Creative processes in collaborative design (part one): participatory design

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1. Introduction

This article is based on a presentation given at the Feeding Creativity workshops held at EINA, the University Centre of Art and Design affiliated with the Universitat Autònoma de Barcelona. These workshops were part of the activities for the EINA and UAB Master’s in Research in Art and Design programme (MURAD). The spoken presentation shared the results of the first part of the research on collaborative design, which is being undertaken within the line of research with the same name by the EINA research group Design Processes: Advanced Practices in Art and Design.

This first phase of the research covered the first degree of intensity of the collaborative process, defined as participatory. The second and third parts encompass the collective and collaborative (or cooperative) processes, respectively, and these results will soon be accessible on the research group’s website.

In view of the theme of the Feeding Creativity workshops, this article focuses on the design phases related to development of the creative process.
2. Introduction: planning the study

The purpose of this research is to provide greater insight into the creative processes in collaborative design, which will also lead us to make a distinction between processes that are participatory, collective, or cooperative. During the last few years, collaboration has emerged as an effective way to approach the kinds of design problems faced today and that will continue to be faced in the future, which are marked by the clear decline in the consumerist and individualist dynamics that defined the welfare society. The circumstances of our social, political, economic, and environmental contexts require design processes that are appropriate for their specificities, and the forms of collaborative work applied are responding to an important part of this need, both in terms of underlying values and in relation to analytical and effective organisational forms. Within the scope of the culture of design, it would therefore seem necessary to dedicate some research effort to rethinking the meaning, appropriateness, and direction of ‘what is collaborative’ in design. With this ambition in mind, the following article presents a first mapping of our understanding of the various phases, intensities, and gradations of what is collaborative in the creative design processes. This mapping is currently being continued as a line of research for the research group Design Processes: Advanced Practices in Art and Design at EINA, a university centre affiliated with the Universitat Autònoma de Barcelona.

An analysis of collaborative design can focus on a variety of perspectives; however, in keeping with our research group’s scope of interest, we have decided to explore the following four: 1. The different collaboration dynamics: participation, interaction, cooperation, coordination, formation of groups and communities, etc. 2. The hierarchy and modes of relationships among the stakeholders involved: designers, other professionals, users, clients, communities, producers, consultants, etc.

3. The various phases of project development: analysis of the medium, the creative process, testing, implementation, redesign, etc.

4. The various disciplinary focuses of the practice of design: industrial, interior, graphic, services, systems, product-service, interdisciplinary, etc.

In this part of our research, we are primarily interested in observing the creative process phase of collaborative design projects in order to analyse the variables produced by the relationships among the various stakeholders. To this end, we will compare some case studies and lay out a possible system of classification, while at the same time recognising that the gradation from one section to another remains porous and flexible. Furthermore, we consider the ‘sections’ to be areas of influence rather than static compartments, and we focus on exposing the hybrid (or multiple) nature of the cases discussed, which are found to be in constant movement among these areas of significance.
From this perspective, we have distinguished three main areas of significance, ranging from a lesser to a greater degree and intensity of participation and collaboration among the stakeholders-contexts of a design project: a) Participatory design b) Collaborative design c) Collective design

We must point out beforehand that any sort of quantitative grading with regard to interaction does not imply a positive or negative assessment. Each case is developed from a more open or closed position, using either a more hierarchical or horizontal structure according to its particular needs and objectives. Although a process may be more or less participatory, this does not suggest that it is better or worse, because the best indication of its value has to do with its appropriateness for the particular case and its effectiveness in terms of responding to particular needs.

A very complete study has been conducted in this area. It was conducted by the Values and Sustainability research group at the University of Brighton (Burford 2013) and it evaluates the qualitative aspects of participation in complex interactions. It is especially interesting that one of the recurring parameters is the gradation of influence shown by some agents over others, which in turn provokes reactions with a greater or lesser degree of impact on the common project: (1) Denigration, (0) Neglect, (1) Learning about, (2) Learning from, (3) Learning Together, (4) Learning as One. This qualitative focus seems to be the most interesting in terms of understanding the behaviour of interactions during collaborative design. However, even in much more production-oriented environments, such as in business organisations, there is an increasing awareness of the advantages of dynamic collaborations, both internal and external, as well as the quality of the necessary interactions. The Coolexity teamwork model (Zamora 2012), for example, has been proposed as a way to allow organisations within a company to take a collaborative approach to taking on complex and uncertain situations by means of distributed leadership.

It is highly significant that, according to a study performed by IBM in 2002, the skill that companies request most when hiring a new employee is his or her capacity for collaboration, and they even ask candidates to include specific examples of teamwork on their CVs.

3. Participatory design and experience design

At some point during the creative process of participatory design, an outside user or participant will become involved. This person will participate in the role of a ‘guest’, during a specific phase of the project and for a specific purpose, as delimited by the designer or design team. We tend to call this invited agent a ‘user’, although in reality it might be more accurate to say a ‘presumed’ user, who in most cases is actually a non-professional consultation source who is more or less related to the research context and who has a profile
similar to that of the end user.

