

The Justice is in the Details: Evaluating Different Self-Help Designs for Legal Capability in Traffic Court

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Abstract. How effective is a legal system that people cannot understand how to navigate? As more people try to navigate the civil justice system as self-represented litigants, there is more awareness about the importance of self-help tools that can build legal capability. If there is more effective self-help, then this can improve the quality of justice, both procedural and substantive, that people experience in the legal system. Yet there is little study of how and whether self-help can be effective in building legal capability, and which kinds of visuals, digital tools, or interactions are most effective at engaging people and helping them navigate the legal system. This paper builds off the nascent literature on how design can improve people's navigation of complex bureaucratic systems, to conduct an exploratory design research into effective self-help for traffic court. It documents the participatory design process, lightweight exploratory evaluation method, and the findings on which type of self-help has the most promise for this area of court. It finds that visual design patterns have value, but that digital tools are needed to get user engagement and impact on outcomes.

Keywords: Access to Justice, Legal Capability, Visual Design, Self-Help, Legal Design.

1. Introduction

The community working on improving access to justice through innovation work has been growing over the past decade. Looking at current dysfunctions of the civil justice system in the United States, whether it be around housing problems, employment law, family issues, or money and debt, this network of lawyers, designers, engineers, and others have generated growing numbers of ideas to address these problems. Some ideas focus on enhancing people's capability to deal with legal problems, including new digital applications, human services, information designs, and AI-powered decision-making tools. Other ideas focus on changing the system itself to be less burdensome, fairer, or more supportive to people trying to navigate it, with proposals around right to counsel, process simplification, judicial training, and other policy or systems reform.

With this outpouring of new creativity supplying a wealth of new ideas of how to promote access to justice, a new kind of challenge arises, around strategic prioritization. Of all of these new programmatic or systemic interventions, which ones are most valuable for promoting equal access to justice? Especially when sponsoring groups, like legal aid organizations or courts, have limited resources to fund, staff, and maintain new interventions, it is crucial to better determine which of the many proposals should be taken to pilot or full-scale implementation.

A leading hypothesis from practitioners in this domain has been that self-help materials can improve people's legal capacity, and that this

capacity in turn can help them proceed through the justice system effectively. This focus on self-help has grown as more people try to navigate the civil justice system as self-represented litigants.¹ With more people in the system who have not been trained as legal professionals, there is more awareness about the importance of process navigation as a factor in the quality of justice, both procedural and substantive. Can self-help present key information about a legal process in ways that can improve people's capacity to navigate the system and feel more empowered to actually follow through on it?

This piece contributes to this discussion of early-stage evaluation of new justice innovation proposals (with a particular focus on self-help), through a case study and sample protocol of one such evaluation. The Stanford Legal Design Lab hosted a several month design process to generate and vet new ideas to support litigants facing costly traffic tickets, at risk of collateral consequences if they did not adequately respond to the ticket. It hosted a typical innovation process, using design research, hackathons, design sprints, and similar methods to spot dysfunctions in this area of the justice system, and to propose a range of solutions that might address them. This part of the process is quite similar to other hackathons or innovation processes that generate a range of low-fidelity, early-stage new concepts for improvements.

One of the contributions is in our development of lightweight evaluation protocols, with which to determine which of the prototypes had the most value for court partners to invest in piloting. We adapted user testing models from design practice and participatory research to be able to solicit input and ranking from a range of litigants and community members about which prototype should proceed to high-resolution development and pilot. Lightweight evaluations, which involve visual and game-based surveys, can be a more engaging and easy method for under-resourced groups to make sense of a spate of new innovation concepts.

A second contribution is an understanding of which types of interventions have value in the specific context of people navigating a complex legal challenge, in this case, a traffic ticket that they worry they cannot afford. Having conducted workshops and testing in a range of different civil use cases, our Lab's team has observed that different kinds of court contexts need different kinds of solutions. A lengthy, highly emotional divorce, or a fast, stressful eviction process, or a traffic ticket citation all may induce stress and intimidation among litigants, but they also seem to raise different legal and digital capability issues, potentially because they bring out different cognitive and emotional barriers in people. This paper documents patterns of solutions that have high promise for developing people's capacity to navigate the legal system, that combine visual design with higher-level service and system improvements.

¹ Hannaford-Agor, Paula, and Nicole Mott (2003) *Research on Self-Represented Litigation: Preliminary Results and Methodological Considerations*, Justice Journal, Vol. 24, No. 2, pp. 163–81. Available at: <https://www.tandfonline.com/action/journalInformation?journalCode=ujsj20>; Henderson, Amy C (2003) *Meaningful Access to the Courts: Assessing Self-Represented Litigants' Ability to Obtain a Fair, Inexpensive Divorce in Missouri's Court System*, UMKC Law Review, Vol. 72, No. 2, p. 571, doi:10.3868/s050-004-015-0003-8.

