



HUMAN-CENTERED DESIGN & THE JUSTICE SYSTEM

A Literature Review

Prepared for the Access to Justice & Law Reform Institute of Nova Scotia, the report explored how human-centered design methodologies, empirical research, and information behavior studies can improve accessibility and usability within justice systems.

Prepared By :

Melissa Goertzen

Table of Contents

HUMAN-CENTERED DESIGN	1
<i>DEFINING HUMAN-CENTERED DESIGN</i>	1
<i>HUMAN-CENTERED DESIGN AND THE JUSTICE SYSTEM</i>	1
<i>HUMAN-CENTERED DESIGN AND INFORMATION DISSEMINATION</i>	2
HUMAN-CENTERED DESIGN AND EMPIRICAL RESEARCH PROJECTS	3
<i>EMPIRICAL RESEARCH APPLIED TO LEGAL STUDIES</i>	3
<i>OVERVIEW OF EMPIRICAL RESEARCH PROJECT METHODOLOGIES</i>	3
AFFECTIVE DIMENSIONS OF INFORMATION SEARCH BEHAVIOR	7
<i>THE LINK BETWEEN LEGAL INFORMATION AND HUMAN EMOTION</i>	7
<i>INFORMATION SEARCH BEHAVIOR AND THE COURT SYSTEM</i>	8
THE DIGITAL DIVIDE	10
<i>THE DIGITAL DIVIDE AND COURT SYSTEMS</i>	10
SOCIOECONOMIC MARGINALIZATION AND INFORMATION PROCESSING	12
<i>THE ROLE OF DIGNITY AND PERCEIVED CONTROL IN INFORMATION SERVICES</i>	12
REFERENCES	14

Human-Centered Design

Defining Human-Centered Design

Human-centered design (HCD) is a research methodology that is concerned primarily with user experiences, particularly as individuals interact with systems, services, or programs. The central goal is to “advance the continued growth and improvement of institutions by fostering the experiences of stakeholders in a desirable, feasible, and viable way, thereby promoting human achievement and flourishing” (Quintanilla, 2016, p. 749). It attempts to understand “people’s thoughts and behavior, to understand why or how people end up taking specific actions...and focuses on transforming information gained from users into insights on how to tackle the respective issues” (Winkler Institute for Dispute Resolution, 2017, p. 6). Ultimately, researchers develop empathy for end-users, meaning that they “understand and identify with another person’s context, emotions, goals, and motivations” (Blizzard, 2016, para. 3).

Besides utilizing traditional social science research tools, including surveys, focus groups, or interviews, HCD observes environments and develops an understanding of user experiences through empirical inquiry (Quintanilla, 2016). Common study objectives include exploring the problem space (such as a program or service), generating viable alternatives, brainstorming solutions, and implementing practices (Bason, 2017; Morley & Boyle, 2017). HCD researchers are guided by the following questions:

- Who is using this service?
- What is the legal landscape surrounding the service?
- Can people use this service easily?
- Does the service provide value and engage users?
- What ideas may address existing service problems? Are these ideas worthwhile?
- How should researchers move forward to implement, vet, or evaluate service prototypes?
(Hagan, 2018; Hagan, 2015)

Researchers observe users at the center of a process and examine the “challenges and opportunities people encounter as they attempt to access or navigate a service in real time” (Winkler Institute for Dispute Resolution, 2017, p. 6). Study results inform quick, agile creation and testing of new products that serve diverse stakeholders (Hagan, 2018).

Human-Centered Design and the Justice System

One advantage of HCD is that it allows researchers to respond to the needs or perspectives of system users who are often overlooked during systemic analyses of services, such as clients or front-line staff (Sandfort & Sarode, 2018). It has proven useful to many nonprofit and government organizations due to its focus on stakeholder needs. Recently, the legal community has also acknowledged the importance of examining the justice system from the perspective of

those who use it (Hagan, 2018; Morley & Boyle, 2017; Blizzard, 2016). However, “the justice system has little experience putting the user at the center or with engaging users in its reform efforts, and it does not know how to do that effectively” (Morley & Boyle, 2017, p. 18). Access to Justice labs and nonprofits are building partnerships with stakeholders and the justice system to better understand the needs of users. For instance, Access to Justice BC has “committed to engaging the users’ perspective and recognizing users of the system as partners in improving it” (Morley & Boyle, 2017, p. 18). Led by the Chief Justice of British Columbia, key stakeholders bring the perspectives of users to the table and work toward transformative change in the family and civil justice systems through collaborative innovation.

