JOAQUIN SANTUBER
HASSO-PLATTENER-INSTITUTE.
UNIVERSITY OF POSTDAM,
POSTDAM, GERMANY.
JOAQUIN.SANTUBER@HPI.DE

LINA KRAWIETZ
BERLIN, GERMANY.
LINA@THISISLEGALDESIGN.COM

Authors' note
One of the authors received funding provided by the Hasso-Plattner-Foundation (Germany) through the HPI-Stanford Design Thinking Research Program. The interviews and access to data were possible thanks to a Research Cooperation Agreement with the Corporación Administrativa del Poder Judicial de Chile. We would like to thank those who supported the project, and specially María José Hermosilla Zúñiga and Nicolás Browne Arellano for their support during data collection and interviews.

Fecha de recepción: 16/08/2021
Fecha de aceptación: 8/11/2021
Cómo citar: Santuber, J. & Krawietz, L. (2021). The Sociomateriality of Justice: A Relational Ontology for Legal Design. *RChD: creación y pensamiento, 6*(11), 1-19. https//doi.org/10.5354/0719-837x.2021.64624

Revista Chilena de Diseño,
RChD: creación y pensamiento
Universidad de Chile
2021, *6*(11).
http://rchd.uchile.cl

The Sociomateriality of Justice: A Relational Ontology for Legal Design

La sociomaterialidad de la justicia: una ontología relacional para el Diseño legal

Abstract. Legal and justice Design is best positioned as a post-disciplinary and nomadic practice. This paper offers a relational ontology for Legal Design practices and studies. Building on conceptual frameworks from gender studies, philosophy, and organizational research, we account for the sociomateriality of justice in Chilean courts. With this, we aim to overcome the limitations to the impact of such studies on justice imposed by their disciplinary fixation in terms of methodologies, and onto-epistemologies. In this regard, we understand the sociomateriality of justice as performative practices, configurations of human and non-human agency, situated action and affects, and apparatuses and diffraction. For each we provide examples from an in-depth case study on Chilean courts, the Communications Department of the Supreme Court, and a law clinic working with victims of sexual abuse. Our contribution is twofold. First, we draw on diverse literature to propose a relational approach to Legal Design, grounded in sociomateriality. Second, with the case study, we advance the understanding of the emergence of local practices in courts and their materiality. In addition, we highlight the implications for Legal Design practice and studies.
Keywords: Legal Design, non-exclusionary justice, performativity, relational ontology, sociomateriality

Resumen. El Diseño para el derecho y la justicia está mejor posicionado como una práctica postdisciplinaria y nómade. Este trabajo ofrece una ontología relacional para las prácticas y estudios de Diseño legal. A partir de marcos conceptuales de estudios de género, filosofía e investigación organizacional, damos cuenta de la sociomaterialidad de la justicia en los tribunales chilenos. Con ello, pretendemos superar las limitaciones al impacto de este tipo de estudios en la justicia, impuestas por su fijación disciplinaria en términos de metodologías y onto-epistemologías. En este sentido, entendemos la sociomaterialidad de la justicia como prácticas performativas, configuraciones de la agencia humana y no humana, acción situada y afectos, y aparatos y difracción. Para cada uno de ellos proporcionamos ejemplos de un estudio de caso en profundidad sobre los tribunales de justicia chilenos, el Departamento de Comunicaciones de la Corte Suprema y una clínica jurídica que trabaja con víctimas de abuso sexual. Nuestra contribución es doble. En primer lugar, nos basamos en literatura diversa para proponer un enfoque relacional del Diseño legal, basado en la sociomaterialidad. En segundo lugar, con el estudio de caso, avanzamos en la comprensión del surgimiento de prácticas locales en un tribunal y su materialidad. Junto con eso, destacamos las implicaciones para la práctica y los estudios de Diseño legal.
Palabras clave: Diseño legal, justicia no excluyente, ontología relacional, performatividad, sociomaterialidad

Introduction

Legal Design as an emergent set of practices and studies, finds itself amid post-disciplinary movements in which previously defined communities and professions or disciplines become more fluid, and the boundaries start to blur (Pernecky, 2019). Thus, Legal Design can be seen as a nomadic practice (Wakkary, 2020) in the sense that "is 'non-unitary' and can be seen as a non-consensual framework that gives practitioners the freedom to move between different modes of practice, outside the conventional boundaries of a discipline" (Hoskyns & Stratford, 2017, p. 408). As a post-disciplinary practice, it resists and critiques its roots, while showing features that reference the disciplines it builds from. In this sense, it is not Law + Design, or the other way round, but novel or previously invisible ways of creating knowledge that overcomes the limits imposed by the discipline's gatekeepers. Thus, it does not belong to the Law Faculty, nor does it belong to the Design School. However, all practices have a historicity (Barad, 2007) and a traceable genealogy (Hultin, 2019). In this regard, Legal Design studies and practices are born orphan yet, like any other practice, have a genealogy.

Almost four decades ago, Nigel Cross tried to create a space for Design as a discipline, the third force along the well-established natural sciences and the humanities (Cross, 1982). According to Cross, the discipline of Design is concerned with the conceptualization and creation of new things, with attention to the **material culture** of making and doing. In this connection to the technological world, on the phenomenology of designing, Donald Schön refers to designers' practice as a **reflective conversation with the materials of the situation** (Schon, 1992).

Within the humanities, Law as a discipline and profession has been concerned with the **social culture**, with a normative orientation into ruling, judging, and governing. A recent characterization of the legal profession in relation to technology, emphasizes that the legal practice is driven by a public service bounded by the values of the rule of law, access to justice, and ultimately social peace (Webb et al., 2019; Webley et al., 2019). This has been also highlighted in the notion of *juristic practice* from Cotterrell (2017) applied to Legal Design by Perry-Kessaris (2019). A juristic practice is one characterized by a "commitment firstly, to the 'well-being' of law, and specifically to its 'enrich[ment] and sustain[ment]' rather than its mere exploitation, 'unmasking or debunking'; and secondly, to 'law as a practical idea' rather than merely an abstract phenomenon, and specifically to its 'meaningfulness as a social institution" (Perry-Kessaris, 2019, p. 188).

