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SINGAPORE JUDICIAL COLLEGE

Adopting Technology in an Evolving Justice System

Final Project Report

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A. Reflections on the Project

The initial aim of this Project was to study – comparatively – the use of technology in bringing about meaningful advances in access to justice by reducing the time and costs associated with obtaining a remedy through the courts. The Project initially started with an analysis of case studies of the technological transformation of court processes from a selection of common law systems (Hong Kong, England & Wales, Australia, Canada and New Zealand). This analysis looked at the following issues:

- (a) The areas of court process that animate the use of technology.
- (b) The apparent and real benefits to access to justice that can be reaped from the use of technology.
- (c) What might be lost when technology is adopted and how systems purport to guard against this when implementing technological innovations.
- (d) The broader implications of technological innovation for our understanding of the nature of adjudication, dispute resolution and the judicial process, as well as our ideas of ‘justice’ within the justice system.

The work plan for the Project was to horizon scan for notable case studies from the above-mentioned common law jurisdictions to enable the above analysis. The analysis and evaluation of these uses of technology involved looking at legislative reports and debates, government briefings, law reform reports and academic articles. The aim of this was to understand through these reflections what has been the impact of technology – have the promises of technology been realised and / or how have different systems critically reflected on technology and recalibrated its usage?

I reaffirm my thanks to Chief Justice Menon for the encouragement to embark on this Project; the Singapore Judicial College (SJC) and colleagues across the Judiciary for the support for this research. I am grateful to Dean Natalie Skead for the guidance and suggestions as this report was finalised. Finally, I would like to register my thanks to the wonderful team of Judicial Associates and Judicial Law Clerks at the Judiciary: Pearly Ang, Jonathan Low, Kian Peng Soh and Perveen Kaur have provided thoughtful and detailed research assistance.

The initial plans for the project were to produce two outputs:

- i. A database of case studies on uses of technology in justice systems around the common law world.
- ii. An article that contains the analytical work described in (a) to (d) above relating to these case studies.

The analysis contained in the above outputs – and (ii) in particular – were to be supported by:

- Interviews with members of the Judiciary and key office holders at the Courts
- Observations of hearings across the court system to understand how technology is currently being leveraged in the judicial system in Singapore.

While the broader interviews and observations have not been possible, two conversations – one with Mr Patrick Nathan as the Chief Information Officer in August 2022 and the other with Mr Tan Ken Hwee, Chief Transformation and Information Officer in October 2022 – were very helpful in re-orienting and re-thinking the project focus and the kind of project outputs that would actually be useful to the judiciary at this stage of its technological transformation. Sections 1 and 2 set out these redirections in the project.

1. Revisiting the Database

As mentioned in previous reports, the database we had been working on was planned to be a further ‘soft’ output for this Project. Previous reports have explained the various axes along which the database was being organised (e.g. by jurisdiction; by scale of innovation (piecemeal or judiciary-wide); by stage of proceedings where the innovation is focused; by its objective (access to justice, Covid-contingency; cost and efficiency)).

The very helpful conversation with Mr Tan Ken Hwee during the course of the Project, however, highlighted two critical issues with the utility of such a database:

- (a) Its breadth and comprehensiveness. The field of technological transformation of justice is fast moving and evolving and it would be very difficult to capture that vastness in a single database – especially one that was focused on a specific time period as was the case with this Project.
- (b) What is more important for the judiciary is not so much a database that strives for comprehensiveness (which is difficult as the preceding insight helped me to understand) but an empirically-grounded understanding of the impact of a particular technological innovation or project in any jurisdiction under study.

The above insights necessitated revisiting the utility of a ‘soft’ output in the form of a database. While the work of gathering case studies is not wasted, what was very helpful to understand from Mr Nathan and Mr Tan was the nature of outputs from this Project that would be of stronger utility to the judiciary in Singapore: a framework for evaluating the use of technological and digital tools of innovation.