Ultimately, HCD supports access to justice programs because researchers “empathize with stakeholder communities, seeking to deeply understand those served and to partner with these stakeholder communities to create innovative solutions rooted in people’s actual needs, concerns, and experiences” (Quintanilla, 2016, p. 749). They believe that “all problems are solvable and that the people who face these problems in everyday life hold the key to solving them” (Quintanilla, 2016, p. 749). HCD goals align with approaches to justice that allow all parties affected by an event to address their needs, such as Restorative Justice, which “attempts to address the needs of all participants using a flexible, inclusive and humanistic approach” and “values the dignity and security of all parties” (Evans, McDonald & Gill, 2018, para. 4).

Human-Centered Design and Information Dissemination

HCD is particularly important to the justice system because it considers how information is communicated to users. For example, researchers examine how to display accurate information in places it can be found (e.g. a text in a library, an updated website, or a legal databases), if information attracts the users’ attention, and how well information connects to aspects of the legal process (Sossin, 2017; Nahl & Bilal, 2007; Nahl, 2004). Understanding how users access information removes traditional barriers between legal information (e.g. what are my rights?) and the legal process (e.g. how do I assert those rights?) (Sossin, 2017). Answers to these questions open the door to innovation and challenge researchers to consider how digital technologies may enhance communication between the legal system and users.

In summary, the goal and efforts involved in human-centered design are aimed at “improving service offerings and relationships with the users of the legal system and also at developing a particular responsive and innovation-oriented culture within the tribunals themselves” (Sossin, 2017, p. 92). This includes the “ability to identify, reflect upon, and attempt to improve inefficiencies or ‘fail points’ in current practices and foster collaboration across institutional silos or professional/disciplinary boundaries” (Sossin, 2017, p. 93).

Human-Centered Design and Empirical Research Projects

Empirical Research Applied to Legal Studies

Human-centered design (HCD) is supported by empirical research methods, meaning that it is often based on observation of actual experiences rather than on theory. When applied to legal studies, empirical research “involves the study, through direct methods rather than secondary sources, of the institutions, rules, procedures, and personnel of the law, with a view to understand how they operate and what effects they have” (Baldwin & Davis, 2005, para. 1). Under the current legal system, services and court procedures are informed by the perspectives of lawyers or judges. The absence of input from users has been attributed to many “challenges the public face with the justice system, namely expenses, complexity, and time” (Blizzard, 2016, para. 2).

HCD links to the concept of procedural justice; it considers the entire experience surrounding a court proceeding as opposed to an exclusive focus on the outcome. Procedural justice asks whether “people experience the legal system as fair and dignified, and thus have a sense that the procedures are just” (Hagan & Kim, 2017, p. 135). When HCD is combined with empirical methods, researchers can explore if a system is usable, useful, and meaningful. Study results suggest how a person can best use a system to resolve a problem by acknowledging that the “quality of a person’s experience of the system is a crucial metric by which to judge the system” (Hagan & Kim, 2017, p. 135). Whether the justice system feels transparent, fair, and dignified will impact the user’s perception of the system and the professionals who work within it. (Hagan & Kim, 2017).

Overview of Empirical Research Project Methodologies

A review of legal studies literature indicates that a variety of empirical studies utilizing HCD examined user challenges across civil, family, and criminal courts. While court proceedings vary, many of the challenges remain the same, such as completing court forms and successfully navigating the information landscape.

Court-form complexity is a significant access to justice challenge in Canada, particularly to self-represented litigants (SRL). Empirical studies have found that these forms are confusing, complex or incomprehensible to users without legal training. Salyzyn, Burkell, Costain & Piva (2019) combined direct feedback from users with a functional literacy methodology to examine if users can both read, understand, and respond to the instructions on the form. To create a sample group, the researchers recruited twenty undergraduate students via posters placed around campus; participants were screened out if they had taken courses related to legal studies. Next, participants were presented with one of four scenarios related to common residential tenancies cases. After reading the scenario, they were asked to complete a court form. Results indicated that the participants struggled with legal language or instructions regarding how to complete the form (Salyzyn et al., 2019). The researchers made a number of recommendations for the redesign

of court forms and supporting materials to address the real needs of SRL users. These included limiting the use of acronyms, including a comprehensive glossary of terms, the creation of online forms with just-in-time information delivery, and the provision of services that offer form-completion support (Salyzyn et al., 2019).

