Co-designing Ethical Supports for Technology Practitioners

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Abstract—In an era of ubiquitous digital interfaces and systems, technology and design practitioners must address a range of ethical dilemmas surrounding the use of persuasive design techniques and how to balance shareholder and end-user needs [2], [5]. Similarly, the increasing user concerns about unethical products and services [1] is paralleling a rise in regulatory interests in enforcing ethical design and engineering practices among technology practitioners, surfacing a need for further support. Although various scholars have developed frameworks and methods to support practitioners in navigating these challenging contexts [3], [4], often, there is a lack of resonance between these generic methods and the situated ethical complexities facing the practitioner in their everyday work.

In this project, we designed and implemented a three-hour co-creation workshop with designers, engineers, and technologists to support them to develop bespoke ethics-focused action plans that are resonant with the ethical challenges they face in their everyday practice. In developing the co-creation session, we sought to answer the following questions to empower practitioners:

- *How can we support practitioners in developing action plans to address ethical dilemmas in their everyday work?* and
- *How can we empower designers to design more responsibly?*

Building on these questions as a guide, we employed *Miro*, a digital whiteboard platform, to develop the co-creation experience. The final co-creation experience was designed with the visual metaphor of a "house" with four floors and multiple rooms that allowed participants to complete different tasks per room, all aimed towards the overall goal of developing participants' own personalized action plan in an interactive and collaborative way. We invited participants to share their stories and ethical dilemmas to support their creation and iteration of a personal action plan that they could later use in their everyday work context.

Across the six co-creation sessions we conducted, participants (n=26) gained a better understanding of the drivers for ethical action in the context of their everyday work and developed an action plan through the co-creation workshop that enabled them to constructively engage with ethical challenges in their professional context. At the end of the session, participants were provided the action plans they created to allow them to use it in their practice. Furthermore, the co-design workshops were designed such that practitioners could take them away (the house and session guide) and run them independently at their organization or another context to support their objectives. We describe the building and the activities conducted in each floor below and will provide a pictorial representation of the house with the different floors, rooms, and activities on the poster presentation.

a) First floor—Welcome, Introduction, Reflection: The first floor of the virtual house was designed to allow participants to introduce themselves and to reflect on and discuss the ethical concerns they wished to resolve during the session.

b) Second floor—Shopping for ethics-focused methods: The second floor of the virtual house was designed as a "shopping" space where participants selected from range of ethics-focused building blocks that they wish to potentially adapt or incorporate into their own action plan. They were also allowed to introduce their own methods or tools.

c) Third floor—DIY Workspace: The third floor was designed as a DIY workspace to allow the participants to work in small groups to develop their own bespoke action plan based on building blocks they have gathered from their shopping trip and by using any other components they wish. The goal here was to support participants in developing methods and action plans that were resonant with their situated ethical complexities.

d) Fourth floor—Gallery Space: The fourth floor was designed as a gallery to allow participants to share and discuss their action plans with other participants and to identify how their action plans could impact their future practice or educational experiences. Participants were also provided an opportunity at this stage to reflect on their experience participating in the session and provide feedback on opportunities for future improvement.

Index Terms—Human-Computer Interaction, Design, Ethics, Computing, Innovation

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