2. Pivoting to Designing a Framework for Evaluating the Use of Technological and Digital Innovation Tools and Building Knowledge and Technical Capacity

The initial scope and methodology of the Project set out in the Grant Application was to work on a horizon scan of case studies of technological innovations with a view to addressing the analytical questions discussed in Section 1(a) to (d). A more empirical – versus analytical – assessment would have required another project design and another set of extensive resources to enable such a methodologically rigorous study. This includes, for example, the need for connections and access to court and government personnel involved in driving and implementing technological innovations in different justice systems to conduct qualitative interviews; resources to support on-the-ground observations of the operations of these initiatives; and a more specialised group of research assistants to assist in interviews, courtroom observations and surveys and the qualitative coding and extrapolation of findings from these interviews and observations. These are important for an empirically-sound methodology that produces statistically meaningful data and findings. The utility of such empirical work is very clear from the discussions with Mr Tan Ken Hwee.

While an empirical project of the nature highlighted by Mr Tan and discussed in the preceding paragraph is beyond the scope of the budget allocated for the current Project, I have used the work done during this Project to help address this need: through a design of a framework for the assessment of the use of technological and digital innovation tools that leverages the information gathered from the case studies from the horizon scan.

Section B sets out this framework. The methodologies suggested there are varied to apply to the range of technological and digital innovations in place in justice systems. For example, hearing-based innovations require an observational study, whereas case filing innovations require a qualitative interview-based study with the staff involved in operating this type of innovation as well as the users of these systems.

The framework set out in Section B addresses the following:

- i. The resources needed to carry out the various empirical studies that form the basis of the assessment framework (which are flexible enough for scaling up or down resource-utilisation depending on the scale of the study required); and
- ii. The categories of data that it would be necessary to collect to measure, trouble shoot and recalibrate the adoption of technology (e.g. interviews and discussions with staff and personnel, interviews with users, court observations); and the quantitative component to any technological transformation (this includes the need to regularly collect and organise statistical and evaluative data to assess technological needs on an ongoing basis and also to evaluate technological tools once they have been implemented).

Section B provides a suggested framework and roadmap for the Judiciary’s Office of Transformation and Innovation’s consideration on how this empirical work could be carried out. The innovative new structure of departments within the SJC is an ideal home for the above programmes and studies with the use of external consultants and project managers as needed.

The above – major and critical – pivot in the Project has also meant redirecting the final draft publication for this project to focus on the more important question of the continual need for reflecting on and assessing the

way in which technological and digital – and soon, AI – innovations are being made in the justice sector. The publication will focus, in particular, on the need to measure and assess the preservation of the core values of a justice system in the midst of any transformative or innovative projects including:

- Judicial Independence
- Accountability
- Impartiality
- Ease and equality of access
- Privacy / confidentiality
- Legal validity and integrity
- Perception of any tension between values when things are shifted online or onto a digital platform

A draft of the paper which has been submitted to the *Singapore Academy of Law Journal* has been attached to this report. As the paper is still under consideration, I would welcome any views on how it might be further improved.

Finally, Section C sets out the implications of the findings from any assessments done using the framework in Section B and, in particular, a possible design of an Internal Training and Workshop Programme for developing knowledge and capacity in the area of technological transformation across the judiciary.

B. Framework for Assessing Technological and Digital Innovations in a Justice System

1. Objectives

Different organisations and institutions – and their third-party tech partners – when implementing technological and digital tools, will likely have in place their own methods for the ongoing assessment of the impact, benefits and future development of these tools. The aim of the framework set out in this Section is threefold:

- i. To add a degree of methodological rigour to the assessment toolkit, drawing on best practices in the design and methodology of impact measurement studies. The objective being to use assessment tools to generate data and insights on the utility and impact of these technological tools at a more granular level than general user surveys (on e.g. user satisfaction and likelihood of recommending tools to other users) or broad quantitative data (e.g. no. of users, speed of use of a particular tool etc). The data will provide tools for benchmarking, setting milestones and can serve as key performance indicators for the continued implementation and / or future evolution of any particular tool or, more generally, taking stock of the implementation of any blueprint for technological innovation.
- ii. To generate data and insights on technological innovation tools for export to the broader community – regional and global. This thought leadership can impact and mould the field of emerging technologies deployed in justice systems elsewhere. It also demonstrates a degree of rigour in the implementation and continuous monitoring of systems within a particular justice system. This in turn helps to reinforce the reputation of the overall integrity and fairness of a justice system.
- iii. To design and implement training programmes for internal users – based on the data and outcomes of the Study – developing fit-for-purpose knowledge and capacity to continue technological and digital transformation of the justice system. Any such training programme should address training and capacity development needs at all levels – from front line staff to senior members of the judiciary.