2. Can Design Improve People’s Legal Capability?

If better visual and communication design is brought to legal information materials, can this treatment improve people’s ability to navigate legal tasks? As more people in the civil justice system are self-represented,² meaning without a lawyer to represent and guide them, there has been a growth in the design and distribution of ‘self-help’ in the courts.

In the context of the US civil justice system, self-help generally means the resources given directly to litigants in order that they can educate themselves about the system, identify what options are open to them, do tasks like filling in forms and creating submissions to the court, and navigate the procedure of the lawsuit on their own. The primary goal of self-help materials is to develop people’s legal capabilities, in order that they understand the law, can apply it strategically to their own situation, and have the readiness to follow through on it.³ Self-help materials are typically distributed by courts, self-help centers, or legal aid groups, where people often seek out legal assistance, but where there are not resources or approval to give them full representation by a lawyer. Early evaluation of self-help in courts has shown how the centers have been highly used,⁴ but there has not been a detailed study about what kinds of materials are most effective at building capability. With a growth in self-help materials in the civil justice system, more researchers and practitioners have questioned what kind of self-help materials are more effective, including with the hypothesis that human-centered visual design could result in materials that better develop legal capability. This new stream of research takes self-help information products not only as an ‘afterthought to substantive and procedural law’, but rather as important elements of building legal capabilities and just legal systems, that are worthy of academic study.⁵ It’s not just enough that people without lawyers are receiving ‘some kind of legal help’. This line of study asks whether the format, mode, character, and visual style of this self-help can affect the key justice-related outcomes. Legal scholars and practitioners increasingly have piloted and evaluated new types of self-help materials, to answer the research question of have found a meaningful research question in this area of self-help materials.⁶ They are considering the practical materials in the self-help

² The Self-Represented Litigation Network has up-to-date estimates of the number of people going through the legal system in the US without lawyers, see Self-Represented Litigation Network. How Many Self-Represented Litigants? *SRLN Brief*, 2019, <https://www.srln.org/node/548/srln-brief-how-many-srls-srln-2015>

³ For more information on the concept and measurement of legal capability, see Balmer, Nigel J., et al. (2010) *Knowledge, Capability and the Experience of Rights Problems: Report for PLEnet*. Available at: <http://www.lawforlife.org.uk/wp-content/uploads/2010/05/knowledge-capability-and-the-experience-of-rights-problems-lsrc-may-2010-255.pdf>.

⁴ For an overview of these evaluations and toolkits, see Hough, Bonnie Rose (2002) *Evaluation of Innovations Designed to Increase Access to Justice for Self-Represented Litigants*, in Summit on the Future of Self-Represented Litigation, pp. 1–10.

⁵ Bertenthal, Alyse (2016) *The ‘Right Paper’: Developing Legal Literacy in a Legal Self-Help Clinic*, Law & Social Inquiry, Nov. 2016.

⁶ Owen, Charles L., et al. (2001) Access to Justice: Meeting the Needs of Self-Represented Litigants. Available at: <https://www.kentlaw.iit.edu/Documents/Institutes and Centers/CAJT/access-to->

landscape - paper handouts, written letters, websites, phone applications, and posters on the court wall - as intervention points to bring greater due process and equal access to the justice system. The information about court processes, options, and strategies that are contained in these self-help materials becomes a matter of study. How can it be presented with different visual and interaction techniques, to make it easier for people to engage with, understand, and deploy? Scholars like Greiner, Jimenez, and Lupica have looked to adult education literature and visual studies to discover new treatments for self-help - including cartoon figures and narratives - to examine if they increase people's willingness to open envelopes, learn about legal options, and deploy strategies to respond to them.⁷

This work in the civil legal justice system links with study in more areas of bureaucracy and strategic financial, civic, and planning decision-making. The Common Cents Lab, for example, considers behavioral and visual interventions that can increase people's ability to navigate the financial system, and get to well-being.⁸ The Simplification Centre focuses on document design, typography, and diagrams to transform government documents (like parking ticket violation notices, tenancy agreements, or penalty charge notices) into more usable, clear, and engaging information products.⁹ The Center for Urban Pedagogy transforms public education materials for urban issues, government programs, and rights protections into colorful, visual, dynamic brochures and posters, to make these complex materials into ones that are more likely to be used and understood by people who aren't close to government.¹⁰

