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Identity Claims that Underlie Ethical Awareness and Action

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ABSTRACT

HCI and STS researchers have previously described the ethical complexity of practice, drawing together aspects of organizational complexity, design knowledge, and ethical frameworks. Building on this work, we investigate the identity claims and beliefs that impact practitioners' ability to recognize and act upon ethical concerns in a range of technology-focused disciplines. In this paper, we report results from an interview study with 12 practitioners, identifying and describing their identity claims related to ethical awareness and action. We conducted a critically-focused thematic analysis to identify eight distinct claims representing roles relating to learning, educating, following policies, feeling a sense of responsibility, being a member of a profession, a translator, an activist, and deliberative. Based on our findings, we demonstrate how the claims foreground building competence in relation to ethical practice. We highlight the dynamic interplay among these claims and point towards implications for identity work in socio-technical contexts.

CCS CONCEPTS

• **Social and professional topics** → *Computing occupations.*

KEYWORDS

practice-led research, identity claims, technologists, ethical action, ethical awareness

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1 INTRODUCTION

Social responsibility and ethical aspects of design and technology artifacts are increasingly being discussed in HCI research [22, 23, 41], technology practice [6, 12], and the popular press [18]. Frequently, notions of responsibility are oriented towards the practitioners that create these design outcomes by calling out technology impacts on society, motivating the need for ethically responsible work before society is "ruined by design" [31]. Substantial prior work has sought to support the ethically-focused work of practitioners, including the creation and dissemination of design methods [12, 13, 49], definition and operationalization of codes of ethics [1], and the creation of public initiatives [26] and manifestos [32]. We seek to extend this knowledge base, focusing on describing what guides or shapes the ways that practitioners think about their work and how they choose or are able to act.

Previous scholarship has provided evidence that technology practitioners across a wide range of roles inscribe ethics into their designed outcomes [13, 21, 34, 50] and must address a wide range of ethically- and organizationally-complex issues that impact the translation of ethical awareness to ethical action [22]. Recent research in the HCI community has sought to define the dimensions of technology practice that relate to issues of ethical complexity, using practice-led approaches to define this awareness on the practitioners' own terms [10, 22, 40, 43]. While this prior work has provided a more substantial understanding of the contexts and complexity that drive ethically-focused work, relatively little is known about the beliefs and attitudes that these practitioners bring to their work, and how these beliefs might shape ethical awareness and action.

In this study, we seek to identify and describe the core beliefs of practitioners that guide their ethical awareness, focusing on the language of their *identity claims*. To access these identity claims, we conducted 60–90 minute semi-structured critically-focused interviews with twelve technology practitioners, with the goal of explore the ethical considerations, challenges, experiences, and knowledge that guided their everyday work. While identity claims are representative of how individuals wish to perform, the environments they are placed in determines how this performance emerges and is shaped, and how behavior is thereby regulated or mediated. Thus, by identifying the beliefs that serve as precursors for practitioners' actions, we are able to document the potential interplay of these subjective and normative forces, leading to a more nuanced understanding of how beliefs may lead to or impact ethical action. Through a critically-focused thematic analysis, we identified a set of eight relevant identity claims, including desiring to: *learn* ethics-focused knowledge, be an *educator* of ethics to their co-workers, *translate* their knowledge into decisions or organizational change, be a *policy follower* of existing normative structures, practice as a *member of profession* in performing ethics

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as defined by their discipline, be an *activist or advocate* that has a sense of responsibility towards the outcomes they create, and be *deliberative* about their ethical stance with stakeholders. This work reveals both the complexity of experiences and beliefs that exist prior to action, and the interactions among these identity claims that point towards identity work—where practitioners perform and evolve their identity over time in relation to their ethical standpoint and character.

The contribution of this paper is two-fold. First, we identify the identity claims that technology practitioners take on and attribute to themselves in relation to their professional practices, providing a rich description of the core beliefs and motivations that underlie their actions and may point towards more complex accounts of educational preparation and everyday professional work. Second, we provide insights into the potential complexity that forms through interactions among the identity claims based on practitioners' roles, which extends current work on ethical design complexity and points toward future research on identity work and the performance of ethically-bound beliefs.

2 BACKGROUND WORK

2.1 Performance and Competence of (Ethical) Practice

As part of a "turn-to-practice," a portion of HCI scholarship has sought to describe the work of designers and technologists on their own terms, highlighting the complex and pragmatic knowledge that exists in professional practice [16, 17, 19, 30, 38]. Within this practice-led tradition, scholars have identified mechanisms that practitioners use to share and perform methods [16, 20, 37], develop and maintain their competence over time [19, 24], and perform their design identity [51]. This landscape of practice-focused work has led to a better understanding of the complexity of professional preparation, the need to constantly evolve one's own knowledge to maintain a sense of felt competence, and an acknowledgement of organizational and professional factors that lead to the performance and suppression of one's own design identity [51]. Thus, we frame professional work as situated, contingent, and subjective; within this space, we acknowledge the complexity of organizational and professional structures, but focus on the designer themself, including the knowledge they build and their capability to engage in their work in relation to this knowledge [47]. In this paper, we consider our approach of interviewing practitioners from different disciplinary roles to be "practice-led" [30], building on prior work that seeks to describe practice on its own terms. Our interview protocol focused on stimulated recall and continual reflection to elicit the participants' past and present professional experiences, with a focus both on practitioners' everyday work practices *and* the knowledge, beliefs, and experiences that shaped or were otherwise motivated by these practices. Our analytic focus in this paper is on practitioners' beliefs that are ontologically prior to action, but these beliefs can be seen as strongly connected to both the articulation and performance of these beliefs in practice. As a research team, we deconstructed ethically-nuanced instances provided by participants to identify their beliefs, expressed as identity claims, that were manifest in their professional experience. While different from observation of practice *in situ*, these findings are equally useful in describing participants' identity commitments in a practice-grounded framing.

In this paper, we particularly focus on this dimension of practice within the context of ethical knowledge and action, building on a rich tradition of studying these practices in Science and Technology Studies (STS) and HCI. Most prominent is the practice-focused work of Friedman and colleagues [13], motivating the framework and methods contained within the Value Sensitive Design (VSD) methodology. This work has been built upon by numerous scholars, with the goal of identifying and disseminating resources to support ethically-focused work practices. We particularly build on the extensive line of research by Shilton and colleagues [39, 40, 42–44] that has investigated the role of contingent practices in relation to ethics and values, focusing on design practice that determines the complex nature of practice from organizational, methods, and differing roles of professions. In this trajectory of work, Shilton has revealed the complex arrangement of activities that bring together organizational and team structures [40, 43], methods and means of action [39, 44], and the differing roles of members of technology professions [42]. Gray, Chivukula, and colleagues have built on this framing of ethically-focused design and technology work, revealing the degree to which designers must negotiate and mediate the *ethical design complexity* of everyday practice, encompassing organizational structures, applied ethics and knowledge of ethical practices, and personal values, commitments, and practices [22]. Chivukula et al. [10] reveal a range of dimensions that impact these practices in further detail, describing the role of UX positionality, conflicts and balancing during decision making, prioritization of design activities, means of self and stakeholder education, and the capacity to engage in futuring as key aspects of building and maintaining ethical awareness. In this paper, we build upon these complex views of practice, focusing our attention on the designer themselves—seeking to reveal the identity claims the designer takes on or believes that impacts all of these outward-facing capacities that have been documented in prior work.

