

Introduction

Co-design, which emphasises 'user participation in design', has been introduced and developed in various sectors for more than 30 years. As a user-centred design method, its importance arises when design practices expand from creating products to experience, services and processes (Lee, 2008). Designers and design researchers seem to be the majority in exploring tools, skills, methods and strategy in this realm, making them the noticeable experts, teachers, and communicators in co-design. On the other hand, non-designers have already produced spontaneous co-design in the real world. Without professional design education, they proactively, sometimes collectively improvise objects and space to fulfil personalised needs (Vuscan and Feng, 2018). These two different paths raise serval questions for me: Do non-designers need co-design? Should co-design processes include teaching them design skills? How can all people better engage co-design?

This essay will consider these questions and reflect on my understanding of the relationship between co-design and non-designers. It will review examples of unintentional work by non-designers, highlight serval challenges that non-designers face in co-design, and analysis through two of my projects from the UX Studio Practices Unit.

Spontaneous Co-design

Design started by non-designers. Since the urge to improve a current situation goes back to our ancestors, Friedman (2000) describes that design as an evolution-related activity that 'helped make us human'. From 'making tools for oneself' to massive production, creation seems to become more inscrutable and professional, and gradually separates the roles of 'designers' and 'users'. But it does not stop people from designing.

The 'Furniture Exchange Program' shows how residents from Shenzhen's urban villages build chairs from unexpected materials (Stevens, 2018). These chairs made from scaffolds, shelves or components from a trolley display the evolving craftsmanship in urbanisation. Huang Heshan and Jiang Feng, the only two 'designers' in this event, curated for the exhibition while residents contributed unintentional design works. Although often reaching neither common aesthetic nor ergonomic standards, the products serve a practical purpose in the local village and challenge the design principle of eternity and pureness.



The 'Furniture exchange program'. Image: designboom, 2018.

The mobile home park is another example of spontaneous design. Lower-income families and retirees increasingly turn vehicles for vacations into affordable rural housing. More than 4.9 million people lived in a mobile home community by 1997 (MacTavish and Salamon, 2009). In River Terrace Mobile Home Park, residents kept dotting their park with plants, upgrading units and upkeeping public spaces in the past 30 years. We can observe contributions from countless non-designers if we evaluate it as a co-design activity. They ended up with a complex system supporting over 600 families, with up to 81 per cent household satisfaction (MacTavish and Salamon, 2009).



Map of River Terrace Mobile Home Park. Image: MacTavish and Salamon, 2001.

These creations criticise that mass-produced merchandises with imaginative personas could fail in subcultures. It is user experience designers' ethic to refer to users as humans (John, 2020) and deconstruct the works from an oversimplified view of diversity. However, designing a mass-distributed product or service to fit every situation is unlikely to achieve,

even with careful deliberation. The examples also reveal that people's motivation to appropriate and improve does not necessarily require designers or design methods. These unintended designs come from human imprints on the ambient, then turn into new distorted environmental situations (Vuscan and Feng, 2018). A migration of affordance occurs when people reconstruct objects' status and deviate from the designer's initial purpose. As the 'expert of his or her experience', people can generate ideas and collectively externalise them, with or without designers. Therefore, I speculate that the wisdom of non-designers will continue in the foreseeable future.

Challenges for Non-designers in Co-design

Sanders and Stappers (2014) imagined a conceptual co-design vision in 2044, in which everyone benefits from constant design education and blended technology, and collectively shaping our living through shared value. A 'design by people' mindset is widely accepted. From spontaneous design examples, we can see creativity and willingness from non-designers. Why hasn't this come true?

Challenges could be from developing creative confidence, commonly defined as the development of trust in one's own creative skills (Rauth et al., 2010). Socialisation and formal education make many of us consciously or unconsciously resign ourselves as "non-creatives" (Kelley and Kelley, 2014). It might partly explain why Sanders and Stappers said some people would still choose not to engage in participatory design. Plain encouragements from workshop hosters such as 'Be more confident within yourself!' are inadequate (Rauth et al., 2010). As an existing solution, some co-design activity included teaching design thinking to increase creative confidence and transform non-designers into designers to smoothen the collaborative process (Siegel and Stolterman, 2008). It seems to agree that a consistent national design education system is essential for co-design.