Two highly relevant cases of this level of interaction present various options for participation in relation to the project phases:

a) The participant is involved during the designer’s creative process.

b) The participant is creatively involved after the design is finished.

**A) Participation during the creative phase of the design**

The participant, or ‘presumed user’ is involved during the design process, during which he or she might:

a) help with understanding the real, particular, and subjective needs of the context or future user;

b) contribute ideas, plans, and possible solutions for the analysed situation;

c) test the prototypes and provide critiques, which the designers can then use to modify the product;

d) serve as a ‘real’ point of reference to which the designer can return during the creative process in order to prevent getting lost in his or her own idealisation of the design results.

In general, in none of the cases above will this participant have a presence during the entire design process, and he or she will not make decisions about the idea or its manifestation or be a member of the creative team. The involvement is more like that of a consultant, assuming the role of providing an opinion on the designer’s ideas. The designer takes advantage of popular knowledge or local understanding in order to make his or her proposal fit the real context as closely as possible.

Many companies use this degree of interaction with the future user in order to improve their products or help match them to the public’s desires: from tasting crisps (Matutano), to creating reading groups by publishers (Edicions 62), to organising creative workshops to focus on the real needs of a design project (Smart Design). A publication related to the *WAIT* project by Fuelfor, which discusses the design of a primary care medical clinic, includes a diagram of the creative process showing the points in time where interactions with participants outside of the design team occur. In this diagram, the benefits provided by the various participatory agents can be clearly appreciated: interviews with experts, discussion groups with patients, interviews with users, workshops held with other designers and professionals, etc.

The information provided by the future users, along with direct observation of the situations they experience, are two factors that reinforce the idea that it is the user experience being designed, not just the spaces, products, or graphics that go along with that experience. In fact, Fuelfor states this orientation in the title of the project itself, which makes reference to a fundamental experience during any visit to a
medical centre and, in fact, during the everyday life of any person: the Wait. This level of participation is also used by some design studios to explain how their working philosophy goes beyond the object produced, and to demonstrate their interest in focusing on the design of the user experience. Just as in the case of collaborative design, the term ‘experience design’ sometimes generates problems with interpretation or intensity or attracts accusations of utilitarianism. Terms like this are used in such a disparate range of cases, and with such varied intentions, that they often lose their ability to define problems, and furthermore, may be used to apply a ‘commercial’ veneer of ethical values. One simple manner of recovering the useful and concrete meaning of these terms is to add a subtitle to them, specifying the reference and making their significance better adapted to each case. Citing other authors who have specified a meaning similar to the one being applied at any given time may also be effective.

In any event, an emphasis on participatory design centred on the user experience implies a very relevant shifting of the focus of attention: from interest in the object to interest in the person. And this perspective affects not only work methods, but the goals and challenges of the design project and its underlying values as well.

The ethical stance of human-centred design (HCD), for example, arose within this context of interest in the experience and in participation. Large design studios, such as IDEO, dedicate part of their energy to developing projects and researching methodologies that attend to this focus of attention. IDEO also shares documentation, case studies, future ideas, completed projects, and the story behind its ethical motivations on the internet. The section on the creative process in the IDEO publication the Human Centred Design Toolkit proposes two methods to begin designing the approach: participatory co-design and empathetic design. This puts the participatory action at the beginning of the creative design process and maintains it as an underlying attitude throughout. It should also be noted that although the case studies in the IDEO manual are humanitarian in nature, the methodology proposed is equally effective in any type of design project.

B) Creative participation after the design

The participant (who is now a user) is involved after the design process is finished and the product has been produced and marketed. In this case, the product has also been designed specifically to give the user who acquired it a creative experience, to a greater or lesser extent. As such, it involves a very targeted, limited, and controlled type of participation. However, this is no reason to undervalue it as long as it responds to the expectations required for the context.

The do scratch lamp (2002, Droog Design) by Martí Guixè, for
example, is designed to allow its user to modify its appearance to produce unique lighting effects, making it always distinct from anything anyone else might create. The ability to personalise the industrial objects in our everyday environment provides a creative, playful experience for their users, while at the same time allows them to become involved in the aesthetic context of their most personal surroundings. It is also, therefore, an exercise in ‘emotional’ identification between the subject and his or her most intimate objects. As such, Guixé’s product has a conceptual side as well, since it clearly reflects the designer’s faith in the creative abilities of the non-artist user and the design potential of the non-designer user.