2.2 Identity Claims and Identity Work

The study of "identity," "self" or "self concept" has been extensively studied in the humanities, social and cognitive psychology as the psycho-analysis of "self" [14], organizational management studies [7], design theory [33, 48], and political science [35]. This brief review gathers definitions of "identity" across its types and multiple theories as proposed in these fields, aiding us in building our conceptual vocabulary for this paper. Identity claims are defined as the "meanings that individuals attach *reflexively* to themselves, and developed and sustained through processes of social interaction as they seek to address the question 'who am I?"'[7]; and "people's concepts of who they are, of what sort of people they are, and how they relate to others" [2]. Across many definitions, it is understood that an identity claim of a person is "a reflexively organized endeavor" [3] through social standards (e.g. gender, nationality), personal standards (e.g. physical appearance, philosophy, beliefs) and role-based standards (e.g. teacher, researcher). We build on these multiple theories of identity to define our working definition of "identity" for this paper. This is brings two categories of theories: social identity theory and identity theory. According to

social identity theory, "people [make] social comparisons between in-group and out-group, or between self as in-grouper and other as out-grouper, in order to construct a sense of who they are and how they are evaluated"[27]. According to this theory, social identity is claimed through the influence or engagement in "relationships between groups, self identity, and social behavior" [28] and "[a] person's sense of who he or she is in a setting" [52]. In social collective form, identity claims are defined as "speech acts that concern what the social collective is or does – and negotiations on whether or not these claims have been made on the collective's behalf" [11]. Stets and Burke's work [46] differentiates social identity theory from identity theory where "the core of an identity is the categorization of the self as an occupant of a role, and the incorporation, into the self, of the meanings and expectations associated with that role and its performance." From a methodological perspective in identifying an identity claim, Gray, Toombs, and McKay [25] defined an identity claim as "a combination of a subjective and normative claim—something that is implicitly claimed as part of the identity of the person in a subjectively normative sense, representing one's personal involvement in reproducing and shaping a social context." In a design context, Tracey and Hutchinson [48] present work about how a designer develops her professional identity and "their individual characteristics with the duties, values, and territory of the profession," defining identity as a member of a profession with disciplinary connotations.

Given the performative nature of a person's identity and the situated and evolving nature of a profession's identity (see [29] for such an evolution in the profession of UX), we build on these multiple perspectives of social, personal, and role components to create our working definition. For example, Bjorklund et al. [4] defined a designer's identity as "a (discursively) constructed understanding of oneself as a designer." Here, it is important that a designer's self identity is explored, but a designer also exists as a role in a social setting of the profession it bears (in a team or organization). We draw from this perspective, Gray, Toombs, & McKay's definition [25], and Brown's [7] definition of identity in an organization: "people's subjectively constructed understandings of who they were, are and desire to become, are implicated in, and thus key to understanding and explaining, almost everything that happens in and around organizations."

In this paper, we take a similar approach in working to combine the social, personal, and role-based identity claims in order to describe identity claims in relation to their role (as a technology practitioner), the social elements of that role (team or organizational), and their understanding of self (a manifestation of their constructed identity). We view all three of these elements in relation to their potential ethical practice as evidenced by their own self-reported claims and actions. Taking a practice-led approach, we focus on how practitioners claim their identity in relation to ethical concerns they describe in their everyday practice and how that particularly claimed identity is performed.

We also set out multiple paths that we will not address in this work—in particular, the activation of an organizational identity (defined as "what people perceive as an organization's attributes" and an organizations classification under social and industrial sectors [36]), and the performance of one's identity in a context as a form of "identity work" (defined as "the range of activities individuals engage in to create, present, and sustain personal identities that are congruent with and supportive of the self-concept"[45]). The actual interaction between identity claims and practice (encapsulated by the concept of "identity work") is suggested as future work to build on the identity claims we describe in this paper. We specifically delimit our scope to the practitioner themself, and do not seek to elaborate the practitioner's identity in relation to their organization or provide observational evidence regarding how a certain claimed identity is actually performed in their professional practice (cf., Goffman's *presentation of the self* [15]).

3 OUR APPROACH

To identify and describe identity claims of technology practitioners with respect to their professional practice, we have used a narrative-based approach to identify the complex and ethically-nuanced experiences through twelve 60–90 minute semi-structured critical interviews. We then conducted a critically-focused thematic analysis, building on the reflexive nature of thematic analysis [5] in general and inferences regarding meaning-making and identity claims from meaning re-construction practices [25] in particular.

We specifically focused on documenting the identity claims of these practitioners in relation to felt ethical design complexity [22] in their everyday practice, answering the following research question: *What identity claims did technology practitioners present or express as they reflected on their engagement in ethically complex work?* In the following sub-sections, we present our approach by detailing the sampling strategy, participants, data collection, and data analysis process to answer this research question.

3.1 Sampling Strategy

A recruitment screener was distributed to the research team's personal and professional networks, as well as social networking sites such as Twitter and LinkedIn. We also encouraged snowball sampling based on the initial interviewees to build our participant pool, including a range of company types and practitioner roles. Our inclusion criteria included any design and technology practitioners who are currently employed in roles that include (but are not limited to): User Experience (UX), Data Science, Front/Back-end Development, Product Management, and other design personnel responsible for the development of digital systems in any industry or governmental context. We explicitly sought to sample practitioners to represent a diverse sample based on gender identity, current job role, current company type (enterprise, B2B, B2C, startup), and years of industry experience, details of which are included in Table 1.

3.2 Participants

We conducted 60–90 minute semi-structured interviews with twelve practitioners. The participants formed a diverse sample in terms of company size and type, practitioner role and gender identity, with an equal division of junior and senior practitioners. Table 1 details the demographic characteristics of the participants. Anonymous numerical identifiers (e.g., SP01) were used to ensure confidentiality and reduce discoverability of the participants' identities. The number of years of experience of the participants ranged from

2–20+ years, and the roles captured included: UX Designer, Software Engineer, Product Manager, CEO, and CTO. The company types represented in the sample ranged across Enterprise (B2B), Enterprise (B2B2C), Agency/Consultancy, Research Center, and Freelance. From the examples and experiences shared by the participants, we were able to identify a range of design and technology outputs from these practitioners, including: interaction design artifacts, algorithmic/code outputs, game designs, animated character designs, AI-based designs, and research opportunities. The geographic regions of the organizations our participants are currently a part of are placed in the US (n=9), UK (n=1), and India (n=2), and over half of our participants had professional or educational experiences in more than one geographic context. This variety and range of participant demographics resulted in a robust dataset through which we identified and described identity claims across practitioners in a range of ethically complex situations and contexts.

