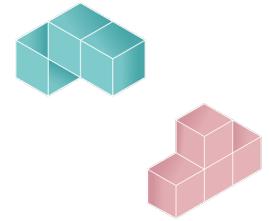


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ARCHITECTS & END-USERS' INTERACTIONS IN HOUSING PROJECTS: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

This research aims to provide a better understanding of how architects and end-users interact on housing projects. As a first step, we are approaching the subject through literature.

Based on Kitchenham's work (2007), we adapt a systematic literature review protocol (SLR).

The role of the architects, their postures and practices are reviewed in relation to the users' needs and expectations. We discuss the extent of interaction encountered through literature, from traditional discursive meetings to participatory practices. This SLR serves as basis for further research aiming for a renewal of interactional practices in the housing architectural field.

PHD PROJECT CONTEXT

The under-studied societal and professional challenge of end-users' (dis)satisfaction levels and low involvement in architectural design processes is our departure place. The purpose of this research is to study the relationship between architects and end-users and suggest ways of improving the interactions between them.

This PhD research is conducted within the INTER'ACT research project in ULiège. To focus the research, the two following main research questions are at stake: (i)

How do architects and end-users currently interact in housing projects during the first stages of the design process? and (ii) How could these interactions be improved or renewed?

The first step of this PhD consists of the identification of architects' and users' current interactional practices, their main bottlenecks and potentialities through literature. The first research question (i) is therefore our main focus at the present time. We turn to Kitchenham's systematic literature review protocol (2007), which we adapt to our topic (Figure 1) in order to get a grounded understanding of the state of this issue.

Furthermore, we interview architects about their relationships and interaction practices with end-users. We now want to observe these practices in the field. In the light of the collected information, we are eventually aiming to co-construct new tools or methods of interaction together with architects and potential end-users.



Figure 1: Steps of the adapted SLR protocol

SYSTEMATIC LITERATURE REVIEW (SLR)

From research question (i), we derive a set of sub-questions specific to the literature review, nourishing research terms in three main semantic fields: actors we want to focus on; the scale of architectural projects we are aiming for (housing, but also other projects involving living spaces such as hospitals) and the various types of interactions between these actors. In order to narrow down the number of articles found in the chosen database, we created a research string. After scanning the abstracts found, we are able to restrict this search to the most relevant articles. Combined with a database of articles recommended by experts from various fields (sociology, psychology, architecture and urban design), we are finally left with about 120 articles to review and analyse.

This review adopts a dialectical approach, contrasting different views of authors following the main themes we identified as critical in the literature. Among those themes, we find the role of the architects - for instance addressed by Frimpong and Dansoh (2018) and Arboleda (2020) -, what they expect and what is expected of them; their attitude towards end-users; the various interaction practices. Finally, we discuss our position regarding the existing practices identified to improve the relationships between both parties.

A MATTER OF SCALES

This literature review gives us the opportunity to address the interaction issues in various ways. Firstly, through various architectural scales: from social housing project where the architects are not in touch with end-users but rather with an intermediary client (Abdirad & Nazari, 2015) to private dwelling projects (Frimpong & Dansoh, 2018). This scale dimension gives us the opportunity to question and reflect on how architects tackle various projects with distinct approaches: while it is common in the architectural field to include participatory practices in large-scale public projects, it is less common to read about participatory practices in smaller-scaled, dwelling projects.

Secondly, we look into different scales of interactional practices involving architects and end-users: from traditional discursive meeting models (McDonnell & Lloyd, 2014) to participatory practices (Arboleda, 2020). We establish our own ladder of end-users' involvement in the project, based on the selected literature (Table 1).

Table 1: Identified practices organised on a scale from most common practices (mostly basic knowledge about the user through brief conversations and consultation for choice validation) to bottom-up participatory practices, where the architect is more of an adviser, an aide or a support to the end-user.

Identified practice	as identified for instance in:
Conversations/Consultation (common practices)	(Adinyira and Dafeamekpor, 2015)
Customization	(Cheng and Lee, 2005)
Informational/Numerical tools for consultation	(Afacan and Demirkan, 2010)
Visits	(McDonnell and Lloyd, 2014)
Client-learning support	(Siva and London, 2011)
Scenario-based design for architects	(Altay et al., 2016)
Prototype testing	(Herriott, 2018)
Co-design & similar practices	(Göbel, 2017)
Bottom-up practices	(Arboleda, 2020)

This does not mean that bottom-up practices are better or worse than common practices. We could establish a parallelism between Table 1 and Arnstein's ladder of participation (1969) and consider this as a version applied to dwelling architecture. However, the fact that Arnstein's model is called a "ladder" seems to induce some kind of grading between the practices, which from our point of view needs some nuance. Whilst the practices in highlighted green here above (Table 1) are often presented as having a positive impact on the experience of users in the process, expectations and priorities of both actors still often struggle to align (Schwaiger, 2019). We therefore need to push the diagnostic further to identify the real-life constraints architects are facing in their practices in order to enrich our understanding of the uncommon interaction practices that could enhance the current ways of doing. Further research perspective

Toolkits for participation are considered as having a limited impact according to Yu *et al.* (2005, in Siva & London, 2011). However, these seem to be created by researchers and imposed upon users (architects as well as end-users) in a top-down manner. For the second phase of this PhD project, we suggest to apply the essence of co-creation process to the tool itself, by inviting architects and end-users to participate in workshops and to co-develop in a bottom-up approach a toolkit or method that could renew their interactions. We want to be responsive to practical demands and needs, thus we ought to stay open-minded about the course these workshops could take and the form of the output could have.

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