yuendumu and Tennant Creek. However, DL1 suggested that 'they want to get rid of bush courts' and replace them with AVL. In combination with the large distances in Australia, DL9 spoke of the intersection of 'extraordinary' vulnerability of poverty ('the poorest people I've met in my career'), language challenges, access to vehicles and being able to get family members vast distances from very remote areas to court: 'a terrible ordeal' that could be better dealt with by AVL or bush court.

The connection between AVL and geographical vulnerability was raised by DL4. While recognising problems with AVL, it can be enormously beneficial for defendants who are not incarcerated but live long distances from court. DL4 said just getting to court, a five-hour drive away, 'could be an odyssey fraught with danger' and 'getting into town to attend court can create a huge litany of cascading problems' that AVL can mitigate.

Regarding odysseys fraught with danger, DCJ1 spoke about the need to bring a 13-year-old for sentencing to Thursday Island, where the court was sitting. The child was on a very remote island about 100 km away and, due to the lack of AVL facilities, the child had to travel to court for four hours 'in a dingy with an outboard. The weather was very poor. The seas were high … That's a situation where, ideally, we should have been able to use [AVL]' to mitigate those risks. DL31 said that 'we frequently have clients who reside at Broken Hill or Menindee or Wentworth or … Lightning Ridge … distances of 600-800 kilometres, where attending court might be a three-day expedition'. DCJ1 concluded that AVL has 'some real advantages, particularly for people who live in remote and regional areas'. But is it always appropriate? DL25 categorised a city-based judge appearing remotely in a NSW courtroom as 'a floating head judge who … sat on the screen and presided from afar'. Even their client queried the social merit: 'Why does floating head judge get to decide on my sentence from somewhere other than Broken Hill, because this is where I committed my crime and this is where the people who are impacted from my crime come from?'

The dataset shows great differences between city and regional or remote perceptions of distance. DL25 compared practicing in Broken Hill and Dubbo, where people might have to be transported for eight or nine hours to appear in court due to inadequate AVL facilities, whereas in Sydney, 'they wouldn't bring people down from Day Street Police Station to Central because that was a long distance to bring them'—only a few city streets.

Participation and Interpreters

Effective participation and procedural fairness relate to understanding the language of the court (Braun et al., 2018). DL4 spoke about the courtroom as being a 'carceral', 'punitive' and 'coercive space' in which there is an 'authorised violence … that's enacted entirely by … the language of the court, which is English', and arcane (see Wallace, 2008). I heard many experiences of working with remote interpreters. DL11 spoke about the right to interpreters[3] and how 'it's so important that people participate properly in that system and not just process through … like an object'. The conflation of vulnerabilities with interpreters and AVL 'can really create issues for … participation' (DL11).

Survey responses on remote interpreters indicated that successful sessions depend on the location of the interpreter and the quality of the

technology. Some experiences indicate that remote interpreting can work very well, for instance, 'the interpreter was also included into the virtual courtroom and was able to function remotely almost as well as if in the courtroom itself'. DL11 spoke about some successful interpreting by AVL when the interpreter was in the same location as the lawyer, but DL35 spoke of the success of having the interpreter sit next to the defendant in the courtroom dock throughout a trial.

A survey respondent suggested that remote interpreting is 'very impractical and clunky'. By AVL, facial expressions are unclear and gestures might be off-screen: 'you just don't have the full range of communicative tools' (DL4). As DL8 explained, it is not always possible to link in a remote interpreter by AVL: 'I have to hold my phone to the computer … so that they can speak through my … speaker phone, to the AVL, which is just a disaster. It doesn't work'. Remote interpreting adds a layer of complexity to the system (DL10) and distractions to 'everyone in the courtroom' (SCJ1). Interpreters by telephone are 'completely unideal…. You really need the interpreter in the same place as the person they're interpreting for' (SCJ2). Interpreters on telephone sometimes deliver the information to the jury in a particularly 'deadpan' manner, without the emotional nuances of the defendant speaking in their own language (DL35). Sometimes telephones can lead to remote interpreters being tempted 'to wander outside … speak to the kids or be at the shop' (DL11), suggesting a lack of attention or concentration.

Interpreters are often required for the many Indigenous languages and dialects (SCJ4), such as Pitjantjatjara, Kukatja (DL39) and Wik (DL14), as well as Mandarin, Arabic, Vietnamese, French and Australian sign language, Auslan, amongst others (DL27). DL13 mentioned a client who was deaf and mute and required two forms of interpreting, while people who rely on lipreading for communication are disadvantaged by AVL (DL6). P2 spoke about an experience involving an Auslan interpreter where AVL would have been inoperable:

> We had a defendant in court … He is deaf … an Aboriginal man … English is not his first language. We had an Auslan interpreter interpreting from English into Auslan and then we had an Aboriginal Auslan/Aboriginal sign language interpreter who would say it in Auslan and then interpret it into Aboriginal sign language to the accused person. That involved them being in close proximity … the Aboriginal sign interpreter was standing directly in front of the offender … then the Auslan interpreter was to the left of the

> defence barrister, and it was a triangle arrangement … between the interpreters and the accused. Now, that would never have worked over AVL.

Efficiency

As examined in the previous chapter, the rationale for AVL is often premised on enhancing efficiency (Smith et al., 2021), especially for mentions, brief proceedings and bail (SCJ6). Survey responses indicate that AVLs expedite adjournments and uncontested matters, and save money on transporting people from prisons to courts, sometimes thousands of kilometres (DL33). DCJ2 said that AVL can solve funding issues in large states like WA with its 'tyranny of distance'. Moreover, 'sometimes videolink is going to be the only way to make all [the] planets align so that everybody actually comes to the trial and gives evidence' (DL39).

Defence lawyers loved saving travel time by 'not having to go to gaols' (DL28) and avoiding prison lockdowns. There are other efficiencies for private defence lawyers who can appear remotely in multiple courts (DL12). There are also efficiencies in advocacy (McKay, 2024) because, by AVL, 'you don't labour points … you don't bang on as much' (DL20).

However, in youth justice, AVL is not improving efficiency: 'it's often a hindrance' due to difficulties in taking instructions (DL7), leading to poor quality justice (Walsh, 2018). DL14 and DL15 felt that efficiency benefits are outweighed by the negatives, for example, constant interruptions and adjournments to take instructions from remote child clients: 'it actually slows down processes within court' and represents 'justice on the cheap'. A survey respondent argued that AVL disregards defendants' right to access 'equal justice' that 'should always prevail over the convenience of the court and corrections transporting clients'. SCJ6 also expressed concern:

> that we do not, for the sake of efficiency, produce a situation where it's second-rate justice … we will have to always be very conscious of what is being sacrificed for efficiency and if we are willing to make that trade-off … and if we're not impacting upon people's access to justice, that's fine. But we can't simply say for the sake of efficiency everything should be done by audiovisual link. I'm not a proponent of that in the criminal jurisdiction.

