Co-Design Across Borders

Isaac Holeman

Medic Mobile and University of Cambridge, Cambridge, UK
isaac@medicmobile.org

Edwin Blake,
Melissa Densmore,
'Maletšabisa Molapo,
Fiona Ssozi*

University of Cape Town
Centre in ICT4D
Cape Town, South Africa
edwin@cs.uct.ac.za
mdensmore@cs.uct.ac.za
mmolapo@cs.uct.ac.za
fiona.ssozi@gmail.com

*Also affiliated with Makerere University, Kampala, Uganda

Elizabeth Goodman

18F
Washington, D.C. 20405, USA
egoodman@gmail.com

Indrani Medhi Thies

Microsoft Research
Bangalore India
indranim@microsoft.com

Susan Wyche

Michigan State University
Dept of Media and Information
East Lansing, MI, USA
spwyche@msu.edu

Abstract

In recent years the evolving practice of co-design has continued to shift the roles of designers, researchers and the collection of partners formerly known as users. A growing community of researchers is pursuing this work 'across borders,' often arguing that this approach can lead to greater likelihood of sustainability and increased community engagement. The greatly varied contexts of such work present distinctive challenges related to culture, power, language, etc. This SIG will convene co-design practitioners and researchers to discuss these challenges, and to assess the role of co-design in research across borders. Through attention to methods, tools and values in co-design, we will consider how co-design is traveling to new scenes around the world.

Author Keywords

Co-design; human-centered design; participatory design; ICT4D; HCI4D; HCIxB; postcolonial computing.

ACM Classification Keywords

H.5.m; H5.2; K.4.0; K.4m

Introduction

Sanders and Stappers [13] use the term co-design in a broad sense "to refer to the creativity of designers and people not trained in design working together in the design development process." In this view the evolving practice of co-design draws extensively on the tradition

Co-Design Across Borders SIG

This proposal is a slightly modified version of special interest group proposal submitted, which was accepted for CHI2017. We believe that this topic is definitively of interest to the HCIxB community, and hope that conversations begun at the symposium can continue with other CHI attendees at the SIG meeting during the main conference. We believe that conversations within this community will inform and improve approaches to Co-Design in the many contexts in which we work, increase the quality of scholarly work in this area, and ultimately serve our communities better.

of participatory design that emerged in Northern Europe more than forty years ago. A central feature of co-design is the transition from viewing designers as experts and potential users as informants to engaging stakeholders as partners.

While most studies in co-design have taken place in European or North American workplaces, these approaches are also being employed in a wide range of challenging cross-cultural or otherwise cross-border settings, particularly as a way of empowering "users" and encouraging potential sustainability through deeper involvement of all stakeholders. Given the pivotal influence of geographic and cultural issues for technology projects in developing regions, co-design and co-deployment have long been seen as important to success and sustainability [1]. In addition to co-design across borders, related terms for this body of work include co-design for development, community based co-design [14], participatory design [12,14] and postcolonial approaches to design [7,16,17]. Projects of co-design with autistic teens [2] or with people experiencing homelessness [18] may also be well understood as working beyond typical borders. Cross-cultural design often underscores the importance of co-design and participatory processes [1].

Work in this vein shows that great differences in language, power and cultural practice add a new layer of challenges to the traditional task of co-design. These distinctive challenges range from availability of materials [6] and translation issues to differing understandings of participation, empowerment, self and community. For but one example, a study in Namibia described a gulf between an international team of design researchers and their local partners due to

"contrasting sense of self, individuality and community, orality versus print-based literacy, and technological skills versus local situational knowledge" [16].

Given these challenges, *why co-design across borders?* Many have observed that more challenging design situations also present striking opportunities to advance the social good, humanitarian aims or empowerment. Yet this question is perhaps best understood as an overarching theme of discussion for this SIG, rather than a foregone conclusion. To offer a starting point and some structure, we will begin by discussing pragmatic methods, concrete tools and questions of value that arise in co-design across borders.