Other studies have moved one step beyond studying court forms themselves, and instead focus on how digital technologies can be used to provide free support to people navigating the client intake system. For instance, Lupica, Franklin & Friedman (2017) developed the Apps for Justice Project to address two challenges: create practical tools that will enable low- and moderate-income consumers to address legal problems, independent of, and in tandem with, professional assistance; and assist solo and small firm practitioners in handling a large volume of clients (Lupica et al., 2017). The team utilized the following five-step framework based on HCD to develop information tools:

1. discover the context and need for the service;
2. synthesize the information discovery;
3. build a prototype based on the information discovered;
4. work with potential service users to test the prototype; and
5. revise the prototype based on user feedback (Lupica et al., 2017).

Next, the research team visited the state courthouse in Portland, Maine, to observe different types of civil proceedings and organized meetings with attorneys, legal service providers, and staff to identify common legal problems and challenges faced by clients. Finally, researchers interviewed attorneys to discuss the legal process, communication, and clients' emotional and psychological concerns (Lupica et al., 2017). Based on the results, researchers designed an app that spoke to users in plain language, organized information under headings to minimize emotional stress and accommodate lower levels of reading abilities, matched text with thematic illustrations, and used affirming language that acknowledged the difficulty of users' problems and their legal rights (Lupica et al., 2017).

After clients have moved through the intake process, they must navigate the court system itself. A number of empirical studies have examined how HCD can identify users' needs and improve legal services. In Ontario, the Winkler Institute for Dispute Resolution, based at Osgoode Hall Law School at York University, utilized HCD to measure public engagement with the family court system. Users, front-line staff, legal professionals, and judges were asked to share stories about challenges they faced navigating the family justice system and discuss opportunities to improve experiences of families who try to make sense of available service options, rules, and regulations (Winkler Institute for Dispute Resolution, 2017). The research team used three strategies to collect data: 1) interview and observation teams were placed in courthouses across the province and spoke to members of the public, 2) teleconference interviews were scheduled

with court staff, service providers, legal professionals, and judges; and 3) two town hall meetings were held on Facebook Live for all interested stakeholders. After analyzing the conversations, researchers identified areas where user pain points intersected and created service barriers. The main issues identified are as follows:

- users must be able to locate basic information about services and relevant court processes;
- users must be assured that they are accessing trusted and verified information;
- users benefit from tailored instructions for each step of the court process;
- information is more accessible if it is available in multiple formats and languages, with an emphasis on visual documents, plain language, and audio-visual resources; and
- the public should be educated about the resources available to support those dealing with family law issues (Winkler Institute for Dispute Resolution, 2017).

These findings suggest that the ongoing collection of feedback from users would identify service gaps as needs evolve over time.

To further examine how HCD applies to the court system, Margaret Hagan (2018) developed a case study that analyzed the California county courts' Self Help Centers (SHC), which provide support to clients working through family law issues. The objectives were to identify the core user requirements of people navigating the legal system without a lawyer, define key points of failure within the system, and propose new services that could improve overall user experiences (Hagan, 2018). After reviewing anecdotal evidence collected from courts, legal aid lawyers, and SHC staff prior to the study, the research team developed a set of questions and hypotheses that framed proposed fieldwork. Next, hypotheses were explored by students through a series of workshops and classes taught in partnership with SHCs. The classes focused on the first half of the design process including user research, synthesis of data, and an initial set of new ideas for interventions (Hagan, 2018). A subsequent round of classes and hackathons focused on the second half of the design process, and students built and tested prototypes. At the same time, students visited courts and interviewed stakeholders to better understand the "as is" situation of SHCs (Hagan, 2018). To capture the current situation, students mapped out the stakeholders, the process litigants went through, and the resources users are supplied with. Based on this information, prototypes were tested to determine if they did in fact create a "preferred state". The findings recommended improvements in seven areas of SHC services:

- courts should coordinate navigable pathways to help people understand all events they face during the legal process;
- users require wayfinding tools to navigate through the court and bureaucratic procedures;
- users require warm and efficient welcome experiences that provide confidence as they work through procedures;

- paperwork should be clear, prioritized, and manageable;
- online court tools should be developed to help people prepare for court visits;
- workstations should be available at courts so that people can accomplish tasks on site; and
- court systems should develop a culture of usability testing and continuous feedback to identify fail points in a timely manner (Hagan, 2018).

