Emergence patterns for client design requirements



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This paper focuses on a central topic in design communication studies, namely the elicitation of clients' design requirements. Based on interviews with ten industrial designers, the paper develops a conceptual framework that includes definitions of emergence patterns for client design requirements, potential communicative problems associated with these emergence patterns, and overall guidelines for addressing specific emergence patterns. The proposed conceptual framework aims at enabling designers to elicit clients' design requirements more efficiently and providing a foundation for future design communication research. © 2015 Elsevier Ltd. All rights reserved.

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It is often challenging for designers to manage the dynamic process of information and idea exchange with clients during the course of a design project, where failure to achieve an appropriate information flow in design processes can produce a variety of problems (Eckert, Clarkson, & Stacey, 2001; Eckert, Stacey, & Earl, 2013; Jevnaker, 2005; McGinley & Dong, 2011). Although the literature on design communication provides several perspectives on communicative issues in design projects (as the subsequent section demonstrates), clear overviews of the different causes of communicative problems in design projects are lacking. This paper provides such an overview in the context of the elicitation of clients' design requirements.

In design projects, the design problem typically originates with a client (internal or external) who needs assistance solving a particular problem (Lawson, 2006, p. 84). Such problem descriptions are typically accompanied by a set of requirements, some of which may be stated when the design problem is presented, while others emerge later (Borja de Mozota, 2003, p. 194; Buur & Andreasen, 1989; Cross, 2006). Obviously, the number and specificity of requirements defined by the client vary — in some cases, the client has a fairly specific idea about the direction of the design, while in other cases, the client has only an overall vision, goal statement or assumption of a particular market need, which then becomes the subject of exploration

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by the design agency. The focus of this paper is on cases where the elicitation of client design requirements plays a significant role. In these cases, from the perspective of the designer, all client requirements would ideally be presented at the beginning of the project and remain unchanged throughout the project, since the emergence of requirements that were previously unknown or the redefinition of previously stated requirements risks making design proposals in progress infeasible, and the designer's efforts to create these proposals are wasted.

Problems related to the elicitation of client requirement are, to a large extent, linked to designer-client communication issues. The most obvious manifestation of this link occurs in situations where a designer works on a design proposal without being aware of certain client requirements that contradict the chosen design direction, which means that the proposal in progress has to be modified or even abandoned. The communicative issue in this situation stems from the designer failing to elicit certain information from the client or the client failing to provide information that the designer could reasonably expect to be given without asking for it. In other situations, the reason why a designer works on a design proposal without knowledge of relevant client requirements is that these have yet to be considered by the client. The link to communicative issues in this type of situation is that the designer to a large extent, through communication with the client, has the opportunity to stimulate the client to develop these requirements rather than risk having them emerge later in the design process and render design proposals in progress infeasible. Finally, there is also a link between communication issues and problems with eliciting client requirement in cases where previously stated requirements are redefined during the design process. In these cases, through communication with the client, the designer may develop a deeper understanding of the client and, thus, a better ability to anticipate which client requirements may be subject to changes.

To aid the understanding of the emergence patterns of client design requirements and the various communicative problems associated with them, the present paper develops a conceptual framework that draws distinctions between these patterns and their associated communicative issues. With these contributions, the paper aims to enable designers to elicit clients' design requirements more efficiently and thus minimise the amount of resources spent on developing design ideas that later turn out to run counter to undisclosed client demands. The proposed conceptual framework was developed on the basis on interviews and studies of reference projects by ten industrial designers. The industrial design field was chosen because previous studies by the author found significant problems related to client requirement elicitation in this area. However, as will be discussed later, the contributions of the paper may also, to some degree, be applicable in other areas of design.

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