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Use of Technology in the Family Justice System

Annotated Bibliography

Prepared by

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Canada 

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Introduction

The Department of Justice Canada Research and Statistics Division, in collaboration with the Coordinating Committee of Senior Officials - Family Justice Research Sub-committee, reviewed research and evaluation studies on the use of technology in the family justice system. The purpose of the review was to explore how technology has been used to increase access to or enhance the experience of individuals in the Canadian family justice system.

In 2019, there was initial interest in undertaking this study to explore how technology could help modernize the family justice system. When the World Health Organization declared the COVID-19 global pandemic in March 2020, technology was quickly seen as a solution to keep courts open and maintain access to justice. This led to significant changes to how justice was administered in Canada.

This report is a first step to understanding how the use of technology could be expanded within the family justice system, and what practices involving technology could be maintained post-pandemic. It is still too early to know the impacts of these changes and what technologies may continue to be used. Further research in this area would be beneficial as new technologies are introduced and the impacts of the pandemic become more evident.

Methodology

Research Questions

The following research questions guided this review:

- i. What research and evaluation studies have been undertaken within Canada and internationally to examine the use of technology in family courts and/or family justice services?
- ii. To what extent has the use of technology increased access¹ to family justice and/or enhanced the experience of individuals involved in the family justice system?

Although the focus of the study was on the use of technology in the Canadian family justice system, reports on the use of technology in the Canadian civil justice system and internationally were also included to provide examples of how the use of technology could be expanded.

¹ Increasing access can mean different things to different people. For this paper, a broad concept of access to justice was taken. It refers to the use of technology to not only help people to access the formal justice system (e.g., courts, lawyers, judges) but also includes access to programs delivered both within and outside the courts, as well as information, resources and tools that help avoid, manage and resolve family legal problems and disputes (Action Committee on Access to Justice in Civil and Family Matters 2013).

Annotations of published legal and social science research and evaluations between 2010 and 2020 are included in the report. Since the studies reviewed pre-date the pandemic, brief summaries of media articles between March and December 2020 are also included to provide additional information about the use of technology during the first few months of the pandemic.

Literature Search Strategy

Searches were undertaken using Google Scholar and academic databases (i.e., HeinOnline, LexisNexis Academic, Psych INFO, Quick Law, and Scholar Portal). The following keywords were used to search for relevant literature:

- access to justice
- family courts
- civil courts
- court efficiency
- court process
- family justice
- family process
- online services
- technology

In addition to the searches, representatives of the Research Sub-Committee shared studies for consideration for the project. All studies were assessed for relevance, content, and applicability based on the research questions and the focus of this project.

A total of 14 studies and articles were included in the review that focused on the use of technology in the family justice system and civil law system. For each study or article, a citation is provided, followed by the purpose, methodology, and key findings. For additional information, readers can consult the original source.

Media Scan

An online scan of media articles helped to identify technologies that were adopted in the first ten months of the pandemic by Canadian courts (family, civil and criminal) to respond to pandemic-related restrictions. Civil and criminal courts were also included to help identify practices that could be adopted in family courts. The media scan used the following sources: ProQuest, an academic database limited to newspapers and magazines; a Government of Canada electronic media monitoring source: [NewsDesk](#) and, two online legal news sources: [The Lawyer's Daily](#) and [Slaw](#).

Overall, 28 articles were identified on the use of technology in Canadian courts due to the COVID-19 pandemic between March and December 2020. The scan included the following search terms:

- COVID-19
- coronavirus
- family justice system
- family justice
- technology
- courts
- family courts

Limitations

The following are the main limitations of the study approach:

- This is an initial scan of documents using limited search terms and should not be considered exhaustive.
- There are very few publicly available evaluations that measure the impact of technology on access to family justice and/or the extent to which it enhances the experience(s) of individuals involved in the family justice system. To address this limitation, the scope of the review was expanded to include literature on technologies that have been used in the family and civil justice system in Canada and internationally.
- The annotated bibliography and media articles were restricted to documents published in English. Reports and articles may have also been published in other languages (e.g. French); however, they were considered only if they were also available in English, given the resources that were available for this study.
- The studies and evaluations included in the review pre-date the COVID-19 pandemic. The rapid increase in the use of technology caused by the pandemic has changed the way that the family justice system operates. Media articles were included in this report to identify how technology was used given that no current evaluations or research studies were available. Future studies will be needed to fully understand the impact of these changes.
- Few of the studies included user feedback, which limits the ability to assess the impact on access to justice and enhanced experience. Future studies should gather and assess service providers' and users' feedback.

Findings

The following section provides a summary of some key findings from the 14 studies and media scan. The annotated bibliography and media scan provide information about specific types of technologies studied and explore issues related to the modernization of the family and civil justice systems that are outside the scope of this report.

Use of Technology Studies

Of the 14 studies identified between 2010 and 2020, six were from Canada, three were from the United States (US), four from Australia, and one from the United Kingdom (UK). Six of these studies focused on the family justice system (four of these Canadian, one Australian and one from the UK), eight more broadly on civil justice systems, and two on both the family and civil court systems. The studies included are as follows:

- *Canadian Family Justice System*: Tait 2013; Tait 2016; MacLennan 2016; Malatest 2019;
- *Canadian Civil Justice System*: Salyzyn 2012; Schellhammer 2013;
- *International Family Justice System*: Bell 2019; Hodson 2019;
- *International Civil Justice System*: Cashman and Ginnivan 2019; Greacen 2019; Sourdin et al. 2019; Toohey et al. 2019; Prescott 2017; Wolf 2012;

The term “technology,” within the documents reviewed, referred to a broad range of online platforms and services. Sourdin et al. (2019) classified the different types of technology in three ways: supporting those involved in the system (supportive technology), replacing elements of the system that were previously conducted by humans (replacement technology), and disrupting or fundamentally transforming the system (disruptive technology).

Types of studies

Five of the six Canadian studies were evaluations, program reviews or included a survey of program users. One of the international studies involved a statistical analysis of an online dispute resolution (ODR) platform compared to traditional court-based practices in the United States. These studies included an analysis of impacts of the technology on access to justice. The remaining studies were literature reviews.

Ten of the studies were published within the past five years (2016 to 2019) and four were conducted in 2012 and 2013. It is notable that all of the Canadian evaluations and program reviews focused on supportive and replacement technologies in British Columbia. Research into the use of disruptive technologies would benefit from similar rigorous forms of study over time.

Types of technology

The term “technology” is broad and encompasses a variety of tools. In the studies and articles reviewed, technology ranged from the use of telephones, printers, e-mail and monitors, to the

use of artificial intelligence. However, the use of videoconferencing and e-filing/sharing platforms were discussed most frequently, especially in the media articles.

In Canada, prior to 2020, most reforms involved supportive and replacement technologies, whereas international studies also included the use of artificial intelligence, algorithms and automation for some administrative decision-making processes.

The studies between 2012 and 2017 mostly focused on supportive technologies such as telephone and videoconferencing that helped facilitate ODR or deliver programs (e.g., parenting after separation) remotely. The studies in 2019 focused on replacement technologies such as online digital platforms that replace paper-based processes, as well as disruptive technologies that use artificial intelligence and algorithms for decision-making and automation of court processes. The 2019 studies also called for a modernization of the family and civil justice systems by adopting new technologies. Annotations of the studies and media articles reviewed can be found in Annex A and B, respectively. A list of some of the online platforms and digital technologies identified in the studies is included in Annex C of this report.

Although there appears to have been an increase in use of technology between 2012 and 2019, technology was mainly used to address the need for remote access and to increase the efficiency of administrative processes. Technology was not widely adopted by family and civil justice systems until the COVID-19 pandemic.

During the pandemic, Canadian courts turned to videoconferencing technology to hear matters when public health measures restricted in-person court appearances. The use of online alternative dispute resolution options (e.g., mediation, arbitration and collaborative family law), the adoption of virtual platforms (e.g., Zoom) in the courts and electronic document sharing and filing became essential to keeping the court system operating. A list of some of the online platforms and digital technologies used by Canadian courts during the pandemic that were identified in media articles is included in Annex B of this report.

Increased Access to Justice

Canadian Context

A number of the Canadian studies found that technology helped increase access and/or enhanced the experience of individuals involved in the family justice and civil justice systems. Findings from these studies indicated that online web-based services provided considerable benefits that include the ability of users to access services remotely, reduced costs, enabled 24/7 access and mobile compatibility (MacLennan 2016). Online or virtual mediation improved access to services, administrative efficiency, and convenience. Clients saved time and money, and some highlighted the advantage of being physically separate from the other party (Tait 2013). Online parenting after separation programs were also found to be less expensive to administer than in-person programs. They allowed flexible scheduling, eliminated the need for

travel and childcare, were able to reach more people, and were more accessible for people living in rural and/or remote communities without internet service (Tait 2016).