M1 also expressed concerns that AVL 'affords second-rate justice': 'Are we giving … people a lesser access to justice because it's cheaper and more

convenient to do it by AVL?' DCJ1 warned that 'we have to be cautious about government departments assuming that everything can be done just as well by remote access because it's cheaper'. While a 'grossly demeaning "cattle call"' approach to justice may result (Diamond et al., 2010, p. 885), the actual impacts on legal outcomes remain contentious (Eagly, 2014; Kim, 2021; Thorley & Mitts, 2019).

Technical issues impact the flow and efficiency of remote criminal justice (Smith et al., 2021), and DCJ1 explained the exhausting experiences of 'technological problems, inability to see cues, time wastage'. Interviewees spoke of 'people dropping in and out of internet connection … freezing mid-sentence … internet interruptions' (DL29), and 'all the video links around [WA] were just down … none of them worked for … about an hour' (DL36). DL1 said that during 'nearly every trial I've ever done … since 2020 … there have been technical problems' that cause delays. This is sometimes due to AVL facilities that are old, not fit for purpose and 'fail all the time' (DL3).

Conclusion

My analysis shows that AVL can be beneficial for vulnerable defendants, and many incarcerated defendants express a preference for AVL appearances to avoid the deprivations of missed meals, 'atrocious' court cells (DL3) and inhumane transport conditions. DCJ1 had observed that 'defendants who are going to serve additional time in custody routinely request that they be sentenced by videolink' to avoid disruptions to their accommodation and standard of privileges. Defendants on bail in communities in Cape York or the Torres Strait often request sentencing by AVL from a local courthouse in the community to avoid the expense of flights or a two-day road trip (DCJ1). On this basis, AVL offers greater convenience and comfort (DL12), so 'almost every prisoner doesn't want to come to court' (M2), a position acknowledged by judges.[4] However, 'in an ideal world', clients would probably prefer to be in court in-person to feel more connected, but the travel isn't worth it (DL37).

On the troubling flipside:

> the AVL facilities are crap, so the trade-off is, whilst it might be great for the client who doesn't have to sit in a cell that stinks of human waste … the trade-off is, well, you get a crappier legal service, and potentially worse justice outcomes. (DL3)

The dataset shows that the legislation does not capture the full situation of defendants' vulnerabilities presented in practice and in courts. There are recognised overlaps between the attributes of vulnerable witnesses and defendants, with participants expressing professional understandings of vulnerability that far exceed any legislative 'bright lines'. The layers of defendants' vulnerabilities can be multifaceted and compounded by being remote from court, lawyers and interpreters, and few supports are available to mitigate the impacts. Judicial officers rely on lawyers identifying any vulnerabilities that their clients may have, but that assessment process can be hampered if the lawyer and client never meet face-to-face. Because telephones and AVL are fast becoming the preferred mode of legal conferencing, vulnerabilities can be missed. Instructions, establishing rapport and trust in the lawyer-client relationship and confidentiality, are all compromised when the client is in police or correctional custody. The spatial disconnection may isolate vulnerable defendants, diminish opportunities for 'receptive communication' and 'communicative tools', leading to disengagement, ineffective participation and a 'muted' comprehension about their own legal situation. The thematic analysis shows that disadvantages for vulnerable defendants are compounded by AVL's 'extra barrier to communication'. The experience can be dehumanising, disempowering and make defendants feel like objects or observers rather than participants. They become 'peripheral' when they should be the crux of the proceedings. On this basis, AVL can be conceptualised as a *technique of intensification*, diminishing resilience and compounding vulnerabilities.

While remote modes are not 'substitutes' for in-person meetings, others suggest that face-to-face meetings are a thing of the past. Without doubt, videolinks are beneficial in addressing convenience, 'geographical vulnerability' and 'odysseys fraught with danger'. With all that in mind, there remain real advantages, especially for regional and remote populations, but the big challenge is 'to get better at mitigating the impacts' of AVL (DCJ1). Empirical data regarding how technologies can be improved are presented in the next chapter.

Notes

1. *R v Anunga* (1976) 11 ALR 412.
2. *R v Ngo* (2003) 57 NSWLR 55.
3. *Ebatarinja v Deland* (1998) 194 CLR 444.

4. *DPP v Abdulrahman* [2025] VCC 353, [45]; *Iskander v R* [2025] NSWCCA 33, [125].

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CHAPTER 7

Future Visions of Digitalised Criminal Justice

Abstract Drawn from the thematic analysis of the empirical data, this chapter provides an overview of future directions and recommendations regarding remote vulnerable individuals. The dataset captures the participants' final thoughts, strategies and visions for the future of digitalised criminal justice.

Keywords Digital courts • Regional justice • Human dimension • Open justice • Technological infrastructure • Summary jurisdiction • Vulnerability screening • Trauma-informed training • Witness intermediaries

Introduction

Throughout the interviews and survey, I encouraged participants to not only reflect on current digitalisation processes and audiovisual links (AVL) issues, but also to engage in legal futurism and imaginings. How might criminal courts continue on a path of technological evolution without compromising the quality of justice, fundamental rights and the needs of vulnerable individuals? This chapter highlights future visions and

C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3_7

recommendations to inform criminal procedure, policy and best practices, with a focus on ensuring fair, inclusive and accessible digitalised criminal justice. Overall, most participants acknowledged the many benefits of digitalisation and, specifically, AVL, while also recognising the need to balance technological use with human connection.

Spatiality

Themes emerged from the data regarding the future physical places of criminal justice (McKay & Macintosh, 2023).

Digital Courts

Courtroom obsolescence in favour of fully virtual courts arose during interviews and SCJ5 speculated:

> one day … it will get to a point where you can have an actual courtroom with people beaming in, and once the quality of that tech is such that you can see people in 3D and see the small eyebrow raise, the glance to their instructing solicitor … the slight movement of their hand … to get a document that's on the tender, then there's no reason why you shouldn't do it.

As the technologies evolve, this quote recognises that the debate around remote hearings will become redundant (Wilkman et al., 2024). Certain participants accepted that 'we're in this world now where we accept that the court can be a digital one' (DL23), and the court system should 'go completely digital' (P11). Fewer courthouses will be needed because, increasingly, much work can be done online (M4), and everyone is now on the same 'cyber street'.[1] 'Gone are the days' when court has to be in-person (P7), and AVL is 'here to stay' (SCJ5), especially for traumatised complainants.

By contrast, DL19 speculated on 'an extremely repellent dystopian nightmare' of a 'completely virtual justice system' in which a defendant's 'entire life has been decided on a television screen' in a small prison room. M1 thought that courtrooms would remain ever-present 'important symbols to the community' and felt 'uncomfortable' about a futuristic use of, for example, holograms in courtrooms and the 'the lack of human interaction'. SCJ6 said that physical courts are 'where justice is dispensed' and that role cannot be substituted by 'an avatar' (compare Rossner & Tait,

2024). Despite many people having a 'belief in the infinite possibilities of technology', SCJ1 suggested that we will continue to need the special space of criminal adjudication, on the basis that courtrooms deal with 'real human beings'. The 'bricks and mortar' (M4) of courthouses will remain essential due to the 'social contract' with citizens (P10), and their symbolism as legitimate 'pillar(s) of democratic societies' and open justice (Flower, 2025, p. 10; Mulcahy & Rowden, 2019). The majority of participants expected there will be a continuum of 'a physical courtroom with a physical jury and a physical judge … But … there should be, and will be, more uptake of online methods so that witnesses from all over the place, can give their evidence online' (P14). Jury trials can't become completely virtual because it would be impracticable to bring together 12 random community members; they need 'human interaction' (P13).