3.3 Researcher Positionality

The process of data collection and analysis was conducted by two graduate and three undergraduate student researchers, supervised by the primary investigator. All researchers were experienced and trained in qualitative research methods through previous research projects and coursework and had professional experiences in industry through full-time or internship positions through which they could relate to and evaluate stories shared by the participants. Given the complex nature of analysis in revealing hidden or tacit identity claims, we conducted a series of sensitization exercises (detailed below) throughout the analysis process to ensure alignment, validity, and rigor. The research team sought to be reflexive and iterative in their approach throughout the coding process, regularly performing member checking and discussing points of difference or confusion amongst themselves and with the principal investigator. The researchers maintained memos throughout the process to support and facilitate the generation of a codebook and final theme write-ups, increasing team alignment and producing an audit trail that led to final outcomes.

3.4 Data Collection

We conducted 60–90 minute semi-structured interviews with twelve practitioners. Using a critical qualitative interview protocol approach [8], our protocol focused on identifying the ethical considerations, experiences, challenges and knowledge that guided the practitioner's everyday work. We did not provide any guiding definition of ethics, values, or related terms to our participants before, during, or after the interviews, and instead sought to build on a practice-oriented and grounded approach. We began each interview with an open-ended question asking about the participants to describe a time they felt ethically uncomfortable in their professional experiences, without directing them towards a particular framing of ethics. We proceeded to ask the participants open-ended questions under three main topic domains: 1) identification of the practitioner's personal values by asking them to recall an instance from their past where they encountered an ethically uncomfortable situation; 2) reflection of ethical decision making strategies by probing hypothetical prompts about their past practices; and 3) proposing opportunities for ethics-focused support for their current or future practice. The interview protocol focused on stimulated recall and reflection that helped us gain a deeper understanding of the practitioner's past, current, and potential future experiences of ethical awareness and action or situations that framed participants' individual perception of ethics, helping us identify aspects of complexity that may point towards the ways in which their ethical role is mediated in their current job role. Because the use of stimulated recall has inherent limitations, we used construct-focused questions to identify each practitioner's approach to ethical awareness and action, using the range of examples they provided to inform a broad sense of how they interpreted ethics, their professional commitments, and disjunctures between beliefs and action in past or present professional or personal experiences. Each interview was voice recorded with the participant's consent (as approved by our institutional review board) and fully transcribed. These transcripts were carefully cleaned to remove any verbal clutter and anonymize any identifiable participant or employer information.

3.5 Data Analysis

Our analysis was conducted over a series of four iterative rounds over a two month period, supported by collaborative efforts and discussion among the entire research team. We have built on the reflexive methodology of thematic analysis [5] to engage in critically-focused issues relating to identity claims as described in following stages:

3.5.1 Familiarization with Data. We started the analysis by making ourselves familiar with the data. This was conducted by openly coding of three initial transcripts (SP03, SP04, SP05), with each researcher coding two transcripts. We selected these transcripts based on the varied participant descriptors and their professional experiences. After initial open coding, the three researchers came together with the principal investigator to discuss the open codes. We identified various potential themes including: attitudes towards their identity, dimensions of identity work, ethical dilemmas they face in practice, and development of professional maturity over time. Our participants shared a range of ethical dilemmas and ethical issues that had both positive and negative impacts on their practice. Although not the focus of this paper, these dilemmas and issues included: applied ethics in relation to designed products, organizational ethics in relation to labor policies or following prescribed compliance, and individual ethics in relation to personal values and attitudes towards their involvement with ethical dilemmas. From the examples of ethical issues or dilemmas shared with us and interaction trajectories (as analyzed and presented in Figure 1), not all participants related themselves to ethics in the same way. We focused our analysis on practitioners' sense-making relating to ethical awareness and action, including how they identify themselves in relation to their notions of everyday ethical practice as expressed through their examples of these everyday ethical issues. Our current work does not claim to contribute directly to knowledge of practices, but rather focuses on the identity claims that are ontologically prior to these practices. We chose to focus specifically on the identity claims of these practitioners, allowing us to identify internal beliefs that builds upon active and performative components of ethical deliberation revealed by prior scholarship.

Table 1: Participant Descriptors

Name (# yrs. exp.)	Professional Title	Gender Identity	Current Company
SP02 (05)	Designer	Female	Freelance
SP03 (02)	UX Generalist	Not Disclosed	Enterprise (B2B2C)
SP04 (04)	UX Researcher	Male	Enterprise (B2B)
SP05 (10)	Full-Stack Developer/Tech. Lead	Male	Enterprise (B2B)
SP06 (04)	Software Engineer	Female	Enterprise (B2B)
SP07 (04)	UX Designer	Female	Enterprise (B2B2C)
SP08 (13)	Engineering Manager	Not Disclosed	Enterprise (B2B2C)
SP09 (15)	CTO	Female	Enterprise (B2B)
SP11 (15)	Product Manager	Female	Enterprise (B2B)
SP12 (20+)	CEO	Non-binary	Agency
SP13 (08)	Software Engineer	Male	Enterprise (B2B)
SP14 (09)	UX Designer	Not Disclosed	Enterprise (B2B)

3.5.2 Identifying Identity Claims. After narrowing our research purpose to surface the various identity positions claimed by these practitioners, we performed sensitization exercises to align ourselves and clearly frame what we would characterize as an identity claim. We identified identity claims as the practitioner's (role) means of claiming their identity in relation to a team or organizational setting (social), connecting their constructed identity (self) to the ethical valence of their practice. We understand that identity is performative in nature and for the purpose of this analysis, have backgrounded the performance of these identities and propose future work in relation to identity work. To clarify and operationalize this definition, we began by analyzing two transcripts from the previous round, identifying all instances which illustrated a pattern of "being and doing" [9] for these participants. We marked the following linguistic structures as candidate identity claims: any "*I...*" statements, any statements about their subjective stance in relation to a job-related situation in a professional environment, and any statements about *their ability to act* in a professional setting. We excluded statements regarding aspirational identity claims, or expressed needs in supporting or building their identity. We identified identity claims across all topic domains throughout the transcript, and frequently had to connect multiple instances to narrow to a specific and precise identity claim.

3.5.3 Formulating the Codebook. Building on the sensitization exercise, we conducted a critically-focused thematic analysis—combining elements of a reflexive, bottom-up thematic analysis [5] and recognition of the performative nature of ethics as defined in critical theory. In this initial identification of candidate identity claims, some identity claims were more dominant and easily recognizable as linguistic forms, while others were higher in inference, demonstrated as patterns of reasoning, beliefs, or ways of being within and across multiple interview transcripts. All claims were continuously discussed and validated through memoing during the interview and coding process. We finalized a codebook of identity claims through this thematic analysis process, which is presented in Table 2.