The proposed Framework set out in this Section is applicable to an assessment of the different categories of existing innovations in place at the Singapore courts, including, for example: Motor Accident Claims Online Simulator; AI advisory tool being deployed in the Small Claims Tribunal; e-Substituted Service; eNegotiation and eMediation in the Community Justice Tribunals Service; Chatbots; Automated Court Documents Assembly Tool; Divorce and Probate eServices; online hearing tools; systems like iFAMS.

The further development of the Framework would benefit from collaboration and input from members of any particular judicial system involved in driving the technological and digital transformation of that system.

2. Measurement Metrics

Researchers involved in evaluating technology-specific public sector reforms have identified a number of optimal and necessary metrics for measuring the performance of technological and digital innovations in the public sector. Reflecting on critical discussions of these metrics, this Framework recommends measuring the following metrics:¹

¹ These metrics are, of course, independent of any ongoing technical evaluation of the hardware and software tool being used by the courts and done by the relevant vendor or internal tech service provider.

Table 1 - Metrics and Values to be measured and assessed

<u>Category of Metric</u>	<u>Metrics</u>	<u>Measurement Methodology</u> (further elaborated on in Section B(3) below)
1 - Utility / Benefits / User friendliness	1.1: Usefulness of tool in providing solution to an identified area for improvement	User questionnaire and interviews ²
	1.2: No of operations / functions as a proxy for measuring ease of use	Design study by tool developers
	1.3: No of diverse typology of use cases that the tool can be used for	
2 - Reliability of access to Court Systems	2.1: Ease of Use	User questionnaire and interviews
	2.2: Technical issues	Quantitative technical data collected by tool developers and managers
	2.3: Downtime / outages	
3 - Adaptability and Flexibility	3.1: Capacity of the tool to adapt and change to new situations or new types of use cases	Case study testing of software or tool
4 - Efficiency	4.1: Timelines to complete a task relative to paper-based or in-person procedure	Quantitative analysis of system usage
	4.2: No. of steps in process that have been eliminated with digitalisation or automation of relevant procedure or by moving online (e.g. in the context of hearings)	Design study by tool developers
	4.3: Interoperability of an overall digital, online or technological ecosystem – e.g. can one system interoperate with and benefit from input from another system within the broader ecosystem (e.g. autofill of data from SingPass or ACRA required for forms in Automated Documents Assembly Tool)	
5 - Costs savings for users	5.1: Costs saving for users via technological tool versus paper and / or in-person system	Data collection and quantitative comparison of costs
6A - Legal and informational integrity [General]	6A.1: Information completeness (including information provided on main website or via FAQs and any explanatory documents)	User questionnaire and interviews Quantitative technical data collected by tool developers and managers
	6A.2: Information reliability (including correctness of information and whether information corresponds with actual function of relevant technological or digital tool)	
	6A.3: Information timelines (including how current the information is; how often it is updated)	
	6A.4: Information accessibility (how understandable is the information; no. of queries or helpdesk requests / interventions)	
	6A.5: Information flow – efficiency and access – ability of users to retrieve and access relevant information	

² “Users” include all categories of users (laypersons, legal practitioners, witnesses and any other professionals involved in interfacing with and using court services).