Government applications and communications themselves have been redesigned, using a combination of human-centered design research and visual design principles, to improve people's outcomes with them. In Michigan, the Department for Health and Human Services went

justice-meeting-the-needs.pdf; Greiner, D. James, et al. (2017) *Self-Help, Reimagined*, Indiana Law Journal, Vol. 92, No. 3, 2017, pp. 1119–73. Available at: <https://www.repository.law.indiana.edu/ilj/vol92/iss3/6/>; Greiner, James, and Andrea Matthews (2015) Problem of Default, Part 1. Vol. 434, No. 1973; Hagan, Margaret D. (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 Equality, Vol. 6, No. 2, pp. 199–239. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=318610; Mastarone, Ginnifer L., and Susan Feinberg (2007) *Access to Legal Services: Organizing Better Self-Help Systems*, in 2007 IEEE International Professional Communication Conference, Ieee, Oct. 2007, pp. 1–5; Clarke, John A., and Bryan D. Borys (2011) *Usability Is Free: Improving Efficiency by Making the Court More User Friendly*, Future Trends in State Courts. Available at: <https://ncsc.contentdm.oclc.org/digital/collection/ctadmin/id/1844/>; Denvir, Catrina (2016) *Online and in the Know? Public Legal Education, Young People and the Internet*, Computers and Education, Vol. 92–93, pp. 204–20; Morris, Vincent (2013) *Navigating Justice: Self-Help Resources, Access To Justice, and Whose Job Is It Anyway?* Supra, Vol. 82, pp. 161–81; Salter, Shannon, and Darin Thompson. (2016) *Public-Centered Civil Justice Redesign*, McGill Journal of Dispute Resolution, Vol. 3, pp. 113–36.

⁷ See Greiner et al. (2017).

⁸ Center for Advanced Hindsight | Duke University. *Common Cents Lab*. 2019, Available at: <https://advanced-hindsight.com/commoncents-lab/>.

⁹ The Simplification Centre (2019). Available at: <https://www.simplificationcentre.org.uk/>.

¹⁰ The Center for Urban Pedagogy (2019). Available at: <http://welcometocup.org/>.

through extensive user research about how people apply for public benefits, and used this research in combination with visual principles to both streamline, clarify, and shorten the form people use to apply, and the digital experiences of this.¹¹ The national non-profit Code for America has been using similar methodologies to change how people apply for food assistance with improved design.¹²

Those working on improving privacy policies, terms of service, and consumer contracts have also invested in how visual and interaction design can enhance people's engagement with complex information. Like legal self-help, these information products demand people to learn unfamiliar concepts, figure out what options they have, and decide how to deploy this information to best protect themselves. Scholars and practitioners have been looking to visual design treatments, as well as new interaction designs, to increase people's comprehension and deployment of privacy and contract information.¹³

The design space for this general business-to-consumer contractual terms has blossomed with pattern libraries, best practices, and examples of successful implementations.¹⁴ Out of privacy and consumer contract design, some of the most prominent visual techniques have been diagrams, timelines, comparative charts, and layered notices, that can allow users to more easily digest large amounts of information and compare options.¹⁵ In addition to this new growth of experimentation with how consumer contracts are communicated, there is increasing amounts of controlled experimentation in lab settings to determine the effectiveness of different visual design treatments.¹⁶

¹¹ Quaintance, Zack (2018) *Michigan Scales Back Massive Applications Process with Human-Centric Design*. Government Technology. Available at: <https://www.govtech.com/health/Michigan-Scales-Back-Massive-Applications-Process-with-Human-Centric-Design.html>.

¹² Quaintance, Zack (2017) *Going National: Code for America's Integrated Benefits Initiative to Roll Out Across the Country*, Government Technology. Available at: <https://www.govtech.com/civic/Going-National-Code-for-Americas-Integrated-Benefits-Initiative-to-Roll-Out-Across-the-Country.html>.

¹³ Gunaratne, Junius, and Oded Nov (2017) *Using Interactive 'Nutrition Labels' for Financial Products to Assist Decision Making under Uncertainty*. Journal of the Association for Information Science and Technology, Vol. 68, No. 8, pp. 1836–49; Kelley, Patrick Gage, et al. (2009) *A 'Nutrition Label' for Privacy*, in *Proceedings of the 5th Symposium on Usable Privacy and Security - SOUPS '09*, p. 1; Calo, M. Ryan (2012). *Against Notice Skepticism in Privacy (and Elsewhere)*, Notre Dame Law Review, Vol. 59, No. 2011, pp. 1–51.,

¹⁴ Schaub, Florian, et al. (2015) *A Design Space for Effective Privacy Notices*, in Eleventh Symposium On Usable Privacy and Security (SOUPS 2015), pp. 1–17; Haapio, Helena, et al. (2018) *Legal Design Patterns for Privacy*, in Erich Schweighofer et al. (Eds), *Data Protection / LegalTech. Proceedings of the 21th International Legal Informatics Symposium IRIS*, pp. 445–50. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3144250;

Rossi, Arianna, Ducato Rossana, Haapio Helena, and Passera Stefania (2019). *When Design Met Law: Design Patterns for Information Transparency*, *Droit de la consommation*, Vol. 122-123, No. 5, p. 79-12.