Online platforms were found to help empower users to identify, mitigate, or manage their legal issues; guide users to appropriate resources; and connect them with in-person services. These platforms help users improve their understanding of laws, legal options, and their responsibilities. Users felt more confident in seeking out legal information independently, and in understanding their legal issues (Malatest 2019). These Canadian studies highlight that it is important for the justice system to provide services that both empower the end user, especially self-represented litigants, and allow for quick and easy access to services or tools that may assist in resolving their legal dispute (MacLennan 2016).

In 2020, Canadian courts (family, civil and criminal) used a number of different technologies to help keep courts operating. These included telephone conferencing and videoconferencing (e.g., Zoom, Skype) for remote-hearings, settlement cases, ODR and mediation. New integrated case management systems and virtual platforms were also piloted,² recognizing the need to further modernize the court system to enable access to justice within the public health restrictions. The pandemic highlighted a need to move beyond implementing a patchwork of technological solutions to allow for more integration of online technology with the older in-person family court systems.³

The Department of Justice Canada's [*2021 National Justice Survey*](#), a public opinion survey of over 3,200 Canadians, asked how comfortable respondents would be in accessing the family justice system in a number of scenarios using technology. About 87% of respondents indicated that they were moderately or highly comfortable with looking for information and reading about the family justice system online, 80% with completing forms online using fillable PDF forms, and 71% with using videoconferencing platforms (e.g., Zoom, MS Teams, and Google Meet) for what would normally be in-person meetings, mediation, or court sessions (Justice Canada 2021).

Artificial Intelligence

Artificial Intelligence (AI) refers to software processes or automated systems that follow a set of pre-programmed/computational steps to analyze data to infer a probability of outcome. AI or automated systems are intended to improve access to justice by enabling clients to do all or some of their own legal work or by passing along cost-savings when lawyers use technology to work more efficiently (Bell 2019). Simple AI includes tools that guide users to a proposed solution to their problems. Questions and answers are generated based on the user's answers. For example, the British Columbia Civil Resolution Tribunal online is a tool that provides users

² See the media articles between June and August 2020.

³ See the media articles between September and December 2020.

with a “Solutions Explorer.” The tool includes simple questions for the user regarding their dispute, and based on those answers, provides legal information and tools, classifies the dispute, and provides the appropriate online application form (Cashman 2019; Bell 2019).⁴ Rechtwijzer, a similar online dispute resolution platform based in the Netherlands, guided separating couples to a solution based on points of agreement from a guided questionnaire (Bell 2019; Cashman 2019). The Rechtwijzer platform was replaced by a new platform, Uitelkaar.nl that guides separating couples to “design their own separation agreements” in a similar fashion (Bell 2019). More advanced AI tools include Lex Machina’s legal analytical platform that uses raw data from four different sources including state and federal courts, and provides predictive analytics on a variety of outcomes. These include: successful case strategies; likely responses/outcomes for judicial decisions based on the deciding judge’s decision history for a legal issue; previous litigation experience of opposing counsel including experience before specific judges and courts; among others (Sourdin 2019).⁵ From basic automated self-help modules to predictive analytics, AI tools can stream-line the legal process for both users and lawyers when interacting with the justice system, provide access to affordable options and increase efficiency and productivity for legal actors. However, these tools are not seen as substitutes for professional legal advice or adequately funded courts, legal aid, or community legal services (Bell 2019).

Online dispute resolution

ODR, initially developed as a digital platform to allow people to progress through low-value commercial disputes (e.g., Amazon, eBay, and PayPal) entirely online, can empower parties to resolve disputes early, while freeing up court and judicial resources to deal with complex matters (Cashman and Ginnivan 2019). Court-integrated ODR that combines various digital options (e.g., digital communication, uploading and responding to evidence online) can facilitate the quick resolution of most claims at a minimal cost in high-volume, low-value disputes, where parties are usually unrepresented and they are looking for a rapid resolution of the claim (Cashman and Ginnivan 2019).

Online platform technology is designed to work asynchronously and in real-time to limit barriers to access (Prescott 2017). Similar to a courthouse, the platform brings parties together to exchange arguments, evidence, and information and to come to an agreement (Prescott 2017). ODR removes or minimizes barriers caused by the cost, time and delay in going to court by: removing the justice process from physical locations; moving from a synchronous (at the same time) to an asynchronous (at different times) process to make it convenient; and, allowing people to resolve disputes at the earliest opportunity and at minimal cost (Cashman and Ginnivan 2019). A statistical analysis of the United States’ Matterhorn online court platform found that users had faster closure rates, shorter case duration, faster compliance and lower

⁴ <https://civilresolutionbc.ca/how-the-crt-works/getting-started/>

⁵ <https://lexmachina.com/how-it-works/>; <https://lexmachina.com/legal-analytics/>

default rates. Court efficiency was also increased with the online court platform (Prescott 2017).

Considerations for the Use of Technology

Although there is some evidence that technology has increased access to the courts (especially during the pandemic), as well as to family justice services, the studies also highlighted a number of limitations that are also important to consider.

One of the main considerations is digital inclusivity, where all individuals and communities including the most disadvantaged have access and can use information and communication technology (Toohey et al. 2019). A main barrier to access for some, is the availability and reliability of internet services or devices to use the internet due to costs or limited services available in rural or remote communities (Cashman and Ginnivan 2019). This includes the potential for technical difficulties while using web-conferencing services or limited ability to use some platforms (Tait 2013; 2016).

Difficulties arising from the inability of service providers (i.e., mediators) to read visual and non-verbal cues or address power dynamics when interacting through the online platform also affects service delivery (Tait 2013). There is also a need to ensure that online services/products address physical accessibility issues such as adjustable font sizes, vocabulary used, and navigability (MacLennan 2016).

These barriers disproportionately affect communities with the highest need for access to justice solutions (e.g., older people, people with disabilities, Indigenous people, people from lower socio-economic communities, people living in rural and remote communities, and people for whom English is a second language). Online platforms that do not address the connection between socio-economic disadvantages, low digital literacy and exclusion from the legal system risk contributing to further marginalization.

Although AI and automated systems are expected to increase efficiency and the availability of low cost options for some people, there could be ethical consequences if there is a move from the use of AI to provide legal information to its use to provide legal advice. Family law decisions are highly discretionary, whereas AI systems use algorithms to determine case outcomes based on a subset of cases from the courts that miss relevant information from cases settled outside of court. This assumes that the experience of a population provides the fairest outcomes for everyone. AI systems are not able to recognize systematic biases. There are also concerns that AI and automated programs may not be able to recognize or capture complicated issues within relationships such as coercion, control, or fear (Bell 2019).

The use of videoconferencing and online platforms (e.g., e-filing, document sharing, ODR, and online mediation) helped to keep Canadian courts operating during the pandemic. The media

scan, however, identified a number of concerns with the sudden shift to relying on technology to keep courts operating. These included potential privacy and integrity issues with the implementation of online court proceedings, as well as barriers for some including disadvantaged populations that have limited access to Wi-Fi, cellphones and computers and those with low digital literacy. The media articles also discussed the need to move beyond adopting a patchwork of online platforms and resources within the existing court system to fully integrate technology and bring Canadian courts into the 21st Century.⁶

Conclusion

There are few studies that examine the use of technology within the family or civil justice system, either in Canada or internationally. The studies from 2010 to 2019 focused mostly on supportive and replacement technologies. Starting in 2019, the use of artificial intelligence and algorithms for decision-making and automation of court processes were also examined. The literature shows there was an increase in the use of technology between 2012 and 2019. During this time period, advances in the use of technology were focused on the need for remote access and administrative efficiency measures. These included the use of videoconferencing and the implementation of online e-filing and scheduling platforms. Technology was not an integral part of the operation of the Canadian family and civil justice systems until the COVID-19 pandemic made technology essential to keeping courts and other services operating.

The review of Canadian studies found that technology has increased access and/or enhanced the experiences of individuals involved in the family justice and civil justice systems. Justice system websites enable users to access services 24/7 and at reduced costs. Clients receive improved access to services, at lower cost, more convenience, and better administrative efficiency using online or virtual mediation tools. Online parenting after separation programs were found to be less expensive to administer, allowed flexible scheduling, eliminated the need for travel and childcare, and were able to reach more people. Online platforms can help empower users by providing access to appropriate resources, increase users' confidence to seek out legal information independently, and increasing their understanding of their legal issues.

The literature review and media scan also identified a number of considerations. One of these is that given the connection between socio-economic disadvantages and low digital literacy, the increased use of technology in the justice system can result in decreased access to justice and further marginalization of some populations. Another pertains to the ethical considerations as AI and automated systems are used to provide legal advice in addition to legal information. Since AI and automated systems rely on algorithms based on historical case outcomes, they are unable to account for judicial discretion or recognize systemic biases as they assume past decisions as just.