In the last years, we have seen the emergence of a broad array of Legal Design practices and studies (Vela & Buitrago, 2021). This valuable diversity is brought in from different approaches and methodologies, and Legal Design is in turn applied to many of them. Some examples under the Legal Design rubric are the relation to sociology, Design, and law (Santuber et al., 2019), or a recent work doing sociolegal research in design mode (Perry-Kessaris, 2021), or a multisensory approach to Law (Brunschwig, 2021), pattern languages to data privacy (Haapio et al., 2018), a set of psycho-physiological methods for Legal Design (Santuber, Krawietz, et al., 2020), to name some

examples from literature. This emergent theoretical and methodological assemblage speaks of pluralism in the practices and studies on Legal Design. It implies a nomadic practice of continuous shifting from one territory to another (Deleuze & Guattari, 1987), a practice that moves across territories (Wakkary, 2020). Yet it articulates itself around the purpose of creating legal relations that serve people and society. In this liminal space that Legal Design practice and studies occupies, there are remanent features of the two disciplines it originates from. With this genealogy in mind, we enunciate the common elements of the Legal Design assemblage:

> Legal Design refers to multiple practices and studies concerned with the creation of novel — or the redesign of existing — legal configurations, **a relation between people, processes and technology** with a purpose driven by a public service bounded by agreed upon values such as the rule of law, access to justice, and social peace.

However, those agreed upon values are empty promises without a needed cognitive justice, that claims the recognition of diverse knowledges and ways of being (Santos, 2015, 2017). In this regard, Legal Design ought to embrace different forms of knowledge than can account for different aspects of the **inexhaustible diversity of human experience** that cannot be comprehended by western-euro-centric theories (Santos, 2015). Furthermore, it needs to resort to local epistemologies, community-led practices, the worldviews of the marginalized, the oppressed, and disabled groups which are being excluded from the everyday designs in our society (Costanza-Chock, 2018). Designing from that epistemological diversity is a step forward, crossing the line from exclusionary justice to being accessible.

Likewise, policy frameworks, guidelines, directives, goals and objectives define what is people-centered justice. However, they all share an abstraction of what people-centered justice is, and does not account for the materiality that excludes people from justice. In this sense, legal discourses take materiality for granted, and focus their action on general and abstract principles and frameworks, leaving the judicial interfaces open. Translating into the everyday lives of people, implies reworking relations between people that are enacted in discursive practices, which are possible because of a materiality that produces it (Orlikowski, 2007). Previous work has accounted for the materiality of justice from an architectural point of view (Mulcahy, 2011), and more recently addressing the "microphysics of power through which social space [justice] is produced" (Mulcahy & Rowden, 2019, p. 14). Our emphasis is on the multiple, visible and invisible, materialities and their co-constitution of justice. In this regard, when designing for justice we don't engage with an abstract conception of justice, principles, and objectives. Instead, we engage with the sociomateriality that produces the experiences of justice, from the worldviews and knowledges of those excluded. Furthermore, the sociomateriality of justice does not aim to address what justice is, instead how justice comes to be accessible or exclusionary in the relation between people, processes, and technologies. In this paper we show local enactments of justice, different ways of being, multiple worlds of judicial practices.

For that purpose, we build on a current discussion across Design, Technology and Philosophy, applying it to the field of Law, and specifically to Justice. In this paper we propose taking a relational ontology founded on sociomateriality, borrowing from philosophy and gender studies (Barad, 2007), and organizational and technology studies (Orlikowski, 2007). By doing this, we place the focus on emergent relationships, enacting material-discursive practices (Schultze et al., 2020) in the context of justice administration. We outline this approach by referring to concepts from literature, and provide for each an example that we have encountered when studying the sociomateriality of justice in Chilean courts.

Taking a Relational Ontology for Legal Design Studies

A relational ontology implies a focus not on the things but the relations between them. Not a focus on humans, as intentional subjects, but the entanglement of humans **with** more-than-humans (Barad, 2007; Braidotti, 2019; Haraway, 1997). In this regard, boundaries and delineations of entities are not pregiven or determined. Instead, they are enacted in discursive practices (Barad, 2007). A relational approach rejects dualities, mind and body, observer-observed, knower-known, and ultimately social and material (Hultin, 2019). Instead, it embraces enacted singularities, local resolutions of multiple possible worlds.

In recent work, a relational ontology or design has been proposed and discussed as a nomadic practice (Wakkary, 2020). Similarly, relationality has been proposed emphasizing the autonomy and the multiplicity of singularities found in different communities, i.e. indigenous communities in Chiapas, Mexico, conceptualized as designing for the pluriverse (Escobar, 2017). This approach has recently been discussed turning the attention to affects (Cruz Aburto, 2021).

In a corresponding direction in Law, studies on **legal pluralism** and the unofficial law, which looks at the coexistence of multiple **laws**/legal systems in one demographic group or geographic region (Griffiths, 2001). What is common in these approaches is the acknowledgement of different forms of knowledge generation, that go beyond dominant western epistemologies. Furthermore, justice can only be achieved by revalorizing the epistemological diversity present in different communities, especially those marginalized and colonized (Santos, 2015). From its early roots in colonization, legal pluralism is part of the contemporary legal systems' structures, with deep influences in recent societal problems, as shown in a recent study on water rights in Southern Chile (Cardoso & Pacheco-Pizarro, 2021). The attention to local and relational aspects of designing and justice, as well as pluralism in legal systems, shows a direction towards multiplicity and against an ambition towards generalization, uniformity and totalitarianism in our Legal Design practices and studies.

