

Cross-Cultural Differences and Learning Technologies for the Developing World

Workshop Co-Chairs:

Ivon Arroyo

Worcester Polytechnic Institute, Worcester, MA, United States

Imran Zualkernan

American University of Sharjah, United Arab Emirates

Beverly P. Woolf

University of Massachusetts Amherst, Amherst, MA, United States

<http://cadmium.cs.umass.edu/LT4D>

Preface

The Learning Technologies for the developing world (LT4D) workshop aims to provide a forum for a discussion of cross-cultural differences and rational introduction of learning technologies in the developing world, exploring the economic constraints, socio-cultural differences, political and other constraints that shape the implementation and the affordances for learning technologies in the developing world.

Besides differences in socialization and cultural differences, well-intentioned introduction of learning technologies in developing countries can fail for mundane reasons such as teachers not willing to use the technology because of lack of comfort with technology, or simply lack of computers in sharp contrast to abundance of mobile devices.

Such constraints cannot be ignored. Rather than blindly implanting technologies, based on a rationalized discussion of such issue and constraints, and possibilities for the immersion of learning technologies, the workshop then aims to provide future visions and roadmaps of such technologies for the developing world and subsequent practical implementation for technology enhanced learning.

The workshop intends to touch on the following broad set of issues:

1. Cross-cultural differences in educational outcomes of AIED systems or non-adaptive learning technologies across countries, developing vs. developed, or across developing countries.
2. Ideas to solve issues of economic cost of adapting interactive learning environments (ILEs) to developing countries
3. Examples of Localization and Cultural translation of systems and interfaces
4. Issues of Social Inclusion: how to encourage and support both individuals and communities that are marginalized --economically, socially, or culturally; indigenous communities, and other special communities.
5. Science of sustainable design of learning technologies for the developing world; Sustainability of projects in the developing world; funding sources; ideas for maintaining technology resources and personnel
6. How education technology is used in the developing world; how is or should it be used? As a means? As an end?
7. Supporting Teacher Training via e-Learning in developing countries
8. How can Educational Data Mining help to support education and reveal information that would help developing countries
9. Differences in realities and possibilities of implementation of Interactive Learning Environments (ILEs) across the developing world? Is there a common ground, or are countries too different from each other?
10. Issues of timing: Are there key areas where learning technologies can have an immediate impact?
11. Models of adoption (or non-adoption) of learning technologies in the developing world

12. An analysis of great successes or drastic failures in applying ILEs to the developing world
13. Opportunities for leap frogging and avoiding mistakes in the developed world

July, 2013

Ivon Arroyo, Imran Zualkernan, Beverly Woolf

Program Committee

Co-Chair: Ivon Arroyo, *Worcester Polytechnic Institute, United States*
(iarroyo@wpi.edu)

Co-Chair: Imran Zualkernan, *American University of Sharjah, United Arab Emirates*
(izualkernan@aus.edu)

Co-Chair: Beverly P. Woolf, *University of Massachusetts Amherst, Amherst, MA*
(bev@cs.umass.edu)

Fabio Akhras. *Renato Archer Center of Information Technology, Brazil*

Ryan Joazeiro de Baker. *Teachers College. Columbia University. USA.*

Paul Brna. *University of Leeds. United Kingdom.*

Melissa Sue John. *Worcester Polytechnic Institute, USA.*

Amy Ogan. *Carnegie Mellon University, USA.*

Ma. Mercedes T. Rodrigo. *Ateneo de Manila University, Phillipines.*

Rosa Maria Vicary. *Universidade Federal do Rio Grande do Sul, Brazil.*

Table of Contents

Towards Localization of Automated Tutors for Developing Countries <i>Imran Zualkernan, Ivon Arroyo, Beverly P. Woolf.</i>	6
A Case Study of the Localization of an Intelligent Tutoring System <i>Mohammed Phaedra, Mohan Permanand</i>	16
Impact of a blended ICT adoption model on Chilean vulnerable schools correlates with amount of on online practice <i>Roberto Araya, Johan Van der Molen</i>	24
Children Creating Pedagogical Avatars: Cross-cultural Differences in Drawings and Language <i>Melissa-Sue John, Ivon Arroyo, Imran Zualkernan, Beverly P. Woolf</i>	34
Comparing Paradigms for AIED in ICT4D: Classroom, Institutional, and Informal <i>Benjamin D. Nye</i>	43
The Importance of Software Standards in the Globalization of Educational Technology: The IEEE Actionable Data Book Project <i>Aavron Barr, Tyde Richards, Robby Robson</i>	51