⁶ See the media articles between September and December 2020.

In 2020, Canadian courts (family, civil and criminal) used a number of different technologies to help keep courts operating. The pandemic highlighted a need to move beyond implementing a patchwork of technologies to allow for a more holistic integration of technology within the system. Evaluations over time will help to fully understand the impact that technologies have on increasing access to the family and civil justice systems.

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⁷ This study was not included in the annotated bibliography, as it did not specifically examine the use of technology in family courts and/or family justice services.

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Annex A: Annotated Bibliography

The articles in the annotated bibliography are presented in two sections. The first section pertains to the family justice system and the second pertains to the civil justice system. Within each section, the articles are organized alphabetically by author.

Family Justice Literature

Bell, F. 2019. "Family Law, Access to Justice, And Automation." *Macquarie Law Journal*, 19, 103-132. Available at:
https://www.mq.edu.au/_data/assets/pdf_file/0004/866290/Family-Law-Access-to-Justice-and-Automation.pdf

Purpose:

- The article explores the use of artificial intelligence (AI) within the Australian family justice system.
- It examines the potential benefits and negative impacts of using AI and automating court processing systems as part of a larger category of digital technologies aimed at replacing court processes operated by hand (e.g., paper-based forms).

Methodology:

- The author reviews literature about AI and automation and its implementation in legal practice by providing case examples of AI software programs.
- The author applies this knowledge to family law practice and discusses the benefits and concerns of AI and automation within this area of legal practice.

Key Findings:

- AI is an umbrella term that usually refers to software processes or automated systems. These systems follow a set of pre-programmed or computational steps to analyze data to infer a probability.
- Supervised machine learning can be useful in certain legal contexts (i.e., review of documents for discovery) and when combined with expert systems (e.g., decision trees), more sophisticated tools can be developed.
- AI or automated systems are believed to improve access to justice by enabling clients to do some (i.e., unbundling) or all of their own legal work or by passing along cost-savings when lawyers use technology to work more efficiently.
- Individual automation applications could be useful in addressing issues around costs to individuals and concerns over the delay and inefficiencies in the court system.
- Examples of AI for information provision and automated drafting:

- Document assembly applications that assist in drafting legal documents for both litigants and lawyers;
- Online guided interviews and guided form-filling software that walk users step by step through the litigation process and completes forms based on questions answered by the user; and
- Do-it-yourself kits for different forms including divorce.
- Chatbots or expert systems, for example, Australia's Settify is a family law client intake system where potential clients respond to a series of questions before their first in-person with a lawyer to help generate a list of instructions and save time.
- AI Predictive analysis applications examples include:
 - Big data can be used to provide lawyers and litigants with likely outcomes of a potential case based on similar cases (i.e., Australia's Split-Up); and
 - Machine text reading may enable automated programs to analyse large datasets to identify patterns without help from a human (i.e., Lex Machina).
- AI ODR examples include:
 - AI can be used as a third party mediator or decision maker (i.e., eBay's Modria dispute resolution system); and
 - Rechtwijzer ("Road to Justice"), an online divorce resolution application from the Netherlands and British Columbia's Civil Resolution Tribunal.
- Although AI and automated systems can make systems more efficient and increase availability of low cost options for some people; it can also lead to a two-tiered justice system where cost continues to be a factor in accessing lawyers.
- AI and automated systems could have ethical consequences if they move from providing legal information to providing legal advice.
- AI predictive analysis uses court data so it misses relevant information from cases settled outside of court.
- Family law decisions are highly discretionary, whereas AI uses algorithms to determine case outcomes based on a subset of cases. This assumes that the experience of a population provides the "fairest" outcome for everyone. It also assumes that past decisions are just and does not consider that they may not have been.
- AI and automated programs may not be able to recognize or capture complicated issues within relationships such as "coercion, control, or fear".
- AI and automation can act as a supplement to family legal practitioners' work. Practitioners should understand that there are limitations to AI and automated systems, especially with vulnerable populations.
- Increasing access to affordable options like "self-help" automated options is important; however, these options should not substitute professional legal advice or providing adequate funding for courts, Legal aid, or community legal services.

Greacen, J. 2019. "Eighteen Ways Courts Should Use Technology to Better Serve Their Customers." *Family Court Review*, 57(4), 515-538. Available at: https://iaals.du.edu/sites/default/files/documents/publications/eighteen_ways_courts_should_use_technology.pdf

Purpose:

- The article outlines 18 ways to develop next generation (NextGen) court technology standards to simplify the family law process and increase the use of technology "to empower litigants" with tools.

Methodology:

- A literature review of family and civil justice literature, technology literature, court reports, and court websites.

Key Findings:

- Build court websites so that they are mobile friendly to make access to information easy.
- Enable litigants to use smartphones to present photo, video or other information in court rooms and enable the use of telephone or videoconferencing in court appearances (i.e., Bring your own device concept, any device can connect through wireless presentation system, Alaska's Remote Telephonic appearance program).
- The use of scheduling software for processing convenience.
- Online payment structure for fees, fines and other financial obligations.
- Mapping software/interactive displays that provide a map of the courthouse and instructions on how to navigate the courthouse.
- Remote/online access to information and forms to simplify the completion of forms.
- Electronic document filing for self-represented litigants.
- Automating orders/judgment creation for efficiency (i.e., tagging data for draft order forms instead of using saved PDF images with handwritten notations, XML tagging, using a single data field within the court case management system to record all tagged data about a singular case).
- Online triaging portals.
- ODR.
- Automated court messaging /court case notification guided messaging (i.e., includes reminders, just in time legal information, notifications of filings, court hearings, warnings and/or to-do items).
- The use of available technology like smartphones or other electronic devices or applications to simplify services (i.e., recording serving of a summons).
- Elimination of notarization requirement for court filings.

- Adding additional identification information about litigants to their case management profile (i.e., e-mail address, physical disability, impairments; other special needs).

Hodson, D. 2019. "The Role, Benefits, and Concerns of Digital Technology in the Family Justice System." *International Family Law Group*. Available at: <https://www.iflg.uk.com/printpdf/989>

Purpose:

- The article examines the benefits, impacts, and issues related to the use of digital technology within the family justice system for the administration, resolution, practice and access to justice.

Methodology:

- The author reviewed family law and justice reports from the United Kingdom's government.
- A review of programs and projects that have been implemented in a variety of countries including the United Kingdom, Australia, Singapore, and the Netherlands was also done.

Key Findings:

- The author explores four distinct elements of the justice system and their relationship with digital technology, specifically a) the administration of justice, b) the resolution of justice, c) the practice of justice, and d) access to justice.
- Some administrative processes could be streamlined by being moved online to increase efficiency and accessibility.
 - Automation of/standardization of forms and/or orders to provide ease of use for both self-represented-litigants and legal practitioners.
 - Digital e-filing and storage (i.e., United Kingdom government online divorce e-filing pilot).
 - Digital bundling of required documents & digital unbundling of services.
 - Use of intranet spreadsheets for financial documentation to store, share and organize information within the courthouse or jurisdiction.
 - Document display systems in courtrooms.
 - Computer assisted transcription.
 - Pre-recorded or remote examinations (similar to ones used in criminal courts).
- Digital technologies can be used in the adjudication process to achieve cost savings and efficiencies.

- AI predictive analysis could produce similar outcomes for simple cases or be used for fact-finding and investigation. However, family law data is limited to cases before the courts.
- Use of online applications to simplify case processing do not require courtrooms or courthouses (i.e., eBay Modria Dispute Resolution System). Online arbitration uses online applications, electronic hearings and digital communication and questioning between parties and arbitrators, analysis of cases, and award writing.
- Family justice practitioners are changing the way they deliver legal services with the increase in technology including unbundling of services so that clients do not need a lawyer throughout.
- E-mediation and e-negotiation (through videoconferencing) requires new skills, working practices, boundaries and training.
- Netherlands Rechtwijzer divorce platform allows for faster processing of simplified cases without removing the need for legal specialists.
- Digital technology can only lead to increased access to justice if people are able to use the technology.
 - People need to be able to access the technology and have digital literacy.
 - Access to the internet is an issue for some due to poverty but also in some rural and remote areas.
 - An individual's ability to engage with online court processes can also be impaired by emotional distress, which legal practitioners are trained to address.
- Ensuring that the emotional needs of children and the needs of victims of domestic violence are met are important challenges for any on-line approach.

MacLennan, S. 2016. "Empowerment, Technology, and Family Law." *eAccess to Justice*. 197-209. University of Ottawa Press. Available at:
https://ruor.uottawa.ca/bitstream/10393/35566/1/9780776624303_eAccess.pdf

Purpose:

- Strategies for successful online service delivery are presented based on lessons learned from British Columbia's Legal Service Society's (LSS) family law public legal education and information (PLEI) service initiatives.

