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# Linking Research to Practice

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# Linking Research to Practice

Strengthening ICT for Development Research Capacity in Asia

EDITED BY

Arul Chib • Roger Harris



SINGAPORE INTERNET RESEARCH CENTRE



INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

Ottawa • Cairo • Dakar • Montevideo • Nairobi • New Delhi • Singapore



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#### **FOREWORD**

If, as some suggest, a messy desk is a sign of a creative mind, perhaps a messy conference room is the sign of a creative collaboration. Over the years, I have spent a lot of time in workshops at the Microsoft Research (MSR) offices in Bangalore, but for some reason, I still remember the way the attendees at the ICRC research methods workshop appropriated the MSR space. They — actually 'we', since I was a participant — moved the neat rows of desks and tables around into circles and clusters, spilled out into the offices' common spaces, and set out to question nearly everything about the practice of "Information and Communication Technologies and Development" (ICTD). Given the broad representation of accomplished scholars, practitioners, and donors at the early planning sessions in Manila and Bangalore, one might have expected that the project which would become SIRCA would be special. But I do think it was a good sign that we moved the chairs.

Another thing I remember from those early meetings was how helpful it was to have people from outside the ICTD community involved in the discussions. Some of the most insightful conversations during the sessions occurred as self-described ICTD researchers compared their articulations of problems, methods, and interests to those attendees interested more in research on the globalizing "information society". The result was a group dynamic which paid unusually careful attention to assumptions, theoretical stances, and goals. No one was going to get away with a blanket assertion that worldwide access to and use of information and communications was fair, good, or necessary, or that interventions to 'improve' access and use were required, effective, or even possible.

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A few years later, having now seen the fruition of a full cycle of SIRCA work as represented in this volume, it is extremely gratifying to see how the programme has not only supported fascinating new interdisciplinary research on ICTD and on the information society in emerging Asia, but also strengthened and nurtured a growing group of scholars in the region. Some of the relationships and intellectual cross-pollinations between mentors and researchers, and between researchers from different sub-regions, will surely last beyond the cycle of the SIRCA project. In this way, the endeavour has already contributed to the research community in a way that is different from a conventional call for papers or one-off workshop.

A more surprising output from the first cycle of SIRCA research relationships has been the burst of new and rigorous reflections it has offered on the practice of doing ICTD research. These reflections offer not simply refinements to surface methods, but rather critical discussion of praxis, of ethics, of teaching, of stakeholder coordination, of publication, of institutional identity, and the purpose of ICTD research itself. In this way, the topics discussed in the SIRCA workshops and in this volume offer new insights into issues, challenges, and the state of the art in the ICTD field as a whole.

Perhaps, whether by design or by fortune, the commitment to putting mentorship and capacity building at the centre of the SIRCA initiative was a major contributor to this burst of reflection. Mentorship is, of course, a timetested way to encourage the transfer of tacit knowledge from one generation to the next. But in this case, it seems that the authors, participants, and editors were able to capture (for our benefit) a lot of that tacit knowledge, midtransfer. This volume represents the reflections of a variety of scholars who were actively and personally engaged in an ongoing discussion not simply on the rote methods of ICTD (sample sizes and citations and such), but rather on its deeper craft, and on the rituals and requirements of a complex and growing community of practice. In other words, the experienced mentors were learning as well, since the process encouraged them to challenge their assumptions, take positions, and in some cases develop new ideas and research syntheses.

Thus the SIRCA project was distinctive in many ways: It involved researchers, practitioners, and donors right from the start. It put a broad set of methodological and theoretical perspectives on the table for discussion and integration. And, through mentorship, it sought to make tacit knowledge about the practice of ICTD more explicit and accessible. Thanks to this design by IDRC and the SIRCA team, and to a significant multi-year commitment on the part of the funders and the coordinators, the outputs of the project and of this volume include the following:

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SIRCA was an opportunity to pursue impact, but without assumptions. You may note a few instances in the text where authors politely declined to take a detour into the semantics, particularly the differences between "ICTD" and "ICT4D". This is not because these distinctions weren't relevant or discussed. but rather because there was both an awareness of the power of the underlying assumptions conveyed by nomenclature, and also an understanding that the community enjoyed the shelter of a big enough tent to include those who may strongly prefer one term over another. What was foregrounded instead was the importance of *impact*. Some framed this in terms of the Millennium Development Goals, others simply as "development", but the chapters spoke from a consistent perspective about the need to engage with society as a whole to make people's lives better. Again in the spirit of the "big tent", it is unlikely that all the authors agree precisely on the mechanisms through which scholarly research is translated into change in the world; instead the volume is a reflection on the various mechanisms which might prove fruitful. The only stances absent from this volume's overall orientation towards "impact" (4impact?) might be more critical ones — perspectives which might directly challenge the possibility of an inclusive information society, or stress the relationships between information technologies and entrenched power.

SIRCA supported research that pushed up against the boundaries of what might traditionally be considered ICTD research. Of course, the programme generated papers and presentations beyond those represented in this volume, most notably in the journal Media Asia. But even the research outputs highlighted in this volume reflect a variety of national contexts, technological artefacts, development domains and theoretical approaches. By exploring political blogging, environmental sustainability and community level coordination, the challenges of mobile learning, and the engagement of individual university students with the full range of internet options (instead of focusing only on pro-development, instrumental activities), the research output papers reflect state-of-the-art approaches to understanding the information society as it manifests in emerging Asia. The processes are framed neither exclusively as drivers of development nor exclusively as results of development. Instead, the inquiries stress context and interdependencies with other changes in the social and economic environments of the countries in question.