¹⁵ See, for example the patterns proposed and tested in Passera, Stefania (2018). *Flowcharts, Swimlanes, and Timelines: Alternatives to Prose in Communicating Legal-Bureaucratic Instructions to Civil Servants*, *Journal of Business and Technical Communication*, Vol. 32, No. 2, pp. 229–72.

¹⁶ Omri Ben-Shahar, , and Chilton Adam (2016) *Simplification of Privacy Disclosures: An Experimental Test*. The Journal of Legal Studies, Vol. 45, No. S2, pp. S41–67, doi:10.1086/688405; Hagan, Margaret (2016) *User-Centered Privacy Communication Design*, in Symposium on Usable Privacy and Security (SOUPS), pp. 1–7. Available at: <https://ssrn.com/abstract=2981075>; Leon-Najera, Pedro Giovanni (2014) *Privacy Notice and Choice in Practice, a*

As more research and live pilots are being run in the civil justice space, there is an opportunity to look at these adjacent fields - of privacy policy design, consumer contract design, benefits applications, policy communication design, and the design of government communication with citizens - both for concrete inspiration on how to make self-help materials better, as well as the creation of a network with a set of common resources and practices on how to do this design well.

This paper contributes to the blossoming of self-help design work and evaluation in the civil justice system, with a case study of a human-centered design process to create more effective self-help in the specific domain of traffic ticket violations. What are the patterns that people are most drawn to, that they find most helpful, and that they can use to enhance their legal capability? In past work, the author has scouted possible design intervention opportunities,¹⁷ and this paper goes into greater detail on how these abstract principles and concept designs can be developed into prototypes for early stage evaluation. This case study can be combined with other such application and pilot studies, to determine which kinds of visual and interaction design can best enhance self-help materials' ability to build people's legal capability.

3. Design for Legal Capability in the Traffic Court Use Case

Can different presentations affect people's ability to engage, understand, and act on self-help? In an earlier set of workshops and tests, the author had worked with a team to identify common visual and interaction design techniques that could improve self-help materials' effectiveness.¹⁸ Out of that early exploration, then the team at Stanford Legal Design Lab¹⁹ turned to create more refined prototypes that could be evaluated in lab settings, to better research which treatment improved legal capability.

This detailed work on new designs for self-help was focused on a particular part of the legal system - traffic court, in which people have been given citations for their traffic activity and now must respond by either challenging the citation or agreeing to it - and, either way, figuring out how to deal with the consequences of the ticket and the legal process around it. At the very least, the citation will cost people money in the form of a fine to pay. But if they miss deadlines in the ticket process, or are not able to pay this fine, then they can also be charged court fees (and, in some jurisdictions have their driver's license suspended or a bench warrant issued for their arrest). These collateral

Dissertation. Carnegie Mellon University. Available at: <http://repository.cmu.edu/dissertations>.

¹⁷ See Hagan (2018) at note 6, and Hagan, Margaret, and Miso Kim (2018) *Design for Dignity and Procedural Justice*, Advances in Intelligent Systems and Computing, Vol. 585, pp. 135–45, doi:10.1007/978-3-319-60495-4_15.

¹⁸ Hagan, Margaret, and Kursat Ozenc (2020). *A Design Space for Legal and Systems Capability*, Design Issues, *forthcoming*.

¹⁹ The Legal Design Lab is a research and design group at Stanford Law School and Institute of Design that partners with various courts and legal aid groups to develop new technologies and interventions for the civil justice system, test them with stakeholders, and pilot them. See more at <https://law.stanford.edu/organizations/pages/legal-design-lab/>

consequences make traffic court potentially quite harmful to a person's financial, legal, and social well-being.²⁰

With this context of traffic court and the stakes of effectively responding to a traffic ticket, our Lab team hosted a two-part intensive design course in Spring and Autumn 2017 to create and test new self-help interventions.²¹ What could we propose, create, and test to see how to build peoples' legal capability to navigate this system, and to protect themselves? Also, what are systemic changes that can make the system more navigable and less punitive? We ran this class in conjunction with stakeholders who work on traffic court and collateral consequences more broadly: the National Legal Aid and Defenders Association, the National Center for State Courts, the Judicial Council of California, and the East Bay Community Legal Clinic.