3.5.4 Thematic Coding. Using the codebook in Table 2, we conducted confirmatory coding as our final round of analysis. We coded the twelve transcripts to identify the identity claims from the codebook and build insights regarding the use and function of these claims which we present in the results section. Due to the relatively small number of participants, we do not seek to represent each participant by their apparently dominant identity claims, but rather describing how practitioners with a particular identity claim or set of identity claims act or perform alongside their intentions to perform that claim in their everyday work. Through the use of examples, we identified examples of "how" and "why" the participants have claimed a particular aspect of their identity, which we will expand upon in the findings section.

4 FINDINGS

Based on our analysis approach, we present the identity claims relating to ethics that are posed by practitioners in relation to their everyday work. We outline the qualities and actions that represent each identity claim and describe the intentions, constitutive elements, and motivations that guide them. We limit our scope to the internal existence of these claims within practitioners, and do not seek to fully define or validate the performance of these claims, which may be revealed through the concept of identity work.

4.1 I am a Learner

"*I am a learner*" as an identity claim represents practitioners who recognize that their current knowledge is insufficient and thus they need to improve their capabilities over time. Practitioners need to first "*[understand] what your role is and what you can do and cannot do*" and then find ways to "*equip [themselves] with the right set of knowledge*"(SP08) by incorporating external resources and internal reflections. External resources that practitioners seek out in order to develop and advance their knowledge include mentors "*who were going to tell me why it is important to ask this question. And helping me, in some cases, they help me with the choice of words as well*"(SP13); attending ethics-focused design workshops (SP03, SP07) and reading published material such as "*watching congressional hearings on privacy and tech and ethics and dark patterns*"(SP07); as well as participating in the mandatory employee training programs that provide a direct exposure for junior practitioners to standard industry practices, guidelines and values the company leverages (SP03,

Table 2: Identity Claims Exhibited by Practitioners

Identity Claim	Definition
I am an Educator	I seek to share my knowledge with others
I am a Learner	I recognize that my current knowledge is insufficient and thus I need to improve my capabilities over time.
I am a Policy-Follower	I seek to follow relevant policies that resonate with organizational or disciplinary structures that define my capability to act.
I am an Activist/Advocate	I question the current state of affairs and seek to change that state of affairs.
I am a Member of my Profession	I represent the beliefs, values, and activities of my profession as defined by my disciplinary rhetoric.
I have a Sense of my Responsibility	I consider the current and future impact of my work.
I am Deliberative/Thoughtful	I internally question which knowledge sources and structures to trust or act upon.
I am a Translator	I seek to translate the knowledge I have gained in my everyday work (e.g., near or far transfer).

SP08). While practitioners actively seek out external learning resources, they do not always "*get all the information in one go*;" as SP11 notes, "*learning is [a] gradual process.*" As a product manager, SP11 reflected that "*it's really as you grow, as you get exposed, as you get more responsibility, as your role grows from just building on small things, components on the application to basically look at the whole system level, that's when [he] thinks [his] learning started to grow bigger and wider*".

Such learning requires supportive practices and the desire to internalize the external knowledge, reflect and challenge their own decisions, and eventually be able to translate the learning to impact their everyday work. As SP04 said, "*a lot of what [they are] doing is learning and just expressing things that [they] have learned along the way*", and as a junior practitioner, she internalizes these training sessions on creating inclusive accessible content, placing diversity and inclusion as one of her core priorities when she "*creates design, research and supports projects that [she is] a part of.*" Learners expressed their motivations for taking on this identity claim, many of which are concerned with their professional presence or development—where they are often required to participate in company training programs and they know that they will be evaluated on their ability to translate their learning into their work (SP03). Practitioners also expressed intentions of learning knowledge on design ethics or recent updates on ethical awareness as a part of their interest or sense of responsibility to improve their ethical decision making and negotiation with their co-workers (SP07). Apart from learning about ethics, practitioners expressed their learning as a part of their competency-building over their time in practice with the goal of identifying product standards from past projects "*to make sure that there's no dark pattern use*" (SP12) and awareness about the kind of companies she wants to work for to engage in ethical practices (SP11).

4.2 I am an Educator

"*I am an educator*" as an identity claim represents practitioners who seek to share their knowledge with others. They intend to educate others through explicit actions such as conducting presentations with organization members; encouraging other team members to engage in the "*word 'ethics'*" and other related ethical and legal topics; or having one-to-one conversations with their colleagues about sensitive ethical issues. SP07 shared her educator experiences when she "*made a concerted effort to have a what we call a 'lunch and learn'; anyone can present a 'lunch and learn' on anything that they're passionate about. And so I was given an hour time slot to make a presentation. And my goal was to make the idea of what I focused on data privacy specifically in this presentation, because I wanted to do a second round for dark patterns and ethics, but I wanted to start from that legal standpoint.*" This educator planned to engage other team members in related topics in ethics and be a representative to build legal vocabulary into design discussions. Educators also tended to educate their team members by sharing resources, as shared by SP05 where he as a developer felt it was important to share examples that "*tend to educate people [team members]; we share some articles sometimes about what happened with so and so company because their product got hacked, and what was the loss to their reputation*" and treat that education as a way to build awareness that "*something bad can really happen.*" Another rare example, which acts as a negative example outside of professional settings and exemplifies the art of signaling was shared by SP06; she hopes to implicitly educate and change others' actions about environmentally sustainable practices through her own actions: "*if more people had seen me at the grocery store with my grocery bags [not plastic], they would have been inspired to do the same thing.*"

Educators shared their motivations in improving their collective understanding of ethics of design artifacts and making others aware of individual professionals' rights in a work environment. Educators wanted to build awareness among others in the team to metaphorically "*invite them to the party*" (SP07), to share practical knowledge to facilitate reflection about "*the importance of [ethics] by speaking about what kinds of things happen when you don't have security*" (SP05) and having seen others "*started paying more attention to it.*" SP07 shared her educator motivations as a designer who is interested in ethics, stating that she "*wanted to invite them to start thinking about [ethics] in their own work to start getting excited about it [. . .] how can I start to change the way that I think in my work and how can I contribute to this?*" Educators mentioned a desire to build those conversations among their team members and fellow practitioners and make the whole experience of sharing knowledge "*not scary. And I wanted to make it not burdensome to our goals*" (SP07). Additionally, SP07 mentioned her intention to translate legal texts that may not be equally accessible to everyone: "*not just any designer can do this because, I had the stamina to care*

about looking at legal text, [but] not everybody can look through that stuff." Apart from sharing knowledge about values inscribed in design artifacts, there were instances where educators took the role to build or guide fellow team members through professional ethics training to amplifying each other's voices or better respect co-workers during meetings and discussions.