<u>Category of Metric</u>	<u>Metrics</u>	<u>Measurement Methodology</u> <u>(further elaborated on in Section B(3)</u> <u>below)</u>
6B - Legal and informational integrity [AI-Specific]	6B.1: [AI specific] Accuracy, quality, comprehensiveness, timeliness of data provided to AI applications; quality of algorithms; quality of pre-processing and selection of data that forms the basis of the AI tool; errors and hallucinations in use of AI	Case study testing of AI tools User questionnaire and interviews
	6B.2: [AI specific] Spotting and re-training of AI for new / novel / exceptional use cases; accuracy of output from AI solutions	
	6B.3: [AI specific] Values based assessment: perception of opacity of data and algorithms; perceptions and reality of fairness in selection of data	
	6B.4: [AI specific] Comparison – over time – with comparable non-machine decision making; areas of difference and how that reflects on 6B.1-3.	Case study testing of AI tools
7 - General user satisfaction	7.1: No. of times a particular system was accessed; no. of online hearings	Quantitative technical data collected by tool developers and managers
	7.2: Ratio of uptake and use of tech / digital tool relative to paper-based or online procedure	
	7.3: Satisfaction of user in comparison with paper or in-person procedure (where user has used both)	User questionnaire and interviews
8 – Benefits to judicial institution and organisation	8.1: Costs-benefit analysis: comparing development costs and general expenditure to cost reduction and savings	Quantitative analysis of data collected from systems and design process
	8.2: Time reduction for staff and streamlining of processes measured by reduction in the no. of operations, processes, personnel and steps taken to complete a particular procedure	
	8.3: Reduction in pressure on physical facilities and physical presence of judicial and justice system personnel	
9 - Protection and preservation of justice system values	9.1: Perception of justice system and preservation of underlying values: • Independence (was this affected by the introduction of technology or digitalisation) • Accountability (were there sufficient checks and balances in place in the design, implementation and monitoring / improvement of the relevant system – internal and external checks; how were complaints and user issues handled and managed; no of channels – internal and external – through which users can raise questions / provide feedback) • Impartiality (were there any in-built issues in the system providing better access / service to certain categories of users) • Ease and equality of access to justice (were there non-tech options available to support users of differentiated technological resources and literacy)	User questionnaire and interviews Judicial survey / interviews Courtroom observation study

<u>Category of Metric</u>	<u>Metrics</u>	<u>Measurement Methodology</u> <u>(further elaborated on in Section B(3)</u> <u>below)</u>
	and / or differentiated legal resources and legal representation) • Privacy / confidentiality (does the system comply with the relevant best practices for data and privacy protection for technological, digital and online tools) • Legal validity and integrity and confidence in judicial decision-making (legal error rate of any online / tech / digital tools)	
	9.2: Perception of any tension between values in the technical / online / digital space (e.g. between privacy and transparency; between efficiency and rigours of due process; between need for transparency and limits in opacity of technology in the context of AI)	

3. Methodological tools for the study of the above metrics

The proposed metrics identified above involve 3 broad methodological tools of measurement:

- User questionnaire and interviews
- Quantitative data collection of performance data metrics
- Observation Studies

Tables 2, 3 and 4 set out details of how each of these methodologies might apply to measure the above metrics for different categories of technological and digital tools – this is to exemplify how the above metrics are translated into practical assessment tools. While the following sections show application in the context of just some of the tools being used by the Singapore courts, they can be adapted to evaluate different categories of existing innovations in place, including, for example: Motor Accident Claims Online Simulator; AI advisory tool deployed in the Small Claims Tribunal; e-Substituted Service; eNegotiation and eMediation in the CJTS; Chatbots; iFAMS; Automated Court Documents Assembly Tool; Divorce and Probate eServices; online hearing tools.

Table 2 - Methodology (1) – User Questionnaires and Interviews for automated or online submission tools like iFAMS; Automated Court Documents Assembly Tool; Divorce and Probate eServices

Metrics being measured (based on Table 1): 1.1; 2.1; 2.2; 3.1; 4.1; 5.1; 6A.1-6A.5; 7

<i>Main Resource Requirements</i>	<i>Sample size and composition</i>	<i>Examples of measurements for this group of tools</i>	<i>Stages of Methodological Work</i>
Interviewers and questionnaire administrators (or, if done online, online questionnaire and interview managers)	- Range of users from across the automated / online submission systems - Demographic range – by age, gender, and socio-economic and race-based proxies where possible	- Ease of use; issues with use - Availability and access to help and support; further help and support recommendations - Perceptions of trustworthiness and reliability of system - Confidence in using system without lawyers, legal representation - Perception of suitability and adequacy of users' own technological resources - Does it promote a more timely and cost-effective outcome that is perceived by parties to be fair and enduring? - Is the particular use of technology a superior mode of doing the task relative to conventional methods? - No. of users still preferring paper forms of applications versus users wishing to switch to online in future instances with reasons for either preference - Does it allow for a more customised approach to address differing circumstances of each case? Did the user feel the relevant system did not apply to their case circumstances?	1 - Preparation of structured / semi-structured questionnaire form with mix of closed-ended, scoring (on a sliding scale) and open-ended questions; done in a questionnaire versus usual user survey. (The latter on the basis that research shows that questionnaires administered by interviewers produce stronger and more thoughtful responses with free ranging answers versus user surveys which are binary or sliding scale or tick box responses). 2 - Briefing and training of interviewers and survey administrators 3 – Administration of survey 4 - Quantitative and qualitative processing and counting of closed-ended questions and scoring based questions and open-ended questions are coded thematically)

