

Legal Trouble?: UX Practitioners’ Engagement with Law and Regulation

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ABSTRACT

New regulations and legal frameworks are rapidly reshaping the technology landscape, and it is unclear how regulations might impact technology design practices. UX design as a discipline has previously been defined by its complexity and volatility, utilizing multiple forms of knowledge that are often in tension or conflict. In this work-in-progress paper, we ask how UX practitioners address legal and regulatory knowledge as part of their everyday work practices. We present three short case studies of UX practitioners with differing levels of educational and professional experience that worked in different contexts of design practice. We identified how participants understood legal dimensions of their work and engaged with (or were unaware of) legal and regulatory issues as part of their design activity. Across these cases, we reveal key areas of concern and the need for researchers and educators to investigate how UX practices might need to adapt to address legal and regulatory issues alongside other established forms of design or social science knowledge.

CCS CONCEPTS

• **Human-centered computing** → HCI theory, concepts and models; Empirical studies in HCI; • **Applied computing** → Law.

KEYWORDS

UX practice, law, regulation, design knowledge

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1 INTRODUCTION

Emerging regulation and sanctions are reshaping contemporary technology design practices. Notable recent developments in this area include the passage and enforcement of major regulatory frameworks such as the General Data Protection Regulation (GDPR) and the Digital Services Act (DSA) in the European Union, alongside novel rulemaking and enforcement actions in multiple countries relating to dark patterns and deceptive practices (e.g., [1, 4]). However, even though there has been a rapid expansion in regulatory frameworks that address digital systems, it has been comparatively rare for HCI scholars to consider or incorporate legal perspectives in a direct way. Examples of this explicit engagement by scholars such as Kirkham [11] in connecting European Human Rights jurisprudence and values in design, Gray et al. [7] in linking GDPR consent requirements and design outcomes, and Wong et al. [18] and Grover [9] in linking privacy regulations to business practices demonstrate the utility of connecting HCI, legal, and regulatory perspectives. We see this intersection as a valuable space for future socially and legally-engaged technology design work, through which HCI scholars and practitioners can positively impact policy [19] while also creating ethical and lawful design outcomes [6, 14].

Policy and regulatory concerns have been addressed to a limited extent in HCI and CSCW scholarship over the last decade—primarily to describe how technologies and social impact relate and mutually inform one another. In 2014, Jackson et al. [10] described the “policy knot” that is composed of strands relating to design, practice, and policy. Using the “knot” metaphor, they claimed that issues relating to policy or regulation always entail considerations in relation to practice and design, but the directionality of these

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impacts cannot always be anticipated in advance. In 2016, Centivany [3] demonstrated how policy could be viewed as “embedded generativity”—calling attention to spaces of policy emergence where values and often rapid social transformation become vital considerations in how policy is created and used to shape design and practice. While the example of HathiTrust that Centivany described was largely positive in promoting new infrastructures for libraries to archive library resources in a coordinated way, other policy-design tensions such as the rollout of GDPR and its impacts on consent management have been more fraught [7]. In 2024, Yang and colleagues [19] further describe policy implications for HCI with the goal of giving HCI scholars a stronger collective voice in influencing policymaking and policy outcomes.

In parallel to these discussions of policy, UX practice has been noted for its complexity and continuously evolving form, involving many forms of knowledge that are sometimes in conflict [5, 12]. This volatility of practice is both a strength and a weakness of UX work, allowing the discipline to expand as industry norms and expectations change [2, 12], but also resulting in a lack of consensus regarding the definition and scope of what perspectives UX can address [13]. Kou et al. [12] have previously described how UX practitioners engage with differing sources of knowledge, using strategies such as brokering and translation to deliberate on the current state of UX knowledge and practices and also incorporate new forms of knowledge to extend or problematize UX work. The situatedness of these design practices has been described by Stolterman [15] as a manifestation of *design complexity*—where practitioners must draw together a broad spectrum of information sources, such as multifaceted design challenges, client demands, technical specifications, and societal expectations.

We extend this concept of design complexity to also encompass *knowledge complexity*—through which UX practitioners wrangle multiple forms of knowledge with differing limitations and strengths to inform their design decisions and outcomes. Leveraging this knowledge complexity, we wanted to investigate whether (and how) UX practitioners engaged with legal or regulatory perspectives in their everyday work, and how these perspectives impacted design decisions or outcomes. Importantly, we use a practice-led approach to explore legal knowledge *from the perspective of UX practitioners*, acknowledging that their understanding of legal perspectives may be narrow or overly simplified and may benefit from future interventions to connect UX practices with other stakeholder groups that can bring additional precision to issues at the law–design nexus. We used a case study methodology to analyze interviews conducted with three diverse UX practitioners working in different contexts. Through our analysis, we identified differing attitudes and awareness towards legal and regulatory issues that were grounded in different levels of educational exposure, organizational structures to address these threats, and perceptions of how legal and regulatory issues might shape their future practice.