However, my study gathered evidence on how the pandemic saw 'a shift to videolinks almost the entire way [for] someone's progression through the criminal justice system' from arrest, bail, remand, through to finalisation: they might never attend court in-person (DL11). So, while physical courtrooms might continue to exist, might it be that, increasingly, defendants will never step inside one? There are clear indications that defendants will be increasingly excluded from courtrooms despite the fact that they have, traditionally, been the central figure in criminal procedure (Leader, 2010). For instance, during the pandemic, there was a period where defendants would never meet face-to-face with anyone involved 'in the system that they were attempting to participate in' (DL11). End-to-end, automated dispute management, without human intervention, is already used in civil disputes and for low-level traffic penalties in various jurisdictions (Mulcahy, 2024), yet the human journey through the process needs to be recognised (Mulcahy & Tsalapatanis, 2024).

Regional Justice and Justice Hubs

Concerns were expressed regarding whether AVLs will replace regional justice including bush or circuit courts. M1 argued that while virtual courts can be functional, they don't satisfy remote communities who are entitled to the presence of the courts as important social structures, and to see judicial officers 'get a bit of red dust on their boots' (DL25). This extends to physical bush or circuit courts, although DL1 suggested that some judges don't like bush courts, preferring to use AVL 'so they can just send people to gaol from 2,000 miles away'. The establishment of NSW

Centralised Bail Courts, facilitated by AVL, points to more virtual centralised courts (Local Court, 2024), and a survey respondent wrote about watching: 'a Saturday bail court at Parramatta all done via AVL. Extremely efficient, but totally isolating for the defendants in often extremely vulnerable circumstances'.

While, on one hand, there was a push for centralisation, on another, there were many suggestions to bolster localisation and regional justice digital infrastructure. Given Australia's vast distances, increasing regional capacity and infrastructure would improve access to justice for everyone (WAS2), and address the need for high-quality technologies in a localised setting. One initiative suggested nationally involved 'justice hubs' to connect people with courts and services (WAS3). Similarly, DL30 recommended a small 'booth', 'a little supported place' with good screens and audio, so that clients could access the court system with ease and without taking a day off work or arranging childcare. To some extent, such measures are already in place and M2 observed that South Australia has community hubs in libraries from where people can appear if they don't have digital access at home. In Western Australia, Legal Aid has a network of 'virtual offices' (DL37) in libraries and other community service agencies for clients to hold legal appointments with a lawyer. Participants advocated for more hubs in neutral 'multidisciplinary centres' (WAS2), not police stations (P16). Justice hubs would address issues concerning a lack of facilities in older courthouses and how the circulation routes for vulnerable witnesses and accused people often intersect.

The Human Dimension

Defence lawyers were the most negative about AVL's ability to replicate or complement human processes, commenting on its 'dehumanising' qualities (DL7). DL27 was 'a bit old school', still valuing seeing their clients face-to-face:

> I like to be able to read them … it's better for them. It's better for us. I think it's very easy to just forget that there's actually a person involved … I'd be very reluctant to have whole trials … by AVL.

While appreciating the efficiencies of AVL, DL26 emphasised fairness and procedural justice (Ward, 2015) including the 'right to confront your accuser … to be present in court, and appropriately instruct your lawyer',

so it would be 'terrible' if every defendant had to 'defend themselves from an AVL suite'. Despite recognising that AVL is a 'great technology' to increase efficiencies, DL1 said that people still need to have a role in the process, and foresaw digitalised justice as transactional and dystopian. For DCJ2, remote defendants are 'alienated from the process. Everyone is talking about you but you're not there', or they are muted. Moreover, a lack of human contact can compound their despair, potentially leading to self-harm.[2] At a minimum, going forward, DL21 said in-person procedures should include people who are fresh in custody, bail and sentencing. The human process of sentencing requires immediacy and in-person communication when dealing with 'serious matters, the loss of somebody's liberty', so the need to speak directly to defendants/offenders remains critical (SCJ2). Sentencing in-person should continue because 'messages need to be conveyed to that person [for] specific deterrence … They need to hear that … coming direct from the bench, person-to-person', instead of by 'electronic means' (P13).

Many participants expressed concern that remote modes do not provide human equivalence. SCJ3 cautioned against technologies that devalue the significance of witness testimony 'because we are still at heart social creatures and all of that is lost'. In-person trials in the physical courtroom provide 'irreplaceable' opportunities for rapport and reading body language of witnesses and defendants (P16). There is the continuing need for human engagement, whether 'it's witnesses or accused … they need the human interaction, close-up, the support people, family … legal advisers … I just don't think you can replace the human element' (SCJ4). Regarding vulnerable witnesses, the shift to remote modes has become so prevalent that 'it's a badge of honour for a court to consistently preclude real people coming into the courtroom' (DCJ2). These responses resonate with judgments that acknowledge that remote testimony is not the equivalent of in-person testimony.[3] Appearances in-person remain the preferable starting point and it would be undesirable to assume that AVL appearance is a substitute, whilst also recognising the advantages of AVL for people from remote locations to access justice (DCJ1).

M1 privileged human processes over technologies that dehumanise and alienate. The courts are consciously winding AVL back on the basis that it 'affords second-rate justice', that is, it diminishes human interactions, engagement and the ability for participants to 'sense a change of mood' or frequency in the courtroom (M1). While P7 stated that 'AVL is an amazing technology. It is the future, it is the way forward', they emphasised that:

> you cannot substitute AVL and just think it's going to be exactly like a person-to-person contact, because it's just not … we're not dealing with robots, we're dealing with human beings and human beings … are going to be able to tell their story the best and be empowered the most, when they have a connection with another human being.

Virtual Open Justice

Several judicial officers expressed concern regarding the future of open justice (Legg, 2021) and the community's confidence in the administration of justice, if the system becomes completely online: 'justice is such a pivotal aspect of our community: who we are; how we interact with one another; how we implement the rules; how we have a civil society' (SCJ6). Online justice might 'disenfranchise the public' because justice cannot be readily seen to be done (M6). However, other judicial officers felt that the principles of open justice can still be operationalised in the virtual realm. If open justice means the public can walk into a courtroom, then they can simply link into a virtual one, while recognising that such links may present problems making courts 'more vulnerable to nutters and crazy news people … and fake people' who might illegally record, share sensitive case information or undermine court authority (CCJ1). Future online justice requires greater attention to secure digital access.