Table 3 - Methodology (II) - Quantitative data collection of performance metrics – across all systems and, especially, for AI related systems

Metrics being measured (based on Table 1): 1.2; 1.3; 2.2; 2.3; 3.1; 4.1; 4.2; 4.3; 5.1; 6A.1-6A.6; 6B.1-6B.4; 8.1-8.3, 9.1-9.2

Resource Requirements	Sample size and composition	Examples of measurements for this group of tools	Stages of Methodological Work
<u>Across All Systems</u>			
Data collectors and analysers	Need to extract the data measurements from a sample of cases across a period of time; across a cross-section of categories of cases (by complexity and quantum); comparative case studies from paper and physical environment	- Does it result in savings in time and costs for all stakeholders – courts and internal and external users? - No. of cases resolved online over a period of time since deployment of online tools - Speed and cost of cases resolved online; speed of processing times for online forms - Increase in no. of registrations and uses of online tools and courts - Error rate e.g. requiring resubmission; benchmark against when paper forms were submitted - Technical errors; helpdesk requests; service requests; intervention from personnel required - No of system and software updates required to adapt tool to new unanticipated use cases	1a – Organisation of data collection templates for each system 1b – Identification of benchmark case studies from non-online; non-automated; non-AI context 2 – Collation of data across the time frame for the study 3 – Analysis and organisation of data; extraction of meaningful conclusions from data 4 – Establishment of best practice for ongoing collation of data for repeat studies at different snapshots of time to assess ongoing system and service improvement
<u>AI-Specific³</u>			
Legally-trained personnel to run comparative case studies via AI and manual processing	Test cases from across all systems	- Accuracy of data used for development; final input data and output - Completeness of input data - Comprehensiveness of input data - Correctness of output	Set of cases provided to AI-tool and set of cases provided to court personnel – triage and advice compared across both test groups

³ For example: ChatBots, Small Claims Tribunal AI triage / advisory system; Technology-Assisted Review of documents / eDiscovery: The method proposed here for AI is simplified – and is intended to be a simple check done at various junctures of the evolution of the relevant AI tool.

Table 4 - Methodology (III) – Courtroom Observation Studies of Online Hearings

Metrics being measured (based on Table 1): 9.1-9.2; 7.3; 2.2; 2.3; 1.2

<i>Main Resource Requirements</i>	<i>Sample size and composition</i>	<i>Examples of measurements for this group of tools</i>	<i>Stages of Methodological Work</i>
Observers comprising either external observers or internal users (e.g. lawyers (across seniority), judges (across levels of courts), witnesses (fact and expert), court staff, laypersons / end users)	Cross-section of cases: (civil hearings and at different quantum and complexity; at different court levels and different types of hearing e.g. directions hearing, CMC, interlocutory hearing versus trial or appeal i.e. hearings that are determinative of outcome and those that are not.	• Quality of the online environment based on the objective view of the hearing observers and subjective ratings of participants and observers • Quality of the interactions in the online environment based on the objective view of the hearing observers and subjective ratings of both participants and observers – ability of the online environment to replicate as close as possible the human interactive aspect of physical hearings • Ease with which a user could follow the process: hear clearly and cope with participants talking over each other, eye contact; ease of hearing conversations; can immediately tell who is speaking; ease with which can make submissions; quality of own participation and impact on hearing; feeling of presence and participation during the hearing; no. of pauses for tech-related issues • Expectations and preparation for an online hearing versus in-person hearing • Value-based perception of online hearings – justice-based value propositions maintained or compromised • Tech-related disruptions – quantity and degree of disruption; lack of fluidity from sharing screens etc	1 - Preparation of structured / semi-structured observation form and questionnaire for observers to complete 2 - Briefing and training of court observers 3 – Completion of Court observations 4 - Quantitative and qualitative processing and coding of court observation scores and comments (e.g. closed-ended questions and observation items are counted and open-ended questions are coded thematically) 5 – Targeted interviews with particular users and stakeholders to further decode and process quantitative and qualitative data emerging from observations