These findings mirror discoveries made by Salyzyn, Burkell, Costain & Piva (2019), Lupica, Franklin & Friedman (2017), and the Winkler Institute for Design Resolution (2017). All suggest that users benefit from information delivered in plain language and presented in multiple formats to accommodate a variety of reading levels and learning needs. Users also benefit from services that acknowledge their levels of emotional and psychological stress. While there are many examples to choose from, the studies mentioned above demonstrate how empirical research and HCD are effectively applied to the study of legal systems and result in practical strategies to bridge knowledge gaps and improve legal services.

Affective Dimensions of Information Search Behavior

Information seeking behaviors are the “observable evidence of information needs and the only basis upon which to judge both the nature of the need and its satisfaction” (Case, 2007, p. 5). These behaviors also encompass an individual’s ability to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (Bawden, 2008, p. 52). Information searching is often associated with logic and cognitive process; individuals seek answers to specific questions, desire to fill knowledge gaps, or evaluate options. However, recent research suggests that there is a powerful link between emotion and information seeking behavior. In many cases, individuals’ feelings provide the motivation to begin and complete information searches (Nahl, 2004).

The Link Between Legal Information and Human Emotion

Researchers across a variety of disciplines including legal studies, information management, and sociology have conducted theoretical and empirical research to understand the relationship between emotion and the law. In modern society, legality and feelings are treated as though they belong to “separate spheres of human existence; the sphere of law admits only of reason; and vigilant policing is required to keep emotion from creeping in where it does not belong” (Maroney, 2006, p. 120). This separation between logic and feeling does not reflect how humans live or how the law is administered.

Studies have examined *affect*, which describes the quality of “goodness” or “badness” experienced as a feeling state in response to the positive or negative quality of a stimulus (Maroney, 2006; Slovic, 2004). The impact of affect is particularly relevant as people search for, evaluate, and use information to solve a legal problem. Researchers have found that a legal crisis is often accompanied by anxiety, uncertainty, and fear. These feelings trigger “performance-minimizing mental states that curb the person’s effective deployment of information that may be otherwise helpful” and a “preoccupation with compelling short-term problems [that] leave little cognitive bandwidth to engage in long-term planning” (Lupica, Franklin & Friedman, 2017, p. 1367).

Information search processes are users’ constructive attempts to find meaning in information and extend their knowledge about a problem (Kuhlthau, 1991). Individuals are actively searching for information that makes sense or is understandable within their personal frame of reference. The effectiveness of information searches relates to how well users are able to integrate results into their lives and whether information is deemed to be useful when resolving problems (Kuhlthau, 1991).

Information searches, retrievals, and use involves three processes: 1) users notice information when interacting with a system, 2) users appraise information, and 3) users attach value to

information by affective processing (Nahl & Bilal, 2007; Nahl, 2004). In order to complete all three processes, users must “maintain continuous motivation from the beginning to end of the search session” (Nahl, 2004, p. 192). If motivation ceases, the search for information will stop and the users will move to another activities. Emotions are the catalyst for motivation and essentially, activate the information search process (Nahl & Bilal, 2007; Nahl, 2004). As such, information seeking behaviors are a “process of construction which involves the whole experience of the person, feelings as well as thoughts and actions” (Kuhlthau, 1991, p. 362). In order to create information environments and services that are responsive to needs of legal service users, designers must account for both cognitive and affective data.

Information Search Behavior and the Court System

In real-world settings, “users want to feel empowered. They want to feel competent and able to carry out the simple tasks associated with their matters” (Winkler Institute for Dispute Resolution, 2017, p. 31). The legal system often leaves users “feeling inadequate and worried about whether they did things ‘right’” (Winkler Institute for Dispute Resolution, 2017, p. 31). Most users arrive at a courthouse hoping to accomplish a task, settle a dispute, or locate information. However, many are unable to accomplish these goals due to long wait times, difficulty navigating courthouses and locating services, feelings of intimidation, frustration and stress, or challenges completing court forms (Salyzyn et al., 2019; Hagan & Kim, 2017). Litigants report feeling confused because there is “too much information, too many forms, and too many things that can go wrong” (Hagan & Kim, 2017, p. 135).

