CONVERSATION TEMPLATE

Abstract

By 2050 there will be more people over age 65 than under 5 in developed countries (United Nations, 2015). The question is not “are you disabled” but “when will you be disabled.” Simultaneously, we are seeing a shift away from the precepts of Universal Design toward a more flexible and inclusive paradigm. Sometimes labeled “design for one,” the latter builds on the heritage of barrier free design, but aims not for design for all, but *one size fits one*. While differentiation and customization to individuals—via emerging technologies such as Machine Learning—is increasingly the “new norm,” our current user-centered design tools presume user abilities in vision and motor dexterity. They lack inclusion. This conversation will begin by assessing and discussing user-centered design methods in relation to users with disabilities. This conversation will then broaden the discussion to consider Universal vrs. Inclusive Design. More specifically, how does our reconsideration of user-centered methods reflect a larger shift toward designing for unique users? What impact do emerging technologies like Machine Learning have upon these approaches? How can adaptive co-design strategies be applied to a range of users that fall upon a spectrum of impairment?

Proposed Conversation Title

“Is Universal Design Dead?"  
Creating inclusive user experience design methods

Keywords: Inclusive Design; User Experience Methods; Universal Design; Co-design; Accessibility; Disability; Design for All; Psychosocial Inclusion

1. Convenors Information

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<thead>
<tr>
<th>Convenor Name</th>
<th>Email</th>
<th>Affiliation</th>
</tr>
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<tbody>
<tr>
<td>Helen Armstrong</td>
<td><a href="mailto:hsarmstr@ncsu.edu">hsarmstr@ncsu.edu</a></td>
<td>North Carolina State University</td>
</tr>
<tr>
<td>Elizabeth Guffey</td>
<td><a href="mailto:elizabeth.guffey@purchase.edu">elizabeth.guffey@purchase.edu</a></td>
<td>Purchase College State University of New York</td>
</tr>
<tr>
<td>Farnaz Nickpour</td>
<td><a href="mailto:farnaz.nickpour@liverpool.ac.uk">farnaz.nickpour@liverpool.ac.uk</a></td>
<td>University of Liverpool</td>
</tr>
<tr>
<td>Bess Williamson</td>
<td><a href="mailto:swilliamson1@saic.edu">swilliamson1@saic.edu</a></td>
<td>School of the Art Institute of Chicago</td>
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2. Context of Conversation Topic

By 2050 there will be more people over age 65 than under 5 in developed countries (United Nations, 2015). The question is not “are you disabled” but “when will you be disabled.” At the same time, we are seeing a shift in design, away from the precepts of Universal Design and toward a more flexible and inclusive paradigm. Sometimes labeled “design for one,” the latter builds on the heritage of barrier free design, but aims not for design for all, but one size fits one. Emerging technologies, specifically Machine Learning, enable such individualized approaches by providing alternative forms of interface with computers via Natural Language Processing and Image Recognition. Machine Learning can also track and learn from user interaction so that designs might better respond to unique user needs. Rather than creating one design that meets many but not all user needs, we can utilize algorithms that respond to a specific user’s needs in the moment, a unique interaction with each user.

Our research methods are shifting to acknowledge the “design for one” approach. However, while differentiatiation and customization to individuals is increasingly seen as the “new norm,” our current user-centered design tools presume user abilities in vision and motor dexterity. They lack inclusion of visually impaired and other users with physical impairments. More broadly still, whether called "universal," "accessible," or "inclusive," design for disability continues to be treated as a separate concern from standard design. How do we augment existing or develop new methods for research to meet our changing understanding of disability and the growing needs of our users? How can we leverage new technology to open up possibilities not only for adaptive and responsive designs but also adaptive and responsive user-centered design methods?

3. Conversation research question

Overarching: Is Universal Design dead and what are the implications of newer paradigms for our research.

Sub-questions: How do we augment existing or develop new methods for research to meet our changing understanding of disability and the growing needs of our users? How can we leverage new technology to open up possibilities not only for adaptive and responsive designs but also adaptive and responsive user-centered design methods? How might we move/push beyond the current archetypes of design for inclusivity, embracing the more contemporary, complex and critical contexts and challenges?

4. Set-up of your session
Helen Armstrong: Will share case studies of projects in which user-centered design methods created barriers, thus preventing users from participating in the co-design process. In
addition, I will provide an overview of current technology that enables adaptive interface to detect and respond to unique user needs.

Elizabeth Guffey: Will offer an overview of the history and theory behind terms used; links to thinking about design theories related to disability and human impairment

Farnaz Nickpour: Will revisit the core concept of ‘design for inclusion’ and challenge its current definitions, scope, theories and applications. Sharing select case studies in mobility, healthcare and the built environment, Farnaz will argue for the need to embrace the wider, more challenging, and contemporary contexts for design for inclusion, exploring the full spectrum of ‘human diversity’. These will be explored and discussed under a triad of angles; a. Beyond age + ability b. Beyond physicality c. Beyond designer-centric

Bess Williamson: Will contrast 1980s/90s push for Universal Design as a marketing technique, with emerging technologies such as 3-D scanning and printing that promise potential for customization in consumer products.

Introduction:

We will start the session by briefly discussing the heritage of barrier-free and Universal Design, as well as the research methods associated with them. We will proceed to discuss changes in thinking about disability and shifts in research. We hope to cover the benefits and aspirations of co-design methods, but also parse the limits they have for people with disabilities. Building on our expertise, we will introduce problems with specific research projects related to visual impairment, but we welcome interlocutors willing to engage other topic points and disabilities as well. The attendees will be divided into four groups to discuss their own co-design experiences and methods. Each person will be given a persona of person with a specific impairment. The group will discuss how they would adapt or create new methods for including the individual in the process.

The conversation that ensues will act as a springboard for a larger discussion around Universal vs Inclusive Design. More specifically, how does our reconsideration of user-centered research methods reflect a larger shift toward designing for unique users? What impact do emerging technologies like Machine Learning have upon these new approaches? How can adaptive strategies for co-design be applied to a wide range of users that fall upon a spectrum of impairment?

5. Type of space and equipment required

We prefer a seminar space with movable tables and chairs to create groups. A white board and easels for sharing visuals. A space that is without outside noise for audio recording. A Projector or Large Screen with a laptop or that we use with our laptop. A supply cart.

6. Dissemination strategy

The outcomes of the conversation will be written as an article to be published in an appropriate journal. This article will most likely appear as a “roundtable” with affiliated articles for a special issue in Design and Culture. The materials from the conversation notes,
visual and audio will be made available on an online platform for all participants. They may use the material in publication, project etc. to carry the ideas forward and disseminate the conversation in their venues.

7. References


About the Convenors:

**Convenor 1** Helen Armstrong is a design educator, author, and researcher who explores the potential for emerging technology to make data more accessible to users with impairments.

**Convenor 2** Elizabeth Guffey is a design historian and author of various publications, including *Designing Disability: Symbols, Spaces and Society*. She is also founding editor of *Design and Culture*.

**Convenor 3** Farnaz Nickpour is a human centred design researcher, educator and practitioner. Her work explores critical and contemporary dimensions of design for inclusion. She leads the Inclusive Design Research Group in the United Kingdom.

**Convenor 4** Bess Williamson is a historian who focuses on the intersection of design and social movements of the 20th-21st centuries. Her book *Accessible America: A History of Disability and Design* will be published in early 2019 from NYU Press.