Sociomateriality

We draw on a practice-focused sociomaterial approach to makes sense of justice. The sociomateriality stance claims that "a practice can have no meaning or existence without the specific materiality that produces it"

(Scott & Orlikowski, 2014, p. 875). In this paper, we take a relational ontology to sociomateriality based on agential realist approach (Barad, 1996). Such an approach to sociomateriality has been developed by Karen Barad, at the intersection of feminist studies and quantum physics, grounded on a relational ontology. In this sense, sociomateriality is an entanglement without pregiven boundaries or distinctions. In this sense, there is no **being** to be encountered, no defined subject and objects, no social and no material. Instead, the social and the material are co-constituted, enacted in activities of doing (practice). Thus, the reality is made of emergent configurations, and boundaries are constantly enacted and re-enacted by the practice (performativity) in a constant **world-making** (Barad, 2007; Jones, 2014; Orlikowski & Scott, 2008; Østerlund et al., 2020). In other words, in a relational ontology, the sociomaterial entanglement implies inseparability between social and material, enacted in a practice or a doing, and performative intra-acting (Jones, 2014). This stance's unit of analysis are the "doings and sayings of entangled configurations through which phenomena are produced" (Schultze et al., 2020, p. 817). The concern of sociomaterial research is both on **what is occurring** and on **ways of occurring** (Cecez-Kecmanovic, 2016). In this sense, sociomateriality as a relational practice is in a constant -never ending- ceasing to be and becoming (Braidotti, 2019).

Methodology

In this paper we elaborate a relational ontology for Legal Design based on sociomateriality as an onto-epistemological approach. We ground it in three conceptual perspectives and one methodological perspective and apply them to justice. These perspectives on sociomateriality are: (1) **Performative Practices**, (2) **Configurations of Human and Non-Human Agency**, (3) **Situated Action and Affects**, and (4) **Apparatuses and Diffraction**. For each perspective, we provide three illustrative examples of those concepts. These illustrative situations come from a case study conducted in the context of the global pandemic during the years 2020 and 2021 in Chilean courts. We conducted an in-depth study of the digitalized practices and transformation of the judicial service delivery of the courts of justice. In this context, we were able to secure a research cooperation with the Supreme Court to study the role of digital technology in the emergency responses during Covid-19 in Chile. The Chilean judiciary system (Poder Judicial de Chile) is a unitary organization that operates across the country, in contrast to a federal court system. This means that it is one body with a high territorial distribution that serves a population of 18 million citizens. It is composed by the Supreme Court, 17 Courts of Appeals and 448 courts of first instance, with a total of 1,490 judges and more than 11,000 employees. In this project, we looked at four situated practices in the Chilean court system. The observed practices were 1) **a criminal and a civil court in Santiago**, (2) **the Communications Department of the Supreme Court**, and (3) **a law clinic working with victims of sexual abuse, especially children**. The data collected consists of thirty (30) interviews with front-line judicial officers and other stakeholders. As secondary data, we reviewed over a thousand pages of legal, regulatory and internal documents related to the Courts' organization, as well as audiovisual content extracted from the Chilean judiciary social media channels. All data was collected between April 2020 and August 2021.

Like the rest of the world, Chile and its Courts were hit by Covid-19 and in reaction they experienced strict lockdowns forcing them to completely change their work modality in a matter of days. In the following section we provide local resolution of judicial practices from those days. With this we aim to ground the implication of taking a relational approach to the sociomateriality of justice.

Analysis

1. Performative Practices

The sociomateriality of justice, implies that justice comes to be as an embodied way of doing, an activity of a situated community (Nicolini & Monteiro, 2016). Thus, justice as a practice it is not an object or a concept, it is rather a process, a happening, a way of doing and being. However, it is worthy of note that a doing is not solely the achievement of an intentional actor or a group of them. Practices are an emergent relation, a sociomaterial configuration. Thus, a practice is embodied, it is spatial —happening **somewhere**—; and temporal —occurring **somewhen**. A focus on practices means a focus on how justice comes to be, rather than what is. Hence, it has a historicity and a locality. From gender studies, the concept of **performativity** (Butler, 1993), has been brought to a wider application in organization research by Orlikowski (2010) via Karen Barad (2007). Performative practices enact realities in an iterative process, a repetition of positions in a situation that delineates their boundaries and exclusions (Barad, 2007; Butler, 1993). In this sense, justice is not a neutral phenomenon to be accessed. Instead, justice is enacted in sociomaterial practices that perform the experiences by being accessible or exclusionary. Work routines, written text, and spoken words are not representations or descriptions of a justice, but the enactment of that justice itself. Thus, judicial practices perform distinctions, enact boundaries, define how the relation between people, processes, and technologies comes to be, how certain groups are included or excluded from justice.

The Courts: In a civil court in Santiago, the morning routines were structured around the agenda maestra (the master schedule). This is a big size book located in the Court office, in which all hearings and appointments of the day are registered. The agenda maestra was opened every morning and based on what was in it, the work was organized. In the words of the judge, referring to the activities of the day, “what is not in the agenda maestra, does not exist”. A book with handwritten entries was an anchor of the court’s doings that revolve around it. It coordinated the hearings to be taken, the involvement of the officer and the judge, to call upon the users to come into the hearing room. The everyday routines in that Court were framed by a large common room with over ten officers and their desks, computers, and papers. The judge would walk around attending to specific issues, and officers would hand over drafts and manuscripts to be signed, by placing them on a metallic tray, la bandeja. This is how the Court members found themselves the day they were sent home to work remotely. The agenda maestra was reconfigured into a WhatsApp group, la bandeja into an email service provider, and the hearing room into a Zoom videocall. As recalled by a Court officer it was an emergent situation that changed the power dynamics both internally, in the Court, and with users. In this sense, the new

practices enacted new forms of exclusion in the workplace, marginalizing a group of Court members who did not have the digital competences.

Law Clinic: One of the central doings in the clinic is the practice of interviewing the victims before taking their cases. The interview with the victim is not a mean towards something, it is already the justice itself. Because of the cases they deal with —sexual abuse, with a special dedication to children— in the office there is a room specially equipped to host those interviews. Since this was no longer possible, the interviewing protocol switched to remote communications via videoconferencing platforms. This shift in the practice of interviewing victims implies a reconfiguration, a redefinition of the line of exclusion.