Themes of Discussion

Designing in genuine partnership with people who will routinely use the technologies we build has never been easy. For practical purposes there has been an overarching focus in co-design on the concrete 'how' of designing, pragmatic means of involving diverse groups of people, the importance of engaging modes other than technical or verbal, a concern with iterative evaluation etc. While acknowledging this legacy, co-designing across borders often presents distinctive challenges and there is a need for infrastructure to support this new community of research and practice.

Methods: Mock-ups, prototypes, scenarios, design games and future workshops have been central to participatory design since its early days [14]. While these methods have value in a wide range of settings, they often break down in our community's diverse research contexts. Maunder at al [11] show that those with limited technology experience begin the process still intimidated by technology, and often misinterpret

Co-Design Across Borders: A Growing Research Community

Attendees & Participation: The co-design across borders community is clearly growing and would benefit from a venue for further dialog and community building. As organizers, we plan to draw attendees from our networks at our universities and institutions, as well as from related communities such as HCI4D, ICTD, and HCIxB. We will invite participants to the SIG by sending out emails to authors of relevant papers, through discussion spaces in the related fields of HCI4D and ICTD. We will also open the SIG to the wider HCI community by advertising via Facebook (e.g. the CHI page) and Twitter. We expect that this will lead to a mailing list and perhaps a Slack group for interested participants, and we hope to use existing HCI4D and HCIxB social media channels to share about our activities.

low-fidelity prototypes and similar unfamiliar abstractions of an already unfamiliar technology. Users from underserved communities may be particularly uncomfortable with criticizing technologies that they believe have been developed by the interviewer [2]. Molapo et al. [12] addressed such issues through an "exploration approach," giving participants ample time with new tools to explore their utility and build a vocabulary around their use before engaging in co-design activities. In such settings, skits and role-playing exercises may come to the fore, and sustaining engagement over time is often pivotal. This raises questions of how to relate formal co-design sessions (with workshops lasting a few hours) with participatory action research and iterative design ethnography.

Tools: The way we practice and teach co-design is difficult to disentangle from the concrete tools we have historically used in these activities. For example, the Routledge Handbook of Participatory Design describes *genuine* participation as being established, "when users are not just answering questions in an interview about their point of view or knowledge of a particular issue, but are asked to step up, take the pen in hand, stand in front of the large whiteboard together with fellow colleagues and designers, and participate in drawing and sketching how the work process unfolds as seen from their perspectives" [14]. This leads to distinctive challenges in contexts where sticky notes, whiteboards or sharpies are unfamiliar or even unavailable [5]. Card sorting exercises may elicit discussion of values [18] or community resources [9] among people unfamiliar with sketching, but it cannot be taken for granted that these images will reflect the people and daily realities of diverse communities around the world.

Values: In a broad sense, 'values' might refer to what people consider important in their lives [4 p.70], a desirable mode of conduct or an end-state [8]. In recent years the HCI4D community has begun to recognize that international development itself is a value-laden notion, and that implicit views of "progress" are not to be taken for granted. Postcolonial theorists in particular have drawn attention to colonial tropes that characterize particular people as in need of enlightenment, progress or development [7]. Projects of co-design across borders attempt to break with this tendency by emphasizing themes of empowerment and genuine partnership. Engaging values and negotiating them through participation are intrinsic to participatory design; simply adopting participatory methods is not sufficient for claiming to practice this approach [8]. Discussing the diverse value systems of the people we partner with and pragmatic means of taking these values seriously in our research and design work will be an important topic for this SIG.

Conclusion
A number of authors have stressed that participatory and co-design should not be defined by formulas, rules or strict definitions so much as by a core commitment to design practices in which a wider range of people take positions of influence and responsibility. Rather than reviewing the conceptual terrain or establishing definitions, our aim is to identify themes of common interest and cultivate a community within which to pursue future collaborations. This is an important opportunity to deepen connections within the co-design across borders community and to broaden the discourse at CHI more generally.

Co-Design Across Borders: A Growing Research Community

Key Publication Outlets:
In addition to CHI publications that speak to the theme of co-design across borders [18], several related outlets have helped this community to grow. The Participatory Design Conference, which has taken place bi-annually since 1990, has published a growing number of articles that highlight working across borders. The journal CoDesign, founded in 2005, has created further space for co-design publications in general and co-design across borders in particular [5,8]. Co-design topics have also found purchase at ICTD [11], DEV [12] and most recently, AfriCHI.