Nonetheless, I would argue that turning design knowledge into common understanding is unpromising and possibly unnecessary. Professional design knowledge takes years to acquire. Guiding each people with similar 'nature of design' and turning them into the same role could desert the initial request for diversity. By educating students to think and act in a designerly way, we will carelessly exclude those unprofessional yet surprising practices. The rectifying objects and surroundings reveal peoples' iterating design activity for personalised space within a limited range. The studies on unintentional design suggest discovering embed inspirational value in established creations from non-designers (Vuscan and Feng, 2018). Therefore, teaching design thinking to increase creative confidence could imply inequality: Designers do not want to sacrifice control in co-design, and people should learn from them.

Practices and Reflections on Co-design

Two worth-mentioned projects in our first unit 'UX Studio Practices' inspire me to reflect on the relationship between co-design and non-designers. For the 'UX of Memory' project, we asked three groups of students to fill the comic strips of a classic scene in Harry Potter: The Philosopher's Stone. It is an experiment to observe how people collectively retrieve a shared memory by filling memory gaps and communicating. We provided partly pre-filled comic strips and properties' images to help participants start.

Overall, we noticed that partly-finished templates and assets could help participants build up creative confidence and start more easily. One group suffered less from 'the fear of blank pages' than others with more helpful 'episodic frames' and properties. A prepared framework could also set preconceptions to cooperators because fabricated images in the experiment successfully mislead them. Some group also create new stories rather than replicating the original one. They described that since our task brief mentioned 'you can do whatever you want' and 'there is no right or wrong', they felt comfortable and motivated to proceed within unstable boundaries. An informal ambience and an open attitude to failure suggest a more engaging creativity event.



UX of Memory: pre-filled comic strips.



UX of Memory: creating collective memory.



UX of Memory: properties.



UX of Memory: presenting a new story.

The other project 'UX of Soil' offers a collaborative urban planning game. We invited four people to build a community in a limited soil platform. Each player acted as a fictitious role, communicate with each other, and directly manipulated the prototype to serve their goals. The concept demonstrates conflicts of social characters' profits and reflects how human fighting for natural resources by urbanisation. In our experiment, participants were able to communicate through collective prototyping. None of them is from an urban planning background, so their design comes from diverse subjective view (based on giving roles) instead of a holistic plan. We noticed that using physical models in a collaborative urban planning practice might evoke more spacial thinking and communication. Flexible, tangible low-fidelity prototypes enable more unexpected interactions and outcomes.



UX of Soil: Models of buildings.



UX of Soil: collaborative urban planning.



UX of Soil: soil foundation



UX of Soil: outcome.

Since participants in this experiment are all design students, it is technically not from a 'non-designers' perspective. Nevertheless, the absence of noticeable designerly thinking, methods, and approach questions the connection of design knowledge and co-design. The experiments lean to the notion that design is a process rather than outcomes (Friedman, 2000). Despite the results which are far from final design works, I still review them as valuable co-design research in my journey. I learned that applying assets are useful but should be thoughtfully executed to prevent limitation or misleading. Selected medium and physical low fidelity prototypes enhance team communication and interaction. The above external settings, flexible task specifications and unstable environment are catalysts for collaborative creativity (Rauth et al., 2010).

Conclusion

This paper has demonstrated that people have passion and intuition to innovate. It has discussed non-designers' unintentional approach to co-design with real-world examples, outlined some obstacles to a better co-design vision, and reflected on relevant projects in UX Studio Practices unit.

The design world has become more complex and entangled. The shift from 'designing for people' to 'with people' has been a growing recognition, but we are still in the middle of the transition to 'designing by people' (Sanders and Stappers, 2014). Designers and non-designers should act as equal creators to fill the gap to greater involvement. From my perspective, the innumerable unintentional co-design criticises the conventional design training in many workshops and the evaluation standard from designers.

Co-design should stress more involvement and learning factor than teaching design skills to the recipients. As designers, we should question our professional method and reflect on the relationship between people and design. We should humbly drop the controlling and pedagogical mindsets, listen to and learn from non-designers, recognise them as an underestimated supplement to decentralise the co-design framework. However, my last term projects serve more as a starting point than substantial studies on this topic. I am excited to develop further investigations to gain a more in-depth view.

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