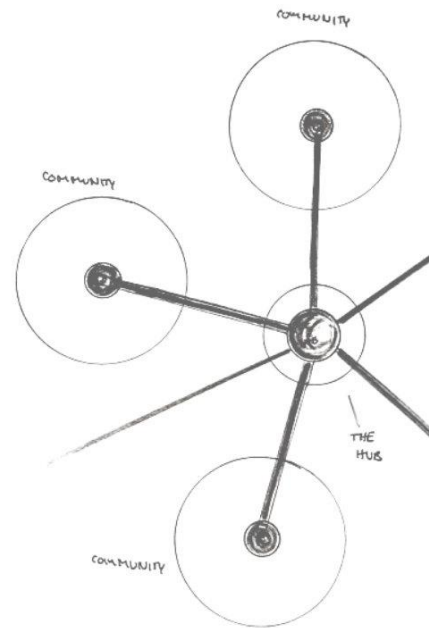
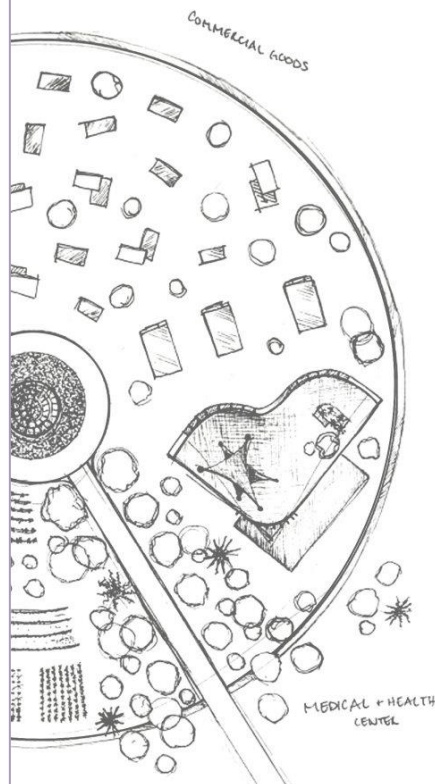


Section excerpted from:

# INSIGHTS

4th-Year Students' Reflections on  
Design for Social Innovation



Edited by Chiara Del Gaudio

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## The Potential of Participatory Design on Participant's Empowerment

**SOCIAL INNOVATION - EMPOWERMENT - PARTICIPATORY DESIGN - PARTICIPANT**

In the context of design for social innovation, it is essential to have a deep understanding of the context in which the design will be used and socio-cultural habits of the those who will use it. One way of gaining this deeper understanding is to involve end-users in the design process from the beginning, i.e., by practising participatory design. Although participatory design has been practised by designers for decades, the level of involvement of end users in the design process has evolved over time. At its earliest inception, participatory design was essentially user-centred design. Users were brought in at the conceptual phase to give their opinions about the concepts or to test them. The level and nature of user involvement in the design process has steadily grown over time to the point where today participatory design has designers working collaboratively with the end users (participants, co-designers) throughout the design process to co-create and co-design (Sanders & Stappers, 2008). The implications of this industry shift towards co-design is changing the landscape of design and redefining the roles of designer, researcher and 'user' (Ibid.). The goal of this paper is to look closely at user engagement in the context of design for social innovation. It will reflect on the outcomes of user participation in the research design process on both the participants themselves and on the final design, with a focus on the empowering outcomes participatory design experiences can have on participants. It does so by examining the results of a participatory design research project carried out in a developing country, Cambodia, with a marginalized population, specifically poor children with prosthetic legs.

The design project that serves as the basis for this paper is a on field work carried out by Hussain, Sanders, and

Steinert in Cambodia from 2008 to 2011 and documented in two publications: "Toes that like toes: Cambodia children's perspectives on prosthetic legs" (2012) and "Participatory design with marginalized countries: Challenges and opportunities experienced in a field study in Cambodia" (2012). In those two publications, the authors describe inviting three users, Cambodian children who utilize prosthetics legs, to participate in the design of a new, more effective prosthetic. They purposefully decided to limit the number of children to three. They felt that doing so would allow them to have in-depth, quality relationships with the children. The quality of the relationships established with the users was judged to be more important than the number of users involved in the design process. The authors also describe their decision to involve local Cambodian prosthetic designers and two mechanical engineering students in the project. This was done to reinforce the technical abilities of local designers, teach them design skills and strengthen their capacity to design new products for people with disabilities in the future. The designers went into the design research process knowing many of the issues experienced with the existing prosthetic foot. However, in the outcomes of the study, the participants' input shed light on aspects that were previously unknown to the researchers, such as the level of importance held by the aesthetics of prosthetics. It was only after conducting more participatory research with the children that it was understood how aesthetic "concerns were linked to Buddhist beliefs about disabilities and should, therefore, not be treated as mere user preferences but as actual user needs" (Hussain, 2011, p.102). This in turn led to the development of a better prosthetic, one that had toes that looked like toes and that would enable children to walk

in mud.

The research design process also had a positive impact on the children involved, all of whom were socially marginalized due to their physical condition, age, and socio-economic situation. As a result of being marginalized, they were not accustomed to voicing their opinions or to having their opinions taken seriously by others. In order to get the level of participation required for the research design process, the authors first had to convince the children of the value of their opinions. They then had to build the children's ability and comfort level with reflecting on and expressing their opinion and develop tools to allow them to express ideas. They effectively had to coach the participants on how to take part in research design process. This was essential for getting the children meaningfully involved in the design process. By the end of the study, all three of the children reported that their participation in the research design had a positive impact on their confidence levels. One of the children quoted in the case study reported how the experience had allowed her to find her voice: "before I didn't dare to talk with other people, but now I dare to speak to them [...] Because when she [the designer] came, I spoke to her; then I started to dare to talk with other people." (Hussain et al., 2012, p.102)

The Cambodia case illustrates the potential positive impacts of participatory design. Co-designer engagement enhanced the design project's outcome, allowing the designers to identify critical design elements that would have been difficult, if not impossible, to identify without their involvement. The children of Cambodia with prosthetic legs were "experts in their own lives and nobody else can claim that role" (Davies et al., 2012, p 5). The Cambodia case has reinforced my conviction of the positive impact of participatory research design for social innovation projects. Identifying ways to foster meaningful participation by project participants is critical to successful participatory design. As a designer,

one needs to nurture participants' belief that they are creative and that their opinions matter and are essential to building an effective design. One needs to develop their awareness of and confidence in the specialized knowledge they bring to the design process, develop their participatory skills, and teach them how to work through co-design process. It is this process that results in the secondary social and interpersonal empowerment outcomes associated with participatory design.



“Identifying ways to foster meaningful participation by project participants is critical to successful participatory design.”

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