As one example, researchers have found that at Self Help Centers, two dominant emotions are the “stress of the family situation, often in the form of apprehension about what will happen and how painful or demanding it will be” followed by “the intimidation of using the legal system to deal with problems” (Hagan & Kim, 2017, p. 135). Fear and a general lack of trust in the legal system are also common emotional states reported by litigants. For most, the stakes of the process are very high; outcomes will impact family arrangements, finances, housing situations, or health. System users feel that they have a lot to lose and fear “the power of the courts to take ‘punishing’ actions against them if they make a mistake” (Hagan and Kim, 2017, p. 135). These emotions result in a lack of cognitive control and understanding in the situation, which impacts abilities to problem solve and process information.

In some courthouses, staff provide users with a ‘roadmap’ of the legal and administrative processes they will navigate. Users reported that this information “helped them to manage their stress levels because they could at least anticipate multiple starts and stops, long waits and multiple courthouse visits” (Winkler Institute for Dispute Resolution, 2017, p. 17). Other users were required to attend a Mandatory Information Program to acquire a better understanding of the court system. Court staff and lawyers reported that the program helps “users gain a better understanding of their legal rights and the legal process, while also providing a greater

understanding of alternative dispute resolution options” (Winkler Institute for Dispute Resolution, 2017, p. 18).

While information services provided to users have not perfected the system, they reduce stress levels, frustrations around being lost or ignored, or feelings of powerlessness. When the legal system works with users to provide viable information options that are clear and easily digestible, there is a higher chance that users feel a sense of dignity or report positive experiences with the court system. The way that users feel in the courthouse impacts their ability to search for and process information. And ultimately, positive emotions begin to build bridges of trust between system users and the legal system itself.

The Digital Divide

The digital divide is an accessibility gap that exists between the information rich and the information poor (Hersberger, 2003). It describes the “dichotomy between those with easy access to an abundance of information and those who do not [know] how and where to find it and...do not understand the value of information and how it can help them in their day-to-day lives” (Goulding, 2001, p. 109).

While the digital divide emphasizes a lack of access to technologies like the Internet, electronic databases, or apps, the root causes are linked to socioeconomic crises in communities. These include limited opportunities for education and training, segregation caused by poverty, language barriers, and prejudices (Jaeger & Thompson, 2004; Yu, 2006; Thompson, 2007). For example, in order to access online information, individuals must have basic computer skills and the ability to craft search queries in online search engines. Individuals who cannot afford Internet access at home require access to public workstations and may require additional training depending on their computer skills.

Essentially, the digital divide is an “imbalanced distribution of information-related rights to different sections of society” (Yu, 2006, p. 232). These inequities “undermine peoples’ equal footing in social participation and should be seen as a form of social injustice” (Yu, 2006, p. 232). In many cases, information poverty is linked to a lack of integration into a community, poor connections to social networks, and exclusion from public services (Goertzen, 2012; Bure, 2006). When developing services, it is important to acknowledge the gap between the information rich and the information poor and work to bridge it. If not, information that is of value to marginalized communities will become increasingly inaccessible, leading to further solidification of social roles and isolation (Goertzen, 2012).

The Digital Divide and Court Systems

Legal information supply is a fundamental aspect of a democratic society adhering to the rule of law (Sjoberg, 2007). The “state has a responsibility to supply legal information and citizens have a right to have access to it” (Sjoberg, 2007, p. 398). However, users encounter several access barriers to legal information including the fact that it is not easily searchable through web services like Google, subscriptions to legal databases are expensive, and not all legal documents are properly formatted for online use (Sjoberg, 2007).

As discussed earlier in this literature review, many individuals find the court system difficult to navigate. People often rely on close social networks, particularly family members or friends with prior experience using the legal system, for information regarding the process (Winkler Institute for Dispute Resolution, 2017). These conversations can result in conflicting suggestions or misinformation when different people provide different advice. When individuals try to clarify

the process by looking online, many find it difficult to identify relevant and accurate information (Lloyd, 2002). For instance, it is often “unclear to users that not all courthouses handle all matters. In many cases, going online resulted in users getting both too much and not enough information at the same time, leaving them feeling overwhelmed and confused” (Winkler Institute for Dispute Resolution, 2017, p. 12).

