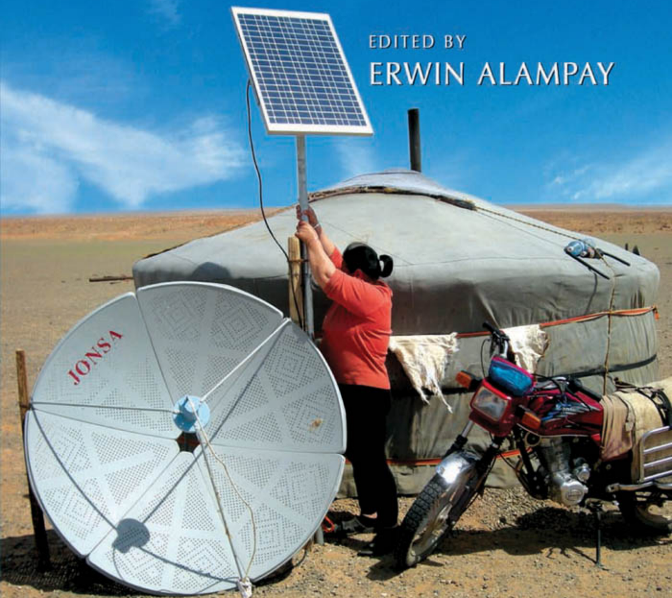
Living the Information Society in Asia

EDITED BY
ERWIN ALAMPAY



Living the Information Society in Asia

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FOREWORD

It is with great pleasure that the International Development Research Centre (IDRC) supported both holding the "Living the Information Society" conference in Manila (23–24 April 2007), as well as the publication of some of the conference's more informative proceedings. IDRC is a Canadian Crown corporation that works in close collaboration with researchers from the developing world in their search for the means to build healthier, more equitable, and more prosperous societies. For IDRC, Information and Communication Technologies (ICTs) are important, yet not enough is known about how ICTs have a role in specific sustainable development outcome areas. The "Living the Information Society" conference and this publication take a few more steps to fill that glaring knowledge gap.

In many of the conferences that focus on ICTs, there is a dominant narrative underlying the proceedings which looks at access to ICTs as generally a positive thing. A more nuanced explanation, that this publication espouses, is that ICTs are powerful tools, and that ultimately it is the people who use them and the environments in which they are used that decide whether they are a force for helping or hindering the development of communities. However, a failing found in much of the research on the effects of the Information Society in Asia, is that it has not given an adequate picture of how and to what extent ICT tools, applications and services have either helped or hindered the development of people, communities, and countries. For example, the relationship between ICTs and poverty, as well as the intricacies of the socially transformative effects of ICTs, are still poorly understood. *Living the Information Society in Asia* contributes to the process of drawing a more representative and honest picture of these interventions and interactions.

Rich Ling looks at the impact of mobiles on increasing social cohesion and ties, thus leading to "the development of a local ideology that also contributes to the strength of these ties". Raul Pertierra finds that mobiles have penetrated the private and public spheres, "including religion, politics and the economy". He further states that "they affect not only relationships with the outside world but also transform orientations in the inner world". Bart A. Barendregt concurs when looking at "Mobile Religiosity in Indonesia", as he sees that technology, and mobiles in particular, are creating a new form of Islamic techno-nationalism. Moreover, Gopalan Ravindran warns us that the emergence of mobile phones in India led to morally construed misuses of the tools that in turn have led to a stronger "control society" through the collaboration of the State and new media companies. Jack Qiu relates the fact that in China, ICTs are having an impact on the livelihoods of the working class, mainly in the informal sector, although some of that impact is focused on facilitating illicit activities such as the trafficking of "blood, drugs, assault weapons, gambling, and gangster services of all kinds". Jonathan Donner, after having studied small businesses in India, found that face-to-face interaction usually trumps ICT-mediated interaction with customers. Regina Hechanova further looks at the impact of working at call centres in the Philippines, particularly on the sense of well-being and identity of Filipinos.

Each of these contributions offers fascinating insights into the effect that ICTs are having in the Asian information society. Quite often, the findings raise additional research questions that need to be looked at; nonetheless, the critical examination and thoughtful analysis brought forth are integral steps in the process of understanding how Asians are "Living the Information Society".

Laurent Elder
Pan Asia Networking Programme Leader
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PREFACE

There has been growing interest among people to understand how lives are changed by information and communication technologies (ICTs). In the early years of this century, we would occasionally read a paper on ICTs written from the perspective of our respective fields. Someone would present a paper on distance learning using the radio, while another would write about how texting is changing the nature of relationships. On occasion, there would be specialized conferences that dealt with e-commerce, e-government, and lately conferences on ICT and development. Slowly, but seemingly exponentially, the amount of research being done on the topic has increased.

