

**PROPOSAL FOR WORKSHOP: HCI FOR COMMUNITY AND INTERNATIONAL  
DEVELOPMENT**

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# HCI for Community and International Development

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## Abstract

Following the highly successful 'User Centered Design for International Development' workshop at CHI2007, this workshop continues to explore challenges in applying, extending and inventing appropriate methods and contributions of Human Computer Interaction (HCI) to International Economic and Community Development. We address issues of interaction design for parts of the world that are often marginalized by the Global North as well as areas in the Global North that are similarly marginalized by poverty or other barriers. We will continue to extend the boundaries of Human Computer Interaction (HCI) via discussion on how existing methods and practices can be adapted and modified, and how new practices can be developed, to deal with these unique challenges.

## Keywords

UCD, International development

## ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

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CHI 2008, April 5 – May 10, 2008, Florence, Italy

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### Background and Topic of Workshop

A large body of work in the field of International Development emphasizes the need for host communities in development projects to be empowered in designing and controlling these projects. However, there have been few explicit efforts to bring together the International Economic and Community Development and the HCI communities to support mutual learning and sharing.

The workshop continues dialogue initiated at CHI 2007. Although it can be argued that existing HCI techniques should always be used for system engineering, the approach is crucial (1) when there is a large discrepancy in the background knowledge and assumptions of end users on the one hand and the designers/developers on the other, and/or (2) where there is no prior experience in developing systems for new situations. Thus, we feel user centered design and other approaches may prove invaluable in designing systems for developing countries.

### User Centered Design for Development

A tenet of good design is: "Know Thy User." In International Development projects, however, it is also crucial to continually question implicit design assumptions in design decisions, especially in designing for a "community" versus "the user" alone. To cope with these unique challenges, we must examine many established as well as unexplored areas in HCI to most effectively understand the users, their communities, practices by understanding socio-cultural and economic differences.

These and other 'UCD for Development' related topics including working with profoundly different contexts and cultures, designing for sustainability, working with constrained resources and creating project aims and values suited to a particular community will form the basis of many of the workshop discussions.

This workshop will offer a space to exchange experiences, to develop new partnerships, and to learn from each other about the ways of working that we have discovered. It will be open to anyone with experience or interest in user-centered and participatory design, and/or international development.

### Recruiting and Selecting Participants

The audience for this workshop extends beyond the traditional boundaries of the CHI community. We will seek to attract a mix of practitioners engaged in development projects, and experienced researchers and designers who wish to learn more.

We seek considerable cultural diversity within the workshop. We will seek funding from other sources to support the costs of researchers from less developed countries to attend the conference. We have already had considerable interest expressed from colleagues around the world. We will select participants based upon their position papers and their statement of interest and background. Our goal is to construct a workshop whose participants have a wide variety of interest, background, and experiences in terms of methods types of systems, and the origin of their work.

### During the Workshop

During the morning and afternoon sessions of day 1, participants will present position papers. There will be a

45-minute summary session before lunch and a discussion session after lunch to identify themes and to prepare for the second day. The morning of day 2 will focus on group discussions of critical themes. Finally, on the afternoon of day 2 we will generate a statement/report for the wider HCI community based on the workshop discussions including potential venues to move forward organizationally.

#### After the Workshop

We view the workshop as only one step of a much larger effort. One potential workshop output would be to submit a paper or organize a special issue in the journal, *Information Technologies and International Development*. In addition we also hope to publish articles in the 'Under Development' column of 'interactions' magazine.

We hope to use this workshop to continue an international community of "engaged scholars and thoughtful practitioners" who can bridge between disciplines and boundaries to create appropriate, effective and sustainable community development solutions.

#### About the Organizers

John Thomas (point of contact) is a Research Staff Member at IBM's T. J. Watson Research Center. He has worked in Human-Computer Interaction for 30 years and has over 150 papers, book chapters, and invited presentations. He has also served as Workshop Chair and general Co-Chair for CHI and co-organized and co-led more than a dozen workshops at CHI, CSCW, and ECSCW including two on cross-cultural issues in HCI.

Andy Dearden 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'.

Michael L. Best is Assistant Professor at the Georgia Institute of Technology with a joint appointment in the Sam Nunn School of International Affairs and the School of Interactive Computing. He is also a Fellow of the Berkman Center for Internet & Society at Harvard University. Best is co-founder and Editor-in-Chief of *Information Technologies and International Development* published by the MIT Press.

Susan Dray is a consultant with Dray & Associates, Inc. and has worked with professionals in so-called "developing" countries to help them adapt user-centered design approaches practiced in economic development projects. In addition, she works with her clients to help them understand the conditions in these countries so they can design more appropriate ICT systems and products for these regions.

Ann Light is chair of trustees for The Fiankoma Project ([www.fiankoma.org](http://www.fiankoma.org)), a charity promoting cultural exchange through ICT by linking people in the UK and Ghana and establishing collaborative media projects. She is a research fellow at Queen Mary University of London, exploring people's understanding of and response to digital networks to inform interactive systems design, in Chile and India as well as the UK. Ann is also editor of *UsabilityNews.com*.

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## Abstract

This workshop explores the challenges in applying, extending and inventing appropriate methods and contributions of Human Computer Interaction (HCI) to International economic and community Development. We address 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 by spurring a discussion on how existing methods and practices can be adapted and modified, and how new practices can be developed, to deal with the unique challenges posed by these contexts.