C. Designing Training and Workshops for Knowledge and Capacity Building

As mentioned at the opening of Section B, one of the major aims of having in place a granular framework for assessing technological and digital tools is to facilitate a research-led approach to designing a knowledge and capacity building training programme for all levels of court staff, users and legal professional (the latter two run by and housed at the courts). In carrying out the research for this Project and in thinking carefully through the design of the Framework for Assessment set out in Section B, this section highlights key topics and themes for training courses and workshops that have emerged as pertinent to further build knowledge and capacity of all concerned to facilitate the advance of the technological transformation of the justice system.

Table 4 –Recommended Topics for Workshops and Training Programme

Title	Topics	Target Audience and Format
<i>Fact-finding and evidence-testing in the online and digital environment</i>	- Managing witnesses' compromised ability to gesture and interact with exhibits / demonstrative tools etc; - Managing added cognitive and intellectual load on judicial officers to receive and assess fact and expert evidence testimony online - Discussion of the need to redefine reliability, credibility and expertise in the virtual environment (e.g. do we need to rebalance these assessments to favour content versus mode of delivery when done online) - Limits and opportunities in assessing demeanour and non-verbal cues online especially where witness may be in a poor online environment - Impact of online environment on normal tools in advocate and judicial toolkit in examining, confronting the witness, assessment of demeanour and impact on cross-examination - Handling documents in an online setting; annotating and keeping track of evidence virtually; exchanging and handing up / over of documents during hearing	Target audience: - Adjudicators at all levels - Legal practitioners Format: - Workshop style with simulated scenarios and role playing opportunities
<i>Due Process and Procedural Fairness in the Online and Digital Environment</i>	- Modifications to procedure and courtroom rituals to ensure effective participation in an online environment; managing and ensuring equal participation by all parties; conveying judicial independent and impartiality online - Cue-reading and processes for checking to see if all parties are actively engaged during proceedings; avoiding the alienation, distance and disconnect experienced in virtual settings - Managing contentious, adversarial tone of deliberations and interactions online; limiting no. of active participants at hearing	Target audience: - Adjudicators at all levels - Legal practitioners Format: - Workshop style with simulated scenarios and role playing opportunities

Title	Topics	Target Audience and Format
	Managing client requests to consult lawyers during hearing; managing need for side bars with judges during hearing	
<i>Designing and Using AI in the Justice System</i>	Range of tools available; generative text, large language models, algorithmic decision-making, predictive decision-making	Target audience: - All court staff at all levels Format - Lecture-format / interactive seminar-style with opportunities to interact and test each category of tool
<i>Data curation and selection for AI systems</i>	- Managing the scrubbing and curation of data to feed large language models and algorithms to facilitate accuracy and comprehensiveness of AI systems - Understanding best practices for ongoing data collection, analysis, storage and recording to add to the AI systems on an ongoing basis	Target audience: - Staff involved in the operational and oversight capacity in the data upload exercise for AI systems Format: - Interactive small group session with practicums to apply data handling principles
<i>Incubation Laboratory on Design and Use of AI</i>	- Metadata selection and Curation for Data Input for AI tools - Interactive session with AI vendor / developer to co-design parameters of algorithms	Target audience: - Smaller group given format with representative cross-section of staff across job functions and levels Format: - Experimental and interactive R&D workshop with opportunities to test data curation and run simulated runs on relevant AI algorithm and tool
<i>Spoken and Written Advocacy in the Online Environment</i>	- Adapting advocacy to the online environment - Evidence management in the online environment - Preparing written submissions; skeletons in advance of an online hearing - Establishing presence in an online environment – translating non-verbal cues to the online environment	Target audience: - Legal practitioners Format: - Workshop style with simulated scenarios and role playing opportunities - Presentations from advocates

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D. Selected Bibliography

(listed chronologically)

