Designing human centred technologies for the developing world: HCI but not as we know it

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ABSTRACT

ICT could be a powerful tool for development, but how appropriate are developed-world HCI methods? Should we 'parachute in' foreign methods, do we have more to learn than to teach?

Categories and Subject Descriptors

H.5.2 [User Interfaces]: Evaluation/methodology, Graphical User Interfaces, Input devices and strategies, Interaction styles, Prototyping, Screen design, Standardization, Style guides, Theory and methods, User-centered design

General Terms

Measurement, Documentation, Design, Reliability, Experimentation, Human Factors, Standardization.

Keywords

Development, developing world, Africa, Asia, participatory design

1. INTRODUCTION

With huge investments being made in ICT for development (ICT4D) and education (e.g. "\$100 laptop," UN programmes etc.) and high expectations being raised, it is critical to ensure that ICT developments are in fact usable, useful, appropriate and well adapted to the communities and contexts in which they are intended to be used. This requires well designed solutions, which in turn requires appropriate human-centred design methods. However, it is unclear that methods largely developed for and with users in the developed world will prove appropriate in the developing world. This workshop aims to bring together interested parties and strengthen the User-centred design for development (UCS4D) community, as well as contribute to the body of knowledge about designing for and with communities in the developing world.

2. GOALS OF THE WORKSHOP

- Share experiences of Human Centred Design in the

developing world;

- Identify key issues and patterns;
- Learn from each other's experiences;
- Explore new, alternative and modified methods for human centred and participatory design of Development Technologies;
- Develop new partnerships - particularly international partnerships;
- Disseminate learning from this workshop through online and offline publication; and
- Strengthen the HCI in Development Technology community.

3. LIKELY PARTICIPANTS

We hope to attract participants from varied backgrounds, not just designers of ICT. Agriculture and technology, ICT for education, development and community action. We also expect participants from UK based 'Bridging the Global Digital Divide' projects and ICT for Development community. Our own backgrounds are in HCI, education, internationalisation, and technology and social action.

4. CALL FOR PAPERS

ICT4D is currently a 'hot research topic' in many fields with recent conferences (for example, [eLearning Africa](#)), conference tracks ([CAL 07 ICT4D](#)) and workshops ([AI in ICT for Development Workshop](#)) dedicated to the theme. However, until recently less attention has been paid to the specific difficulties of designing for and with communities in the developing world (see [UCD4ID](#)). How appropriate are developed-world participatory and human-centred methods? Should we be 'parachuting in' foreign methods and experts, or focusing attention on building local HCI expertise? Do we in fact have more to learn than to teach?

To participate in this workshop submit a two-page position paper. Possible themes are:

- Case studies of user-centred design and participatory experiences in the developing world - both successes and failures;
- The difficulties of separating development and research objectives;
- Design of educational technology for development;
- Participatory methods from community action, education, agriculture, technology design, theatre, etc.;

- Innovative methods for designing for and with communities with diverse needs; or
- Managing expectations in participatory design projects.

5. BEFORE THE WORKSHOP

The workshop organisers will invite short position papers. These will be reviewed by committee. Accepted papers will then be made available online on workshop blog. Comments on papers will be enabled and participants will be encouraged to post comments to the blog. Key issues arising from papers and comments will be identified prior to the conference. Outcomes from other recent workshop will also be linked from the blog and issues for discussion may also be drawn from there.

6. AT THE WORKSHOP

Facilitators will make short presentations around the key issues & challenges identified before the workshop.

Participants will then make short presentations, and will be encouraged to address specific comments from the blog. If appropriate permissions are given we will record the presentations (and/or stream them live using Elluminate if possible) in order to broaden participation beyond those that are able to travel to the conference.

This will be followed by discussion. Participants will break in to small groups to discuss a subset of these issues and challenges with a facilitator.. Each group will summarise its discussions to the workshop as a whole.

We will produce a poster and presentation to summarise the workshop activity and outcomes.

7. AFTER THE WORKSHOP

The blog will act as a record of the workshop, and also the hub for a community in UCD4D. We will collect the output of the workshop and edit into a journal special issue, or book, as appropriate. We will also disseminate our findings in relevant networks, communities and organisations.

8. ORGANISATION

8.1 Coordinators

Andy Dearden (point of contact for communication) is a participatory designer with a background in human computer interaction. His recent work has investigated tools to support distributed forms of participation in design and the design of ICT systems to support 'social action' in voluntary and community groups, NGOs and 'civil society'.

Lynne Dunckley, Ph.D. (Birmingham), is Professor of Information Technology at the Institute for IT at Thames Valley University. Prior to her academic career she worked for central and local government organizations, specialising in database design and project management. In addition she has worked as

a usability consultant for cross-cultural design and interoperability. She has carried out consultancy for numerous e-Commerce companies and published work in the Journal of Decision Systems, Interacting with Computers, Interact, International Ergonomics Applications and major international conferences in Europe and USA. She is the author of a textbook on Multimedia Databases (2003) and a book for database practitioners on application development using rich media in Oracle (2007). She has chaired an international conference on the internationalisation of products and services.

Rosemary Luckin is Professor of Learner Centred Design at the London Knowledge Lab. Prior to this she was director and co-founder of the Interactive Digital Educational Applications Lab and the Human Centred Technology Research group at Sussex. She is an experienced project manager and has held a range of EU/EPSRC and ESRC grants. She is a member of several journal editorial boards and conference program committees in the area of educational technology, including those of the International Association of Artificial Intelligence in Education. She has numerous peer reviewed journal and conference publications and has acted as a consultant to various organisations including the BBC and the DFES. She has worked with schools in Brazil, has close working relationships with many UK schools and set up the Sussex Education Skills Exchange to foster exchanges of knowledge and skills between with practitioners.

8.2 Committee

Jose.Abdelnour-Nocera, Thames Valley University

Souleymane Camara, Thames Valley University

Liz Fearon, Aptivate

Cecilia Oyugi, Thames Valley University

Joshua Underwood, London Knowledge Lab

Tim Mwololo Waema, University of Nairobi

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