In this work-in-progress, we make two contributions to enable future research. First, we illustrate the diversity of UX practitioners’ engagement with legal issues, laying the groundwork for enhanced accounts of knowledge complexity in UX practice. Second, building from these accounts of legal and UX knowledge complexity, we are able to consider implications of legal knowledge being taken up by UX practice in future.

2 OUR APPROACH

Building off of Yin’s [20] case study methodology, we employed a case study approach to address the following research question: **How do UX practitioners acknowledge (or lack awareness of) legal or regulatory knowledge as part of their work practices?** In each case, we provide a brief overview of the interviewee, including their background, and length of time within their organizational role, as well findings relating to their use or awareness of legal or regulatory knowledge. We report on the methodology below and our findings within the following section.

Data Collection. Through an interview screener, we identified three diverse cases using a maximum variation sampling approach among the respondents. We ensured that all participants were currently working in a UX-related role, or had previous and recent work experience. We sought to establish diversity in our sample by considering differing scales of work contexts (small and large companies), differing types of UX outcomes (technology hardware, automotive, entertainment), job role (strategy, UI/UX, research), and gender. We conducted a semi-structured interview with each participant approximately 60 minutes in length, with topic domains that included: 1) types of design knowledge relied upon to support work practices and justification of decisions; 2) engagement (or not) with emerging legal or regulatory frameworks; and 3) prioritization of sources of knowledge, including conflicts and/or tensions.

Data Analysis. Immediately after each interview, we discussed the participant’s responses and created a verbal analytic memo, in order to understand how the participant was making sense of different forms of knowledge, the unique ecological factors that may be shaping that use and awareness of knowledge, and the pragmatic consequences of their attitudes towards legal or regulatory knowledge that might inform the evolution of UX practices more generally. After conducting all the interviews, four members of the research team individually created open codes across the three transcripts to identify aspects of the interviewees’ engagement with knowledge work in general, ecological factors that shaped this engagement, and differing attitudes and conceptions of legal or regulatory knowledge. Through extensive discussion, we returned to the transcripts with second cycle coding, focusing more intensively on the participant responses to legal issues and used these thematic understandings of legal and design knowledge to inform the creation of each case study. Then, using a multiple case study approach [20], we created narrative accounts of each participants’ engagement with legal knowledge that accounted for personal and ecological factors.

3 THREE SHORT CASES OF LEGAL ENGAGEMENT, AVOIDANCE, AND/OR INTEGRATION

3.1 Jacob: Detached and Under-Informed

Jacob is the sole UX Designer in a small US-based mobile app company that develops solutions for an active lifestyle. He has just completed his first year of professional experience as a UX Designer and previously graduated with an undergraduate degree within the UX field. As a part of his everyday decision making, Jacob is

responsible for providing UX-related perspectives, designing micro-interactions and UI mockups, and evaluating solutions with users.

Jacob's personal awareness of legal issues related most strongly to his knowledge of dark patterns and related deceptive strategies, which he mentioned primarily through the frame of ethical design. Although *"that's not really in my job [description],"* he tries to provide rationale to avoid incorporating dark patterns as part of his everyday decision making. Jacob's prior interaction with the concept of dark patterns allowed him to argue against using them in paywall and consent flows he has designed: *"I'm avoiding certain dark patterns. So, in terms of designs, it's kind of bottlenecked. So it has to go through me first. So I like to think that I'm pretty good at avoiding dark design patterns personally."* He refers to the developer of the app who is ultimately responsible with *"certain guidelines that need to be updated to keep us on the app"* but he also wants to *"prevent [the company] from being sued."* When contrasting this personal interest and awareness of dark patterns with practices at his company, he mentioned a lack of *"any protections [...] I think it's like—mainly we just stay aware of those sort of things and we apply them,"* adding that his company *"[doesn't] have a legal department, per se."* Interestingly, Jacob was unaware of the legal restrictions around the use of dark patterns prior to our conversation, and focused on their unethical rather than potentially illegal characteristics.