For many users, reading full-text documents is not an effective way of communicating information about the justice system or court proceedings. As an example, Indigenous communities are based on a foundational nature of oral communication, and Indigenous users often benefit from visual and oral communication materials. Communications provided in Indigenous languages also provide assistance (Winkler Institute for Dispute Resolution, 2017).

Other socioeconomic factors, such as poverty, contribute to users’ levels of confusion or mental ability to process legal information. Individuals in these situations develop a tunnel-like focus on the immediate consequences of scarcity and their mental bandwidth for legal problems is reduced. In other words, their energy is directed towards managing scarcity resulting in time deficits to search for and process legal information (Lupica, Franklin & Friedman, 2017). When working with individuals experiencing poverty, the first step is to help individuals overcome stress, anxiety, or other negative emotions, so that they may turn attention to information about legal rights and services that support long-term planning and decision-making (Lupica, Franklin & Friedman, 2017).

Studies have found a number of key needs that must be filled to bridge the digital divide as users navigate the legal system. They include the following:

- access to computers or other multi-functional devices;
- access to authoritative information;
- clear and straightforward instructions about how to complete and submit forms, including explanations that tell users why specific information is being requested;
- form review and filing services available without visiting a courthouse in person;
- online templates and examples that help users tell their story; and
- post-filing checklists to provide a picture of the journey ahead.

(Winkler Institute for Dispute Resolution, 2017; Sjoberg, 2007; Lloyd, 2002)

Identifying gaps in legal services or user knowledge provides insights into the ways that court systems can be improved to suit the needs of all people. As a starting point, researchers can identify the strengths and weaknesses of systems and use them as a basis for the development of best practices that address the true needs of the community.

Socioeconomic Marginalization and Information Processing

A community of people “live in an information world that is defined by their shared culture: the way in which people acquire and use information and the way in which they make sense of the information are all ultimately shaped by this culture” (Yu, 2006, p. 232). Essentially, the group creates a collective sense of what is or is not important, and this affects information behaviors such as action or inaction involving available information (Goertzen, 2012; Jaeger & Thompson, 2004).

Merton (1972) and Chatman (2000) found that the dynamics between individuals occupying different social roles impact the way marginalized individuals seek information. Interactions between insiders (marginalized communities) and outsiders (mainstream society) can result in misunderstandings based on assumptions and differences in life experiences (Goertzen, 2012; Chatman, 1996). Researchers found that insiders claim ownership of certain kinds of knowledge. That is, “only insiders can truly understand the social and informational worlds of the insiders. Although the knowledge is narrow in scope, it serves to insulate and protect the worldview of insiders from contamination by outsiders” (Merton, 1972, p. 13). The idea that circumstances can only be understood by individuals in the same social group strengthens information barriers and causes marginalized individuals to resist sharing the details of information needs with others.

Communication that exclusively takes place within one social group means that individuals are privy to the same pool of knowledge (Goertzen, 2012). When this occurs, researchers have observed a phenomenon called Weak-Tie Theory. In this state, people build relationships characterized by infrequent contact, limited emotional ties, or low expectations for reciprocity in order to gather information (Savolainen, 2008). For example, social workers or shelter staff are often accepted as trustworthy sources by homeless individuals because they have knowledge of the values and needs of the homeless community (Hersberger, 2003).

Many marginalized communities do not view information as isolated units of data. Rather, information gains value because it is woven into a system of related ideas, standards, or values (Chatman, 1999). As a result, information seeking behaviors are complex and influenced by communal relationships, social roles, and trust.

The Role of Dignity and Perceived Control in Information Services

Court services for marginalized individuals often tie to procedural justice, meaning that individuals want to experience the legal system as fair, dignified, and just (Hagan & Kim, 2017; Higgins et al., 2009). Legal scholars identified four variables that enhance procedural justice for marginalized individuals: a voice in expressing their views; the feeling of neutral application of law; a sense of respect; and trust that authorities are trying to provide assistance (Hagan & Kim,

2017). All factors work together to create a sense of dignity for individuals and legitimize the public legal system within society.