4.3 I am a Translator

"*I am a translator*" as an identity claim represents practitioners who seek to translate the knowledge they have gained into their everyday work. Practitioners identified this translational work occurring at both a personal level as well as across teams and organizational structures. At a personal level, practitioners found themselves translating their past learning across future roles by learning techniques of reading legal texts to advocate for unethical discussion by using legal references with higher management (SP07), applying ethical concepts or policies (e.g., GDPR) they had learned about in their decision making about compliance (SP14), developing a familiarity with their user groups to translate those emotions to inspire their work (SP02), implementing training provided in organization workshops into design decisions on accessibility (SP03), and improving their professional communication and presentation based on "the background knowledge of design [that] helps me to translate those qualitative needs into a form factor, which is understandable by my audience here, which is PMs, designers, and developers" (SP04). At an organizational level, practitioners frequently mentioned reevaluating their company's portfolio of projects accumulated over time to continuously revise and develop internal checklists (SP12) and enhancing the process of decision making by dealing with ethical issues "*as part of the process and not as afterthought*" from past mistakes (SP11).

Translators shared that they are either self-motivated or incentivized through organizational practices. Practitioners were self-motivated to acquire and translate new knowledge in their everyday work as mentioned by SP11: "*[I] educate myself and then apply that knowledge in the domain that I'm working on.*" SP09 also drew on their past experiences in order to be a representative for the users and employees: "I was representing people of color and women, so at least, and I had a lived experience that I could share," Other examples included a practitioner that empowered their teams by providing a space to share any issue openly, and a rare case was illustrated with SP06 who was self-motivated to offset the impact of her professional work of being a developer dealing with data centers by compensating with her personal habits: "I think I've tried to keep my carbon footprint minimized. But I think as time went on at [a previous multi-national oil and gas company], I definitely did it a lot more." Translators were incentivized as a part of organizational professional training and assessment as shared by SP03: "*I've [. . .] completing certain training and earning accessibility badges through the [Current Employer] platforms. I have attended different trainings and workshops. And then, a part of our product has to do with like meeting grade C level.*"

4.4 I am a Member of my Profession

"*I am a member of my profession*" as an identity claim identifies practitioners as they represent the beliefs, values, and activities of their profession as defined by its disciplinary rhetoric. Due to the variety of roles of our participants, this identity claim is heterogeneous in nature, covering a substantial breadth of responsibilities per role. First, we identify discipline-based activities as those that are described and undertaken by these practitioners which constrains or defines what kind of actions one can take in their everyday work. These roles represent their position and expertise across their professional experiences, and is not always specific to their current role or title;, however, we highlight how their position or training relates to disciplinary limitations for decision making. Our participants represented themselves as an engineer (SP09, SP11), CEO/Founder (SP09,SP12), UX designer/practitioner (SP03, SP14), and product manager (SP11). As engineers, practitioners mentioned following procedures, training, engaging in compliance efforts on a company level and working through a review process as a part of software development (SP11); their primary "ethical dilemma there was that the algorithm is as good as the data" (SP09). As a UX practitioner, the focus was on "core priorities to create design, create research, support other projects" (SP03), while other disciplinary perspectives for this role positioned the UX practitioner as a direct advocate for the users. As a product manager, "*you are not just expected to work on the product features, you also need to be aware of all the compliance and any international policies that the company is part of. [. . .] So as a product manager, I can go back and ask, like, how are we displaying this data? How much information do we need to display? Are we guiding the user that the information that they're about to add to the application? Are we taking consent? And all of that stuff. So it's just part of my role*" (SP11). As a CEO/Founder, practitioners focused on being accessible to their employees, empowering them to make their own decisions and providing a platform or venue to show that their opinions matter. Across all of the disciplinary representations of their own profession, practitioners mentioned that these limitations were often felt most acutely when joining a company as a new employee; fears and concerns included "learning my job" (SP09), having a fear of bringing things up, or feelings that they"might not tell their manager this something we heard" (SP08), all potentially reducing their scope of ethical engagement.

As the practitioners shared their disciplinary commitments and boundaries regarding their profession, they expressed how this has impacted their ethical engagement. For example, software developers talked about ethics as embedded and functioning in their generated algorithms, product managers reified ethics in terms of policies, UX practitioners exercised ethics by relating to known user values, and CEOs positioned ethics as embeddedd in business values and employee encouragement. Through all of these stories, practitioners shared their moments of empowerment—what the discipline allows them to do—and disempowerment—what issues are accessible for them to raise. As an engineer, SP08 expressed the need of ethical training to learn the language to raise an ethical issue, and the ability to learn that ethics is something "I would have known that this is something I'm supposed to do." As a UX practitioner, SP14 expressed that he needed to be empowered to participate in an argument as his role was not powerful enough to address ethical discussions with the situation that was presented: "he's got more power and say as a product leadership person, compared to a UX designer who's just trying to prove a point on being reasonable, being very decent to your users, and basically not cheating them."

These discipline-based identities taken on by the practitioners illustrate their involvement with ethical complexities as defined by the rhetoric of their discipline, raising the need to support and redirect their felt responsibilities to other stakeholders with appropriate forms of power whenever necessary.

4.5 I have a Sense of Responsibility

"*I have a sense of responsibility*" as an identity claim represents practitioners that consider the current and future impact of their work. Their awareness of sense of responsibility was illustrated by the practitioners towards themselves, the outcomes they generated, and their organization. Practitioners expressed their sense of responsibility towards themselves by being "*selective about the spaces [. . . and] companies*" they work with, having a strong sense of right and wrong, and feeling that choosing between the two is "*a no brainer*" (SP11). Other practitioners acted constantly with the knowledge that "*every action that you perform has repercussions*" (SP12); while still others positioned this responsibility at an individual, virtue-oriented level: "*everybody's responsibility to kind of really do it right. Even if you have all the policies in place*" (SP08). Practitioners illustrated a sense of responsibility towards the outcomes they generated by taking "*ownership*" of their work (SP05, SP13) and by imagining the "*feeling that you get when somebody has that direct impact from your work*" (SP05); SP14 also advocated following ethical standards to create design outcomes as a binary: "*you either stick to compliance or you say that you are not compliant. Don't try to find a middle ground and don't try to fool people—don't try to cheat people.*" SP11 sought to acquire required knowledge in cases where they felt that company policies may not be sufficient to guide their decision making, while SP09 believed that they should work to "*solve the problem more holistically instead of trying to do a vacuum all approach.*" Practitioners showed their sense of responsibility towards their organization by being in leadership roles, by providing space for their employees to "*understand what you want to have a voice about and what you don't*" (SP09) and by taking it as their responsibility to build a secure culture for their employees (SP12).