Improving Technological Infrastructure

From the perspectives of convenience, efficiencies and procedural matters, most participants agreed that 'the use of AVL has been a godsend for courts' (M3), especially for 'non-contentious mentions and short matters' (P11). Clearly, the courts and profession need to 'get better at streamlining the process [and] …making greater use of AVL' while recognising that technological innovation is 'inevitable' and a way for lawyers to 'service multiple clients, multiple needs, multiple courts' (M3). That said, DCJ1 was cautious about only focusing on efficiencies as 'every government department loves cheaper'. These suggestions recognise the ubiquity of AVL (Ross et al., 2025), the inevitable evolution of courtrooms (Bandes & Feigenson, 2020) and the need for investment (Fielding et al., 2020) commensurate with necessary transformations.

Optimal Technology

Top of many participants' wish lists was investment in better and more technologies. AVL is here to stay and will expand: 'We've just got to get it right' (DL26). There were calls for 'a fit-for-purpose system that will carry us into the future' including 'an abundance of remote witness facilities' (M5), and going beyond just 'retrofitting courtrooms' (M3). M5 explained that 'the government's put their big toe into the water', but hasn't funded the system adequately to reap optimal benefits. According to VJ1, it isn't sufficient that technologies are merely functional, they need to be optimal, to 'be as real as it can be', retaining 'the atmosphere' of court. SCJ5 said 'as the tech gets better, the difference … between in court and AVL' will diminish.

While there is a lack of evidence to inform decisions regarding which technologies and configurations are optimal (Martschuk et al., 2024), DL18 identified the need for better facilities, such as headphones, for people with hearing difficulties because so often, remote defendants 'literally can't hear what the judge is saying'. DCJ1 recommended video cameras that are trained 'on whoever is talking at the time' so that the remote person is hearing voices connected with relevant faces on screen. Improved AVL could also provide more suitable facilities for interpreting, including Australian sign language, Auslan (WAS1). One of the 'biggest bugbears about access to justice' involved the complexity of linking remote interpreters with remote people (M1). The issue for interpreters is they need greater abilities to either interpret in-person or via enhanced access to optimal AVL equipment (Skinner et al., 2018).

Interoperability

Aligned with optimal technologies is the issue of the uniformity of systems across jurisdictions and agencies. Videoconferencing providers, VJ1, recommended: 'Let's all do this together and … get a completely interoperable system'. WAS1 said that 'if we could have some nationally and accepted IT platforms, that would make everybody's life a lot easier'. Police, lawyers, legal aid and courts should all be on the same integrated system (M4). However, interoperability cannot be done 'on a piecemeal, silo basis, because then you're going to have one arm not operating with the other' (M5). The key is collaboration amongst the many justice agencies.

Technologies in the Summary Jurisdiction

Many participants addressed improving the capacities of the summary jurisdiction which 'does over 90% of all of the work' (M4). P7 spoke of the 'high volume' Local Court, an 'exhausting' and 'devastating' workplace, which could be a leader in improving the system. However, improvements would require 'solid funding' for 'future-proofing the Local Court' (M5). Several interviewees suggested that low-level offending, particularly traffic offences, could easily go 'straight in the online Magistrates' Court' (DL30) and 'be done even by registrars in virtual courts … [the] creation of a fourth tier is something that we're working on to push down that low-end work to a virtual courtroom' (M5). M4 also promoted 'the fourth tier' explaining 'the first tier is the Supreme Court. The next tier is the District Court, and the final tier is the Local Court'. Repetitive work, like parking or transport matters, can be done by registrars or an e-court, freeing up magistrates to do the 'more complicated, contentious work' (M4).

Legal Conferencing

Any investment in courtroom infrastructure must be matched in police stations and corrections. There are insufficient facilities available in prisons (M1; DL3) and more facilities are required for confidential legal conferencing with clients in custody (Turner, 2021). DL13 identified the need for soundproofed AVL booths in corrections, recommending dedicated booths that resemble courthouse conferencing rooms (see Kashyap et al., 2018) ensuring access to clients before, during and after court matters. Acoustic issues between prisons and courts, 'the banging … crashing … wailing … shouting' (DCJ2), continue and need to be addressed in future spaces (McKay, 2018, 2020).

As discussed in Chapter 'Remote Vulnerable Defendants', communicating with clients in police stations by telephone is difficult when they are in the charge room alongside police officers (DL38). Several defence lawyers suggested that police are often hesitant to put people on AVL, 'or pretend it's broken' and tell the lawyer to just do instructions on the telephone, leading to a loss of confidentiality for instructions' (DL27). While 'most police do the right thing … the potential for things to go wrong is too high when you don't have both audio and visual' (DL26). There is also the need for the ongoing independent scrutiny by lawyers of carceral spaces. When lawyers attend correctional centres and police stations

in-person, they see the conditions in which people are being held (DL25). To the contrary, DL36 suggested that 'gone are the days of face-to-face appointments'.

DL31 said that prisons have 'a lot of work to do around how they deal with AVL. It's not acceptable the practitioner can't talk to a client on the same day when they need to'. Such issues highlight how courts are increasingly 'an adjunct or an annex to the prison' (DCJ2), connecting with my earlier research regarding the technological conflation of suspect/inmate management with criminal procedure (McKay, 2022; McKay & Macintosh, 2023). Going forward, greater attention should be paid to the control of the conceptual extension of courtrooms into spaces of detention.

Key Priorities: Training, Screening Tools, Practices and Safeguards

Vulnerability Screening

My study highlights the need to promptly screen, identify and respond to the 'markers of vulnerability' (Travers et al., 2020, p. 11) on a case-by-case but methodical and universal basis. This aligns with the recognised 'vulnerability identification deficit' (O'Loughlin et al., 2024, pp. 67, 81), caused by tight legal definitions and unstructured approaches. Vulnerabilities must be identified and made known to all justice actors from the first point of contact (Hughes et al., 2022), so that communication modes may be tailored. For such purposes, systematic communication assessments, vulnerability screening tools and risk factors have been developed in various jurisdictions for frontline professionals and to facilitate diversion (e.g. Law Foundation, 2025; O'Loughlin et al., 2024; UNHCR, 2016). While police, correctional staff and lawyers should all be well versed in detecting the typical markers of vulnerability, they can still be missed due to 'knowledge deficits' requiring judicial officers to sometimes step into the role of assessor (survey respondent). Moreover, vulnerabilities are not always visible or immediately apparent (Menichelli, 2021). Nevertheless, interviewed judicial officers emphasised lawyers' duties in knowing their clients and witnesses well. In this regard, my dataset points to the continuing benefits of physically meeting with clients or witnesses face-to-face, at least once, as an effective screening tool and means to identify appropriate supports. SCJ3 recommended developing protocols to

ensure that lawyers meet their witnesses and clients face-to-face, to better understand people's communication needs and any reasonable adjustments for effective communication, participation and procedural fairness.

Trauma-Informed Training

Further training in trauma-informed and responsive practice was suggested by WAS3 who posited, in relation to vulnerable witnesses:

> How great would it be to have the trauma-informed criminal justice system where we can integrate the principles of trauma-informed practice … safety, empowerment, choice, they are things that will enable our people to give the best evidence and … maintain a fair trial.