> Up to this point, what I have completely refused to do is to make these contacts with children [conducting interviews via videoconference]. In fact, when there have been very specific situations of children that have been urgent, I have preferred to contact them via telephone. Which is something more frequent for them. People talk on the phone, and they talk to their relatives, many times. But, trying to establish an intimate relationship with a child through a screen, it is hard. It's brutal for them because they are the experts at reading each other's bodies. (Psychologist working in the Law Clinic).

In this sense, the team of lawyers and a psychologist enact a form of justice by listening to the victims that come to them. And how the act of listening itself, the room, sharing the same space, or —quoting one of them— "breathing the same air", is the embodiment of justice. Which does not come from the Court decision on guilt, but from the situation of occupying the same space, of a story being heard, of being believed, drawing the line of inclusion. Due to the pandemic situation, that enactment of justice is performed differently.

Communications Department: The interface between court work and citizens happens often over a counter, that users of the justice system go to when they have questions or want to inquire about any progress in their cases. With the mobility restrictions, Court staff moved to working from home, and the counter was left empty. Thanks to a well-supported social media strategy and presence, the judiciary could leverage a large base of followers in their social media channels to engage directly with citizens. The attention to users moved from the over-the-counter in every local court, to a centralized department that could connect with users via Facebook, Twitter, Instagram, and YouTube. From the Courthouse to the smartphone or the laptop, and from a public place to the personal and domestic everyday lives of citizens. This is also reflected in numbers, going from 3,000 inquiries to 13,000 during 2020. The practice of engaging with users in a conversation over the counter, face to face, was reconfigured into a text-based communication over a digital interface becoming accessible to some, yet invisible to others.

2. Configurations of Human & Non-Human Agency

The sociomateriality of justice is captured in the "doings and sayings of

entangled configurations" (Schultze et al., 2020, p. 817). To characterize digitalized practices in Court, we build on the concept of human-technology configuration definition from Lucy Suchman, as "how humans and machines are figured together –or configured– in contemporary technological discourses and practices, and how they might be reconfigured, or figured together differently" (2012, p. 49). Therefore, following our goal to understand digitalized practices in Courts, we take a post-humanist approach (Braidotti, 2019) – entangled human and non-human/more-than-human agency – founded in agential realism theorizing. We further rely on sociomateriality within a larger effort in social research "to displace the human subject as the center seat of agency, the one in control of the world, the one from whom intentional actions emanate" (Gherardi, 2019, p. 759). Ultimately by observing these configurations, "it is not clear who makes and who is made in the relation between human and machine" (Haraway, 1990, p. 177). Thus, human and non-human, visible and invisible agencies, enact how justice becomes an exclusionary or accessible State machinery (Deleuze & Guattari, 1987).

The (online) Courts: With the mobility restrictions, the judiciary decided to move their work in the Court to remote mode. Together with that, came the question of how to carry out hearings online. A hearing usually taking place in the Courtroom, defined by the physical possibilities of the space, the distribution of desks, the availability of chairs. In the emergence of the online hearings, the practice was defined together the software capabilities, i.e., the videoconferencing software Zoom. For example, the positions of participants on the screen were decided by an algorithm. Sometimes the Judge would be at the bottom of the videoconference list of participants, far from the central position it occupies in the Courtroom. Another example was the use of the screen sharing feature to show evidence in the form of presentation slides. Using the video feature, they enacted a novel identity verification, by turning on the camera and showing their national ID card, to corroborate that the person taking part in the hearing was who they were supposed to be. Users were placed in virtual waiting rooms before joining the meeting, and after authorization from the Court coordinator could join the hearing. The hearing practice in the online court was configured around the possibilities offered by the technology used, Zoom, while still referring to previous practices.

Law clinic: The coming together of the individual, social and material agencies in the remote interviewing setup, is enacted in the embodied (in) ability to establish communication and reception feedback. This is due to the position of the screen and the camera in a laptop, that fails to recreate a face-to-face interaction, generating a novel form of being excluded.

> It is my capacity to look at you, for example, and when I look at the screen, I look at your face on my screen, what I think is looking at you. Your sight does not connect with my sight, because for that I would have to look at the camera. But if I look at the camera, I feel that I am not paying attention to you. (Psychologist working in the Law Clinic).

Communications department: The digitalization efforts of Court services in Chile can be traced back over a decade, gaining unexpected momentum during 2020 because of the global pandemic. In a highly volatile situation and restrictions changing periodically, the Courts needed to communicate fast and effectively with their staff. The communication was primarily on opening times, in-court shifts, and other institutional news. The first and natural channel to communicate internally was the intranet. With a large majority (over 90%) working from home and working from personal devices, the access to institutional accounts was difficult and impossible in many cases. Thus, Court employees started using their social media accounts to read the latest news from the Courts.

This turned into a larger practice and most of the intranet messages were replicated on the social media channels. As reported by one Communications Department head, the Court staff would simply check their social media in the morning and at the same time find out what was happening that day in the Courts. In this sense, communication technology defines how staff members are included or excluded. As referred by one interviewee:

> It is not that at five o'clock in the afternoon you stop being a civil servant. You go home and at night you check your Facebook and you like to look it up. Knowing what happened in the judiciary during the day and seeing that you were the protagonist of something (Communications Dept.)

3. Situated Action and Affects

Practices are embedded in specific contexts, are only possible because of that social and material context (Orlikowski, 2007). This is achieved by a practical embodied engagement with the regularities of that world (van Dijk & Rietveld, 2017) driven by affects. We understand affects as the capacity "to be 'touched' in a meaningful way [...] when something merely strikes one as meaningful, relevant, or salient" (Colombetti, 2007, p. 534). Furthermore, affects carry a bodily connotation, and embodied "ability to affect and be affected" (Massumi, 2017, p. 109). In this sense, affectivity is further characterized by a "sensibility, interest, or concern for one's existence [...] the capacity or possibility of having something done to one of being struck or influenced" (Colombetti, 2007, p. 534). A history of embodied engagement with aspects of the sociomaterial judicial practice transforms it into a place of salience, meaning, and value for action (Jelić et al., 2016). Thus, the capacity of affect and being affected by justice is bound with that of being included or excluded.