Having a sense of responsibility drove practitioners to be advocates, "*tr[ying] to push the conversation*" (SP14) within their teams and taking things to their senior leadership: "*I went up to my VP and I said, stop; if you released this, these are the threats*" (SP13). They also took it upon themselves to drive change as mentioned by SP11, who stated they are: "*going out of my way and applying for that grant and getting that tool and investing time and energy.*" SP07 stated a similar sense of ownership: "*I'm also going to work just as hard to make something that's going to replace it, and you're going to want to replace it.*" While these practitioners were often advocates, they realized their limitations—"*beyond a certain point your roles start to define how much power you have.*" (SP14). In instances where they were unable to change outcomes, these practitioners often chose to leave those environments "*where [they felt] that it's not ethically right for me to participate, I will definitely back off and I would definitely kind of respectfully talk to my team members, or my supervisor, if you want to say, or my mentor, that this is how I feel, and they would respectfully let me go.*" (SP02). This sense of responsibility in professional practice appeared to be influenced by the practitioners' personal values, as mentioned by SP02: "*I'm pretty headstrong when it comes to making a decision, whether it's a right decision or a wrong decision. I don't know, maybe it's because of the culture that I come from, or the family setting, or my history, the way I've dealt with different situations in my life, personally, professionally, workwise, and all of that*" and often also had the opposite affect when practitioners attempted to take actions in their personal life to compensate for their work as in the case of SP06: "*I kind of just started looking for ways to reduce my carbon footprint anywhere I could [. . .] but I think I definitely did them because I was feeling like squeamish about being in the oil and gas industry.*"

4.6 I am an Activist/Advocate

"*I am an activist/advocate*" as an identity claim represents practitioners who question the current state of affairs and seek to change that state of affairs. They represent their actions of activism or advocacy by striving for participation, shaping the culture on an ecological level and desire to be a change maker. Practitioners strove for participation of various stakeholders in decision making as a means of following up on and activating their concerns in relation to an identified ethical issue. For example, SP09 conducted an exercise in her company where the employees were given "*the luxury of having built [. . . company values] together*" and SP14 and SP07 addressed an ethical issue they identified with the design outcomes being generated with their higher officials (such as the CIO) and other team members, either in person or by adding them in communication channels and conversations to bring it to everyone's notice as an attempt to build support for self in taking the right action. Practitioners also expressed ways of shaping their company culture by providing open spaces for communication or expression of company values or other social issues of interest (SP09), identifying the impact of these issues on the company and proposing ways to find "*allies to support your work,*" while also identifying places to comment, such as: "*NO! We should start this at a roadmap level*" (SP04). Practitioners sought to not only to change the external state of affairs, but created their own space and personal commitment to push oneself to advocate for their own decisions with stakeholders. As mentioned by SP02: "*I create my own trail*" and "*you got to push yourself, to basically fight those fights or be very strong in making the decisions and kind of like create your own personal identity along the process because it really helps you in your professional career. So your history, your family, your community plays a very important part.*"

Practitioners expressed the motivations behind showing such activist characteristics which were either possible because they were in a leadership position in their company, aiding them in reflecting and taking action, building on their previous experiences that had taught them to allow others to have freedom and become emancipated. Others had a sense of responsibility towards the products being built, which did not always meet the ethical standards or policies; or they sought out advocacy as a means of aligning their sense of self with their personal and community values. Across the examples of practitioners working to be activists, they often fell along a continuum of creating a change in their company culture vs. lacking the support to fully represent themselves. In our participant stories, we observed that their efforts to create a change often had

more obstacles than support, leading them towards conditions that caused them to quit their job (SP02, SP06, SP07, SP12 and SP14). This range of examples illustrates the capabilities of an activist or moments of support needed for a practitioner's emancipation to fully engage in ethically-focused decision making.

4.7 I am a Policy Follower

"*I am a policy follower*" as an identity claim describes practitioners who seek to follow relevant policies that resonate with organizational, legal, or disciplinary structures that define or constrain their ability to act. Policy followers are encouraged to follow external policies resonating with legal structures such as GDPR, where "*you cannot keep somebody's data more than X, Y, Z depending on what your regulation says*" (SP04). Policy followers are also expected to align with organizational visions and goals through policies, as illustrated the case of SP03 where she followed the diversity and inclusion policies at her company as a part of her design decision making process: "*there is such a huge push to be inclusive and to make sure that products can support anyone from any background.*" Others were assumed to follow policies as a part of their commitment to their profession as shared by SP05 in the context of software development, noting: "*[there is a] certain developmental process that you have to follow and certain documentation that you have to provide*" to gain FDA Approval.

Policy followers shared their intentions to follow policies in order to not disrupt the system that was presumed to already be defined and structured as a series of ethical checkpoints (SP08); as a way of evaluating their decision making based on these policies or checklists (SP03); a means by which they could follow company level regulations, as driven by their profession (SP05, SP14); and as defined by business guidelines that have corresponding legal checkpoints (SP03, SP04). Practitioners discussed their experience of being a policy follower as a constraint in situations when they were not being able to speak up in spaces where there was a lack of ethical checks in place during a project, as shared by SP03: "*a lot of that is outside of our reach anyway.*" SP05 mentions a similar story, noting: "*you don't have as much influence in terms of project direction and company direction,*" with SP06 resigning to a lack of ethical power within the policies provided: "*we don't want to be working for big oil. But you know, this is where our paychecks come from. And this is what we do.*"

4.8 I am Deliberative/Thoughtful

"*I am deliberative/thoughtful*" as an identity claim embodies practitioners who internally question external sources of knowledge and structures to trust in order to better inform their ethical decision making. This identity claim manifests itself in two ways that illustrates practitioners' capacity to be deliberative, and the cognitive routes that allow for deliberation depending on the situations and opportunities that arise for the practitioner. First, their deliberative capacity was illustrated through their tendency to delay action, such as by letting their coworkers make their own mistakes and waiting before calling it in (SP12), not engaging in conflicts during decision making (SP03, SP09), or informing employees that they would address a certain issue later in time, since "I want everybody to be in a better state mentally to be able to have a rational conversation around us" (SP09). Second, the cognitive actions could be deliberative and thoughtful when the situation required them to seek out a plethora of new information, taking time to internalizing this knowledge before making a definite decision. For example, SP03 described a situation where she was being deliberative in posing her decision to stall in a given design situation, arguing against managers by saying "I feel like all I can do right now is just keep those things documented in a place that we can bring back later when we're ready to design for that more open space."