Trauma-informed approaches are seen as providing more humane and less stressful environments for vulnerable individuals. The aim is to support individuals' coping mechanisms and to minimise re-traumatisation, thereby supporting their effective and coherent communication, full participation and inclusion, and securing their accurate, complete and reliable evidence—all attributes of procedural fairness. This is achieved by judicial officers and lawyers having greater awareness of 'trauma-informed questioning' (SCJ3), and how trauma might manifest through difficult or agitated behaviours (Judicial Commission, 2022). Measures include modifying the court environment and procedures to provide a greater sense of safety and, as my study finds, decisions whether remote modes will mitigate or intensify stress. Trauma-informed approaches involve training in understanding trauma, recognising its signs and impacts, and applying precautionary approaches, especially for Aboriginal and Torres Strait Islander peoples (Judicial Commission, 2022; Kendall, 2024). However, the benefits of trauma-informed practice and the recognition of communication needs ought not to be restricted to prosecution witnesses. A fairer future would ensure that vulnerable defendants' communication needs are also systematically accommodated. For instance, DL37 spoke about communication difficulties with a remote client held in a police station, noting she was a 'particularly vulnerable person who comes from an extremely traumatic background … known to be a bit mute at times'. Other literature has recognised the trauma-inducing aspects of criminal procedure on defendants as well as witnesses, complainants and victims

(Kendall, 2024). This connects with the acknowledged overlap between offending and victimisation discussed in preceding chapters.

Technological Training

Greater training for court and corrections personnel in effectively operating and scheduling the various technologies was identified by many participants. Training for police regarding pre-recorded interviews was recommended to avoid admissibility 'problems with recordings and visibility issues that arise from cameras being in the wrong spot' (P18) and 'leading questions' (DCJ2). CCJ1 suggested the need for more 'defined rules about the format and the technology' used during police interviews to ensure the vulnerable person's face and subtle gestures can be seen.

When Should AVL Not Be Used?

The dataset includes many responses concerning whether there are individuals for whom AVL is not appropriate, for instance, witnesses or defendants with cognitive impairments, people with strong accents or language needs, and witnesses who lack a private location to discuss sensitive issues. There are also circumstances when AVL is not appropriate according to many respondents: trials, defended hearings, crucial or contested testimony, credibility assessments, or for viewing complex evidence/exhibits or CCTV footage.

It seems unlikely that we can draw a bright line regarding when AVL should and should not be used. It would be impractical, and unhelpful, to suggest that all vulnerable individuals be either always included or always excluded from AVL, and greater attention needs to be directed to screening tools or assessment mechanisms to assist in the triage process. For the purposes of clarity regarding options, some respondents suggested changes to the legislation or AVL court practice notes, although these shouldn't be too prescriptive or inflexible as technologies evolve. P10 stated:

> technology is here to stay, but I think it's a creative tension as to how to use it properly … there should be no settled rules … ultimately, it should be the courts that make the decision as to what's going to happen in a particular case, guided by legislation, of course … it shouldn't be too static.

DL31 suggested that with electronic justice becoming the norm, more standardised court practice notes are required to clarify when the three levels of courts are 'happy to see AVL appearance and where they require in-person appearance'. Finally, more guidance is required for the use of AVL from police stations for bail applications because police are insufficiently aware of their obligations and safeguards (DL27).

Opt-in/out?

Providing a more specific AVL opt-in/opt-out system seems vexed. Several respondents suggested that it effectively already exists, noting some limited choice, but also observed that making it about individual choice might add to a vulnerable person's stress.

Regarding vulnerable witnesses, many prosecutors and witness assistance officers suggested that they all should, by default, give evidence remotely unless they explicitly opt for court. However, it's important to keep choices available for victims (WAS2), and provide sufficient 'information about the pros and cons' (VS1). P15 asks vulnerable witnesses to consider: 'At the end of the day, what do you want to achieve?', and P14 tells witnesses that remote modes are designed to minimise stress but they can still attend court if they prefer. One survey respondent said that vulnerable witnesses should only appear remotely if adequately supported; they shouldn't be expected 'to give evidence about harrowing sexual assaults or violence at home alone and unsupported'. This links with ensuring that vulnerable witnesses are using facilities that are secure and meet technical standards and court protocols (James, 2025).

Victims' needs were raised by survey respondents as a reason for everyone to be in-person in court: 'often on sentence, for cultural or personal reasons, victims want to face an offender in-person, but if that offender is in custody already, they often appear remotely'. On this basis, offenders should not be allowed to attend sentencing by AVL. Caselaw evidences the reticence of some offenders to apologise to victims in-person, instead offering to engage via AVL.[4]

Regarding defendants, DL27 felt that while AVL is great for administrative issues in criminal courts such as adjournments, it 'shouldn't be everything by AVL. I don't think that would be good for anyone'. DL18 said the choice to be transported from gaol should be left to the defendant, being the person directly impacted by the process and outcome.

Transportation certainly deters defendants from opting to appear in court because:

> the cells in the courthouse are terrible … border[ing] on inhumane. But being transported and searched … from the gaol to the courthouse, should be the choice of the defendant and not a judicial officer, or a correctional officer, and it shouldn't be borne out of convenience or cost. What the defendant wants should be the overriding factor. (DL18)

The problem with this approach is that vulnerable defendants might not be aware of what is in their best interests. Other studies have suggested that remote hearings should only occur with the defendant's informed consent (Bellone, 2024; UNODC, 2017) while the EHRC (2020) found that video hearings are often unsuitable for vulnerable defendants.

Expanding Witness Intermediary Schemes and Other Supports

Whilst 'not necessarily a technological solution' (P19), several suggested that witness intermediary schemes ought to be expanded. WAS1 spoke about including a broader range of vulnerable witnesses who can automatically be entitled to use the remote witness rooms, videolinks or the intermediary scheme. Wi1 went further and argued for more jurisdictions to expand the scheme to vulnerable defendants because:

> the line between victim and accused is very blurry, often, and the majority of people who come into contact with the criminal justice system as the accused will have been or will be in the future a victim themselves … It's the same person.

Therefore, it's not logical to differentiate between parties who have communication needs purely on whether they're a defendant or witness. Regardless of vulnerability, P12 suggested that 'everyone should have a witness intermediary' due to the unfamiliar and stressful environment. Other reports have argued for a parity of special measures and intermediaries for both 'genuine' and 'deserving' vulnerable witnesses as well as vulnerable defendants (O'Loughlin et al., 2024, pp. 75–76, 82; EHRC, 2020). One day, perhaps, digital companions or bots could support remote defendants (Kremens & Peristeridou, 2025).

Conclusion

Going forward from this dataset, clearly AVL and associated measures have a part to play in the future criminal justice system (Smith et al., 2021). Overall, participants recognised the 'need to embrace technology', especially that which enhances court procedure (P13). Without doubt, there are many universal and non-contentious uses of AVL that ameliorate digital vulnerabilities, so courts and the profession 'shouldn't be standing in the way' of continuing technological progress 'without good reason' (SCJ5). Ultimately, most agreed that the challenge is 'how we can do it better … work smarter' and keep it meaningful (P7), while maintaining a focus on addressing 'social inequality and minimising people's entrance into the justice system: earlier and better managed interventions' (DL19). Improvements will involve the collaborative efforts of all 'here in the trenches' with a view to enhancing the system, 'so that it's not so "groundhog day"' (P7).