It is apparent to scholars and researchers who are currently working on issues related to ICTs that just as there is growing interest and research, that these studies not only need to be known, but that each scholar or researcher can learn from each other, especially from those coming from other disciplines and geographic locations.

This was the reason why we put together the Philippine ICT Research group in 2006, informally to find out who was doing ICT research in the country. From the beginning, the primary movers of this group were Raul Pertierra, Erwin Alampay, Regina Hechanova, Czarina Saloma-Akpedonu, and Ranjit Rye. In our initial meetings, we hoped to organize a small conference to bring Filipino researchers together. However, events overtook us. Apparently, there was a demand for this kind of event from other researchers in Asia. We were also very fortunate to have found a partner in the International Development Research Centre (IDRC) who shared this interest.

This partnership lead to the first Living the Information Society conference that was held in Manila on 23–24 April 2007. The conference was co-hosted by the National College of Public Administration and

Governance (NCPAG) of the University of the Philippines. The intent behind the conference was to bring together scholars and researchers with different disciplinary orientations (i.e. Sociology, Anthropology, Economics, Psychology, etc.) and doing research in different regions in Asia (e.g., India, China, Thailand, Korea, etc.). The objective was to learn about each other's work and encourage collaboration (i.e. cross-country; inter-disciplinary; multi-disciplinary).

There was a wide and varied response to the conference. More than a hundred abstracts were submitted. Eventually, 76 papers were accepted and presented by people that represented more than 20 countries. The conference itself was attended by more than 200 participants involved in ICT research. The success of the conference, in this regard, indicates how quickly the technological and research landscape is shifting.

Since the landscape we are observing changes quickly, it fuses academic, applied and action research. ICT research is now more crucial and requires greater sensitivity in order to provide policies and plans for practical action. It is important to quickly consolidate the knowledge gained from ICT research and convert them for local uses.

This book is a contribution towards this goal. It is a collection of selected papers that were presented at the first Living the Information Society conference. It is intended for scholars interested in further developing research on the interaction of ICT and society. It highlights the wide and diverse issues that emanate from our living in a society that is enmeshed with ICTs: how it changes our relationships, our lifestyles, our work, and how differently people are affected by it.

This book, along with the conference, was funded primarily by the International Development Research Centre of Canada (IDRC). We gratefully acknowledge the generous support extended to us by Laurent Elder, Kathleen Flynn-Dapaah, Bill Carman and Chaitali Sinha of IDRC. We would also like to acknowledge the work of Cheryll Soriano who managed the submission and collection of papers for the conference and the revised articles for this publication. Finally, we would like to thank Liane Peña Alampay (Ateneo de Manila-Department of Psychology), Rizalino Cruz (University of the Philippines-NCPAG), Gina Hechanova, Raul Pertierra, Czarina Saloma-Akpedonu, Ranjit Rye and Veronica Silva-Cusi for helping edit the drafts that eventually made this final collection.

LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
Ass. wr wb	*Assalamu' alaikum warrahmatulahi, wabbarakatu* — peace be upon you, and mercy, and blessings
BBS	Bulletin Board System
BPLS	Business Permits and Licensing System
BPO	business process outsourcing
CAO	City Assessor's Office
CDMA	code division multiple access
COA AARs	Commission on Audit Annual Audit Reports
CPDO	City Planning and Development Office
CPL	Commercial Pilot Licence
CSR	customer service representative
CTO	City Treasurer's Office
CTP	City Trainers Pool
DPS	Delhi Public School
FAAS	Field Appraisal and Assessment Sheet
FGD	focus group discussions
GBU	God Bless U
GIS	Geographic Information System
GPRS	General Packet Radio Service
GPS	Global Positioning System
G-RPTIS	GIS-based Real Property Tax Information System
GSM	Global System for Mobile Communications
ICMI	Incoming Calls Management Institute
ICT	information and communication technology

IIT	Indian Institute of Technology
ISSP	Information Systems Strategic Plan
IT	information technology
ITU	International Telecommunications Union
KAMMI	United Action of Indonesian Muslim Students
LGU	Local Government Unit
MMS	multimedia messaging service
NSP	*Nada Sambung Pribadi* — Personalized Connecting Tones
ODA	Overseas Development Aid
OTOP	*One Tambon (Town), One Product*
PATO	Provincial Assessor and Treasurer's Office
PC	personal computer
PIN	property identification number
PITO	Provincial Information Technology Office
PPDO	Provincial Planning and Development Office
PRMDP	Philippine Regional Municipal Development Project
R&D	research and development
RGS	Revenue Generation System
RPT	Real Property Tax
RPTA	Real Property Tax Administration
RPTIS	Real Property Tax Information System
RPT-SEF	Real Property Tax for Special Education Fund
RPU	real property unit
SARS	Severe Acute Respiratory Syndrome
SFC	Sarawak Forest Cooperation
SME	small and medium-sized enterprises
SMS	short messaging service
TMD	Tax Mapping Division
TRACS	Tax Revenue Assessment and Collection System
UNIMAS	Universiti Malaysia Sarawak
VAS	Validated Added Service
VSAT	very small aperture terminal
WTA	World Teleport Association