Practitioners are deliberative when they are motivated to act in this manner due to concerns stemming from their awareness of their environment. For example, SP07 elaborates: "*I was being a perfectionist about it and worrying about being accused of being political. Because the whole ethics space is very, very gray area. And I really wanted to protect this. It meant a lot to me. And I was like, I'm not going to be accused of being biased or political.*" In another example from SP12, they sought to safeguard themselves "from any finger pointing that backfired" by collecting and storing information in case it would be needed to support their case. Some practitioners were also influenced by their core personality traits, such as: "*I'm not a person to be very aggressive*" (SP05) and "*I'm an introvert by nature [...] you have to start learning how to talk to yourself internally, and build that skill up over there and then externally as well.*" Some practitioners were also motivated by their desire to do what's right, and being deliberative was their way of determining that sense of moral rightness: "*For me, it's kind of a no-brainer. If I ever find myself in a situation where I have to choose between these two, my choice will be choosing the right thing to do [...] I've been selective about the spaces that I choose and I have been selective about the companies that I work for. So that's why I actively go out and acquire knowledge when I feel like I don't have enough knowledge to make these decisions*" (SP11). Some practitioners also had to be deliberative in their actions during conflicts due to a lack of external stability, which forced on them the need to navigate ethics internally before making a decision that could influence their external circumstance; as expressed by SP09: "*I do think there was a Maslow's hierarchy thing there where you do we start thinking about this stuff when you were [...] like I was an immigrant, I didn't have my green card. You know, I had a lot of other things that I was worried about.*"

5 DISCUSSION

In this paper, we have described eight distinct identity claims of technology practitioners, identifying the potential interactions between these claims and their ethical action and awareness.In this section, we synthesize how these findings reveal salient *interaction trajectories* among these identity claims to represent the performative nature of these identity claims. We conclude how these interactions further elaborate and build upon Gray and Chivukula's [22] model of "ethical design complexity" and point towards the importance of describing identity work to describe ethical aspects of everyday practice.

5.1 Interactions among Identities

The identity claims described above present the beliefs and motivations associated with a certain identity claim, but do not provide

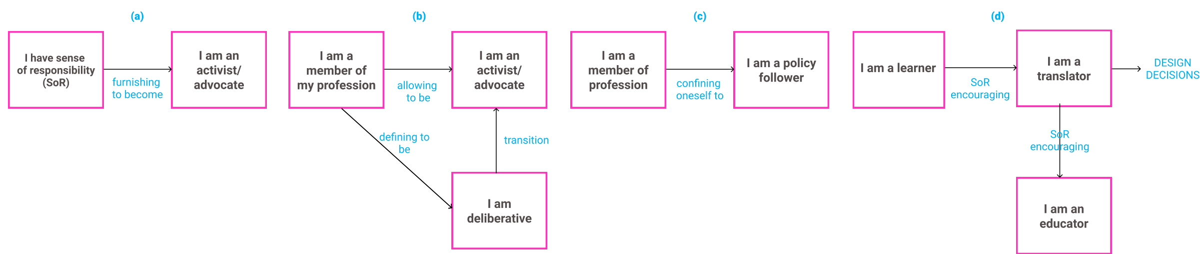
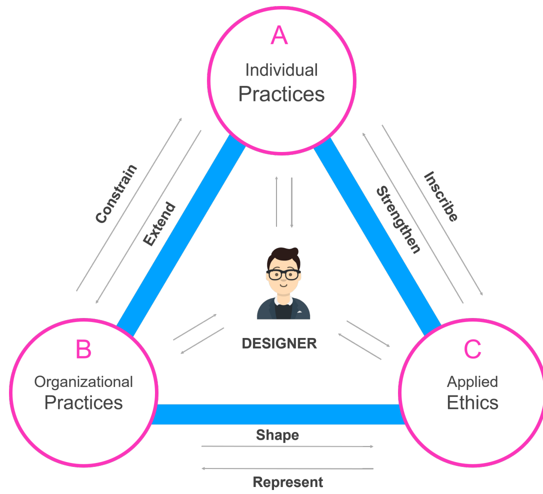


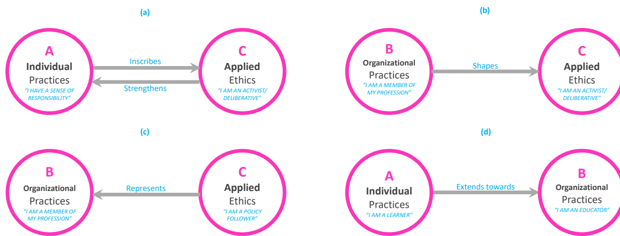
Figure 1: Interaction Trajectories among various Identity Claims

much detail about the potential interactions among two or more identity claims. While we cannot generalize the order in which these identity claims occur or build on a per participant basis due to the size of our interview sample, we have identified five *interaction trajectories* that represent potential ways identity claims appear to be interacting to impact ethical awareness and the ability for practitioners to engage in ethical complexity, as shown in Figure 1 and described below:

- ***(a) Activism/Advocacy through Sense of Responsibility OR Sense of Responsibility Leading to Activism***: Practitioners' sense of responsibility *powers/ translates/ amplifies/ feeds/ leads* them into being an activist when they are presented with an ethically problematic situation, even if what they are advocating for is not directly linked to their responsibilities as a member of profession. For example, as a UX designer, SP14 shared a conflict where he tried to "*tried to push the conversation*" with his manager and teammates about a vulnerability in a system compromising user's data privacy, even though his role in this instance was "*not about me being a UX practitioner and trying to tell you whether users can do it or not. We're not talking about user centered design anymore. We're talking about vulnerabilities in a system.*" In this space, advocacy began from a broader sense of values and morality, rather than beginning within the space occupied by disciplinary or professional ethics.
- ***(b) Member of Profession Defining Activism or Deliberateness***: Practitioners in managerial/executive roles are *able* to be activists/advocates by virtue of their member of profession and for those that are in junior roles or newer professions that are less well defined (UX or design), their chance to advocate is often manifest primarily through deliberative roles. For example, SP09 and SP12 shared their stories as founders of their organizations, explaining that they were able to involve their employees in identifying company values and a "happy culture" for their employees in a much direct sense. On the other hand, SP03 was placed within a designer role, and shared why she was forced to be deliberative instead of take action: "*it wasn't necessarily my decision that was made, but like as a designer, I still have to provide to them what they asked for, even if it isn't in my best recommendation.*" Only rarely did practitioners mention how they were deliberative as a part of their profession, which later led to a tipping point where they became an activist: " *I'm not a person who could be molded according to your wishes, I would rather be more than according to the values that I have;*" in this case, SP02 "*tend[s] to test the waters before jumping into it. So that has been really helpful for me personally.*"
- ***(c) Member of Profession Confining Policy Following***: Practitioners' ethical actions or possibilities are *confined and defined* by their profession, *constraining* what they believe they are able to enact and are hence a means of limiting that practitioner to being a policy follower. For example, SP05 shared a story relating to their role as a software developer, comparing how his fellow developers reacted and abided by policies or guidelines underscoring their responsibility: "*if I say that password needs to have so many characters or whatever, then people will be like who are you, but then if I say according to the ORS guideline or something like that, and it is required.*" In this environment, practitioners who had ethical concerns outside of their professional purview did not feel as if they had the ability to raise emergent ethical issues for which they did not have relevant professional language or binding guidelines. This tension represents a space where disciplinarity has the potential to muffle or quell matters of personal morality or values due largely to the presence of job roles.
- ***(d) Learner through Sense of Responsibility Translating into Education***: The practitioners' sense of responsibility encouraged them to be active learners about ethics in their profession, *translating* their learning into their design outcomes and everyday decisions. For some practitioners, this translation was *manifest* through the choice to become an educator within their teams in order to build collective sensibility. As an example of translating their learnings regarding ethics into the decisions being taken, SP07 took the efforts to educate her colleagues to expand their knowledge by saying: "*hey, we may be in a little bit of a tech bubble here, and here is how. [. . .] Let's start to think about these things a little bit more.*" They accomplished this work by giving presentations and beginning to break down areas where their "tech bubble" may have negatively impacted their ethical awareness. This interaction trajectory illustrates: All educators are learners, but not all learners are educators. All translators are learners, but not all learners are translators.