Methodology:

- A review of LSS online programs and initiatives provide case examples of successful online service delivery.

Key Findings:

- Although the digital divide between impoverished communities and communities with greater access to digital services is still operating, online services should be implemented (with supplement print services where needed).
- Online services provide considerable benefits that include the ability of users to access services remotely, reduce costs, 24/7 accessibility and mobile compatibility.
- It is important to provide services that both empower the end user and allow for quick and easy access to solutions for their legal matters.
- Online services and products should address physical accessibility issues (e.g., adjustable font sizes, vocabulary used, and easy navigability). LSS expanded its products to include a live chat service that directs users to relevant information.
- To inform content development, LSS collaborated with an advisory committee and undertook community consultations to ensure online resources meet user needs.
- LSS implemented user testing and listening labs to adapt the design of court forms, including a successful interactive “do-your-own-separation agreement.”
- A network of advocates, community intermediaries, members from the private Bar, legal aid offices, local agents and community partners are part of the LSS network and have trained staff to assist end-users with online LSS services.
- Using games and gamification, to educate users, as well as using game design principles to motivate users to complete online tasks.
- Interactive question and answer modules, guided pathways, lead users to desired resources. This approach can help users navigate online platforms without feeling overwhelmed. (i.e., Netherlands Rechtwijzer divorce platform).
- Use of emotional design principles that both empower the user and encourage completion can be impactful within online delivery platforms. In addition to guided pathways, the use of reflexive questions can lead users to more positive outcomes.
- Integration of PLEI and services, like guided pathways, with online service delivery platforms like ODR could optimize service delivery (e.g., Rechtwijzer links family law PLEI using guided pathways and a suite of online services such as negotiation online mediators and aftercare).

R. A. Malatest & Associates Ltd. 2019. “MyLawBC Evaluation.” *Prepared for British Columbia Legal Services Society*. Available at:
https://legalaid.bc.ca/sites/default/files/2019-06/MyLawBCevaluationReport2019_0.pdf

Purpose:

- This report presents the results of an evaluation of MyLawBC and related pathways between 2017 and 2019.

Methodology:

- Pop-up survey on MyLawBC (n=1823), user feedback survey (n=397), interviews with justice stakeholder representatives (n=18), interviews with MyLawBC pathway users (n=10), and Google analytics web traffic data (October 1, 2017 – January 31, 2019).

Key Findings:

- MyLawBC is an online platform that uses online tools to create customized plans, actively guides people to resources, and connects people to in-person resources.
- Majority of site users reported improved understanding of laws, legal options, and their responsibilities. They felt more confident in seeking out legal information independently, and understanding their legal issues.
- Justice representatives were positive about the site as it allows users to self-advocate, but indicated that the tools and information apply to limited, narrow circumstances. Those with more complex legal issues require more assistance.
- Although the site appears to be improving access to justice for straightforward legal issues, there is demand for additional or expanded tools, as well as translation of the tools so that they are accessible to non-English speakers.

Tait, C. 2013. "Evaluation of the Distance Family Mediation Project: Report on Phase III of the Technology-Assisted Family Mediation Project." *Prepared for Mediate BC Society*. Available at: <https://www.mediatebc.com/sites/default/files/Distance-Family-Mediation-Evaluation-Report-FINAL.pdf>

Purpose:

- The Technology-Assisted Family Mediation Project (or Distance Family Mediation Project) was a multi-phase project which took place between 2007 and 2012.
- Its primary objective was to demonstrate the potential of using technology to provide quality mediation services to families in British Columbia and possibly across Canada.

Methodology:

- Review of program documents, practice guidelines developed during the pilot project, records regarding inquiries, pilot project mediation cases, and British Columbia demographic data.
- Survey of clients (paper and on-line).
- Telephone and in-person interviews of Project Mediators.

Key Findings:

- Mediators preferred video-enabled technologies when assessing safety issues at a distance compared to landline telephones, cell phones, and e-mail.
- Mediators suggested that low conflict cases where both parties are comfortable with technology are the best suited to distance mediation. However, given that parties are physically not in the same room, distance mediation could also be beneficial for high conflict cases.
- In addition to improved access to service, efficiency and convenience, clients highlighted the advantage of being physically separate from the other party, and that they saved time and money.
- Full or partial settlement of issues was achieved in 85% of cases that used web-conferencing, which compares to settlement rates for other family mediations where technology was not used.
- Just over half of the mediators felt that the difficulty of achieving an agreement was about the same for distance mediation as for in-person mediation, however, some felt that parties' commitment could be slightly less in distance mediation.
- Web-conferencing was able to simulate face-to-face mediation, yet there was the potential for technical difficulties.
- Overall, between 60% and 70% of clients were either satisfied or very satisfied with the mediation process and their outcomes.
- A third of client survey respondents would not have been able to use an alternative service to resolve their issues if the distance mediation service had not been available.
- Clients chose distance mediation because they and the other party lived in different communities; there was a desire to avoid travel or in-person mediation, the flexibility of hours, reduced fees, environmental reasons and a preference for communicating using technology.
- Telephone was used more than web-conferencing among 40-49 year olds. Those with lower incomes used web-conferencing and telephone/cell phones in nearly the same proportion, while those of higher incomes used the telephone much less.

Tait, C. 2016. "Evaluation of Online Parenting After Separation." *Prepared for Ministry of Justice: Family Justice Service Division*. Available at:
<https://www2.gov.bc.ca/assets/gov/law-crime-and-justice/about-bc-justice-system/justice-services-branch/fjsd/opas-report-phase2.pdf>

Purpose:

- This report presents the findings from a two-phase evaluation that compared results from the Online Parenting After Separation (OPAS) Project to the in-person Parenting After Separation (PAS) in British Columbia.

Methodology:

- The evaluation analyzed OPAS and PAS participation data, client feedback and court data from the pilot OPAS sites and six in-person PAS sites for comparison.
- The comparison sites were Kelowna, Prince George, Nanaimo, Abbotsford, North Vancouver and Chilliwack.

Key Findings:

- Both the OPAS and PAS had more people register than complete the course. Although the OPAS had a larger drop-off rate than the in-person PAS sites during the pilot period, when controlling for court activity, completions for OPAS and PAS were similar.
- Seven to ten months' post-participation, PAS participants were more likely to have spoken to a mediator or had mediation sessions, while OPAS were more likely to have spoken to a lawyer.
- Overall diversion rate from court was 11% for PAS participants and 9% for OPAS participants.
- Both PAS and OPAS participants gave positive ratings to convenience and ease of use of the courses, satisfaction and willingness to recommend the courses to others, and the achievement of intended learning outcomes.
- Advantages of the PAS course are based on the interactive nature of the sessions between parents who attend and the facilitators, whereas the disadvantages were the inconvenience of session schedules and the limited availability of locations.
- The advantages to OPAS are the convenience of the schedule, not needing to travel or to find childcare, ability to reach more people than PAS, it is less expensive to administer than PAS and can be accessible in smaller communities with internet service, where it may not be possible to have in-person sessions.
- Disadvantages to OPAS are the lack of interpersonal interaction that normally happens in-person, technical issues, need for high-speed internet, access to a computer and/or a webcam and other equipment and English literacy.

Civil Law Literature

Cashman, P. and E. Ginnivan. 2019. "Digital Justice: Online Resolution of Minor Civil Disputes and the Use of Digital Technology in Complex Litigation and Class Actions." *Macquarie Law Journal*, 19, 39-79. Available at: https://www.mq.edu.au/data/assets/pdf_file/0012/866289/Digital-Justice.pdf

Purpose:

- The article examines how digital technology is used to resolve high-volume minor claims at low-transaction costs and compares its use in large-scale complex class action cases.
- Specifically, the article examines technology use in client intake, claim management, discovery processes, trial procedures and the implementation of settlements.

Methodology:

- A literature review examines the use of digital technology in Australian and Canadian civil courts and their incorporation of ODR.