The Courts: With the judicial work moving online, the traditional courtrooms and their atmosphere representative of the power of the law and the State, were replaced by a variety of domestic places such as the living room, the kitchen, or an improvised desk from the private spheres of the stakeholders. During the pandemic, justice is being delivered from homes, living rooms, bedrooms, etc. Watching the YouTube channel of the Poder Judicial, analyzing the backgrounds, reveals all the situations from which judicial practices were embedded. Delivering justice from

home changes the affective atmosphere of a hearing, performing novel experiences of non-exclusion.

> Before [the pandemic] a judge was always on a stand. There, a little bit higher. I had to look up to the judge. And today a judge appears to you talking from his bedroom or from his living room. In fact, this week I had the experience of a judge who was speaking from her kitchen because she had a better connection there - and that's good because [seeing someone] in the kitchen I have an immediate connection [to judges] (Journalist, Court Region South).

Law clinic: The affectivity of interviewing victims remotely modifies the experience of being heard, of being considered. In contrast to being together in a room, the situated affectivity of interviewing a sexual abuse victim via a phone call is radically different by leaving something/someone out.

> On the phone it's even worse, it feels like an absence, a lack of presence of the person who was interviewing her, that is, me, in front of an experience being narrated that cannot be unheard [...] then it happened that I became aware of the importance of that room that we have [at the office]. There were details that I had not realized, but which were important. For example, when a person would come to offer her a glass of water, a coffee or take a break from the interview [...] on the phone, as I could not make gestures, and since I could not even offer her a napkin, I talked more, I tried to over-support her with words. (Psychologist working in the Law Clinic).

Communications Department: With the court hosting hearings online via Zoom, the Communications Department had the possibility to livestream any hearing, without much technical setup. Using their social media channels in Facebook and YouTube, the Court gave visibility to those cases with high interest from the press and social media. The most viewed hearings peaked at over one million viewers (in a country of 18 million), and were both tightly connected to social movements and activism happening outside of the judiciary sphere in social media. These campaigns related to social movement against violence and sexual abuse against women, gender equality activism and feminist groups. All those elements configured a judicial practice that became salient and meaningful to a large audience. In this sense, the situation was extended, and the affectivity of the practices enacted in the virtual courtroom was distributed across social media networks, posts, webinars, discussions, tags, and profile pictures with a purple bow that identified the social movement. The live streaming of Court hearings was entangled with other social media activities, creating a network of content reaching far beyond the traditional Court's users and audience (Justicia Para Antonia, n.d.). Thus, it generated new forms of including.

4. Apparatuses and Diffraction (methodological contribution)

Because sociomaterial practices can be enacted differently, we need a methodological resource to account for the plurality of knowledges and multiple ways of being. When studying the sociomateriality of justice, no object nor subject preexists or is pregiven. Instead, boundaries are enacted

Figure 1. A screenshot of the story "Tú en mí" and its illustration, part of 70 short stories published by the judiciary (©Poder Judicial de Chile)

in a specific place and time because of an apparatus. The apparatus is what helps the observer define what is observed: the tools, the theoretical frameworks, previous experiences of the observer, the position and role of the observer (internal or external to the Courts), etc. In this sense, the apparatus enacts what matters and excludes what does not, it discloses certain attributes of the sociomaterial practice and leaves others out (Barad, 2007; Haraway, 1997). The apparatus design is given by the theoretical framework, data collection and analysis methodologies. Furthermore, "the apparatus implies not a mere observing instrument but rather boundary-drawing practices that define a phenomenon" (Østerlund et al., 2020, p. 4). In this regard, what is of the practice is defined by "the material conditions of possibility and impossibility of mattering; they enact what matters and what is excluded from mattering" (Barad, 2007, p. 148). Moreover, apparatuses mark distinctions, boundaries, and properties within a judicial practice, they produce the reality observed; they include and exclude.

Following practice-oriented literature we look for alternatives to reading data based on a diffractive approach (Mengis & Nicolini, 2021; Nicolini, 2009; Østerlund et al., 2020). In this sense, we read our data diffractively. Diffraction, in contrast to reflection and refraction, implies that what we see is being modified (partially blocked) by an object that we place with the purpose of giving us a partial perspective. As a methodology, diffraction serves as a generative tool for researchers to expand the field of possibilities provided by the data. It is a move to account for other forms of knowledge and epistemologies, outside the traditional scientific methodology to avoid the **waste of experience** of the observed practice (Santos, 2015). It is about exploring new perspectives by bringing artefacts, theories, data to create blind spots and to shed light at the same time. It is about bringing in artefacts, voices, and worldviews that can enact the observed judicial practice differently (Santuber, Dremel, et al., 2020).

Courts. The use of the short stories and illustrations as diffractive artifacts allowed us to engage differently with the working from home experience in the Chilean judicial system. First, this diffractive exploration allowed us to consider forms of knowledge belonging to judiciary workers, and not the researchers. Second, it placed those court practices in figurative illustrations away from descriptive accounts of the experience. For example, the immense solitude and unbearable loneliness of the illustration of the story "Tú en mí"

Figure 2. A screenshot of the story "Un guiño al porvenir" and its illustration, part of 70 short stories published by the judiciary (©Poder Judicial de Chile).

Figure 3. A screenshot of the story "La Espera" and its illustration, part of 70 short stories published by the judiciary (©Poder Judicial de Chile).

(Figure 1), or the disorientation and fear of navigating through foggy waters with big waves in the story "Un guiño al porvenir" (Figure 2), or the femininity of working from home through the night, from the illustration of the story "La espera" (Figure 3). By using those visual insights, we make sense as researchers by exploring our own experiences, triggered by the openness and ambiguity of an illustration, and the diversity of styles of telling a short story as an artistic expression.

Law Clinic: During data analysis, the authors discussed the interviews from the sexual abuse victim center, and how heavy emotionally loaded they were. We were left with a sense of darkness, embodied pain and even reported having **goosebumps** while transcribing the interviews. Against this background, we ran an automated linguistic inquiry software (LIWC) (Pennebaker et al., 2001) on the interviews. To our surprise, across the interviews the use of positive emotion related words was higher than those of negative ones (see Table 1). Yet, we have made sense of those interviews as unpleasant and negative stories. That simple result invited us to go through our now diffracted interviews with openness, and ready to explore novel relations we had not seen before; to make sense of the stories differently.

