



From the Guest Editors

Selected Papers from IFIP Working Group 9.4

Social Implications of Computers in Developing Countries

Assessing the Contribution of ICT to Development Goals

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Co-chairs

The guest editors of this issue are the organizers of the 10th International Conference of the International Federation for Information Processing (IFIP) 9.4 working group on Social Implications of Computers in Developing Countries. This special issue of *Information Technologies & International Development* presents selected papers from the conference.

This special issue arose out of a desire to address what some perceive as a gap between the IFIP and ICTD scholastic communities, where IFIP is perceived as more MIS- and European-focused. With this issue, we hope to close that gap by providing a showcase for some of the best of IFIP recent research, and by shedding light on those IFIP contributions which are particularly relevant for ICTD practitioners. For *ITID* readers new to IFIP, we hope these papers serve to introduce you to the scholars and ideas of our working group, and we look forward to identifying new ways to work together in the future.

IFIP is a multinational federation of organizations concerned with information processing. One of its main objectives is to bring together computer professionals to stimulate research, development, and the application of information processing in science and human activity. Technical Committee (TC) 9, *Computers and Society*, currently has eight working groups. The TC 9 working group 9.4, *Social Implications of Computers in Developing Countries*, was formalized in September 1989. The starting point for 9.4 was a scientific conference in New Delhi, India, in November 1988.

Prior to the Dubai conference, a conference was held in São Paulo, in May 2007, with selected papers published in *Information and Organisation* and *Information Technology for Development*, and available online at <http://www.ifipwg94.org.br/>. The next conference will be held in Nepal, in 2011, chaired by Professor Maung Sein (Maung.K.Sein@hia.no). The call for papers is pending.

The theme of the Dubai conference was the potential for ICTs to contribute to meeting development goals, such as basic health care, poverty reduction, and education. It is often argued that countries harnessing the potential of ICTs can expect accelerating economic growth, improving human welfare, and the fostering of good governance practices. The role of development goals in policy-making is an important area of academic study and practical application. For instance, the eight Millennium Development Goals (MDGs) developed from the United Nations Millennium Declaration

signed in September 2000 and to be achieved by 2015 are agreed to by all 192 United Nations member states and at least 23 international organizations. ICT has also been a key element of various economic development and public sector reform agendas around the globe.

In response to the call for papers, 80 articles were submitted, from which 20 full papers and 17 works-in-progress and practitioner reports were accepted. All 80 papers were subject to double-blind peer review. The feedback from two reviewers and the program organizing committee enabled these papers to be revised by the author(s), and the accepted papers were printed in the proceedings:

Byrne, E., Nicholson, B., & Salem, F. (2009). Assessing the Contribution of ICT to Development Goals. *Proceedings of International Federation of Information Processing Working Group 9.4 Conference*, Dubai, UAE. Dubai School of Government. ISBN -13: 978-0-903808-05-7. Available in full at: <http://ifip.dsg.ae/index.htm>

The articles describe, critique, and develop arguments, drawing conclusions on the role of ICTs in achieving development goals from a multitude of development projects. The papers cover a wide geographical area, and are based on research from Albania, Australia, Brazil, Canada, Egypt, Ethiopia, Finland, Germany, India, Ireland, Jordan, The Netherlands, New Zealand, Nigeria, Norway, South Africa, Sweden, the United Arab Emirates, and the United Kingdom.

From these articles, a further selection was made after the conference. This was conducted on the basis of review comments, as well as editorial re-review with the opportunity for authorial revision. These revised papers were then submitted to another double-blind review and revision process using different reviewers.

Description of the Articles

The first article, by Chrisanthi Avgerou, identifies the multidisciplinary nature of ICT for development, drawing from scholars in information systems, human-computer interaction, communication studies, and development studies. Perspectives regarding the nature of the ICT innovation process in developing countries are identified, as is the nature of the development transformation contribution of ICT. The culmination of this is a discussion of ICT for development discourses and an argument for the development of theoretical capabilities for studying IS innovation in relation to socioeconomic contexts.

Sundeep Sahay, Johan Ivar Sæbø, Selamawit Molla Mekonnen, and Abyot Asalefew Gizaw provide us with the first of three papers focusing on ICT and health. Using an action research method, evidence from Tajikistan, and institutional theory, the authors examine the challenges involved in the introduction of health information systems. The theoretical framework enables a comprehensive explanation of the constraints to change presented by the environment. The authors' own experiences in trying to overcome these difficulties are also presented.

Nigussie Mengesha contributes the second paper in the health field. Drawing on case study evidence from Ethiopia, an actor network theory lens provides the conceptual backdrop for an investigation into the public health sector—specifically, into the introduction of a computer-based antiretroviral therapy information system. The analysis shows how competition and politics influenced the choice of development technologies, methodology, features, and functions, as well as how this influenced patterns of use, the project trajectories, and the adopting organizations. Overall, the article improves our understanding of the sociotechnical dynamics of IS development in a resource-constrained and competitive context.

The paper by Nimmi Rangaswamy and Sumitra Nair provides us with an ethnographic study of the business practices of small enterprises. This detailed study of a particular situated context improves our understanding of the opportunities and challenges that are involved in meeting poverty reduction and education development goals. The authors focus on the opportunities and expansion trajectories of small entrepreneurs in the mobile phone business within an Indian urban slum. The findings are conceptualized as occurring in “hybridized spaces” populated by a variety of business partners, such as employees, clients, agents of established mobile phone companies, and agents who broker gray-market hardware and skill training. These are analyzed against a background of burgeoning demand for mobile technology in low-income settings.

The final paper, by Sundeep Sahay and John Lewis, was not submitted to the conference, but instead, by invitation from the editors. It is the third paper in this issue to focus on the crucial area of public health development goals. Here, the authors’ focus is on improving our understanding of the tensions between local particularities of practice and standardized, large-scale public health ICT implementation. The conceptual framing tells the story of just such a large-scale implementation and provides us with insight into “*techne*” and “*metis*,” where *techne* represents technical knowledge that can be expressed precisely and comprehensively, and in contrast, *metis* is always contextual and particular. The authors show how *metis* is relevant to public health information systems, and how system developers can design and implement information systems that can support the nurturing of *metis*.

The IFIP 9.4 conferences, mailing list, publications, and associated journal special issues provide a meeting point for dissemination in this important field, and we hope you will find these papers to be of enduring value. Our thanks to the Dubai School of Government administration team, the many anonymous reviewers, and Arlene Luck, who assisted us with this special issue.