Key Findings:

- The justice system often lags behind the rapidly changing society that is increasingly reliant on digital technology.
- ODR was initially developed as a digital platform to allow people to progress through low-value commercial disputes (i.e. Amazon, eBay, PayPal) entirely online. This process may include the use of information delivered through guided pathways, blind bidding, hybrid alternative dispute resolution (including facilitated negotiation and early neutral evaluation, either with human input or artificial intelligence algorithms), digital communication (such as remote or video participation in hearings and asynchronous messaging), and uploading and responding to evidence online.
- Court-integrated ODR has had the greatest effect in high-volume, low-value disputes, where parties are usually unrepresented and are looking for rapid resolution of the claim.
- Combining various digital options and methods that can facilitate the quick resolution of most claims at a minimal cost should be adapted to other types of claims resolution.
- ODR can empower parties to resolve disputes early, while freeing up court and judicial resources to deal with complex matters.
- Examples of ODR include:
 - Victorian Civil and Administrative Tribunal (VCAT) small claims project and the Legal Services Commission of South Australia family law platform in Australia;
 - British Columbia Civil Resolution Tribunal (CRT), a mandatory forum for small claims disputes under \$5,000 and all strata property claims;

- Money Claim Online in the United Kingdom allows people with claims up to £10,000 to issue a claim, file a defence and attend online mediation;
 - Traffic Penalty Tribunal in the United Kingdom allows parties to share evidence, continuous hearings through asynchronous messaging, and e-decisions;
 - Rechtwijzer in the Netherlands was (it was discontinued after three years due to cost) an online platform for resolving relationship disputes that enabled online dialogue between the parties, mediation, adjudication and neutral review of all agreements;
 - Matterhorn from the United States is a cloud-based ODR platform that deals with high-volume claims through real time or asynchronous communication, sends reminders to parties and a third party facilitator, mediator or arbitrator can assist with the resolution of claims; and
 - European Union's ODR platform offers automatic translation, facilitates the resolution of consumer complaints arising from online transactions.
- ODR is one means to remove or minimize barriers caused by the cost, time and delay involved in going to court by:
 - removing the justice process from physical locations;
 - moving from a synchronous (at the same time) to an asynchronous (at different times) process to make it convenient; and
 - enabling people to resolve disputes at the earliest opportunity and at minimal cost.
 - ODR relies on parties having both digital access and ability to navigate an online platform. A platform that does not address the connection between socio-economic disadvantage, low digital literacy and exclusion from the legal system risks contributing to further marginalization.
 - ODR can both expand open justice by making processes more transparent but also more opaque given that proceedings are removed from the public realm.
 - The permanence of information and evidence exchanged via ODR is a concern, as some sensitive information could be misused in the future.
 - ODR can strengthen procedural fairness by allowing creative thinking about how to make the process fairer. However, it depends on how the ORD platform is structured.
 - The tension between the desire for individual justice and the need to resolve disputes quickly, efficiently and economically needs to be creatively resolved.

Prescott, J.J. 2017. "Improving Access to Justice in State Courts with Platform Technology." *Vanderbilt Law Review*, 70, 1993-2050. Available at:
<https://repository.law.umich.edu/cgi/viewcontent.cgi?article=2912&context=articles>

Purpose:

- The article explores the outcomes of implementing an ODR platform to improve access to justice in Michigan.

Methodology:

- A statistical analysis compared the ODR platform Matterhorn with traditional court-based practices in civil actions.
- The case study used regression analysis to compare case duration, percentage of fines and fees due that are paid at case closure and the case default rate to in relation to access to justice and efficiency of courts.

Key Findings:

- Access to justice in courts has predominately required access to physical courthouses and the in-person, real-time availability of justice system decision makers.
- “Physically going to court costs money, takes time, creates fear and confusion, and presents both real and perceived risks.” (p. 1996)
- For complex litigation that require credibility determinations and have diverse forms of evidence, the costs of being physically in a courtroom can be made; however, for cases that are straightforward and decisions can be made based on paper the need to physically go to court is less evident.
- The use of ODR platforms have re-envisioned the way people go to court.
- Technology has the potential to reduce the non-legal costs related to using brick and mortar courthouses and increase access to justice including:
 - Physical costs that limit courthouse access (i.e., limited access to dependable transportation, accessibility for individuals with physical/mental disabilities and vulnerable populations);
 - Psychological costs that limit the ability of presenting oneself in court (i.e., anxiety, fear, stigma, confusion, shame); and
 - Economic costs due to courts operating during set business hours (i.e., cost of transportation; employment or other opportunity losses; lack of/cost of childcare)
- Most of the technologies implemented in the United States could be categorized as remote or online legal aid, online form completion, video technology, triage services, mobile access and online case resolutions.
- Technology has been used as an access point to traditional court processes to help track cases, integrate scheduling, online payment for paying fines and reduce backlogs.
- Online platform technology, similar to a courthouse that brings parties together to exchange arguments, evidence, and information and agree to a particular outcome, attempts to accomplish what courthouses seek to achieve by operating in a virtual space.
- Platform technology is designed to work asynchronously and in real-time through text, voice and video to limit barriers to access.

- Matterhorn facilitates ODR by including a third-party decision maker to resolve civil disputes (i.e., traffic infractions, outstanding warrants).
 - The platform applies eligibility criteria to determine if a litigant's matter can be resolved through online resolution. The litigant retains the option of using the in-person court processes.
- Results showed that Matterhorn users had faster case closure rates, shorter case duration and faster compliance (increasing court efficiency) as well as lower default rates.
 - This type of platform technology could help in providing better efficiency in handling at-risk for default cases earlier in the resolution process.
 - It could also help improve compliance in terms of fees and fines as improving access to decision makers could encourage more productive relationships between litigants and court actors or law enforcement.
- Although perception of procedural fairness while using Matterhorn by litigants was beyond the scope of the study, survey results showed positive experiences for users in terms of accessibility and ease of use.
- Online platform technology can reduce case duration; improve litigant satisfaction; and ensure that the public see courts are open, responsive, efficient and effective.

Salyzyn, A. 2012. "A New Lens: Reframing the Conversation about the Use of Video Conferencing in Civil Trials in Ontario." *Osgoode Hall Law Journal*, 50(2), 429-463.
 Available at:
<https://digitalcommons.osgoode.yorku.ca/cgi/viewcontent.cgi?article=1026&context=ohlj>

Purpose:

- The article examines the use of videoconferencing in Ontario courtrooms for witness testimony in civil trials and its transformative potential.

Methodology:

- A literature review of reports assessing the use of videoconferencing, Ontario case data and legal literature.

Key Findings:

- Videoconferencing technology alters the interaction between court participants within the physical composition of the courthouse.
- Videoconferencing may impede assessments of credibility depending on the witness (i.e., children are less believable than experts)

- Studies have found that videoconferencing technology can impede emotional connections between courtroom participants and lead to harsher treatment from judges and other adjudicators.
- Caution is warranted, as the impact of videoconferencing on different populations is still unclear and could lead to unequal justice. Vulnerable communities may disproportionately experience the possible negative effects court technologies could have on the quality of adjudication.
- Although videoconferencing holds promise in making courts more accessible for northern populations, the quality of this access is an important consideration.
- Videoconferencing technology opens up the possibility of multiple, simultaneous, and interactive sites of adjudication. However, by disrupting the geography of the adjudication process, videoconferencing can impact the solemnity and respect of the civil justice system.
- The public nature of courts contributes to the function of democracies, removing this aspect can underwrite the legitimacy of the legal system.
- Considerations for increasing the use of videoconferencing need to move beyond discussions of cost and efficiency.

Schellhammer, E.P. 2013. "A Technology Opportunity for Court Modernization: Remote Appearances." *Prepared for Association of Canadian Court Administrators & Canadian Centre for Court Technology*. Available at: <https://silo.tips/download/a-technology-opportunity-for-court-modernization-remote-appearances>

Purpose:

- This paper explores how remote appearances are currently being used by courts, under what circumstances they are appropriate, who can appear remotely, and how technology can be employed to improve court efficiencies and promote access to justice.

Methodology:

- A survey of court participants (n=218).

Key Findings:

- Knowledge of existing practices for remote appearances or the availability of the technologies would be helpful in the decision-making process (for both litigants and justice actors).
- Review of existing approaches in a variety of jurisdictions would be helpful to understand current developments and how they could be adopted across Canada.
- There needs to be standard protocols and best practices for court usage.

- Remote appearances may be helpful to geographically isolated Canadians.
- Common law principle of adversarial confrontation and the solemnity of court needs to be reconciled with implementing new technologies like remote appearances and honouring the underlying principles of the justice system.
- Efficiency is one of the main advantages to using remote appearances due to the benefit of cost-saving within the court process. However, these efficiencies need to be carefully assessed to ensure that the principles of fairness are maintained throughout the process.

Sourdin, T., B. Li and T. Burke. 2019. "Just, Quick and Cheap: Civil Dispute Resolution and Technology." *Macquarie Law Journal*, 19, 17-38. Available at:
https://www.mq.edu.au/data/assets/pdf_file/0008/866294/Macquarie-Law-Journal-Vol-19.pdf

Purpose:

- The article explores how technology may assist civil dispute resolution approaches through an examination of the benefits and concerns identified for different categories of technologies (supportive, replacement, and disruptive).

Methodology:

- A literature review of current and potential technologies that can be implemented within the civil justice system.