Communications Department: using the automated facial expression analysis, forced us to pay attention to the faces and not so much to the content. The analysis of the videos from judges uploaded to YouTube in the official channel of the judiciary, reveals a very serious and apathic performance by judges, with low levels of change in their facial movements (facial action units). That flatness is broken by the familiarity of domestic backgrounds, a living room with the colorful teddy-bears (see Figure 4), or an unexpected ventilator, or the shape of the roof. Having done the automated facial analysis made those contrasts more explicit.

Discussion

Implications for Legal Design Practice

Designing for justice is about creating the conditions for sociomaterial configurations to be enacted. In this sense, providing a plurality of venues in which Court staff, and users find themselves and can make sense of it towards fulfilling values from their genealogies, be it equal access to justice or fighting exclusionary justice.

The case of Designing for justice is not trivial. All those actions and doings are not just a way of carrying out a judicial duty but constitute what

	Afecto	Emo Pos	Emo Neg	Ansiedad	Enfado	Tristeza
Lawyer 1	4,41	2,88	1,46	0,24	0,71	0,33
Lawyer 2	3,73	3,35	1,07	0,15	0,59	0,12
Lawyer 3	5,21	2,37	2,36	0,39	1,23	0,33
Lawyer 4	3,86	2,51	1,23	0,32	0,56	0,31
Psychol 5	3,55	2,09	1,28	0,25	0,42	0,29

Table 1. Results of automated linguistic inquiry using a Spanish dictionary for linguistic inquiry with values for emotion analysis of interview transcripts.

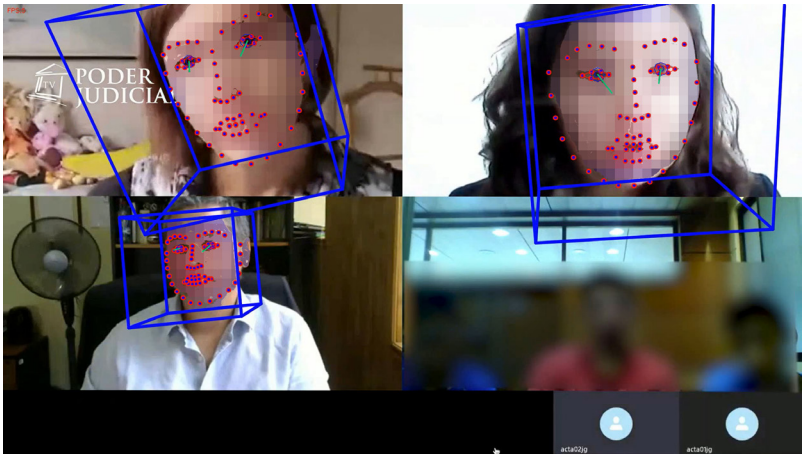

Figure 4. A screenshot of an online hearing video recording, being processed by automated facial analysis software OpenFace2.0.

justice is. There is a doing of **societying**. Society is being defined. It makes a distinction; it draws a line. What matters and what doesn't. And Legal Design practitioners have an important role and responsibility in that society making. The possibilities and constraints of the practice are defined not only by the intentions of the members of the Court, but together with the materialities that produce them, e.g., software design in online courts, decided by software engineers and designers. In this regard, the technologies in use come with a certain design that provide possibilities for action and inaction; for inclusion and exclusion. At the same time a community of justice related members comes with certain rules, norms, roles given by years of practice in Courts. And within that community, there are individuals with their own interests, experiences, personal situations, that bring all of that with them into the judicial process. Each one of them, technology, the organization, and the individuals, are agentic. They define what matters and what does not. Who is included and who is not. In the encounter, i.e., joining the Zoom meeting, they all are figured out together, configuring the ways of being that are invited to the judicial table, and those left out.

To facilitate inclusive sociomaterial configurations, justice related contexts need to feel meaningful to users; to enable our agency, the possibility to affect things. And in turn, enable things to affect us, e.g., regulation, objects, documents, places. In our examples, the lived experiences are knowledge, and represent worldviews on how justice is embodied and performed. Technologies and humans are configured together, yet that configuration is enacted based on the worldview and forms of creating knowledge of the members of the practice. The solutions we design adapt to users, as

much as users adapt to them. In this sense, empowering and liberating configurations can only come from their sociomaterial knowing and doings. Thus, we practitioners can only know once we are in that place or that situation rather than contextless knowing. No matter how much thought and planning we put in a design we only know how it performs when we are in that world, in the entanglement of the user and our solution. Designing is itself a performance (Edelman et al., 2021), and we as design practitioners need to account for our role in that world we are designing for.

Implications for Legal Design Studies

Legal Design is a passport that allows us to move from our territory to another, without asking for permission, and questioning where we come from and where we are going.

In this regard, fellow researchers can find in these pages a defined set of concepts on how to understand the phenomena of redesigning legal services towards plurality and locality.

As researchers it is important to be aware of our lenses, our blind spots, biases, and take advantage of them by diffractively looking at situations. Acknowledging that what we see is a local resolution of a unique reality. Looking at reality through a specific lens, and being aware of the lenses we use, especially the lens of those excluded by justice. With the freedom to pick methods and approaches from a broad repertoire that knows no field or disciplinary boundaries, comes the responsibility to resist and liberate from the traditional methods and theories that created the exclusion in the first place. Depending on our tools, frameworks and theories we can enact different phenomena. From the epistemologies of the included, it is designing for access to justice, from the excluded it is designing against exclusionary justice. In this regard it is our responsibility to keep barriers down and allow for a multiplicity of perspectives, methodological tools, paradigms to include underrepresented views and fight exclusion. Our duty is to embrace diversity and different ways of being and to reject universalisms and generalizations. Our research is situated and subjective, and we make decisions on what we produce. Thus, as sociomaterial researchers we are responsible for the realities we perform (Schultze et al., 2020).