With the possibilities of not only virtual courts but also AI and automated decision-making, there is a need for careful oversight to ensure that vulnerable individuals are adequately identified and not processed through the whole system as digital objects without human contact and scrutiny. Perhaps, particularly for vulnerable defendants, as criminal process is increasingly digitalised and the significance of physical presence diminishes, the question arises regarding how a suitable mechanism might operate to ensure defendants have been seen in-person, at least once. At present, the burden seemingly lies on defence lawyers to ensure adequate human contact.

Whether the shift to digitalised criminal justice guarantees procedural fairness remains unclear. The key, according to DCJ1, is to ensure that any remote individual 'is, in fact, participating fully in the proceeding. That they understand it. That they can hear it. That their needs are being taken into account adequately, and that everyone works to achieve an adequate level of comprehension'. To achieve and operationalise this, technologies must be of high quality and used in ways that support vulnerable individuals' resilience. Moreover, court procedure and legal principles require ongoing recalibration to align with digitalised modes.

Notes

1. *Kore Meals LLC v Freshii Development LLC*, 2021 ONSC 2896, Morgan J, [31]–[32].
2. *Inquest into the death of Luke Anthony Rich* [2024] ACTCD 3.
3. *R v Walker* [2025] NSWCCA 62; *R v Early (No 4)* [2023] NSWSC 505.
4. *DPP v Kaye (a pseudonym)* [2025] ACTSC 169; *Knight (No 1)* [2023] NSWSC 195.

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CHAPTER 8

Conclusion

Abstract This final chapter synthesises the many themes, issues and complexities raised by the data and analysis to provide applied and theoretical findings regarding the impact of remote communication technologies on vulnerable individuals. The key findings draw a sharp distinction between vulnerable witnesses and vulnerable defendants.

Keywords Digital vulnerability • Vulnerable witnesses • Vulnerable defendants • Techniques of mitigation • Techniques of intensification • Access to justice • Techno-solutionism • Technocratic justice

Introduction

This final chapter synthesises the many themes, issues and complexities raised by the data and theoretical analysis. Throughout this study, I have evaluated digitalised criminal justice and the interrelationship with vulnerability to ask: in what ways do remote communication technologies, such as audiovisual links (AVL), assist or disadvantage vulnerable individuals in the criminal justice system? By engaging with those at the criminal justice 'coal face', that is, with 175 Australian judicial officers, lawyers and affiliated professionals, my study has examined the impact of digitalisation processes on fair, accessible and inclusive criminal justice for all vulnerable individuals. While there are some universal and non-contentious experiences of videolinks, the key findings are sharply delineated between

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https://doi.org/10.1007/978-3-032-10028-3_8

vulnerable witnesses versus vulnerable defendants. This chapter articulates both the theoretical findings that contribute new understandings of digital vulnerability, as well as the applied findings, specifically relevant to practitioners.

Fresh Perspectives on Digital Vulnerability

Building on the content and thematic analyses, my study has sought to conceptually capture the convergence of technologies and vulnerability with criminal court procedure and victim/legal conferencing. To recap, Chapter 'Digital Criminology, Vulnerability Theories and Digital Vulnerability' introduced the theoretical framework that synthesises digital criminology with vulnerability theory to further develop the emergent concept of digital vulnerability. Rather than just adding 'digital' as a prefix to 'vulnerability', my conceptualisation of digital vulnerability is founded upon digital criminology's explicitly techno-social context, used here to specifically unpack the interplay between AVL and vulnerable individuals (McKay & Macintosh, 2024). Drawing on digital criminology's attentiveness to techno-sociality and folding-in vulnerability theory's notion of resilience, I acknowledge the centrality and embeddedness of technologies in our digital society. This enables an analysis of everyday human-technology interactions in legal institutions and professions, and how remote modes transform, compound or ameliorate core criminological concerns. Digital vulnerability, in this context, enables a nuanced understanding of the transformations brought about by digitalisation in criminal courts, justice agencies, procedural protections and legal practice. Such conceptual engagement generates a deeper examination of technologies beyond basic, pragmatic concerns of efficiency, cost and convenience, leading to the finding that remote communication technologies can be conceptualised either as *techniques of mitigation* or *techniques of intensification*.

Key Findings

Chapters 'What Is Vulnerability in Criminal Justice?', 'Remote Vulnerable Witnesses, Complainants and Victims', 'Remote Vulnerable Defendants' and 'Future Visions of Digitalised Criminal Justice' contribute new knowledge on vulnerability: legally derived understandings from the content analysis of legislation and caselaw, as well as professionally derived

experiences from the interviews and survey, and future visions. This evaluation shows a clear delineation between remote vulnerable witnesses (including complainants and victims) and vulnerable defendants (including offenders).

Legal Vulnerability

The content analysis of Australian legislation in Chapter 'What Is Vulnerability in Criminal Justice?' demonstrates how legal definitions of vulnerability, and the range of corresponding supportive measures, are primarily relevant to vulnerable individuals who are not the accused. Statutory definitions typically focus on inherent vulnerabilities, such as age and significant impairments or communication needs, as well as factors that might make a person vulnerable before the court. Select caselaw is also analysed, shedding light on how vulnerability is understood and operationalised in court. While caselaw goes beyond the strict legislation to demonstrate a broader understanding of vulnerability, the content analysis demonstrates how courts operationalise the legislative definitions and measures to, again, primarily benefit vulnerable witnesses. Additionally, it shows limited instances where the vulnerabilities of remote defendants are treated as relevant, unless they are so vulnerable as to be unfit to stand trial. The differences between the treatment of vulnerable witnesses and vulnerable defendants are further developed through the thematic analysis of the survey and interview data in Chapters 'Remote Vulnerable Witnesses, Complainants and Victims' and 'Remote Vulnerable Defendants'.

Vulnerable Witnesses

Chapter 'Remote Vulnerable Witnesses, Complainants and Victims' demonstrates a consensus that remote modes, complemented by a range of non-technological supports, benefit vulnerable witnesses in shielding them from the stress, intimidation and trauma of the adversarial courtroom. The empirical dataset indicates how diverse supports and special measures are available for vulnerable witnesses so that they can beneficially appear from separate safe spaces. Remote modes ameliorate their vulnerabilities, promote recall, enabling more coherent and calm evidence-in-chief and cross-examination. With 'all these strengthening factors', the witness' resilience can be supported (P7). The technologies assist vulnerable witnesses to actually attend court while feeling emotionally and

physically safe. As one survey respondent wrote: 'remote technologies are integral for vulnerable victims and witnesses to take part in the criminal process', and 'frankly, many victims would be incapable of giving quality evidence absent AVL technology'. Applying my model of digital vulnerability, such technologies and associated arrangements act as *techniques of mitigation*. By this I mean that witnesses' vulnerabilities can be alleviated through digital tools, videolinks and complementary measures, thereby supporting and building their resilience, effective participation, engagement, comprehension and dignity throughout criminal justice processes. In this light, digitalisation is a positive response that promotes *access to justice* and enhanced justice experiences.