In tandem with dignity is the idea of perceived control, which is the belief that individuals can determine their internal states and behaviors, influence their environment, and bring about desired outcomes (Hagan & Kim, 2017). When applied to legal services, perceived control can limit poor user experiences, confusion about processes, or mistakes made during the court proceedings.

Studies suggest that fair procedures and quality of treatment towards citizens result in favorable evaluations of the court system (Higgins et al., 2009). However, they also indicate that factors such as race, ethnicity, income, and history with the court system should be considered during evaluations of legal services. For example, research has shown that African Americans are less likely than Caucasians to see justice in the court system, and that individuals with more experience navigating court systems are more likely to be satisfied with the courts (Higgins et al., 2009).

Additional factors like poverty monopolize individuals' attention and result in reduced productivity or the ability to process information (Lupica, Franklin & Friedman, 2017). To account for these factors, research suggests that 'satisfaction' and 'attitude' are treated as separate concepts when measuring evaluations of court systems (Higgins et al., 2009). In a general sense, measuring satisfaction relies on performance appraisals of the court system, while measuring attitude looks at general feelings or opinions regarding the court system. Together, these metrics identify service gaps or strategies that improve users' level of dignity and perceived control over their circumstances.

Performance appraisals, attitude, levels of dignity, and perceived control of circumstances are metrics that researchers can incorporate into HCD projects to account for the experiences of marginalized individuals. Documenting the needs of demographic groups within a community provides valuable insight as information services are developed, improved, and implemented in legal environments.

References

- Baldwin, J., & Davis, G. (2005, June). Empirical research in law. In M. Tuchnet and P. Crane (Ed.), *The Oxford Handbook of Legal Studies*. doi: 10.1093/oxfordhb/9780199248179.013.0039
- Bason, C. (2017). *Leading public design: Discovering human-centered governance*. Bristol, United Kingdom: Policy Press.
- Bawden, D. (2008). Origins and concepts of digital literacy. In C. Lankshear (Ed), *Digital literacies: Concepts, policies and practices* (pp.17-32). New York: Peter Lang Publishing.
- Blizzard, P. (2016, March 23). User experience (UX) design and empathy [Web log message]. Retrieved from <https://winklerinstitute.ca/user-experience-ux-design-and-empathy/>
- Bure, C. (2006). Digital inclusion without social inclusion: The consumption of information and communication technologies (ITCs) in homeless subculture in Scotland. *Journal of Community Informatics*, (2)2. Retrieved from <http://www.cijournal.net/index.php/ciej/article/view/251/212>
- Case, D.O. (2007). *Looking for information: A survey of research on information seeking, needs, and behavior*. London: Academic Press.
- Chatman, E.A. (1999). A theory of life in the round. *Journal of the American Society for Information Science*, 50(3), 207-217.
- Chatman, E.A. (1996). The impoverished life-world of outsiders. *Journal of American Society of Information Science*, 47(3), 193-206.
- Chatman, E.A. (2000). Framing social life in theory and research. *New Review of Information Behaviour Research*, 1, 3-17.
- Evans, J., McDonald, S., and Gill, R. (2018, May 24). Restorative justice: The experiences of victims and survivors. *Victims of Crime Research Digest*. Retrieved from <https://www.justice.gc.ca/eng/rp-pr/cj-jp/victim/rd111-r111/toc-tdm.html>
- Goertzen, M. (2012, July). Homeless Bound: A Search for Digital Literacy within the Realm of Social Media (Masters thesis). Retrieved from https://dalspace.library.dal.ca/bitstream/handle/10222/15350/Goertzen_Melissa_MLIS_LIBS_August_2012.pdf?sequence=3&isAllowed=y
- Goulding, A. (2001). Information poverty of overload?. *Journal of Librarianship and Information Science*, 33, 109-111.
- Hagan, M. (2018). A human-centered design approach to access to justice: Generating new prototypes and hypotheses for interventions to make courts user-friendly. *Indiana Journal of Law and Social Equity*, 6(2), 199-239.
- Hagan, M., & Kim, M. (2017, June 13). Design for dignity and procedural justice. In: Chung W., Shin C. (Eds.), *Advances in affective and pleasurable design* (pp. 135-145). Cham: Springer International Publishing.