The class was focused on a particular court setting, in the city of Oakland's Alameda County Superior Court's traffic court. We had a mix of university graduate students (from law, business, education, and product design) in partnership with our stakeholder partners, and they formed teams and used a human-centered design process²² to scout new opportunities for improving self-help and legal capability. We had four teams, each with 4-5 people. Each team was responsible for doing court observations, stakeholder interviews, synthesis work, and then generate and make basic prototypes of their most promising ideas for interventions in the system.

In the first round of our design work, teams identified a broad landscape of potential interventions through literature reviews of policy papers and scholarly research and interviews with experts, including those partnered with our class. Four main categories of interventions for traffic court system improvements emerged: legal and court rule changes; new services to make court more accessible; better guidance regarding best practices and legality; and new self-help tools to enhance legal capability. Teams proposed changes to the laws that would reduce fines and fees, or prevent criminal consequences from arising after a problem with traffic tickets. They proposed new services in which courts would go into communities, where multiple government agencies would come together in single 'fairs', or where there would be amnesty programs for people who had outstanding issues. For new guidance, they proposed that federal agencies like the DOJ issue stronger guidance, and organizations provide more standardization of oversight and data collection.

The initial group of self-help tools proposed were as follows:

²⁰ Attention to court fines and fees, and their collateral consequences, has skyrocketed after the protests in Ferguson, Missouri drew attention to how municipal courts were using fines to extract money from citizens. See, Shapiro, Joseph (2014) In Ferguson, Court Fines And Fees Fuel Anger, *NPR All Things Considered*. Available at: <https://www.npr.org/2014/08/25/343143937/in-ferguson-court-fines-and-fees-fuel-anger>; California State Assembly, Assembly Committee on Public Safety (2019) *Financial Implications of Criminal Justice Fines and Fees*. Available at: [https://apsf.assembly.ca.gov/sites/apsf.assembly.ca.gov/files/Financial Implications of Criminal Justice Fines and Fees.pdf](https://apsf.assembly.ca.gov/sites/apsf.assembly.ca.gov/files/Financial%20Implications%20of%20Criminal%20Justice%20Fines%20and%20Fees.pdf); Resnik, Judith, et al. (2018) *Who Pays? Fines, Fees, Bail, and the Cost of Courts*. SSRN Electronic Journal. doi:10.2139/ssrn.3165674.

²¹ Legal Design Lab. (2017) *Design for Justice Sprints*. Available at: <http://www.legaltechdesign.com/design-for-justice-sprints/>.

²² Hagan, Margaret (2017) *Design Process for Lawyers*, Law By Design. Available at: <http://www.lawbydesign.co/en/design-process/#1>.

- Online forms and calculators that would help a person determine if they had an ‘Ability to Pay’ option, to get their court fine reduced if they filled in an extra form;
- Traffic ticket resolution systems, in which a person could virtually respond to the ticket and make arguments, submit evidence, and do other court tasks online;
- Guides to the court process, to explain the ‘magic words’ to say in front of the judge and what would happen at arraignment and trial;
- A coaching buddy that would accompany a person like a lawyer, but as a virtual, automated tool.

The overall concept was to create self-help that could come in many forms, whether it be as small as a business card, large as a wall map, or interactive as a mobile website. The central hypothesis was that if people understood the basics of how traffic court worked, and how important it was to navigate it wisely (to avoid collateral consequences), then the intervention could reduce rates of Failures to Appear and Failures to Pay tickets. In addition, it could help increase numbers of people who were eligible for an ‘Ability to Pay’ discount, who would take the extra steps needed to apply for this benefit.

Our four teams had run interviews on site at court over 2 days, with approximately 25 people waiting in line for arraignments for their traffic tickets, that lasted between 5 and 15 minutes, in order to get feedback on different ideas for self-help. From these brief feedback sessions, the best self-help guides would seem to be those that were simple, focused on actions and consequences, and that made clear what the ‘standard, right path’ was for most people. People in court were requesting transparency about how the overall court process would go, as well as exactly what would happen in at the clerk’s window or in traffic court. Most were not aware of what their options were, or that there was a new Ability to Pay discount option. From an engagement point of view, a troubling observation in the interviews was that most people in the system just wanted their case to be over and get out of court. This indicated to us that any self-help would have to overcome a fundamental barrier of people wanting quick, painless experiences, and not necessarily engaging with more process or educational materials that might assist them in protecting their best interests (like spending less on the ticket, contesting incorrect tickets, or challenging the system itself).