References

1. Eric Brewer et al. 2005. The Case for Technology in Developing Regions, IEEE Computer, v.38 n.6, p.25-38. http://doi.org/10.1109/MC.2005.204

2. Nicola Dell, Vidya Vaidyanathan, Indrani Medhi, Edward Cutrell, and William Thies. 2012. "Yours is Better!" Participant Response Bias in HCI. CHI '12.

3. Peter Francis, Sandrine Balbo, and Lucy Firth. 2009. Towards co-design with users who have autism spectrum disorders. *Universal Access in the Information Society*. Vol 8, No 3. 123-135. doi:10.1007/s10209-008-0143-y

4. Batya Friedman, Peter H Kahn Jr, Alan Borning, and Alina Huldtgren. 2013. Value sensitive design and information systems. In *The Handbook of Computer and Information Ethics*. Springer, 55–95.

5. John Halloran, Eva Hornecker, Mark Stringer, Eric Harris, and Geraldine Fitzpatrick. 2009. The value of values: Resourcing co-design of ubiquitous computing. *CoDesign* 5, 4: 245–273.

6. Lilly Irani, Paul Dourish, and Melissa Mazmanian. 2010. Shopping for Sharpies in Seattle: Mundane Infrastructures of Transnational Design. In *Proceedings of the 3rd international conference on Intercultural collaboration* ICIC '10 1-10.

7. Lilly Irani, J Vertesi, and P Dourish, K Philip, & R. Grinter. 2010. Postcolonial computing: A lens on design and development. CHI '10 pp. 1311–1320. http://doi.acm.org/10.1145/1753326.1753522

8. Ole Sejer Iversen, Kim Halskov, and Tuck W Leong. 2012. Values-led participatory design. *CoDesign* 8, 2-3: 87–103. http://doi.org/10.1080/15710882.2012.672575

9. Dianna Kane. 2016. Medic Mobile's Human-Centered Design Toolkit: A Spotlight on Sketch Cards. Retrieved January 9th 2017 from http://medicmobile.org/blog/medic-mobiles-human-centered-design-toolkit-a-spotlight-on-sketch-cards.

10. Neha Kumar et al. 2016. Development Consortium: HCI Across Borders. In *Proceedings of* CHI EA '16. ACM, New York, NY, USA, 3620-3627. DOI: http://dx.doi.org/10.1145/2851581.2856507

11. Andrew Maunder, et al. 2007. Designing interactive systems for the developing world-reflections on user-centred design. In *Proceedings of ICTD 2007*. Bangalore, India. IEEE.

12. Maletsabisa Molapo, Melissa Densmore, and Limpho Morie. 2016. Apps and Skits: Enabling New Forms of Village-To-Clinic Feedback for Rural Health Education. *In DEV '16*. Nairobi, Kenya. ACM.

13. Elizabeth B N Sanders and Pieter Jan Stappers. 2008. Co-creation and the new landscapes of design. *CoDesign* 4, 1: 5–18.

14. Jesper Simonsen and Toni Robertson (eds.). 2012. *Routledge Handbook of Participatory Design*. Routledge.

15. Fiona Ssozi-Mugarura, Edwin Blake, and Ulrike Rivett. 2016. Supporting community needs for rural water management through community-based co-design. In PDC '16 ACM, NY, USA, 91-100. DOI: http://dx.doi.org/10.1145/2940299.2940311

16. Heike Winschiers-Theophilus et al. 2010. Being Participated - A Community Approach. In PDC '10 1-10.

17. Susan Wyche, Tawanna R. Dillahunt, Nightingale Simiyu, and Sharon Alaka. 2015. "If god gives me the chance i will design my own phone": exploring mobile phone repair and postcolonial approaches to design in rural Kenya. UbiComp '15. ACM 463-473. DOI: http://dx.doi.org/10.1145/2750858.2804249

18. Daisy Yoo et al. 2013. A value sensitive action-reflection model: evolving a co-design space with stakeholder and designer prompts. In CHI '13. ACM, New York, NY, USA, 419-428.