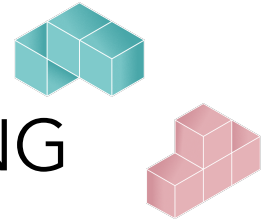


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MAPPING CO-DESIGN: ZOOMING IN AND OUT

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ABSTRACT

In this paper, I aim to use some questions and insights that emerged during my systematic mapping study and literature review process to open up a discussion on matters of scale in co-design practices, as well as reflecting on its implications on my PhD research project.

SUMMARY OF THE PHD PROJECT

This PhD project is conducted as a part of the INTER'ACT research project, which focuses on the development of operational models, methods and tools to support interactions between architects and end-users in the early phases of the design process, in the context of single-family housing projects.

Within the framework of INTER'ACT, the objectives of my PhD research are 1) revealing the mechanisms behind the methods, tools and techniques in practices of co-design which enables interaction between designers and end-users; 2) assessing the contextuality of specific methods, tools and techniques and 3) assessing their transferability to single family housing architectural processes.

This PhD study consists of two pillars. In the first pillar, we are approaching the question from a transdisciplinary perspective considering the current scientific as well as practice-based debates about co-design, which tend to broaden its meaning and operations (Sanders and Stappers, 2008). Thus, the first pillar is focusing on participatory design practices identified through literature review, as well as a field study (interviews with designers and end-users, observations during co-design instances) to gain a deeper understanding of these practices of interaction in action.

The second pillar will be mainly focusing on transferring the knowledge that arose during the first

pillar, in order to develop renewed models, methods and tools to support interaction between architects and end-users. These renewed models will be co-designed with architects, users, designers, and other stakeholders, and the co-design process will be conducted by the research team. Thus, in this pillar, my main inquiry on the mechanisms behind the methods, tools and techniques will be continued in this experimental setting. Eventually we plan to test the results of this experimental co-design process in real-life architectural design situations.

At the present time, we are still processing the literature review in order to have a more focused survey concerning methods, tools and techniques used in co-design regarding research objectives. The field study is also in an early-stage as in-depth interviews and observations have recently started.

AN APPROACH TO SURVEYING LITERATURE: ZOOMING IN AND OUT

To reveal current approaches in user involvement under the disciplines of design, a systematic mapping study (SMS) is first conducted to map the related research landscape as well as to offer a background and a framework for a further systematic literature review (SLR) (for the methodology and first preliminary results of the SMS:

<https://dox.uliege.be/index.php/s/Ky4XUijj3yli0Z>)

The SMS is based on the articles that we reach through a structured database search. Among 836 articles, we filtered and kept 424 articles and we coded them according to their concepts, contexts, populations as well as methods and tools (when possible, to determine) by reading titles, abstracts and keywords. Without digging into more detailed information at that first stage, this process puts forward the area of investigation to a broader perspective, and provides interesting “meta” insights. Thus, some concepts that requires in-depth analysis are not yet coded at this phase and left to the SLR phase which consists of a closer reading and analysis. After the preliminary results of the SMS, the

SLR process started and SMS is used as a dynamic framework to understand the concepts that arise during the study. For the SLR co-design selected as the concept to focus on and a total of 158 articles brought to further evaluation from the SMS. It should be also noted that the article stock coming from the initial database search expanded during the process to be able to have a better understanding of specific concepts through snowballing, additional searches as well as suggestions from experts and peers, by approximately 50 articles.

MATTERS OF SCALE

CO-DESIGN'S PREMISES ON SCALABILITY

“...the quality called *scalability*, that is, the ability to expand—and expand, and expand—without rethinking basic elements (...) by its design, scalability allows us to see only uniform blocks, ready for further expansion.”

Tsing, 2012, p.505

Co-design became one of the answers to tackle the complexity of design problems we are facing today. As most of this complexity is related to the use and people, co-design practices open possibilities to bring user perspective to the design process through participation (Dorst, 2019). This led to the definition of the design process itself seen as a tool which can provide a methodology for solving complex problems our society faces, specifically in relation with its human centred approach (Manzini, 2016). Design thinking, its tools and techniques are also adopted by many other disciplines and/or by designers to solve complex problems (Dorst, 2019), for social change and innovation (Manzini, 2014) as well as business innovation and organizational change (Buchanan, 2008). As a result, design, under a variety of forms and methodologies, today tends to refer to a broad set of operations across disciplines as well as sectors (from private to public sector as well as third sector, education, health etc.).

In that regard, co-design slowly became one of the designerly ways of interpreting and changing the world, through its methodology and tools. In this sense, co-design made some promises on scalability and on being expandable. However, as pointed out by Akama et al., this methodological premise also led to some extent to the decontextualization of co-design, by “portable methods and replicable processes of design”, as well as with their conceptualization, diffusion and reproduction as universal models which found its example for instance in Stanford d.school’s Human-Centered Design or Design Council’s Double Diamond (2019, p.60).

CO-DESIGN IN ACTION

“scalability banishes meaningful diversity, that is, diversity that might change things.”

Tsing, 2015, p.38

But getting a closer look at each article selected from the literature, we wonder: can we say that given its promises, co-design really follows the ideals of scalability? The promise of scalability of co-design may have made it permeate every area of human activity, but the diversity of these activities, with their contextual convergences and divergences, tends to show that co-design in action reveals itself in just the opposite way: as an instance of non-scalability. Macq et al. (2021) underlines that in terms of participatory innovations, “entanglements between sites and scales as well as the divergent motivations and visions of the different actors in participatory innovation inevitably create ‘frictions’” (p.163). Here ‘friction’ first of all refers to a “generativity” which diversifies, changes and challenges the “universal” as well as an immanent property of participatory processes. Second, its use to analyse and look at participatory processes becomes a strategy to contextualise these processes (Macq et al., 2021).

Thus, the friction seems to open up a possibility to discuss the issues around scalability. However, are frictions always easily recognisable? Indeed, when we are trying to understand the co-design, methods, tools and techniques used and referred to in an academic paper, we are seeing only a fragmented part, a representation of a process in the form of a written work. As pointed out by Huybrechts and colleagues “academics tend to exclude ‘back office’ institutional engagements from papers so as not to overload them” (2017, p.151). Thus, the micro-level representations and analysis which do not contextualise and make visible the interactions between micro, meso and macro levels might obscure our understanding of each studied co-design process (Huybrechts et al., 2017). Light and Akama (2012) also mentions similarly a “culture of reporting” which is not specific to the academic realm but also to the design practice, which “isolates method, tools, and technique to make them reproducible” (as cited in Akama et al., 2019, p.62). Thus, it complexifies the true understanding and nature of co-design and its “scalability” issue.

AFTERMATH

All these discussions also relate to the literature review process, and can be interpreted as a reminder to be more careful when assessing the studies and drawing conclusions specifically aiming at method and tool-related issues. The SMS and SLR process in the PhD project, fostering some zooming-in and zooming out through the papers, (the concepts they use; their contexts; countries; populations; years; tendencies; common references that has been used; affiliations of authors; tracing collaborations between designer scholars/practitioners and non-designer scholar/practitioners; the departments; research centres; institutions; non-academic partners etc.) can help us to overcome some above-mentioned limitations.

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