(a) Ethical Design Complexity Model from Gray and Chivukula [22]



(b) Interaction trajectories from Figure 1 represented using Ethical Design Complexity model language.

Figure 2: Overlapping interaction trajectories within the Ethical Design Complexity model [22].

5.2 Ethical Design Complexity and Identity Work

These interaction trajectories allow us to elaborate and investigate the mediation potential of the ethical design complexity model (Figure 2a) defined by Gray and Chivukula [22], revealing opportunities for mediation among individual beliefs, organizational practices, and contextual ethical action with the beliefs and identity claims of the practitioner foregrounded. This mediation illustrates some of the tensions among the identity claims we have previously discussed, revealing trajectories through which individual and organizational practices might be changed or shaped by identity claims, and how the knowledge that is relied upon can limit or extend ethically-focused practices. We will draw connections between this existing model and the interaction trajectories defined above (Figure 2b), with the goal of elaborating ethical mediation using the language of identity, pointing towards future research that may better describe and model the notions of identity claims and identity work we have identified in this paper.

(1) **A<->C**: The interaction trajectory (a) in Figures 1 and 2b defines an individual's sense of responsibility, and *strengthens* it—allowing them to translate this responsibility into tangible acts of advocating for ethical action, which in turn has the potential to *inscribe* that responsibility into designed outcomes. This trajectory allows the practitioner to move beyond merely being a member of their profession, encouraging them to build on embedded moral values they might bring into their work.
(2) **B<->C**: The interaction trajectory (b) in Figures 1 and 2b presents how being a member of profession—which is a gateway identity in a professional setting and often bound by organizational practices—*shapes* the practitioner's identity claims of being an activist or deliberative in focusing their applied ethics approach. Practitioners expressed how being a part of their profession defines them being deliberative and questioning: "*How do we get the power to stay against [the need to advocate for users over business] and don't lose our jobs, and never get blacklisted and be ethical to ourselves and be ethical to the people whom we serve. We shouldn't be seeing it as delivery, 'it's a service' and we're getting paid*" (SP14). In contrast, due to the lack of external support or under-specified definitions of disciplinary notions of ethics, certain members of professions are represented as *policy followers* (as in interaction trajectory (c)), which serves as a barrier to further activism or shift in applied ethics.
(3) **A<->B**: The interaction trajectory (d) in Figures 1 and 2b illustrates how practitioners are learners of ethical knowledge, which then encourages them to focus on their sense of responsibility, often translating that knowledge to *extend* organizational practices by educating others. However, in contrast to this trajectory, our participants expressed that being a member of profession expects them to be an educator despite the lack of external support or training, or the limited sphere of ethics knowledge to draw on in specific disciplinary settings or roles.

In conclusion, this overlay of identity claims, interaction patterns, and opportunities to further describe the mediating potential of ethics in practice provides evidence that the distinct identity claims performed in the context of professional settings are influenced by various tensions present in ethical design complexity. While we do not attempt to cluster these identities solely as individual, organizational or applied aspects of ethical action and awareness, this analysis points towards opportunities for deeper investigation through *identity work*. Identity work explores the construction, performance, and sustainment of identity claims, serving as the interface between the identity claims outlined in this paper and prior work that has described the ecological conditions necessary for ethically-focused engagement and notions of ethical design complexity. Future work could productively address the intersections (both real and possible) between these two spaces in more depth, identifying opportunities to empower practitioners that already have a felt sense of responsibility and a desire to advocate for others, and also revealing spaces where professional role or an overt focus on only following policies might limit the uptake of ethical issues, even if they do arise organically.

6 IMPLICATIONS AND FUTURE WORK

Our findings point towards the importance of practitioners' core beliefs, identity claims, and philosophies of ethics that create the potential for ethical action and awareness. In the discussion section, we have highlighted the performative nature of identities, illustrating potential future research opportunities to study identity work, including factors that may influence identity construction or re-construction. Future work could productively foreground the means of *supporting* various aspects of ethically-aware identities, identifying *barriers* to claiming or acting upon an identity to be ethically engaged, and *opportunities or motivations* to further explore, reconstitute, or shape one's identity to align professional and personal values that lead to social change. Additionally, while our analysis does not focus on the outcomes or performative manifestations of practitioners' identity claims, future work could elaborate the interaction trajectories and their overlap with the ethical design complexity model from a *disciplinary* lens.

Because professional work is situated, contingent, and subjective, and ethics-related knowledge is enabled or constrained as a part of the overall felt ethical design complexity of engaging in this work, we also propose the need for more practice-led research approaches that investigate ethically-centered (or de-centered) work, further detailing the role of individual, disciplinary, ecological, and societal dimensions in technology work. This complex depiction of technology practice also leads us to propose work that relates the building and sustainment of competence—both from a disciplinary perspective, and from an ethics and social responsibility perspective. These identity claims and interaction trajectories provide insight and direction into potential skills that may need to be commenced during the formal education process, preparing students for the likely possibility of disjuncture among their disciplinary values, personal values, and the values of the organizations that they may work for [51]. In this way, viewing the development of the "ethical self" alongside and throughout traditional disciplinary content may enable students to build identities that are infused with ethical reasoning, rather than viewing ethical reasoning as separate or distinct from disciplinary knowledge or broader ways of acting and being in the world.

7 CONCLUSION

In this paper, we present a critically-focused thematic analysis of interviews conducted with twelve technology practitioners, with the goal of investigating, analyzing, and describing the *identity claims* of these practitioners in relation to their ethical awareness and action. We identified eight distinct identity claims that describe their motivations and beliefs focused on their behaviors of learning, educating, following policies, translating, being a member of profession, being deliberative, being an activist, and having a sense of responsibility. We highlight how these claims provide a gateway to verbalize and potentially improve practitioners' ethical awareness and ways of being ethically engaged in their everyday practice. We identify several patterns of interactions among these identity claims that frequently occurred in our data to highlight the performative nature of these identity claims. Building on these findings, we propose future research in exploring identity work in socio-technical practice, further describing the role of supports, behaviors, and barriers in mediating ethical competence.

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