Jacob did not have any direct engagement with legal knowledge within his work, but referred to similar knowledge that is *"definitely more on my radar now"* after our interview. As one instance, he referenced a ruling in the Netherlands that is *"cracking down on some Nintendo restrictions."* This specific example of technological regulatory knowledge, although not pertaining to his designer responsibilities, became interesting to Jacob when it intersected with his personal interests related to the gaming industry.

3.2 Conrad: Obstructive Yet (Hopefully) Integrative

Conrad has been part of a UX design team for an automobile manufacturer in Europe for four years. Apart from working on product concepts, his team prides themselves on the tangible prototypes they create to communicate their design decisions to various organizational stakeholders. Conrad's work takes inspiration from academic research and other sources but relies heavily on user research and his own design intuition.

Since Conrad was working for his company during the rollout of GDPR enforcement, he was both aware of this regulatory framework and had thoughts about how it could positively and negatively impact his team's work practices: *"GDPR is really good and it's really good to have. But in terms of working competitively, it made a lot of things worse."* Conrad felt that GDPR could add more friction than benefit to a designer's workflow, sharing the impacts on user research practices as an example. In this instance, *"[the company] tried to avoid liability and user testing. So we actually at some point were not allowed to run user studies ourselves anymore because we didn't have a managed system to ensure the right to be forgotten."* In order to work around standards for GDPR compliance, *"[the company] would actually hire external agencies who then do the research."* Conrad was concerned whether there was even a need to continue working on

the UX research team, given the misalignment between what he had learned, his principles, and the way the company envisioned user research.

To address these concerns, he suggested that in addition to *"user experience designers, user experience technologists and user experience researchers, if we actually had a legal person, at least for the projects that needed [it ...] would be very helpful."* However, Conrad was also wary of talking with the company's existing legal team since he felt they were obstructive: *"It felt like they are just the enemy that tries to hinder us from working and they are not on our side."* In the process of incorporating these regulations to support his work practices, particularly through studying GDPR, he has learned that if the company *"would become more user centered, it would do less missteps in unethical behavior."* However, even though Conrad felt that aspects of GDPR enforcement within his company were obstructive in the past, there is also a careful balancing act because people in the company are *"more afraid to do something wrong than do something right."*

Conrad appreciates the principle behind the regulations as he believes that *"users should know where the data goes and they have the right that [...] there's a transparent, easy to use interface that helps them how their data is collected, how they can delete it and so forth."* However, he remains hopeful for better implementation of the regulations to achieve the intended outcomes, as he thinks *"well intended regulation can bring a lot of motivation."* While acknowledging his team's expertise, Conrad wonders how *"researchers could also inform regulation and policy? [...] researchers] have some insights on how a lot of these things could be run better. And in theory, it would be good if everyone could benefit from it."*

3.3 Amy: Responsible Yet Distanced

Amy is a US-based UX researcher with 3 years of experience, influencing design strategy and product decisions for a large digital services company with multiple stakeholders. She completed her master's degree in the field and is committed to a user-centered approach to design in an organization that is heavily metrics-focused. In her day-to-day role, Amy collaborates closely with teams across marketing, product management, UX/UI design, and upper management.

Amy does not deal with legal or regulatory issues in her everyday work, but indicated that she was aware that legal conversations are happening within other departments of her organization. She noted that this function was delegated to *"a centralized team to kind of supervise all of the products and designs that are going out to make sure it's compliant, accessible things like that. So yeah, there is like pretty strict checks before you go."*

Due to this highly compartmentalized structure of the organization, Amy feels that her job responsibilities are focused on advocating for user-centered design discussions with cross-disciplinary team members, while relying on other teams to address legal requirements of the design work. This sense of shared, yet disconnected, responsibility was encapsulated in this reflection: *"the work feels pretty siloed—like you do your part and then you pass it on to the next person and then they deal with whatever comes after."* This sequence of handoffs within Amy's organization hints at a nuanced

form of distancing where discussions of legal or regulatory complexity did not naturally intersect with her work. However, when considering company expectations and the extent of conversations regarding legal responsibilities within the organization, she added: *“I think when we talk about compliance, regulation, or things that we need to be aware of [it] has always tied to some sort of legal repercussions and we don’t want to get to that.”* This framing of legal repercussions or “legal trouble” acts as another factor leading to distancing from active involvement with legal knowledge, even though Amy was able to identify implications of this knowledge on her own team’s work practices.