- Hagan, M. (2015, April 17). "Next Gen Legal Services: Possibility of Legal Design" (April 2015), Retrieved from <http://www.legaltechdesign.com/2015/04/next-gen-legal-services-legal-design-talk-at-stanford-law-school/>
- Hersberger, J. (2003). Are the economically poor information poor? Does the Digital Divide affect the homeless and access to information? *The Canadian Journal of Information and Library Sciences*, 27(3), 236-249.
- Higgins, G., Wolfe, S., Mahoney, M., & Walters, N. (2009). Race, ethnicity, and experience: Modeling the public's perceptions of justice, satisfaction, and attitude toward the courts. *Journal of Ethnicity in Criminal Justice*, 7(4), 293-310. doi: 10.1080/15377930903382282
- Jaeger, P.T., & Thompson, K.M. (2004). Social information behaviour and the democratic process: Information poverty, normative behaviour, and electronic government in the United States. *Library & Information Science Research*, 26(1), 94-107.
- Kuhlthau, C. C. (1991). Inside the search process: Information seeking from the user's perspective. *Journal of the American Society for Information Science*, 42, 361-371.
- Lloyd, M. (2002). The digital divide and equal access to justice. *Hastings Communications and Entertainment Law Journal (Comm/Ent)*, 24(4), 505-538.
- Lupica, L. R., Franklin, T. A., & Friedman, S. M. (2017). The apps for justice project: Employing design thinking to narrow the access to justice gap. *Fordham Urban Law Journal*, 44(5), 1363-1406.
- Maroney, T. A. (2006). Law and emotion: A proposed taxonomy of an emerging field. *Law and Human Behavior*, 30(2), 119-142. doi: <https://doi-org.login.ezproxy.library.ualberta.ca/10.1007/s10979-006-9029-9>
- Merton, R. K. (1972). Insiders and outsiders: A chapter in the sociology of knowledge. *American Journal of Sociology*, 78(1), 9-47.
- Morley, J., & Boyle, K. (2017). The story of the BC family justice innovation lab. *Windsor Yearbook of Access to Justice*, 34(1). doi: <https://doi.org/10.22329/wyaj.v34i1.4996>
- Nahl, D., & Bilal, D. (Eds.). (2007). *Information and emotion: The emergent affective paradigm in information behavior research and theory*. Medford, NJ: Information Today.
- Nahl, D. (2004). Measuring the affective information environment of web searchers. *Proceedings of the American Society for Information Science and Technology*, 41(1), 191-197. doi:10.1002/meet.1450410122
- Quintanilla, V.D. (2016). Human-centered civil justice design. *Penn State Law Review*, 121, 745-806.
- Savolainen, R. (2008). Autonomous controlled and half-hearted: Unemployed people's motivations to seek information about jobs. *Information Research*, 13(4), paper 362. Retrieved from <http://informationr.net/ir/13-4/paper362.html>

- Salyzyn, A., Burkell, J., Costain, E., & Piva, B. (2019). What makes court forms complex: studying empirical support for functional literacy approach. *Journal of Law Equality*, (15), 31-68.
- Sanfort, J., & Sarode, T. (2018, November). *Human-Centered Design and Developmental Evaluation: Methodologies for Better Supporting Nonprofit Innovation*. Retrieved from http://www.jodisandfort.org/uploads/4/5/0/9/45098387/sandfort_and_sarode_arnova_2018_final.pdf
- Sjoberg, C. (2007). Legal Information Supply and the Digital Divide. *Scandinavian Studies in Law*, 50, 393-408.
- Slovic, P. (2004). What's fear got to do with it? It's affect we need to worry about. *Missouri Law Review*, 69, 971.
- Sossin, L. (2017). Designing administrative justice. *Windsor Yearbook of Access to Justice*, 34(1). doi: <https://doi.org/10.22329/wyaj.v34i1.5007>
- Thompson, K. (2007). Further understanding information literacy through the social study of information poverty. *The Canadian Journal of Information and Library Science*, 31(1), 87-115.
- Winkler Institute for Dispute Resolution. (2017, November). *Understanding user experience: Improving Ontario's family justice system through technology*. Retrieved from <https://winklerinstitute.ca/wp-content/uploads/2018/09/Final-MAG-Family-Report.pdf>
- Yu, L. (2006). Understanding information inequality: Making sense of the literature of the information and digital divides. *Journal of Librarianship and Information Science*, 38(4), 299-252.