Conclusions

In this paper we have outlined a relational ontology for Legal Design and provided examples of it observed in the context of courts of justice in Chile. Positioning the practice as post-disciplinary and nomadic, give us the flexibility and liquidity to resort to a wide range of resources. This diversity and plurality are necessary to deal with the complexities of Legal Design in a digital society (Santuber et al., 2019). Furthermore, in an increasingly customized world, designing for justice needs to account for the multiple layers, histories, and realities constituting our judiciary system. The more diverse and pluralistic our knowing, the better our understanding of the sociomateriality of justice, the greater our obligation to design for non-exclusionary justice.

A relational ontology for Legal Design practice and studies based on sociomateriality, knows no pregiven boundaries of what the reality is, what our tools and methodological apparatuses are. In this sense, allow us Legal Design practitioners and students the freedom to move between territories and position ourselves, figure out ourselves together with the situation we are designing for. Justice is a multilayered practice whose complexity is given by a diversity of histories, epistemologies, and worldviews present in Courts. Thus, Legal Design as a nomadic practice is not of lawyers and designers, but a plural house where a multiplicity of singularities and localities are celebrated. There is no right doing and there is no wrongdoing, but multiple ways of doing Legal Design.

The relational ontology proposed in this article aims to give practitioners and researchers the conceptual frameworks and philosophical roots to makes sense of the multiple practices that co-exist in the legal systems, the Legal Design community, and ultimately in our society. Designing for justice needs to account for those multiple worldviews and epistemologies.

References

Barad, K. (1996). Meeting the universe halfway: Realism and social constructivism without contradiction. In L.H. Nelson & J. Nelson (Eds.), *Feminism, science, and the philosophy of science* (pp. 161-194). Springer. https://doi.org/10.1007/978-94-009-1742-2_9

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning.* Duke University Press.

Braidotti, R. (2019). A Theoretical Framework for the Critical Posthumanities. *Theory, Culture & Society, 36*(6), 31-61. https://doi.org/10.1177/0263276418771486

Brunschwig, C. R. (2021). Visual Law and Legal Design: Questions and Tentative Answers. In *Proceedings of the 24th International Legal Informatics Symposium IRIS*, 179-230.

Butler, J. (1993). *Bodies That Matter: On the Discursive Limits of Sex*. Routledge.

Cardoso, J. V. & Pacheco-Pizarro, M. R. (2021). Water rights, indigenous legal mobilization and the hybridization of legal pluralism in Southern Chile. *The Journal of Legal Pluralism and Unofficial Law, 0*(0), 1-30. https://doi.org/10.1080/07329113.2021.1951483

Cecez-Kecmanovic, D. (2016). From substantialist to process metaphysics–Exploring shifts in IS research. *Working Conference on Information Systems and Organizations*, 35-57.

Colombetti, G. (2007). Enactive appraisal. *Phenomenology and the Cognitive Sciences, 6*(4), 527-546.

Costanza-Chock, S. (2018). Design Justice: Towards an intersectional feminist framework for design theory and practice. *DRS Biennial Conference Series*. https://dl.designresearchsociety.org/drs-conference-papers/drs2018/researchpapers/38

Cotterrell, R. (2017). *Sociological Jurisprudence: Juristic Thought and Social Inquiry*. Routledge.

Cross, N. (1982). Designerly ways of knowing. *Design Studies, 3*(4), 221-227. https://doi.org/10.1016/0142-694X(82)90040-0

Cruz Aburto, A. R. (2021). Diseño ontológico transindividual: Un giro afectivo a la propuesta de Escobar. *RChD: Creación y Pensamiento, 6*(10), 01-19.

Vela, S. & Buitrago, M. (2021). Convocatoria: Diseño legal, Diseño para la justicia y Diseño de políticas públicas. *RChD: Creación y Pensamiento, 6*(11). https://rchd.uchile.cl/index.php/RChDCP/convocatoria/index

Deleuze, G. & Guattari, F. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia* (B. Massumi, Trans., 2nd ed.). University of Minnesota Press.

Edelman, J., Owoyele, B., Santuber, J. & Talbot, A. (2021). Designing as Performance: Bridging the Gap Between Research and Practice in Design Thinking Education. In C. Meinel & L. Leifer (Eds.), *Design Thinking Research. Understanding Innovation* (pp. 75-101). Springer, Cham. https://doi.org/10.1007/978-3-030-62037-0_3

Escobar, A. (2017). Response: Design for/by [and from] the 'global South.' *Design Philosophy Papers, 15*(1), 39-49. https://doi.org/10.1080/14487136.2017.1301016

Galloway, K., Webb, J., Bartlett, F., Flood, J. & Webley, L. (2019). The Legal Academy's Engagements with Lawtech: Technology Narratives and Archetypes as Drivers of Change. *Law, Technology and Humans, 1*, 27-45. https://doi.org/10.5204/lthj.v1i0.1337

Gherardi, S. (2019). Theorizing affective ethnography for organization studies. *Organization, 26*(6), 741-760. https://doi.org/10.1177/1350508418805285

Griffiths, J. (2001). Legal Pluralism. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 8650-8654). Pergamon. https://doi.org/10.1016/B0-08-043076-7/02785-6

Haapio, H., Hagan, M., Palmirani, M. & Rossi, A. (2018). Legal design patterns for privacy. *Data Protection/LegalTech Proceedings of the 21st International Legal Informatics Symposium IRIS*, 445-450.

Haraway, D. (1990). *Simians, Cyborgs, and Women: The Reinvention of Nature*. Routledge. https://doi.org/10.4324/9780203873106

Haraway, D. J. (1997). *Modest_Witness@Second_Millennium. FemaleMan©_Meets_OncomouseTM: Feminism and Technoscience*. Routledge.