These observations led the design team to focus on creating self-help that could make traffic court users more aware, more confident, and more likely to take full advantage of the system’s services to protect their well-being. We led brainstorm sessions, and shared our initial catalog of ideas to stakeholders. Their feedback then guided us towards a more refined set of ideas. In the second phase of our design process, our teams created four different interactive prototypes that would embody four different modes of self-help.²³

²³ Because of the rapid timing of our class, the teams chose not to pursue ideas involving policy or legislative change, or large-scale new services. Self-help materials were more ‘prototype-able’ and easier to produce without gathering large amounts of funds, stakeholder involvement, or political will. We noted that this dynamic of the design process should be concerning; that the speed and mandate to prototype can drive teams towards smaller-scale solutions rather than large systemic interventions.

The goal was to determine which kind of functionality, visual presentation, and character of the self-help intervention would be most engaging to potential users. The four developed prototypes were:

1. Master Dashboard for Traffic Tickets. This would be a digital platform that would integrate self-help into actions to take care of a ticket. The dashboard would have a single, federated search of all jurisdictions' lists of traffic tickets. A person could search there directly to see all the problems they may have to tackle. Once they see their tickets, they are then presented self-help support, to automatically draft letters to 'appear' in court to address the ticket, to apply for a financial discount, or to meet any deadline. The driving concept here was that users wanted this master-view of what their problems were, and always felt in the dark in the system. This self-help design would give them a personalized to-do list to take action on, and would integrate education and task help directly into this personal list (rather than, as usual, separating it into its own 'education' module).

2. Visual Paper Guides. This prototype consisted of paper brochures and wall maps that give a bird's eye view of the process and narratives of traffic court. It has a single figure (a triangle man, inspired by the Harvard Access to Justice Lab's Blob character),²⁴ who the visuals show going through comic strip panel narratives of how to apply for an Ability to Pay reduction (a storyboard design pattern) and through a process map of options at the traffic court arraignment (a flowchart design pattern).²⁵

3. Digital Conversation to get an Ability to Pay Reduction. Another digital prototype, this one focused on making it easy for a person to ask for their traffic fine to be reduced, based on their financial circumstances. It would replace a paper form that had little guidance. Instead, it would be a series of click-through screens, that would ask a person about their situation and then would let them know if they were eligible for the reduction and then submit their request to the court without any paper. This prototype was guided by a conversational design pattern, to engage people with quick (though automated) backs-and-forths, and education and examples integrated into the conversation. It also gives them actionable pathways as a payoff for engaging -- especially around 'saving money', which our interviews had indicated was a key function that would attract people's attention.

4. Text Message Procedural Coach. Our final prototype took the conversational design pattern to the SMS format on people's phones. This would be a general coach to the entire traffic court process, that would give reminders about key deadlines, tips about what to do in court, answer frequently asked questions, and give other procedural

²⁴ Milano, Brett (2017) *Harvard Law School's Access to Justice Lab Aims to Challenge Legal Exceptionalism*, Harvard Law Today. Available at: <https://today.law.harvard.edu/harvard-law-schools-access-justice-lab-aims-challenge-legal-exceptionalism/>.

²⁵ Our team borrowed from our self-help design patterns from previous workshops, and the pattern library that emerged from them [see Hagan and Ozenc, (2020) at note 18].

guidance through automated message flows. This self-help design has the conversation pattern of the previous prototype, but has functions that are more broad -- to prepare for their day, have a mixture of peer and advocate companionship, and to make sure they feel on top of the entire case. It should automate and personalize the self-help guidance.

In Summer 2017, our Lab team created working prototypes of all four of these types of self-help interventions. We used the same legal and procedural content for the same jurisdiction, Alameda County. The difference in the four options was in the ‘treatment’ of how this was presented to users, what kind of design pattern and functions were offered to the user, and what mode or channel it was offered through.

4. Lightweight, Exploratory Self-Help Design Evaluation

Because we were still at an exploratory stage in the overall design process, we did not run a strictly controlled experiment. Rather, we had a semi-structured lab testing environment, to evaluate the four different kinds of self-help interventions against each other. The goal of the evaluation was not to prove conclusively that one intervention was ‘better’ than all others, but rather to solicit additional qualitative and quantitative data from a range of different court users, to inform the stakeholders’ decisions of which intervention should move forward. With limited resources to pilot a new self-help intervention, which of the four visual and interaction modes in the prototypes had the most promise to build legal engagement and capability? And how do we make these four initial prototypes to be more engaging, intuitive, and impactful?