4 DISCUSSION AND IMPLICATIONS

Through these case studies, we have demonstrated varying attitudes towards legal knowledge that relate to organizational structures, individual awareness, and potential or actual relationships between legal knowledge and other aspects of knowledge that are more central to UX work. These cases implicate many facets of knowledge complexity that warrant further consideration:

- **Understanding and Activating Legal Knowledge:** Understanding and activation of legal knowledge required awareness, often based in educational or professional experience. Jacob was aware of legal issues, but they did not intersect with his day-to-day job responsibilities. For Amy, legal responsibilities were better understood, yet she did not activate this knowledge since it was being addressed with a centralized function in the organization. For Conrad, his ability to activate legal knowledge was a tool to understanding the responsibility of the company, but this activation also presented undesired limits to his role.
 - **Viewing Legal Knowledge as Limiting or Controlling:** The power of legal knowledge was frequently structural in nature, either limiting or controlling action by UX practitioners. For Amy and Conrad, legal knowledge often took on connotations of control—being forced to act in a certain way to demonstrate compliance, or having aspects of one’s job function be taken from them. With this structural view, engagement with legal knowledge might negatively impact UX practitioners by taking away aspects of their work they deem important.
 - **Framing Legal Knowledge as “Trouble” or “Empowerment”:** Legal knowledge was also framed in different ways that were personal to the UX practitioner. Conrad had the most nuanced view of legal knowledge, understanding that it could be viewed as “the enemy” that could disrupt progress but also that legal knowledge could be used to better advocate for end users’ privacy and rights. However, for Amy, the language of “compliance” and “legal repercussions” dominated her view of legal knowledge. Finally, although Jacob was the least aware of the relevance of legal knowledge for his company, he was able to co-opt the concept of dark patterns to see ethics as a tool for user empowerment—leaving open the question of whether further legal or enforcement knowledge regarding dark patterns might be seen in future as empowering or “trouble” for his organization.
- **Seeking Integration of Legal and UX Knowledge:** A future integration of legal and UX knowledge was also considered by our participants—either pointing out potential future organizational states or nearer-term solutions that would enable them to consider legal perspectives in their everyday work. Conrad’s knowledge of legal issues led him to seek an integration of his UX practices and the legal requirements imposed by other stakeholders in the organization, but not always with the impacts that he desired. Nevertheless, Conrad’s access to high-level management allowed him to view legal issues in a more strategic way. In contrast, Amy viewed this potential integration through a more distancing-oriented mindset—seeing the centralized function of legal oversight and responsibility as a limiting factor, but due to the positioning of her team, she may have been less likely to view a full integration of UX and legal knowledge as preferable, or even possible.

Our findings support a wide range of practice-led research in relation to UX knowledge and work. While volatility in UX practice is not new—and indeed underscores the development of UX as a professional discipline [12]—this new form of knowledge complexity could look different than previous transitions. Rather than primarily opportunistic use of another discipline’s knowledge, the integration of legal and regulatory knowledge includes both a paradigm of enforcement and compliance, but also an opportunity to encourage a company to do better for their customers and society. Future research could address some of the following questions:

- (1) How is legal knowledge integrated alongside other forms of UX knowledge? Does this new form of knowledge have any distinct properties, or how does this knowledge integration compare to other previous transitions of UX knowledge(s) [12, 13]?
- (2) What role does the type or size of an organization have on the perceived utility or importance of legal knowledge for UX practice? Are general-purpose technology companies now experiencing the same kinds of legal scrutiny and accompanying risk mitigation strategies that those in highly regulated sectors (e.g., health, finance) have seen for some time [18]?
- (3) Does UX practitioners’ need for action or leverage (e.g., Wong’s strategies of soft resistance [17]) potentially expand the role of the designer when they have the backing of legal or regulatory threats or frameworks? And if so, how are these knowledge connections considered and brokered?
- (4) How can (or should) legal knowledge shape organizational or individual designer practices (for example, extending the idea of “flow of competence” in UX work [8])? Should UX practitioners understand the law, and if so, to what extent?
- (5) How should UX work be structured if an embedded legal expert (similar to van Wynesberg’s “ethicist as designer” [16]) become commonplace? How should UX practices and processes be strongly or weakly linked to other organizational entities that address legal mandates, or how can a UX practitioner better recognize best practices that are derived from or rely upon legal perspectives within their organization?

As we have shown in these cases, combining UX practice and legal and regulatory knowledge is complex. Researchers exploring this emerging area should consider ways for the integration of legal knowledge into UX practice to not feel unidirectional. In contrast, building on the “policy knot” concept we can envision how UX designers could be more actively engaged in the development and implementation of policy, how workplace practices might shape or impose new kinds of restrictions on the kinds of design work that is deemed to be normatively or legally acceptable, and how design and legal practices within organizations might mutually inform one another.

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