Just design

Matteo Bianchin, Università di Milano-Bicocca, Piazza dell'Ateneo Nuovo 1, I-20126 Milano, Italy

Ann Heylighen, KU Leuven, Dept. of Architecture, Research[x]Design, Kasteelpark Arenberg 1/2431, BE-3001 Leuven, Belgium

Inclusive design prescribes addressing the needs of the widest possible audience in order to consider human differences. Taking differences seriously, however, may imply severely restricting "the widest possible audience". In confronting this paradox, we investigate to what extent Rawls' theory of justice as fairness applies to design. By converting the paradox into the question of how design can be fair, we show that the demand for equitability shifts from the design output to the design process. We conclude that the two main questions about justice find application in design: the question about the standards of justice and the question about its metrics. We endorse a Rawlsian approach to the former, while some revision may be due regarding the latter.

Several design approaches aim at inclusivity. Depending on the continent or region, they are called Universal Design (Mace, 1985; Preiser and Ostroff, 2001), Inclusive Design (Coleman, 1994; Imrie & Hall, 2001) or Design for All (EIDD 2004).[1] While differences exist in how these approaches have evolved, the similarities are more apparent (Ostroff, 2011). In particular, all three approaches share the purpose to "ensure that […] products and services address the needs of the widest possible audience, irrespective of age or ability" (Design Council, 2009). This purpose derives from two premises (Clarkson & Coleman, 2015, p. 235):

> "there is such considerable diversity in mental and physical capability both across the population and over the length of the life-course that the association of 'normality' with 'able-bodiedness' is neither accurate nor acceptable";

> "disability arises from interactions with the surrounding environment that are amenable to design and structural interventions, and not inherently from capability levels, health status, or associated degrees of impairment".

Characteristic of inclusive design approaches is their utopian character (Steinfeld & Tauke, 2002). The crux is that really designing "for all" seems impossible. Human differences are too wide to be taken into account in all

Corresponding author:
A. Heylighen
ann.heylighen@
kuleuven.be

their varieties. Furthermore, it is reasonable to expect that trade-offs are the usual case. Designing to address the needs connected with a specific capacity likely entails some cost as to satisfying other needs — what is good for someone who is blind may differ from what is good for someone in a wheelchair. Moreover, given that a moderate scarcity of resources is common in human societies, choices are likely to be made among concurrent demands. Thus, rather than reconciling with the diversity of human needs, adopting an inclusive design stance seems to highlight the conflict that arises from such diversity. It will always turn out that somebody's perspective has been overlooked or harmed.

This feature of inclusive design approaches is not only acknowledged, as the term "possible" in the abovementioned definition suggests, but even advanced as a determinative characteristic (Duncan, 2007). Some authors write about "Universal Design*ing*" (Steinfeld & Tauke, 2002), or "Design for *More*" (Herssens, 2011) to express the unceasing endeavour. Other authors prefer the term "Inclusive Design" because, in their view, "Universal Design" or "Design for All" are often interpreted literally and incorrectly to advocate the design of one product that meets the needs of the entire population (Keates & Clarkson, 2003). Unlike these "more aspirational" approaches", their approach assumes that no design will work perfectly for everyone (Clarkson and Coleman, 2015) and that meeting everyone's needs may require combining mainstream products with specialist solutions (Hosking, Waller, & Clarkson, 2010).

Because of this utopian character, critics tend to consider inclusive design approaches — and Universal Design in particular — unrealistic, and use this as an argument not to adopt or teach them (De Cauwer, Clement, Buelens, & Heylighen, 2009). Whether this is the case, however, relates to the differences in human needs and the moderate scarcity of resources that characterises the human condition (Heylighen, 2014; Winance, 2014). The real point thus seems to be a question of justice: to what extent is it possible to design something that, at the same time, allows for equitable use by everyone and respects the diversity in people's capacities?

In this respect, inclusive design approaches seem to face a paradoxical condition. On the one hand, they prescribe to address the needs of the widest possible audience in order to take into account human differences. On the other hand, taking human differences seriously seems to imply that nothing can be designed that meets the needs of everyone, so that "the widest possible audience" may turn out to be severely restricted.

This article addresses this paradox by questioning what the alleged utopian character of inclusive design approaches implies for design practice. For if their purpose, taken literally, is unattainable, the question arises how designers