Our lab tests took place over the course of three days, with the help of our partner organizations and 10 university students. The lab tests occurred both at the university, with court users recruited from the online platform Craigslist, and at a legal aid office in Berkeley, where our partner group helped us recruit participants from their client list. All participants had been through a traffic violation and court experience in the past.

We ran testing sessions with 17 participants. Each participant had 2-3 members of our team conducting the sessions. Each session lasted for approximately 1 hour. The team would learn about the participant’s past experiences with traffic court; then go through each of the four prototypes to ensure the participant understood them. We presented the participants with each of the four different prototypes. After encountering each, we asked for them to rank the prototype on three criteria: likeliness to use it; likeliness it would improve the ticket outcome; and ease of understanding. In a final task, the participants were given a fictional \$100, and asked to allocate it among the 4 ideas based on how much value they had. This allowed us to quantify which of the ideas were being selected as most valuable to continue. In addition, the teams took extensive notes of the recommendations, complaints, and other ideas that emerged. The participants were also encouraged to mark up changes and notes directly onto the prototype, in the spirit of co-designing a better version (or a new idea altogether).

5. The results of our Testing

Our most direct findings from the testing were quantitative. We gathered the Likert-scale evaluations of each prototype (on a scale of 1 to 5), as well as comparative rankings of the prototypes against each other (with each participant spending \$100 fake dollars among the 4).

1. The Master Dashboard was ranked very high, and was expected to offer the most improvement of outcomes.

Likelihood to Use: 81/85: 95.2% agreement

Likelihood to improve outcomes: 71/85: 83.5% agreement

Ease of understanding: 79/85: 92.9% agreement

2. The Visual Guides were considered the most likely thing to engage with, and easy to understand—though there was still doubt about how well they could improve the person’s outcomes.

Likelihood to Use: 81/85: 95.3% agreement

Likelihood to improve outcomes: 63/85: 74.11% agreement

Ease of understanding: 77/85: 90.6% agreement

3. The Digital Ability to Pay tool scored well on usability, but many people did not think it would improve their outcome after they failed to qualify for a reduction:

Likelihood to use: 77/85, 90% agreement

Likelihood to improve outcomes: 63/85: 74% agreement

Ease of understanding: 76/85: 89% agreement

4. The Text Message coach had the lowest likelihood of use, though it went up between the testing days, as we fixed some bugs and improved the conversationality of the experience. We saw more apprehension about this tool than the others—with testers questioning who was behind the conversation, and finding the structured back-and-forth to be annoying.

Likelihood to Use: 57/75: 76%

Likelihood to improve outcomes: 50/75: 66.7%

Ease of understanding: 52/75: 69.3%

When asked to divide a fictional \$100 between the four different concepts, participants disclosed to us how they valued the versions of self-help in comparison with each other. Taking into account that some of this spend was based on the level of refinement and the technical performance of the tools, the ranking exercise still indicated two different classes of self-help materials.

#1 Value: Digital Ability to Pay tool: average spend of \$35

#2 Value: Ticket Lookup Dashboard + Letter Generator: average spend of \$31

#3 Value: Visual Guides: average spend of \$18

#4 Value: Text Message Coach: average spend of \$16

This list indicated where court users would want the court and legal aid stakeholders to invest their resources, to create self-help that would be more impactful for them. The discussions during the testing sessions indicate some of the reasons underlying these preferences. People valued the tool that would give them a direct financial reduction in their fine as the most

valuable thing. The other tools could help them understand the system, get its logistics nailed down, and see their status. But the most valuable intervention would be the tool that helped them directly get a reduction of their fine—or at least, tell them directly if they can get this reduction or not. Our team pulled out a few major themes about how people evaluated the prototypes, and what might lead to more effective self-help visuals and tools:

- Limits of Visual Only. People want transparency coupled with action-oriented tools for their ticket situation. Visual stories, diagrams, and maps can give transparency. But the digital tools have an advantage in allowing for action to be taken directly to make an application, respond to a claim, or otherwise ‘take care of things’.
- Visuals for Confidence in a System. People want a bird’s eye view of the process, so they can navigate it. This is where visuals have strong value, in giving a system view that translates into a confidence around understanding how it works. The visual guide—with a process map, and a storyboard of a character taking various pathways—acts as both an orientation and a strategy document. People work their way through different paths, like a board game, to figure out what consequences they might face and which path best fits them.
- Different Types of Self-Help at Different Stages. A visual can help people at the beginning of the process to get their bearings. We had several testers who had been through over 10 traffic tickets, and still had not been able to understand how the court process worked—what options they had, or what effects their choices might have. We learned that people appreciate visual maps and storyboards at the start of the process. But then they want action tools, interactive checkups, and coaching. These various interventions can be coordinated into a flow of services, that people can use throughout their journey.
- Staging Tasks and Phases. They want interactive, step-by-step, on-demand services to get the process taken care of accessibly. This corresponds to privacy research, that also talks about layering and staging information,²⁶ and making disclosures more relevant to context.
- Messaging around Money. The frame of financial help and saving money is a very powerful one. If a self-help tool is presented as something to save money, and less so, time, then it’s likely to hook a user more than one framed as education or preparation.
- A Lawyer That’s Not a Lawyer. The holy grail—what our participants wanted most of all—was a custom diagnosis of their case and strategy plan to follow. To the lawyers among us, we recognize this as traditional, high-touch legal services: a person goes to see a lawyer, tells them about their situation, and the lawyer consults their anecdotal experience, research tools, and network of other lawyers to devise the best plan for the person. Of course, full service lawyers are very expensive.

Our participants were hungry for a low-cost version of a lawyer-like experience—even if they did not want an actual lawyer. Rather than a lawyer, in fact, they wanted a data-driven tool that could look at the stats from past cases and options litigants took, and then see what the

²⁶ Center for Info. Policy Leadership (2007) *Ten Steps to Develop a Multilayered Privacy Notice*. Available at: http://www.informationpolicycentre.com/files/Uploads/Documents/Centre/Ten_Steps_w_hitepaper.pdf; Leon-Najera (2014) at note 16; and McDonald, Aleecia M., et al. (2009) *A Comparative Study of Online Privacy Policies and Formats*. Available at: <http://www.robreeder.com/pubs/PETS2009.pdf>.

statistics told them would be best to do.

- But what about me? They also wanted to know the personalized consequences any action would have for them. With each tool, they wanted it to tell them the specific consequences they'd face for key factors: money they'd have to spend, harm to their driver's license or records, their credit score, their insurance premiums, or criminal implications.

These findings were all brought back to the stakeholders to discuss pilots. As the visual guides tested as having some value, and the prototypes were close to ready to be piloted as brochures and maps, they were green-lit for pilot very quickly. They are currently in use in Alameda County and San Francisco County Superior courts. The text message coach was not ready for immediate pilot, but a refined version of it, using only broadcast reminders of the ticket process, was approved for pilot in San Mateo County Superior Court, and it is being studied through a randomized controlled trial to understand its impact on people's appearance rates.²⁷ The California Judicial Council is piloting a version of the Ability to Pay digital tool, to be debuted in several counties around the state. The fourth prototype, of the Master Dashboard, is not yet technically feasible because of a lack of data standards and sharing agreements among courts.

6. Conclusions

In the pilots moving forward, the design work was a successful generator of interventions with promise. The exploratory research shared in this case study demonstrates how research questions about the best design of self-help can be answered, partially, by multi-stakeholder research, co-design, and lab testing techniques. Early stage research work can ensure that the interventions that are being piloted (at greater expense and length) are more user-centered and likely to be impactful, than if a small team had tried their best to make a new intervention and then immediately established a pilot.

Our qualitative reviews also built more hypotheses about when self-help, and visual self-help, can be of use in building legal capability. Visuals are more engaging than text in communicating how a process works and what options are available, but they lack actionable steps to save money, speed things along, or get things done. This is where a combination of visual design with interactive platforms, directly linked into legal aid or court systems, can have a powerful value proposition to users. Not only can people learn and prepare, they can also get it over with -- which is one of the key insights we learned about building legal capability during this design work. People want to protect themselves and want legal capability in order to do so. But they do not want to engage in lengthy, generic, and detailed educational experiences to build legal capability. They would rather have this capability-building be automated, or be woven in through a digital or in-person service, in which the main function is getting it over with.

This paper argues that the design of self-help tools should be a priority for both practitioners' work and academics' study. As more court officials, legal aid staff, self-help center directors, and clinical attorneys all aim to

²⁷ Veit, Cooper (2019) *San Mateo Traffic Court to Pilot Text Message Reminder Program*. The Stanford Daily, 28 May 2019, Available at: <https://www.stanforddaily.com/2019/05/28/san-mateo-traffic-court-to-pilot-text-message-reminder-program/>.

efficiently and effectively communicate how the legal system works to people -- the forms, visuals, and messages of the self-help will have a profound effect on its effectiveness. Our community needs more research, and more types of early-stage exploratory research, in order to determine how limited resources should be spent to make these resources better at building legal capability and engaging people in the legal system.

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