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# User Centered Design and International Development

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**Abstract**

This workshop explores User Centered Design (UCD) challenges and contributions to International economic and community Development. We are addressing interaction design for parts of the world that are often marginalized by the Global North as well as people in the Global North who are themselves similarly marginalized by poverty or other barriers. We hope to extend the boundaries of the field of Human Computer Interaction (HCI) by spurring a discussion on how existing UCD practices can be adapted and modified, and how new practices be developed, to deal with the unique challenges posed by this context.

**Keywords**

User Centered Design, UCD, Participatory Design, International Development, Developing Countries, Cross cultural design, Information and Communication Technology, ICT, UCIDI4D

**ACM Classification Keywords**

H5.2 User Interfaces, H5.m HCI Miscellaneous. K.4 Computers and Society

**Introduction**

A large body of work in the field of International Development emphasizes the need for host

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CHI 2007, April 28 – May 3, 2007, San Jose, USA

ACM 1-xxxxxx

communities in development projects to be empowered in designing and controlling these projects [1, 2, 4]. Many projects are making use of information and communication technologies (ICT) as part of their plan. However, there have been few explicit efforts to bring together the International economic and community Development and the User Centered Design (UCD) communities to support mutual learning and sharing. The aim of this workshop is to initiate such a dialogue.

### Key Issues

Because this workshop is an attempt to stimulate a dialogue between groups that have been largely separate, it is important to identify the issues which we see as key to this dialogue.

#### *User Centered Design for Development*

One of the tenets of good design is to "Know Thy User." In the context of International Development projects, however, it is *also* crucial to continually question and explain assumptions that may be implicit in design decisions. In order to cope with these unique challenges, we must reexamine many established areas in HCI including:

- **Interaction Metaphors:** Exploring beyond the Western-centric Windows, Icons, Menus and Pointers (WIMP) metaphor to other interaction metaphors that are more culturally and socially relevant to the intended user groups [8].
- **User Analysis:** Developing methods to most effectively understand the users and their context, practices, and wants, by understanding Socio-

Cultural and Economic differences unique to them [5].

- **Interaction Methods:** Localization and customization / alternatives to traditional input output methods [3].
- **Evaluation Methods:** Thinking outside traditional methods by making evaluation more appropriate to the target user audience to elicit accurate and actionable feedback [8].

We call the sum of all this *UCD for Development* or UCD4D.

#### *Broader Issues To Consider*

Participatory design is essential in helping designers better understand their target users. It also requires close collaboration between user researchers from various countries working jointly on a project. Addressing UCD4D issues constitutes one dimension of this area, but too often user researchers are faced with broader issues while collaborating on projects in the developing world. If an ICT project is to be successfully implemented, it is important to consider these factors as well. They include:

- **Project Aims:** In development projects one of the key goals is enhancing the long term capability of host communities *after the project ends*
- **Profoundly Different Contexts:** Developing-world design projects may widen the analysis and design spaces to take into account issues such as local economic conditions, historical context, political structures, resource availability,

technological infrastructure, and long term financial sustainability of solutions.

- **Design Constraints:** Developing-world projects are, by definition, conducted against a background of severely constrained resources.
- **Cultural Disparities:** Developing-world projects may involve cultural and language barriers between technologists and hosts, as well as perceived differences in status. These factors can be more extreme than those encountered in projects in the developed world, leading to difficulty in establishing effective partnerships.
- **Sustainability.** Ultimately, developing-world projects are only successful if they are sustainable by the community. Identifying the contextual, cultural, and technical factors are key to making projects sustainable.

Existing work in this area has resulted in researchers innovating to accommodate the various constraints faced by ICT4D projects. While in some cases existing approaches have been modified to meet requirements [6], in others, fresh design [3,8] and evaluation [4,8] approaches have been developed to solve problems.

### **How This Workshop Will Address These Issues**

This workshop will provide a space to exchange experiences, explore differences between developed and developing world contexts, to develop new partnerships, and to learn from each other about problems we have encountered, the solutions that we

have proposed and ways of working that we have discovered.

Topics that we hope to cover in the workshop include:

- experiences of interaction design in developing countries or with traditionally underserved populations in developed countries;
- uses and adaptations of participatory methods in economic and community development projects;
- cultural factors in designing for economic and community development;
- innovative techniques for engaging users in developing world contexts;
- examples of solutions that are sustainable in context.

We also hope to use this workshop to begin to build an international community of engaged scholars and thoughtful practitioners” [9] who understand each other and who can bridge between disciplines and boundaries to create appropriate, effective and sustainable community development solutions.

This workshop will be open to anyone with relevant experience or interest in UCD4D and/or ICT in International economic and community development.

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