Key Findings:

- The different types of technologies that are being used in dispute resolution can be categorized into the following: supportive technologies (e.g., free online legal applications); replacement technologies (e.g., videoconferencing) and disruptive technologies (e.g., artificial intelligence (AI)).
- The following intended and unintended consequences were identified when implementing technology:
 - Perceptions that technology can affect procedural fairness, quality, timeliness and objectivity;
 - Accessibility of technologies; are they easy to use and available to vulnerable or geographically isolated populations?
 - Ability to access services based on age, geographical location and economic circumstances;
 - The procedural process is further removed with the use of technology, where limited visibility impacts the public's perception of justice "being done"; and
 - Implementation of technologies could be affected by the cost and/or readiness of different sectors.

- Supportive Technologies: assist with informing, supporting or advising individuals through the civil justice system. Although limited in providing resources for complex legal issues, supportive technologies like online education resources and free legal applications can help individuals find appropriate legal information and advice (i.e., free legal service apps), e-counselling, videoconferencing (i.e., Zoom, Skype).
- Replacement Technologies: often use videoconferencing or other platforms to replace certain functions or actions completed in-person and can alleviate some issues faced by geographically isolated individuals (i.e., British Columbia CRT, Family Relationship Advisory Line (FRAL) in Australia).
- Disruptive Technologies: change how judges and legal professionals administer justice through the use of artificial intelligence (AI) to make judicial decisions, utilizing big data for inferential and predictive analytics (i.e., Deadbeat Map that pinpoints locations of debtors in China, Lex Machina - data analytical tool), and automation to evolve court IT operating system capacities. There are concerns related to visibility of the judicial process, ethical concerns and how AI could affect the executive role of the judiciary were raised.
- Proper implementation of technologies and approaches requires the civil justice system to devise programs that consider the overall interaction between court actors and litigants to “ensure due process is followed.”
- The unbundling of legal services is suggested as clients are more likely to seek limited scope services (supportive technologies) when trying to resolve disputes.
- Preserving the concept of open justice includes maintaining the perception of administrative fairness and access to justice.
- When using technology for dispute resolution it is important to consider efficacy versus system efficiency. How courts remain just without losing the quality of “just” resolutions, especially when considering whether processes are considered just and fair.

Toohey, L., M. Moore, K. Dart and D. Toohey. 2019. “Meeting the Access to Civil Justice Challenge: Digital Inclusion, Algorithmic Justice, and Human-Centred Design.” *Macquarie Law Journal*, 19, 133-156. Available at: https://www.mq.edu.au/data/assets/pdf_file/0008/866294/Macquarie-Law-Journal-Vol-19.pdf

Purpose:

- This article explores two of the most significant challenges to the use of technology in Australia to increase access to civil justice, digital inclusion and algorithmic justice.

Methodology:

- A review of literature is used to explore the scope of technological change in civil justice that ranges from the delivery of legal information to automation platforms.

Key Findings:

- Technological innovations that have the potential to greatly impact access to justice in civil disputes include:
 - new ways of delivering services (i.e., e-courts, electronic filing and online call-overs);
 - facilitating self-help by providing user-friendly, free or low cost online tools like court forms, videos and legal information;
 - unbundled generators for filing legal documents; use of mobile legal apps; and
 - development of automation platforms.
- Access to justice encompasses both procedural and substantive justice. There is a need to ensure that justice is still seen as having a level of integrity and accuracy as well as ensuring that the justice is timely, at a low cost and consistent with human rights frameworks.
- Digital inclusivity recognizes that there are barriers for communities that are most in need for access to justice solutions (i.e., older people, people with disabilities, Indigenous people, people from lower socio-economic communities, rural and remote communities, and people for whom English is a second language). This can result in a two-tiered system of justice.
- Algorithmic bias refers to situations where the rules that form part of an algorithm are biased or technology fails to perform the required rules resulting in a bias, or a combination of both.
- “Black Box Tinkering” is a method that involves presenting an algorithm with different scenarios to reveal the decision making process and identify any biases.
- Legal design recognizes that users are key to innovating legal systems by focusing on how usable, useful, and engaging legal services are.

Wolf, J.M. 2012. “Collaborative technology improves Access to Justice.” *New York Journal of Legislation and Public Policy*, 3, 759-790. Available at: <https://www.nyujlpp.org/wp-content/uploads/2013/01/Wolf-Collaborative-Technology.pdf>

Purpose:

- This article explores ways to use interactive collaborative technology via the Internet to improve access to justice for people without representation by lawyers (PRLs).

Methodology:

- A review of policies and legislation across the United States.

Key Findings:

- Low and moderate income Americans address their legal matters without assistance of lawyers.
- PRLs suffer negative case outcomes largely due to unfamiliarity with basic procedural concepts.
- Collaborative technology should be used to help PRLs in accessing solutions and resolving disputes through more appropriate means than litigation.
- Collaborative technology, interactive software and services via the Internet, (i.e., ODR, online document assembly services, unbundling and delivery technology, and the creative adaption of familiar technologies) for unbundling enable PRLs to resolve disputes through means that are more appropriate than litigation. They aim to reduce PRLs' legal knowledge deficit, make traditional legal and alternative dispute resolution services more accessible and affordable to close the justice gap.
- ODR include automated online triage systems to help PRLs select the most appropriate dispute resolution forum such as:
 - British Columbia Resolution Centre (Modria algorithm); and
 - Juripax (Netherlands and Germany) and The Mediation Room (United Kingdom) offer mediators and parties full service ODR environments.
- Online document assembly Services which aid PRLs in processing court documents, for example:
 - A2J Author (United States): a free tool to build and implement web-based court forms, and uploads onto a server. PRLs can use guided interview software to complete and print ready-to-file court documents;
 - EZLegalFile (United States): online document assembly and data collection services for PRLs;
 - I-Can! Legal (United States): helps PRLs in completing court forms;
 - Legal Genie (LASOC): an assisted question and answer system to complete court forms and pleadings, which can also connect PRLs to an attorney to review documents and offer legal advice; and
 - Legal Services National Technology Project, Pro Bono Net, LegalZoom and LawHelp.
- Technology for unbundling and delivery of legal services include:
 - RocketLawyer: online tool recommending legal services, enables form completion, document review by a lawyer, low cost retainer services and a "Find a Lawyer" service; and
 - AVVO and LawPivot: online lawyer crowdsourcing that offers free "Ask a Lawyer" consultation services.

- Creative adaptation of familiar online technology such as: videoconferencing, online video instruction, online “Ask a Librarian” services, online workplaces, electronic charting, and online mind mapping services.

Annex B: Use of Technology in Canadian Courts during Covid-19 Media Scan

The first section of the media scan includes Canadian media articles from the initial three months of the pandemic (March to May), which focus on using technology as a temporary solution to keep Canadian courts open. The second section includes articles from the summer (June to August), which focus on testing and implementing new technologies with the shift from seeing technology as a temporary solution. The third section includes articles from the last four months of the year (September to December) and focuses on what a modern court system could look like post-pandemic. Within each section, the articles are organized alphabetically. Most of the articles pertain to the family and civil justice systems, however, some articles about the criminal justice system were also included as they provided examples or commentary that could be applicable to the family justice system. The following provides an overview of the 28 media articles that were included in the scan.

Period of Time	Number of Articles	Sources	Focus
March to May	11	CBC News, Global News, Toronto Star, National Post, Canadian Lawyer Magazine, Slaw, Toronto Sun, Vancouver Sun, Ontario Family Blog	Use of technology to keep courts open
June to August	14	CBC News, Vancouver Sun, Toronto Sun, Ottawa Citizen, The Globe and Mail, OurWindsor.ca, Lawyer's Daily	Testing new technologies
September to December	3	Lawyer's Daily, Financial Post, Ottawa Citizen	Move beyond patchwork to integrated approaches

March to May 2020

Carolino, B. April 9, 2020. "COVID-19 and the courts: April 9 update." Canadian Lawyer Magazine. Available at: <https://www.canadianlawyermag.com/news/general/covid-19-and-the-courts-april-9-update/328509>

Courts are exploring remote and virtual options (i.e. telephone and videoconferencing) to ensure there is the right level of security and that it is possible to generate reliable court records. Other considerations discussed are bans on recording and rebroadcasting virtual hearings and the types of search warrants that can be obtained through a tele-warrant process.

Harnick, C. May 27, 2020. "Opinion: Use the COVID-19 pandemic gains to continue modernizing Ontario courts." Toronto Star. Available at: <https://www.thestar.com/opinion/contributors/2020/05/27/use-the-covid-19-pandemic-gains-to-continue-modernizing-ontario-courts.html>

The response to the pandemic has underlined how slow the process for modernizing the courts has been. Financial and human costs of the system are high and the demand for services has outgrown the system. As change occurs, it is important that modernizing the system does not mean simply digitalizing the same centuries-old processes and practices.

