

Development Informatics Research: From Early Beginnings to Future Opportunities

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1988 Delhi Conference

- First of eleven IFIPwg9.4 conferences to date
- 40 participants: 15 from India and 25 from 11 other countries
- Published as 'Information Technology in Developing Countries' (Bhatnagar and Bjørn-Andersen, 1990)
- Some themes from the conference remain important today

Theme 1: Context is important

- 'Cultural barriers to implementation present more difficult problems [than technological sophistication] because they provide the social context within which information systems are interpreted and given meaning' (Robey et al 1990)
- 'Computer-based information systems should be conceptualised as social systems in which technology is only one of the dimensions (Walsham et al 1990)

Theme 2: Use participation and cooperative design

- 'The most important guarantee for including all important aspects is participation – or more properly, cooperative design of the computer-supported activity by a group consisting of users as well as computer experts. It is important that concepts and media for a common language are created through mutual learning and teaching' (Korpela 1990)
- 'The cross-cultural information systems developer needs to be a humble enquirer, seeking to learn, and to actively avoid being a deified expert seen as seeking to infiltrate.' (Davies and Wood-Harper 1990)

Theme 3: Need for indigenous development

- 'In exploiting IT for social impact there is some part of technology that developing countries can borrow rather than reinvent ... and some aspects of technology which must be adapted to local cultural environment ... and a significant part that must be creatively developed entirely indigenously.' (Bhatnagar 1990)
- 'One should note, though, that although India's comparative cost advantage is reduced [by the use of 4GLs] it is not reversed – it is still cheaper to produce in India than in the US' (Heeks 1990)

Theme 4: IT as only one element in change efforts

- It is argued that the development of computer-based information systems in order to introduce administrative rationality in public bureaucracies in many developing countries can not succeed, unless such projects are incorporated in programs of far-reaching reforms' (Avgerou 1990)

But the world has changed

- New technologies
- New methodologies
- New theories
- New entrants to the ICT4D arena
- New global alignments

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Providing some future opportunities (and threats) ...

Opportunity 1: Engage widely with other disciplines

- Many disciplines now involved in ICT4D, not just IS:

The conference program and accepted papers will reflect and deepen the multidisciplinary nature of ICTD research, with anticipated representation from anthropology, computer science, communication, design, economics, electrical engineering, geography, information science, political science, public health, sociology, and so on. (Call for papers for ICTD2012 in Atlanta).

Challenge for IS

- 'An IS perspective offers the means to understand many of the problems that beset ICT4D projects. Most notably, it offers models for understanding the human, political, and contextual reasons why so many ICT4D projects fail. It also offers approaches for addressing those factors during project design and implementation.' (Heeks 2008)
- But the IS perspective fails in two ways. At least in part, it has lost track of the artifact, becoming so much of a social science and so concerned with context that it fails to engage with the technology . It has also made few connections with the context, stakeholders and process of development. IS tends neither to understand, nor to use the ideas of, development studies. (Heeks 2008)

Opportunity 2: Do more action research

- If we are to engage better with the technology and the context and processes of development
- Good example provided by the Health Information Systems Programme (HISP) (see, for example, Braa et al 2007):
 - started in South Africa in the mid-1990s
 - provides a broad approach to improving health information systems and wider health professional and institutional capabilities
 - technology based on open-source software, latest version being DHIS2

Opportunity 3: Explore new technologies and methodologies

- Mobiles, social networking etc
- Applications such as M-PESA (Moraczynski 2009) or mobile phone-based activism (Ekine 2010)
- Open source
- But need a sophisticated approach to their exploration

Example of sophisticated approach: 'African women and ICTs' (Buskens and Webb 2009)

- Demonstrates the diversity and complexity of African women's experiences with ICTs
- Strong evidence that mobiles 'empower women' e.g. enabling economic activity
- But old male-dominated hierarchies persists and womens' status in the community not necessarily enhanced

Opportunity 4: Develop theory

- Of development e.g. use of Sen's ideas in ICT4D (Zheng 2009)
- Of participation/design e.g. open development (ITID special issue Spring 2011)
- Of context and how it matters e.g. Avgerou (2010)

Example of theory-based action research project : Grimshaw and Kala (2011)

- Good set of case studies, mostly action research, on how ICTs can help strengthen rural livelihoods using evidence from India, Sri Lanka, the Philippines and China
- Consistent use of the livelihoods framework as a theoretical basis
- By the way, no significant mention of any literature from IFIP wg9.4 community

Opportunity 5: Remember the ethical agenda

- 'The question that remains is whether we have the collective will to work together to deliver such initiatives [on health, education, rural development, enterprise etc] so that ICTs can truly be used *for* development, thus permitting the least advantaged to share in the benefits that so many people in the world now take for granted.'
(Unwin 2009)
- '... many ICT-based initiatives have taken place [in India] in the last decade and some positive effects have resulted. However, the beneficiaries are almost always not the poorest or most disadvantaged groups ...' (Walsham 2010)

Summary of Themes

From 1988:

Context is important

Use participation and cooperative design

Need for indigenous development

IT as only one element in change efforts

In 2011

Engage widely with other disciplines

Do more action research

Explore new technologies and methodologies

Develop theory

Remember the ethical agenda

Ending on a cheerful note!

- Quotes from Robert Chambers, the guru of participation in rural development (Chambers 2010):
- ‘... cornucopia of potentials through email, internet, video conferencing, participatory GIS, mobile phones, SMS, blogging, Twitter and beyond, a whole new domain of participatory interaction has opened up ...’
- ‘... the runaway empowering potentials of new combinations of technology and volunteer commitment, energy and creativity. We are in a new space.’

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Thanks for listening
Comments most welcome