The option of designing a product whose final phase is intended to be finished by the user is clearly another manner of focusing design on the experience. This is very different from the other approach mentioned above, where the user is invited to participate in the initial phase of the creative design process. Guixé’s lamp allows its user to modify part of the object’s final appearance, but there are other examples in which the participant creates the formal configuration in its totality. This is the case in *Vectorial Elevation* (1999-2010), where the artist Rafael Lozano-Hemmer provided users with design software that could be used to operate a system of searchlights mounted on buildings in Mexico City, thereby allowing the city’s residents to create their own public lighting choreography. Lozano-Hemmer considers this level of participation with interaction as ‘connective intelligence’, and he differentiates this from the idea of collective intelligence, which has tended to be promoted in relation to interactive proposals for digital design. When a group of people interact using the same medium, with the same objective, and the results are then shared, this process might be called collective creation. However, this type of joint action, which unites those creating the effect with the medium affected, does not necessarily unite the participants with one another. The creator of *Vectorial Elevation* places more importance on the relationship and connectivity factor among the participating agents than on the collective form of interaction with the medium. Both in the example of Guixé as well as Lozano-Hemmer, the creators have designed a matrix that determines the options for the possible final results, but which also leaves space, more or less extensive, for the users to contribute their own creativity and participation. In both cases, the user’s feeling of being a part of the context of the final product increases, which allows a process of identification to develop. This incitement of feelings of belonging and identification is sometimes used by institutions interested in demonstrating their open nature to the public, and/or more simply, hoping to gain loyalty. It is not unusual, for example, for cultural institutions oriented towards the general public to include participation in the local cultural network among their objectives so that residents naturally perceive them almost as a sort of community service. To a certain extent, the community ends up considering the institution as public property, a representative icon of their city, a
'family' space for cultural use. This is the case in the project called *I went to MoMA and...* at the New York Museum of Modern Art (MoMA), which gives its visitors physical and virtual spaces where they can write about aspects of their experience at the museum. Compiling perceptions, discoveries, thoughts, curiosities, emotions, and so on does not necessarily have anything to do with the cultural experience of the content displayed in the museum, but rather it involves the feelings experienced there as triggered by any number of temporary circumstances. This initiative is one of the participatory activities designed by the museum. These may occur in the exhibitions themselves, as activities related to the exhibitions, or as parallel initiatives for the institution, such as in the case of *I Went to MoMA and...*, which involves an invitation to participate that, in reality, does not affect the entity's physical construction, but instead creates a sort of collective memory for the visitors. However, although the end result takes on a collective form, the project is not really very collaborative since it neither provokes substantial changes in the entity nor activates consensus among the participants.

4. **Participatory design, the gateway to collective design**

There are other occasions where the construction of collective memories, using a large group of residents, goes beyond the participatory dynamic and begins to be defined as collaborative. This would be the case in the project *Retratos al paso (Take-Away Portraits)* which the artist Raimond Chaves performed for the Architectures exhibition during an event at the Castellón Contemporary Art Space in 2002.

A few weeks before the exhibition, Chaves collected audio recordings from residents of Castellón describing a person they missed. During the exhibition, visitors could listen to these recordings and create a portrait based on one of the descriptions. These drawings were put on display during the exhibition, and afterwards sent randomly to the participants, without mentioning the artist.

Clearly, here there was a creative design process conceived of by the artist prior to any participation by the users. There are therefore some limitations established by the artist that relate this work to the examples mentioned above, both in the conception of the design of the experience and in the underlying idea made available to the public. However, it is also certain that in *Retratos al paso* user participation was part of the creative process, as it gave shape and content to a result that was, in the end, independent of the artist’s authorship.

Chaves’s work reflects the transition between participatory design and collective design, while at the same time reminding us of the idea of connective intelligence mentioned above in relation to
Lozano-Hammer. This interpretation of connectivity, which the artist borrows from sociologist Derrick de Kerkhove (1997), alludes to the union of various subjectivities that converge within the same project, but avoids the homogenisation factor that can sometimes result from collaboration. The dynamic of collaboration implies consensus, a need to adapt to the opinions of others, agreement upon goals and results, taking joint decisions on direction, and influencing and being influenced by the group in order to reach a common objective. Although these may be seen as positive benefits over less collaborative efforts, the idea of connectivity brings us back to our primary intention as mentioned at the beginning of this article, where based on our present research, collaborative design is qualitatively classified into various levels, with the value of these efforts being based on their appropriateness in terms of their particular context.

5. Conclusion

This article has summarised some of the results from the first phase of research on collaborative design carried out by the research group Design Processes: Advanced Practices in Design and Art at EINA, a university centre attached to the Universitat Autònoma de Barcelona.

During this first phase of research, the factors and implications related to participatory dynamics are being studied through interdisciplinary references and case studies from art and design. This field of study has been called participatory design. Multiple types of participation have been distinguished by their degrees of involvement in terms of interaction during the various phases of a project’s development and the types of involvement in the formalisation of results.

These reflections on participatory design have led to the beginning of a definition of collective design, making use of examples that come from a wide range of fields. On one hand, this is another piece of evidence demonstrating that classification within collaborative design is nothing more than a way of organising ideas and generating new perspectives. On the other hand, however, the projects discussed are actually complex and dynamic, and they share characteristics with more than one definition.

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