## Keywords

User Centered Design, International Development, Information and Communication Technology, ICT4D, UCD4ID, Community Design, Participatory Design

## ACM Classification Keywords

H5.2 User Interfaces, H5.m HCI Miscellaneous. K.4.0 Computers and Society, K.4m Computers and Society Miscellaneous

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## Introduction

A large body of work in the field of International Development emphasizes the need for host communities in development projects to be empowered in designing and controlling these projects [1, 3]. Many projects make use of information and communication technologies (ICT) as part of their plan. However, there have been only a few explicit efforts to bring together the International economic and community Development and the HCI communities to support mutual learning and sharing. In particular, we initiated such a dialogue at a heavily attended CHI 2007 workshop and continued this dialogue via post-workshop activities as well as participation at INTERACT 2007. The aim of this workshop is to deepen this dialogue as well as to broaden it by encompassing a greater number of participants and cultures.

## Key Issues

Because this workshop is an attempt to stimulate further dialogue between groups that have been largely separate, it is important to identify and increase awareness about the key issues.

### User Centered Design for Development (UCD4D)

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 re-examine 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], many of whom are semi-literate or less socialized into the school practices on which Western user-interfaces are based on.

- User Analysis: Developing methods to most effectively understand the users and their context, practices, and wants, by understanding Socio-cultural, Educational and Economic differences [4].
- Interaction Methods: Localization and customization / alternatives to traditional input output methods [2] as well as styles of interaction.
- Dissemination Methods: Although even so-called developed countries are increasingly realizing the value of community in disseminating their products and services, this factor is often even more crucial in the developing world. Community understanding and support is critical at every stage of design, development and deployment.
- Design for Deployment: Although deployment issues are always critical for sustained success, designs for the developed world presume and utilize many pre-existing mechanisms (social, economic, and cultural).. These are often different or non-existent in the developing world so special attention needs to be paid to these issues from the beginning of the design process.
- Evaluation Methods: We need to think outside traditional methods and make evaluation more appropriate to the target user audience in order to elicit accurate and actionable feedback [8].

### Broader Issues To Consider

HCI methods such as User-Centered Design and Participatory design are essential in helping designers better understand their target users. This also requires close collaboration between user researchers from various countries working jointly on a project. If an ICT project is to be successfully implemented, it is important to consider broader issues as well including:

- **Project Aims and Values:** Much of the developed world implicitly subscribes to a largely common world-view and set of values. If not done carefully, those attempting projects in the developing world may easily fall into the trap of presuming that every culture has the same set of values and goals that they themselves adhere to. As a result, one may do an efficient job of doing exactly the wrong thing with respect to the actual values of aims of those in the developing communities.
- **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.

- **Communication as a Two-way Street:** Differences in aims, values, and contexts are not only potential barriers to designing and deploying effective solutions to appropriate problems. Such differences are also a potentially critical resource to the unsolved problems of the world including both the developed world and other areas in the developing world. It is critical that technology not destroy cultural diversity in the process of trying to improve lives and communities.
- **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 such projects. While in some cases existing approaches have been modified to meet requirements [5], in others, fresh design [2,8] and evaluation [3,8] approaches have been developed to solve problems.

On the other hand, there is much mutual benefit to be had from addressing these challenges; it is not simply about improving the conditions of people in developing countries, but can also help to advance the discipline of HCI. As Papanek [7] recognized, exploring a wider and more diverse scope of users and applications, can enrich our design skills, and improve both process and product innovations for everyone.

### How The Workshop Addresses These Issues

This workshop will provide an opportunity for the exchange of experiences, exploring differences between developed and developing world contexts, developing new partnerships, and learning from each other about problems encountered, solutions, and methods.

Topics that we will 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 will use this workshop to build an international community of “engaged scholars and thoughtful practitioners” [9] 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.

### Acknowledgements

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### Citations

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CALL FOR PARTICIPATION:  
HCI for Community and International Development. A workshop at CHI  
2008(Florence, Italy).

Much work in international economic and community development emphasizes empowering host communities in designing and controlling development projects. Many development projects make use of ICTs as part of their plan. However, there have been few explicit efforts to bring together the international economic development, user centered design and human-computer interaction communities to find ways of designing more appropriate and effective solutions that truly meet local needs. The aim of this workshop is to initiate such a dialogue.

Topics of interest include:

- experiences of interaction design in developing countries or with underserved populations;
- 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;
- creating solutions that are sustainable in context.

The workshop will provide a forum to exchange experiences, explore differences between developed and developing world contexts, develop new partnerships, and learn from each other's experiences. Outcomes from the workshop will be reported in the journal Information Technology and International Development (<http://mitpress.mit.edu/ITID>). In addition, based upon submissions and the review process we expect to publish a special issue of the journal on the workshop themes.

To participate in this workshop at CHI 2008, please submit a 2 page position paper describing your experience, findings or interests relevant to the themes of the workshop.

Deadline for submissions is 3<sup>rd</sup> October, 2007. Notification of acceptance by 28<sup>th</sup> November, 2007. Papers can be submitted by email to John C Thomas at [jcthomas@us.ibm.com](mailto:jcthomas@us.ibm.com)