- Hellmut Wollmann, *Evaluation in Public Sector Reforms: Concepts and Practices in International Perspective* (Edward Elgar, 2003)
- Carl Baar, "Integrated Justice: Privatizing the Fundamentals" (1999) 42 *Canadian Public Administration* 42
- John Alford and Janine O'Flynn, "Making Sense of Public Value: Concepts, Critics and Emergent Meanings", *International Journal of Public Administration* 32 (2009) 171
- Francesco Contini and Richard Mohr, "Reassembling the Legal: The Wonders of Modern Science in Court-Related Proceedings" *Griffith Law Review* 20:4 (2011) at 994
- John Benington, "From Private Choice to Public Value?" in John Benington and Mark H Moore (Eds), *Public Value: Theory and Practice* (Palgrave Macmillan, 2011) at 31
- Antonia Cordella and Carla M Bonina, "A Public Value Perspective for ICT Enabled Public Sector Reforms: A Theoretical Reflection", *Government Information Quarterly* 29 (2012) at 512
- Alison MacPhail, *Report of the Access to Legal Services Working Group*, Canadian Forum on Civil Justice (May 2012)
- Jane Bailey and Jacquelyn Burkell, "Implementing Technology in the Justice Sector: A Canadian Perspective", (2013) 11:2 *Canadian Journal of Law and Technology* 253
- Karim Benyekhlef, Jane Bailey, Jacquelyn Burkell and Fabian Gelinas (Eds), *eAccess to Justice*, University of Ottawa Press, 2016
- Emma Rowden et al, "Gateways to Justice: Design and Operational Guidelines for Remote Participation in Court Proceedings" (Research Report, The Court of the Future Network, 28 May 2017)
- Jane Donoghue, "The Rise of Digital Justice: Courtroom Technology, Public Participation and Access to Justice" (2017) 80(6) *Modern Law Review* 995
- Supreme Court of Singapore, *A Future-Ready Judiciary*, Annual Report 2017
- Emma Rowden and Anne Wallace, "Remote Judging: The Impact of Video Links on the Image and the Role of the Judge" (2018) 14(4) *International Journal of Law in Context* 504
- Dr Meredith Rossner and Ms Martha McCurdy, "Implementing Video hearings (Party-to-State): A Process Evaluation", Report for the Ministry of Justice, 2018
- Sarah Moore, "Digital Government, Public Participation and Service Transformation: The Impact of Virtual Courts" (2019) 47(3) *Policy and Politics* 495
- Chief Justice James Allsop, "Technology and the Future of the Courts" (2019) 38(1) *University of Queensland Law Journal* 1
- Richard Susskind, *Online Courts and the Future of Justice*, Oxford University Press, 2019
- Frank Pasquale, "A Rule of Persons, Not Machines: The Limits of Legal Automation" (2019) 87(1) *George Washington Law Review* 1
- Jo Hynes, Nick Gill and Joe Tomlinson, "In Defence of the Hearing? Emerging Geographies of Publicness, Materiality, Access and Communication in Court Hearings" (2020) 14(e12499) *Geography Compass* 1

Michael Legg and Felicity Bell, *Artificial Intelligence and the Legal Profession* (Hart Publishing, 2020)

Shaun Lim, “Judicial Decision-Making and Explainable Artificial Intelligence” (2021) 33 *Singapore Academy of Law Journal* 280

Helena Whalen-Bridge, “Automated Document Assembly: Access to Justice and Consumer Risk” (2021) 33 *Singapore Academy of Law Journal* 315

National Action Committee on Access to Justice in Civil and Family Matters, *Report of the Court Processes Simplification Working Group* (May 2021)

Jane Bailey, “Digitization of Court Processes in Canada” (23 October 2021), *Cyberjustice Laboratory Working Paper No. 2*

Canadian Judicial Council, “Blueprint for the Security of Judicial Information” (6th Ed, 2021) *Canadian Judicial Council*

Frederic I. Lederer, “The Evolving Technology-Augmented Courtroom before, during and after the Pandemic” (2021) 23(2) *Vanderbilt Journal of Entertainment and Technology Law* 301

Janet Clark, “Evaluation of Remote Hearings during the Covid-19 Pandemic: Research Report” (HM Courts and Tribunals Service, December 2021)

Michael Legg, “The Covid-19 Pandemic, the Courts and Online Hearings: Maintaining Open Justice, Procedural Fairness and Impartiality” (2021) 49(2) *Federal Law Review* 161

Felicity Bell and Michael Legg, “Judging during the Covid-19 Pandemic – the Australian Federal Courts’ experience” *Civil Justice Quarterly* 2022, 41(3), 242-273