SIRCA advanced the state-of-the-art in ICTD without being constrained within it. Across the papers, the complex practice of ICTD was linked latterly and sequentially with adjacent communities of practice and research. Flor's chapter provides a valuable reminder of the debt ICTD research owes to

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antecedents in development communication, information economics, and knowledge management (among others). Each is still a thriving field and thus Flor's first chapter can also remind us of how stimulating it can be to learn from one's neighbours. Meanwhile, Flor's second chapter with Harris approaches the current question of institutional affiliations and linkages. Conceptual and relativistic flexibility in the fluid domain of ideas is all well and good, but the challenges of learning, conducting, and teaching an inherently interdisciplinary subject in the environment of traditional university departments remains significant for ICTD. Similarly Traxler's piece on the challenges of implementing a mobile health programme in Cambodia is engaged with the theoretical and methodological issues brought up earlier and throughout the volume. What are "emerging researchers" to make of multiple, intersecting discourses around development and technology? Such matters can only be confounded when ICTD research confronts a web of intersecting stakeholder demands as illustrated by Chib, Ale and Lim. The volume reminds us that many of the important actors in this drama, from donors to governments to, especially, individual users and families, care little what we call our field, where we publish, or which department we sit in.

Years after the initial meetings in Manila and Bangalore, this volume showcases the fruits of interactions between a set of established researchers with a broader community of new researchers. In his chapter on ICTD methods, De' invokes the idea of a "clean room" in a semiconductor factory as the idealized but never attainable state for research. Instead, De argues, it is via "messy methods" that the best and most applicable ICTD research is accomplished. And yet, De' observes that messy methods are hard; since they demand "a greater degree of preparation and sensitization to enable the researcher to respond to the needs of the situation on the ground". It in this spirit that the entire volume, not just the specific methods chapters, is of service to ICTD. The mess outside the clean room which De' uses to talk about methods is something which seems to have permeated beyond the methods chapter, and into the whole report. This dialogue, this endeavour around mentorship, building capacity, creating a research culture of ICTD in Asia seems to have created a wonderfully generative and simulative environment for the experts writing in Section II, and for the researchers sharing firsthand reports in Section III.

In aggregate, the volume offers a unique perspective (impact beyond the D), via a unique approach and common thread (mentorship), in a unique domain (the information society in emerging Asia). To write a foreword to such a volume, itself already deeply reflective and integrative, risks introducing a Mobius strip of reflection-on-reflection. So I'll end here before the next

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recursive twist. Rest assured that the insights on the following pages are fresh, deeply and visibly connected to the multiyear project and the mentor relationships nurtured by IDRC and SIRCA, and extremely helpful for ICTD researchers worldwide.

This is what can happen when the desks are shuffled around; when a 'messy' conference room is indeed an early indication of a generative, creative process.

Jonathan Donner Microsoft Research January 2012

#### **PREFACE**

The Singapore Internet Research Centre (SiRC) has championed the cause of ICT for Development (ICTD) research with Strengthening ICTD Research Capacity in Asia (SIRCA), a pioneer capacity-building programme that aims to develop the research skills of emerging researchers in the Asia Pacific region. Under SIRCA, a number of experienced scholars served as mentors to principal investigators from all over Asia. Their collaboration has resulted in a range of research findings and lessons learnt which are compiled in this volume. It is divided into three sections, or perspectives: (1) Management Perspectives; (2) Research Perspectives; and (3) Research Outputs.

The first section discusses the inception of the SIRCA programme; opportunities, issues and concerns arising from the implementation, management and evaluation of both the process and the outcomes. The section primarily underscores the need for ICTD research to be more analytical and empirical as opposed to descriptive and anecdotal. It also highlights the importance of rigour and sophistication in ICTD research methodology. The narratives on the management level highlight the relationship of the mentors and PIs, the lessons learnt, and how the programme inspired the PIs to engage in ICT research and practice. The evaluation of the programme describes SIRCA's success in achieving its objectives, as well as recommendations for improvement.

The second section reflects the range of academic traditions represented in the programme through the lens of the research mentors. The section highlights the importance and complexity of key links; that between ICTD theory and praxis, and the links between research, instruction and professional

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development. However, the practice of ICTD has not yet yielded a straight pathway to theorising either. We often aim to conduct ICTD research inside a "clean room" of research methods — structured, organised, and systematic — yet the reality is one of messy encounters with data gathering and analysis. An overview of ethics in ICTD research suggests a comprehensive canon is absent. Addressing these theoretical, methodological, and ethical issues from a critical perspective goes hand-in-hand with the hope of developing a unique tradition within ICTD research. Finally, we champion the importance of an ICTD curriculum that will not only train future researchers and academics but will also sustain the practice, whilst providing inclusion to research teams situated on the margins of the discipline.

The third and final section highlights research papers produced by the SIRCA programme, beyond those that have found a home elsewhere in peerreviewed global journals. With studies conducted in Vietnam, Cambodia and the Philippines, the exemplars provide a concrete picture of the processes the principal investigators have undergone. As a SIRCA mentor stated, the programme has served as a platform for the cross-fertilisation of ideas. This collaboration has occurred across academic traditions, cultural backgrounds, and national and ethnic boundaries. SIRCA has led to a network of scholars that are bound not by schools of thought, ethnicities, age nor gender, but by a sense of purpose to use ICTs in the service of the Millennium Development Goals. In this sense, participation in the programme has brought higher order benefits to the principal investigators, mentors and staff. Based on the studies, narratives and recommendations provided by this volume, we offer insight into the extent of engagement required in the pursuit of disciplinary objectives, not merely for academic outcomes, but to contribute meaningfully to social change.

> Arul CHIB Roger HARRIS Editors

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