Ibrahim, H. April 16, 2020. "Top trial judge says COVID-19 reveals value of remote justice." CBC News. Available at: <https://www.cbc.ca/news/canada/new-brunswick/remote-appearances-new-brunswick-court-of-queens-bench-tracey-deware-1.5535054>

Although New Brunswick courts have had the ability to allow people to call in or appear by video link for a while it was not seen as a valuable option, until the pandemic pushed the courts to hear cases over telephone and videoconference. Now that the value of technology is realized, there is hope that people will use it more to include those who cannot physically be in court.

Kirwin, L. March 30, 2020. "Wake-up Call – Covid-19: Now's the time to use technology in the Ontario Family courts." Ontario Family Law Blog. Available at: <https://www.ontariofamilylawblog.com/2020/03/articles/children-custody-and-access/wake-up-call-covid-19-nows-the-time-to-use-technology-in-the-ontario-family-courts/>

The pandemic has shut down family law courts even though there are virtual options available (i.e., Skype and Zoom) to deal with cases and the risks to families are too high not to proceed. COVID-19 is a wake-up call to the legal profession as the justice system has been propelled into the future and can no longer wait for the use of technology to be accepted.

Loriggio, P. March 20, 2020. "Criminal and Family trials on hold as Ontario court takes new steps on COVID-19." Global News. Available at:

<https://globalnews.ca/news/6708739/criminal-family-court-ontario-coronavirus/>

Only urgent criminal and civil matters will be heard until June. The courts are reducing in-person appearances, implementing social distancing, and looking into audio and video technology capacity to further minimize in-person contact.

Marshall, K. April 8, 2020. "Opinion: Maybe COVID-19 is what it will take to modernize Canada's antiquated courts." National Post. Available at:

<https://nationalpost.com/opinion/opinion-maybe-covid-19-is-what-it-will-take-to-modernize-canadas-antiquated-courts>

The pandemic highlighted real access to justice issues within the Canadian court system that was already riddled with lengthy delays. Courts have very little capability to function outside of the physical courthouse given that there is a lack of modern technology to support remote hearings and for court staff and Judges to work remotely. Although the cost of modernizing the justice system would be substantial, access to justice depends on technology that has not yet been adopted.

Mulgrew, I. April 19, 2020. "Ian Mulgrew: Law Society of B.C. trying to Zoom into 21st Century." Vancouver Sun. Available at: <https://vancouversun.com/news/ian-mulgrew-law-society-of-b-c-trying-to-zoom-into-21st-century/>

There is an opportunity to use the pandemic to not only modernize the court system by embracing technology but also to reform the entire justice system to reduce inefficiencies and increase access to justice.

Pazzano, S. May 23, 2020. "Family lawyers, pandemic jump-start 'technological revolution' in criminal courts." Toronto Sun. Available at: <https://torontosun.com/news/crime/family-lawyers-pandemic-jump-start-technological-revolution-in-criminal-courts>

The pandemic has led to an increase use of technology, but some family law lawyers have been involved in electronic trials and working paperless for years, as well as holding arbitrator and mediator conferences by teleconferences.

Salyzyn, A. April 17, 2020. “‘Trial by Zoom’: What virtual hearings might mean for open courts, participant privacy and the integrity of court proceedings.” *Slaw: Canada’s Online Legal Magazine*. Available at: <http://www.slaw.ca/2020/04/17/trial-by-zoom-what-virtual-hearings-might-mean-for-open-courts-participant-privacy-and-the-integrity-of-court-proceedings/>

With in-person hearings being moved online, questions about what open courts should look like are being raised. These include questions about public access, privacy, unintentional impacts on participant experiences and case outcomes.

Sixta, M. April 15, 2020. “Opinion: How COVID-19 could force changes to family courts, modernize access to the justice system.” *CBC News Opinion*. Available at: <https://www.cbc.ca/news/opinion/opinion-family-law-courts-access-coronavirus-1.5516067>

With the closure of courts to all but urgent matters, the promotion and public education of online alternative dispute resolution options (i.e., mediation, arbitration and collaborative family law) are important. Courts are forced to make long overdue changes to procedures to allow for more remote access and online processes (e.g., rules around notarizing affidavits, e-mail filing system). These changes could help unclog the courts of needless litigation, modernize procedures, and change the mindset of divorcing couples.

Stefanovich, O. March 31, 2020. “Courts scramble to modernize to keep the system working in a pandemic.” *CBC News*. Available at: https://www.cbc.ca/news/politics/stefanovich-covid19-exposes-court-shortcomings-1.5502077?cmp=newsletter_CBC%20News%20Morning%20Brief_879_14259

The pandemic has forced the courts to modernize yet they are scrambling to try to accommodate the flow through the system using technology that is outdated. The civil courts are also faced with backlogs due to a lack of rules and procedures to work virtually. There is concern that public confidence in the justice system could be tested due to all of the delays.

June to August 2020

Burns, I. July 22, 2020. "Alberta Court of Appeal launching public portal of e-filing system Aug. 31." The Lawyer's Daily. Available at: <https://www.thelawyersdaily.ca/articles/20190/alberta-court-of-appeal-launching-public-portal-of-e-filing-system-aug-31?category=access-to-justice>

The Alberta Court of Appeal Management System (CAMS), launched at the end of August, is a comprehensive system that enables users to electronically initiate an appeal, file materials, pay applicable fees and more. All case materials and other information about their appeals including the full text of all filed documents, deadlines, hearing dates, outcomes and more would be accessible online.

Chaudhri, S. August 22, 2020. "Chaudhri: Workers wronged amid COVID crisis can now seek justice virtually." Toronto Sun. Available at: <https://torontosun.com/opinion/columnists/chaudhri-workers-wronged-amid-covid-crisis-can-now-seek-justice-virtually>

The use of virtual platforms for litigation and mediation is seen as being less disruptive to a person's life, costs less and is more efficient. The increased use of technology raises questions about what will happen post-pandemic.

Crawford, B. June 18, 2020. "Zoom your divorce? Virtual family law group takes dispute resolution online." Ottawa Citizen. Available at: <https://ottawacitizen.com/news/local-news/zoom-your-divorce-virtual-family-law-group-helps-couples-bypass-backlogged-court-system>

The Ottawa Virtual Family Law Project was privately launched to offer virtual mediation and arbitration as alternatives to court during the pandemic.

Davidson, T. July 6, 2020. "Experts weigh in on Manitoba's step toward modernizing courts." The Lawyer's Daily. Available at: <https://www.thelawyersdaily.ca/articles/19901/experts-weigh-in-on-manitoba-s-step-toward-modernizing-courts?category=access-to-justice>

Development of an Integrated Case Management System in Manitoba would consolidate systems from the province's three levels of courts into a single system that provides real time information. The system has the potential to also reduce in-person appearances at courthouses for filing documents, scheduling hearings and paying fines and fees.

Davidson, T. July 9, 2020. “Nova Scotia small claims court expands services.” The Lawyer’s Daily. Available at: <https://www.thelawyersdaily.ca/articles/20020/nova-scotia-small-claims-court-expands-services?category=access-to-justice>

Nova Scotia’s small claims court started accepting non-urgent filings and hearing more matters by telephone. Adjudicators will complete preliminary hearings by teleconference and will determine whether the matter will proceed by telephone or be adjourned until the matter can be heard in-person.

Dubinksi, K. July 20, 2020. “As courts use technology during COVID-19, some clients are being left behind, lawyers warn.” CBC News. Available at: <https://www.cbc.ca/news/canada/london/ontario-court-technology-1.5655619>

There are benefits to courts embracing video and audio conference calls, e-mail exchanges and electronic documents in response to the pandemic. However, the article identifies concerns over negative impacts on vulnerable and low-income people (i.e., limited access to internet and phone plans) and the need for additional planning and logistics.

Halsham, A. 2020. July 5, 2020. “Thousands watched the Theriault decision and city council’s police debate online. Is livestreaming the future of democracy?” OurWindsor. Available at: <https://www.ourwindsor.ca/news-story/10058965-thousands-watched-the-theriault-decision-and-city-council-s-police-debate-online-is-livestreaming-the-future-of-democracy/>

Adopting new ways to enable public access and openness can have positive impacts by breaking down barriers to participation, facilitating accountability and educating voters about the workings of public institutions. However, online participation should not be seen as a replacement for in-person access and comes with its own barriers including access to Wi-Fi, cellphones and computers. Other barriers that prevent marginalized groups from being heard and consulted include the need for childcare; Black and Indigenous people feeling unsafe at courthouses, city hall or police headquarters; and time and expense of travelling from socially and economically disadvantaged neighbourhoods. Public livestreaming, which differs from limited remote access available through the court teleconference lines and Zoom platforms, advances the principle of open courts, a crucial element of access to justice.