Hoskyns, T. & Stratford, H. (2017). Was (is) taking place a Nomadic Practice? *Architecture and Culture, 5*, 407-421. https://doi.org/10.1080/20507828.2017.1379310

Hultin, L. (2019). On becoming a sociomaterial researcher: Exploring epistemological practices grounded in a relational, performative ontology. *Information and Organization, 29*(2), 91-104. https://doi.org/10.1016/j.infoandorg.2019.04.004

Jelić, A., Tieri, G., De Matteis, F., Babiloni, F. & Vecchiato, G. (2016). The Enactive Approach to Architectural Experience: A Neurophysiological Perspective on Embodiment, Motivation, and Affordances. *Frontiers in Psychology, 7*, 481. https://doi.org/10.3389/fpsyg.2016.00481

Jones, M. (2014). A Matter of Life and Death: Exploring Conceptualizations of Sociomateriality in the Context of Critical Care. *MIS Quarterly, 38*(3), 895-925. https://doi.org/10.25300/MISQ/2014/38.3.12

Justicia Para Antonia. (n.d.). Retrieved August

17, 2021, from https://www.facebook.com/JusticiaParaAntoniaTemuco/

Massumi, B. (2017). *The principle of unrest: Activist philosophy in the expanded field*. Open Humanities Press. https://doi.org/10.26530/oapen_630732

Mengis, J. & Nicolini, D. (2021). Practising Diffraction in Video-Based Research. In S. Grosjean & F. Matte (Eds.), *Organizational Video-Ethnography Revisited: Making Visible Material, Embodied and Sensory Practices* (pp. 79-97). Springer International Publishing. https://doi.org/10.1007/978-3-030-65551-8_5

Mulcahy, L. (2011). *Legal architecture: Justice, due process and the place of law*. Routledge.

Mulcahy, L. & Rowden, E. (2019). *The democratic courthouse: A modern history of design, due process and dignity*. Routledge.

Nicolini, D. (2009). Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. *Organization Studies, 30*(12), 1391-1418.

Nicolini, D. & Monteiro, P. do N. (2016). The practice approach: For a praxeology of organizational and management studies. In A. Langley & H. Tsoukas (Eds.), *The SAGE Handbook of Process Organization Studies* (pp. 110-126). Sage. https://uk.sagepub.com/en-gb/eur/the-sage-handbook-of-process-organization-studies/book243122#contents

Orlikowski, W. J. (2007). Sociomaterial practices: Exploring technology at work. *Organization Studies, 28*(9), 1435-1448.

Orlikowski, W. J. (2010). The sociomateriality of organisational life: Considering technology in management research. *Cambridge Journal of Economics, 34*(1), 125-141. https://doi.org/10.1093/cje/bep058

Orlikowski, W. J. & Scott, S. V. (2008). 10 Sociomateriality: Challenging the separation of technology, work and organization. *The Academy of Management Annals, 2*(1), 433-474.

Østerlund, C., Crowston, K. & Jackson, C. (2020). Building an Apparatus: Refractive, Reflective, and Diffractive Readings of Trace Data. *Journal of the Association for Information Systems, 21*(1), 10.

Pennebaker, J. W., Francis, M. E. & Booth, R. J. (2001). *Linguistic Inquiry and Word Count (LIWC): LIWC2001*. Lawrence Erlbaum Associates.

Pernecky, T. (Ed.). (2019). *Postdisciplinary Knowledge*. Routledge. https://doi.org/10.4324/9780429058561

Perry-Kessaris, A. (2019). Legal Design for Practice, Activism, Policy, and Research. *Journal of Law and Society, 46*(2), 185-210.

Perry-Kessaris, A. (2021). *Doing Sociolegal Research in Design Mode*. Routledge. https://www.routledge.com/Doing-Sociolegal-Research-in-Design-Mode/Perry-Kessaris/p/book/9780367177652

Santos, B. de S. (2015). *Epistemologies of the South: Justice Against Epistemicide*. Routledge. https://doi.org/10.4324/9781315634876

Santos, B. de S. (2017). Más allá de la imaginación política y de la teoría crítica eurocéntricas. *Revista Crítica de Ciências Sociais, 114*, 75-116. https://doi.org/10.4000/rccs.6784

Santuber, J., Dremel, C., Owoyele, B. & Edelman, J. A. (2020). Building an Apparatus: Disclosing Affectivity in Sociomaterial Research. *ICIS 2020 Proceedings*. https://aisel.aisnet.org/icis2020/adv_research_methods/adv_research_methods/9

Santuber, J., Krawietz, L., Owoyele, B. & Edelman, J. A. (2019). A Framework Theory of Legal Design for the Emergence of Change in the Digital Legal Society. *Rechtstheorie, 50*(1), 41-58. https://doi.org/10.3790/rth.50.1.41

Santuber, J., Krawietz, L., Owoyele, B. & Edelman, J. A. (2020). *Feasible and accessible psycho-physiological methods for Legal Design.*

Schon, D. A. (1992). Designing as reflective conversation with the materials of a design situation. *Research in Engineering Design, 3*(3), 131-147. https://doi.org/10.1007/BF01580516

Schultze, U., Heuvel, G. van den & Niemimaa, M. (2020). Enacting Accountability in IS Research after the Sociomaterial Turn(ing). J*ournal of the Association for Information Systems, 21*(4). https://doi.org/10.17705/1jais.00620

Scott, S. V. & Orlikowski, W. J. (2014). Entanglements in practice: Performing anonymity through social media. *MIS Quarterly, 38*(3), 873-894.

Suchman, L. (2012). Configuration. In C. Lury & N. Wakeford, *Inventive Methods* (pp. 62-74). Routledge. https://doi.org/10.4324/9780203854921-8

van Dijk, L. & Rietveld, E. (2017). Foregrounding sociomaterial practice in our understanding of affordances: The skilled intentionality framework. *Frontiers in Psychology, 7*, 1969.

Wakkary, R. (2020). Nomadic Practices: A Posthuman Theory for Knowing Design. *International Journal of Design, 14*, 117-128.

Webley, L., Flood, J., Webb, J., Bartlett, F., Galloway, K., & Tranter, K. (2019). The Profession(s)' Engagements with LawTech: Narratives and Archetypes of Future Law. *Law, Technology and Humans, 1*, 6-26.