Nevertheless, the thematic analysis simultaneously points to potential forensic disadvantages to the prosecution case when a vulnerable witness appears by pre-record or remotely. My caselaw analysis in Chapter 'What Is Vulnerability in Criminal Justice?' identifies instances when pre-recorded evidence might be inadmissible and, in Chapter 'Remote Vulnerable Witnesses, Complainants and Victims', concerns are raised whether remote modes blunt the emotional charge of testimony, with even harrowing evidence being sanitised by technological mediation. Remote modes might take the 'sting' out of appearing before court, but do they similarly diminish the sting—or potency—of the testimony, making it less persuasive? Should vulnerable witnesses be explicitly warned about the potential impacts on conviction rates if they appear remotely? Further research would be of great value. Moreover, questions remain as to whether the remote appearance of vulnerable witnesses stifles thorough cross-examination: does the remote mode enable greater prevarication or avoidance of confronting questioning, generating forensic disadvantage for the defence case?

Vulnerable Defendants

Regarding vulnerable defendants, the thematic analysis in Chapter 'Remote Vulnerable Defendants' demonstrates some positive aspects where AVL can enhance legal experiences and mitigate digital vulnerabilities, especially for non-incarcerated defendants living in remote areas. Additionally, there is much evidence that incarcerated defendants prefer both remote legal conferencing and court appearances because AVL avoids the fraught experiences of prison-court transport, as well as disruptions to prison accommodation and schedules. For people with a history of court

appearances and incarceration, the so-called frequent flyers, the analysis shows that they are primarily interested in receiving the 'transactional' information regarding their court appearances, such as the sentence duration and release date. AVL provides a means to pragmatically relay such straightforward information to defendants who are perceived to be experienced in criminal justice, and perceived to be less receptive to messages of deterrence. From these perspectives, AVL can be seen as enhancing defendants' *access to justice*.

Still, Chapter 'Remote Vulnerable Defendants' explains numerous deficiencies of AVL leading to *barriers to justice* for vulnerable defendants. Many lawyers expressed that AVL is convenient before and following court matters, but not necessarily an effective replacement for face-to-face meetings, particularly when privacy and confidentiality are required to discuss sensitive matters. Just identifying the 'markers of vulnerability' of defendants can be hampered by remote modes and this deficit of knowledge can impact legal advice and instructions regarding available defences and mitigating factors. As more legal conferencing and representation occur remotely, lawyer-client interactions may be hindered by AVL. My findings align with Bellone's (2024) US study which concluded that effective legal representation is negatively impacted by non-private lawyer-client videoconferencing. Regarding issues of human connection, the technology can stifle remote vulnerable defendants' abilities to effectively connect, communicate, engage and participate in criminal process, leading to 'muted' comprehension (SCJ4). Particularly for vulnerable clients, lawyers 'really have to tailor the technological experience for them' (DL23). Ultimately, the disadvantages and barriers that vulnerable defendants experience in communicating with remote legal representatives and remote courts are simply compounded by the technologies.

I found an inequity between vulnerable witnesses and vulnerable defendants, even though they often share the same vulnerability attributes. While the criminal trial is intended as 'a communicative enterprise' (Ashworth & Horder, 2013, p. 24) and the communication needs of vulnerable defendants are significant, few jurisdictions offer adequate (or any) support to them, and the measures operationalised by courts can be unpredictable. My analysis suggests that defendants' vulnerabilities are insufficiently addressed and/or often exacerbated by communication technologies. In many instances, AVL compounds the digital vulnerabilities of remote defendants, depleting their resilience, disconnecting them from effective connection, communication, comprehension and

confidentiality, while replicating and intensifying inequalities in the criminal justice system. From this perspective, digital vulnerability can be applied to understand how remote modes are *techniques of intensification* that can compromise and disadvantage vulnerable individuals. In this context, digitalisation generates *barriers to justice*.

Universal Experiences for Witnesses and Defendants

The thematic analysis highlights certain patterns of universal AVL experiences and vulnerabilities across the criminal justice system, regardless of whether the perspective is that of a witness or defendant. Social disadvantage and marginalisation impact both groups in similar ways when it comes to computer literacy, and access to suitable digital devices and internet from appropriate sites (preferably not police stations). Digital exclusion, therefore, remains a live issue, particularly pronounced in regional and remote areas. Chapter 'Future Visions of Digitalised Criminal Justice' emphasised the perceived lack of investment in *optimal* (as distinct from *adequate*) infrastructure throughout society, justice agencies and institutions. Suboptimal technologies lead to technological glitches and disruptions that affect the efficiency and flow of court proceedings.

Another universal theme across witnesses and defendants relates to Aboriginal and Torres Strait Islander peoples impacted by the criminal justice system, and their relationship with AVL and vulnerability. There is a paradox between the increased use of 'impersonal' AVL technology (DL6), and the simultaneous increased recognition of 'more engaged styles of judging … more of a focus on being conscious of rehabilitation' (DL6) for Indigenous sentencing conferences and community justice (Wallace et al., 2017). Community justice is 'the very opposite of AVL as a means of advancing the justice system, because the community courts are live people sitting around physically a single table in a room … fashioning a culturally appropriate sentence' (DL4). Indeed, Indigenous sentencing courts attempt to improve culturally appropriate responses, community input, communications and comprehension (Cunneen & Porter, 2017) through gathering in-person, considerations seemingly antithetical to AVL. From this perspective, AVL is perceived as a 'technologically-driven and virtually-mediated' continuation of colonial violence, the 'monopoly of white law' and 'profound alienation' (DL4). For improvements to be realised, DL14 emphasised the need for 'First Nations perspectives' and research to fully understand language, culture, disability and the lack of

services. Although not only an issue for Indigenous peoples, my study has also identified the need for either greater access to in-person interpreting or improving video-mediated facilities.

DL31 suggested that greater digital education and tools are required in regional and remote areas to enable everyone to participate. While there is much discourse around 'closing the gap', that 'gap is widening' and Aboriginal communities are 'becoming more disadvantaged' (DL31). Some interview and survey responses arguably demonstrate a deficit discourse, that is, reductive, race-based stereotypes of dysfunction (Fogarty et al., 2018). However, most respondents acknowledged the systemic impacts of colonisation, adopting a more 'strength-based' framework that focuses more on community, culture and resilience (Edwige & Gray, 2021; Hopkins et al., 2023).

Yet another universal theme relates to children, whether as witnesses or defendants, who are recognised as the most vulnerable in the legal system. Most jurisdictions have a presumption in favour of their remote appearance but, as DL14 observed, AVL might work well for adults, however, 'do they work well for a First Nations 13-year-old in Child Safety care in Mount Isa? The answer is, "Of course it doesn't."' The dataset suggests cogent reasons for bringing a child witness or defendant to court in terms of getting a 'sense of physical smallness' (DCJ1). For child defendants, physical appearance can provide emotional and communication support that better enables participation, comprehension and therapeutic outcomes. This requires greater attention to comfortable and safe transport and court facilities, and proximity to their lawyer.