McLachlin, B. July 17, 2020. "Access to Justice; A plea for technology in the justice system: Beverley McLachlin." The Lawyer's Daily. Available at: <https://www.thelawyersdaily.ca/articles/20104/access-to-justice-a-plea-for-technology-in-the-justice-system-beverley-mclachlin-?category=access-to-justice>

The pandemic has confirmed that many of the in-person activities of courts can be done virtually and that procedures can be more efficiently accomplished online. However, to modernize the justice system we cannot just plug technology into existing systems and expect it to solve all of the issues with the system. A systemic approach is required rather than tinkering with discrete parts of the justice system. There is a need for data to identify where the problems are in the justice system and regulations are needed to ensure that solutions are secure and that the vulnerable are protected.

Millán, L. July 3, 2020. "Quebec justice makes 'giant strides' with additional of Digital Court Office, bar president says." The Lawyer's Daily. Available at: <https://www.thelawyersdaily.ca/articles/19904/quebec-justice-makes-giant-strides-with-addition-of-digital-court-office-bar-president-says-?category=access-to-justice>

Quebec launched the Digital Court office of Quebec in mid-June, which allows e-filing pleadings and the payment of Judicial fees online. Legal experts view this as a move in the right direction in modernizing the Quebec Courts. However, there are some hurdles to the use of these types of systems, including preserving the legitimacy of the court process.

Mulgrew, I. August 11, 2020. "Ian Mulgrew: Two chief judges facing very different pandemics." Vancouver Sun. Available at: <https://vancouversun.com/news/ian-mulgrew-two-chief-judges-facing-very-different-pandemics>

Challenges with using technology to help keep courts open during the pandemic have included delays due to videoconferencing glitches (i.e., people disappearing on camera), access issues for self-represented litigants, concerns over credibility and insufficient equipment. In addition, the electronic filing systems are not connected and there are limitations to working with electronic documents.

Parsons, P. August 25, 2020. "Court Documents e-filing system falls flat with Edmonton Lawyers." CBC News. Available at: <https://www.cbc.ca/news/canada/edmonton/edmonton-lawyers-criticize-e-file-system-for-alberta-courts-1.5698453>

The new Alberta e-filing system for court documents, launched to reduce the number of people going into courthouses due to the pandemic, is causing delays and extra costs for lawyers and clients.

Robitaille, D. July 17, 2020. "Opinion: Participating in Ontario's first Zoom trial showed me its value for our overburdened justice system." The Globe and Mail. Available at:

<https://www.theglobeandmail.com/opinion/article-participating-in-ontarios-first-zoom-trial-showed-me-its-value-for/>

Although the use of videoconferencing was a real alternative to appearing in-person during the pandemic, this article highlights some lessons learned from the first criminal trial held in Ontario by Zoom. Virtual trials are more intense as participants are "always on" and some of the more human aspects are gone. They are also not appropriate for some accused. However, virtual trials are in some ways more democratic by being more accessible and exchanged solemnity for a business-like approach to the task.

Schofield, J. July 24, 2020. "Toronto announces remote court services in wake of COVID-19 case at Brampton courthouse." The Lawyer's Daily. Available at:

<https://www.thelawyersdaily.ca/articles/20251/toronto-announces-remote-court-services-in-wake-of-covid-19-case-at-brampton-courthouse?category=access-to-justice>

Toronto Court Services launched new remote services that include online early resolution meetings for people who want to dispute a ticket. The feasibility of virtual hearings is also being explored, when requested.

Schofield, J. August 12, 2020. "Consultant's study seeks complete technology solution for Ontario Superior Court." The Lawyer's Daily. Available at:

<https://www.thelawyersdaily.ca/articles/20493/consultant-s-study-seeks-complete-technology-solution-for-ontario-superior-court-?category=access-to-justice>

A study is being undertaken to identify a comprehensive end-to-end technology solution to meet the needs of the Superior Court in Ontario. Currently a patchwork of technological solutions is being used including CaseLines, a cloud-based document sharing and storage platform; Justice Services Online Portal; the Frank case inventory system; and Zoom. These different technology platforms do not speak to each other, they are not user friendly and they were not developed with a judicial user in mind.

September to December 2020

Groia, J. November 26, 2020. “Rule of law in era of virtual hearings: Doing justice?” The Lawyer’s Daily. Available at: <https://www.thelawyersdaily.ca/articles/22671/rule-of-law-in-era-of-virtual-hearings-doing-justice-joseph-groia?category=covid-19>

In certain cases, the use of videoconferencing as a substitute for in-person testimony can have deleterious effects on the rule of law. Videoconferencing raises issues about non-verbal communication and the credibility of witnesses for record creation. The lack of a human connection in videoconference hearings is an issue when examining witnesses and can lead to real problems when the videoconferencing platform breaks down in the middle of testimony. The use of videoconferencing against the wishes of one party could violate traditional notions of fundamental justice and procedural fairness.

Kirschbaum, A. December 7, 2020. “Kirschbaum: Lessons from the pandemic on how to modernize family court.” Ottawa Citizen. Available at: <https://ottawacitizen.com/opinion/kirschbaum-lessons-from-the-pandemic-on-how-to-modernize-family-court>

Post-pandemic, a well-funded hybrid online and in-person family justice system will enable the benefits gained through technology to be retained while also preserving the integrity of the previous system.

Pawlitza, L.H. September 9, 2020. “Pandemic has forced Ontario courts to embrace the future, but questions over technology use remain.” Financial Post. Available at: <https://financialpost.com/personal-finance/pandemic-has-forced-ontario-courts-to-embrace-the-future-but-questions-over-technology-use-remain>

The increased use of videoconferencing during the pandemic has led to “Zoom fatigue.” A recent National Geographic study found that fatigue occurs due to the need for the brain to fully concentrate on what others are saying rather than being able to rely on other non-verbal cues. Depending on the view used, the brain also needs to either decode many people at once (i.e., “gallery view”) or it misses non-verbal cues if a participant only views one speaker at a time. This can further be exasperated when images “freeze” as not only are gestures and facial expressions lost but also words themselves.

Further concerns with using videoconferencing in a legal context include the inability to know whether a witness is alone in the room, inability to assess a witness's demeanor, and moving from a neutral courtroom impacts the solemnity of the occasion.

Annex C: Online platforms and digital technologies

The following are a selection of the online platforms and digital technologies that were highlighted in the studies. This is not an exhaustive list; other examples are provided in the annotated bibliography.

Type	Name	Description	Studies
AI	eBay's Modria dispute resolution system	AI can be used as a third party mediator or decision maker.	Bell 2019; Cashman and Ginnivan 2019; Hodson 2019.
AI	Lex Machina USA	Uses machine learning to analyse large datasets to identify patterns without help from a human.	Bell 2019; Sourdin 2019.
AI	Settify Australia	A client intake system where potential clients answer a series of questions online before an in-person meeting with a lawyer to save time.	Bell 2019.
AI	Split-Up Australia	Uses big data to provide lawyers and litigants with likely outcomes of a potential case based on similar cases.	Bell 2019.
ODR	Civil Resolution Tribunal British Columbia	Mandatory forum for small claims disputes under \$5,000 and all strata property claims.	Cashman and Ginnivan 2019; Sourdin 2019.
ODR	European Union's ODR	An online platform that facilitates the resolution of consumer complaints arising from online transactions.	Cashman and Ginnivan 2019.
ODR	Matterhorn United States	A cloud-based platform that deals with high-volume claims through real time or asynchronous	Cashman and Ginnivan 2019; Prescott 2017.

		communication, sends reminders to parties and a third party facilitator, mediator or arbitrator can assist with the resolution of claims.	
ODR	Money Claim Online United Kingdom	Allows people with claims up to £10,000 to issue a claim, file a defence and attend online mediation.	Cashman and Ginnivan 2019.
ODR	Rechtswijzer ("Signpost to Justice") Netherlands	An online platform for resolving relationship disputes that enabled online dialogue between the parties, mediation, adjudication and neutral review of all agreements (discontinued after three years due to cost).	Cashman and Ginnivan 2019; Hodson 2019; MacLennan 2016.
ODR	Technology-Assisted Family Mediation Project British Columbia	Distance mediation that uses teleconferencing or video-conferencing.	Tait 2013.
ODR	Traffic Penalty Tribunal United Kingdom	Allows parties to share evidence, continuous hearings through asynchronous messaging, and e-decisions.	Cashman and Ginnivan 2019.
ODR	Victorian Civil and Administrative Tribunal Australia	Small claims and family law platform.	Cashman and Ginnivan 2019.
PLEI	MyLawBC British Columbia	An online platform that uses online tools to create customized plans, actively guides people to resources, and connects people to in-person resources.	MacLennan 2016; Malatest 2019.

PLEI	Online Parenting After Separation Project British Columbia	An online parenting program that uses an online format rather than in-person.	Tait 2016.