Finally, there is almost universal support for AVL as delivering convenience to lawyers, courts and other participants and in addressing travel costs, logistical problems, vast distances and 'odysseys fraught with danger' (DL4) across Australia. On the other hand, identifying the markers of vulnerability and developing trust and rapport remotely, without physical proximity, remain challenges for prosecutors and defence lawyers alike.

Digitalised Dystopia?

Then there are the more intangible concerns regarding the trade-offs, sacrifices and compromises that digitalisation brings: processes might be expedited by AVL but at what cost to the parties and quality of justice? Polarising aspects remain as courts try to balance the benefits for some vulnerable individuals against the negatives for others, against a

background of maintaining a fair, open and accessible system in a forward-looking manner. AVL seemingly makes justice more transactional or perfunctory—more focused on the bare transmission of information—and dehumanised for everyone (Ross et al., 2025). Are the considerable benefits for vulnerable witnesses outweighed by the many disadvantages to the defendant? As one Supreme Court justice suggested, while remote modes have many benefits especially for vulnerable witnesses, there are tensions between competing concerns, and 'when it comes to defendants … we probably learned the lesson that justice is done best in-person' (SCJ3). Finally, with perceptions of remote modes leading to second-rate justice, it is incumbent on the judiciary, courts and legal profession to maintain critical engagement with changing standards, and to ensure that any deficiencies are swiftly mitigated or eliminated. This ties in with the forecast visions of Chapter 'Future Visions of Digitalised Criminal Justice' for a future with more high-quality technologies, integrated across the justice matrix, and operationalised with a greater awareness of the uneven impacts of digitalisation. In an age of centralisation, my findings point to the continuing significance of localised, community justice and the need to balance human connection with technological efficiencies.

My findings challenge notions of techno-solutionism, that is, assumptions that new technologies and innovations necessarily provide solutions to complex real-world issues, such as improving delays, productivity, efficiencies and, importantly, accessibility in criminal justice. Techno-solutionism overlooks the transformed interactions between the criminal justice system and vulnerable, disadvantaged or marginalised social groups. It fails to recognise that new technologies in justice can be positive enablers or enhancers, or, alternatively, negative inhibitors (Chatfield & Reddick, 2020). The paradox of legal technologies is that they can replicate and amplify the very issues that are tasked to alleviate (Ajunwa, 2019). Certainly, my study finds that AVL is simultaneously a technology of connection and disconnection; humanisation and dehumanisation; mitigation and intensification.

Moreover, increasing digitalisation reveals the symbiotic relationship between for-profit, Big Tech vendors, carceral entrepreneurs (Feeley, 2002) and civic institutions of justice: an incompatible intrusion of 'private actors without public values' (Taylor, 2021, p. 897) into the functions of state prosecution and punishment (Alston, 2019). Building on O'Malley's (1984, p. 45) concept of 'technocratic justice', we see a criminal justice system that is increasingly de-moralised in favour of

technological determinism and economic rationalisation (Brown et al., 2025). However, a purely quantitative focus ignores significant qualitative factors including systemic disadvantage, critical legal rights, responsibilities and principles, as well as human rights and unintended and contradictory consequences. AVLs might be seen as generating depersonalised and routinised justice, reinforcing the trivialisation of justice, particularly in the lower courts (Loo & Findlay, 2022; McBarnet, 1983). Further, building on O'Malley's (2010, p. 795) concept of 'simulated justice', we see the emergence of a dystopia in which people can be 'policed, judged and sanctioned' without ever being 'sensed' in any human way. In the digitalised criminal justice matrix and its confluence of software and hardware, wetware humans are electronically produced in court, and processed through the whole apparatus as simulacra within an assemblage of real and virtual justice worlds.

Of course, it could well be argued that the proverbial digital horse has bolted, especially after the 'terrific turbo boost' (DL4) from COVID-19 that 'skyrocketed' AVL 'like no tomorrow' (M2). This marked a turning point with AVL permeating the fabric of everyday court life and becoming an invisible, assumed part of contemporary court experience. COVID-19 undoubtedly changed our engagement with AVL, demanding an update in conceptual tools that this book has sought to develop.

Conclusion

Through qualitative research methods, this study has generated a large dataset, and deeply engaged with the complexities of the digitalisation of criminal justice with a keen focus on the human dimensions. But are we shaping a criminal justice system in which humans have no part? While justice agencies around the world are embracing efficient yet potentially dehumanising remote communication technologies and processes of digitalisation, there is, paradoxically, an increased interest in human-centred design that, firstly, puts individual needs at the centre in justice and, secondly, implies state responsibility for designing suitable justice systems (Mulherin, 2023). Are these human-centred principles actually operationalised to benefit vulnerable individuals before the criminal courts, or are they simply the latest empty buzzwords that, in fact, mean de-human-centred design? Young and Jurko (2020, p. 15) state that 'human-centred design' is often fulfilled by 'user testing of already-designed tools' with a focus on marketability and scalability, overlooking lay people's needs.

Instead, attention could be turned to user-led design (Mulcahy & Tsalapatanis, 2024), or universal design principles that focus on access and resilience (Sarrett, 2022), recognising the universal vulnerable human subject.

A potentially different approach to the digitalisation of criminal justice might be to, firstly, identify and articulate the specific problems that need to be addressed; secondly, focus on the range of possible non-technological solutions; then, finally, explore techno-solutions. The development of digitalised criminal justice relies on a critical engagement with technologies, that is, understanding the multifaceted challenges of technological change, before introducing digital innovations. Digital transformation does not simply involve retrofitting new technologies in the hope that they might 'replicate' the traditional modes: it necessitates the holistic realignment between new technologies and the many legal, human, political, social and institutional values, recognising the complexities of the justice ecosystem (Chatfield & Reddick, 2020). That is, the end goal ought not to be the implementation of technologies, rather it should be the targeted and ethical application of technologies to solve specific identified problems. Technologies should be in service of criminal justice mechanisms and principles, that is, subordinate to courts and criminal procedure, rather than constitutive of power.

Another approach might be to start with an aspirational reimagining of a responsible digitalised infrastructure that has, at its core, the objective of improving justice inclusion, experiences and outcomes, as distinct from merely serving managerialist and technocratic concerns. A real digital revolution would involve grappling with how technologies might transform criminal justice for the *better* (Alston, 2019) to achieve its essential goals (Bandes & Feigenson, 2020). The starting point would focus on how new technologies can be operationalised to *improve* the experiences of vulnerable individuals. We can see this process of betterment has already been adopted for vulnerable witnesses, but less so, and perhaps not at all, for vulnerable defendants. For instance, vulnerable witness supports such as intermediaries aim to enable best evidence, but what of vulnerable defendants, their high communication and legal needs, and their rights to enable their best participation, communication, coherent instructions and legal advice? While it has been disappointing to realise that many of my pre-pandemic concerns regarding people-in-prison (McKay, 2018) remain unaddressed live issues, the level of thoughtful engagement throughout

my national interviews and survey provides optimism that digitalisation can proceed responsibly and ethically, while maintaining a deep sense of humanity.

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C. McKay, *Digital Vulnerability in Criminal Justice*,
https://doi.org/10.1007/978-3-032-10028-3