CONTRIBUTORS

Erwin A. Alampay is Associate Professor at the National College of Public Administration and Governance (NCPAG) in the University of the Philippines (UP). He is a Senior Editor for the *Electronic Journal of Information Systems in Developing Countries* (EJISDC) and co-founded the Philippine ICT Research Network.

Bart A. Barendregt is an anthropologist who lectures at the Institute of Social and Cultural Studies, Leiden University, the Netherlands. He has published on Southeast Asian performing arts, new and mobile media, and Islamic pop music. His present research concerns youth, digital technology and visions of the future.

Jonathan Donner is a researcher in the Technology for Emerging Markets Group at Microsoft Research India. Previously, he was a Postdoctoral Research Fellow at the Earth Institute at Columbia University. He holds a PhD from Stanford University in Communication Research. His book with Rich Ling, *Mobile Communication*, will be published in 2009.

Jocelyn C. Cuaresma is Associate Professor at the National College of Public Administration and Governance, University of the Philippines, Diliman. Her research interests involve local governments and public sector financing.

Jean-François Doulet is Associate Professor at the University of Provence (France). As scientific advisor for Orange Labs Beijing (France Telecom Group), he has been managing research on the impact of ICT usage on urban life in China. He is one of the authors of the *Handbook of Research on Urban Informatics: The Practice and Promise of the Real-Time City* (edited by Marcus Foth (2008).

Roger W. Harris lives in Hong Kong and is a Systems Analyst by training with a PhD in Information Systems. He spent his early career helping organizations make effective use of Information Technology. In 1997 he joined University Malaysia Sarawak to help rural communities in the developing world get connected to the Internet and use it for their own development. In this capacity he instigated and implemented the award winning e-Bario Telecentre Project. He has been involved with rural IT projects in more than ten Asian countries. He has authored the books *Information and Communication Technologies for Poverty Alleviation and Empowering the Poor: Information and Communications Technology for Governance* and *Poverty Reduction: A Study of Rural Development Projects in India*. He was founding Editor-in-Chief of the *Electronic Journal on Information Systems in Developing Countries* (EJISDC).

Ma. Regina M. Hechanova is Executive Director of the Ateneo Center for Organization Research and Development (Ateneo CORD) and Associate Professor at the Psychology Department of the Ateneo de Manila University. She was named Outstanding Young Scientist by the National Academy of Science and Technology in 2005. Her research interests are in human resource management, organization development, and technology in the workplace.

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Daniel Miller is Professor of Material Cultural at the Department of Anthropology, University College London. He is currently working with Dr Mirca Madianou on a study of the use of new media by Filipino migrants to the United Kingdom. Previous books include *The Cell Phone: An Anthropology of Communication* (with Heather Horst), and *The Internet: An Enthnographic Approach* (with Don Slater).

Raul Pertierra formerly taught at the University of New South Wales, and is now teaching in the graduate programmes at the University of the Philippines, De La Salle University and Ateneo de Manila. He authored the books *Txt-ting Selves: Cellphones and Philippine Modernity* (2002) and *Science, Technology and Everyday Culture in the Philippines* (2003).

Jack Linchuan Qiu is Assistant Professor at the School of Journalism and Communication, Chinese University of Hong Kong.

Gopalan Ravindran is Professor and Chairperson at the Department of Mass Media and Communication Studies, University of Madras, Chennai, India. His previous positions include stints at Universiti Sains Malaysia, Malaysia and Nagoya University, Japan. His research interests are in the areas of digital cultures, diasporic cultures and film cultures.

Dan Shang is Sociology Researcher and Service Development Manager at France Telecom R&D Beijing. Her research focuses on urban mobility, city 2.0 and emerging ICT usage trends in the transitional Chinese context.

John Tarawe is the Project Director of the e-Bario Project in Sarawak, Malaysia.

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INTRODUCTION
Perspectives of ICT Research in Asia

Erwin Alampay

> For it is inescapable that every culture must negotiate with technology, whether it does so intelligently or not. A bargain is struck in which technology giveth and technology taketh away. (Postman 1992, p. 5)

The quote from Postman's *Technopoly* captures the ambivalence and many of the contradictions that people experience with technology. It is as true today, with information and communication technologies (ICTs), as it was during the industrial revolution with the steam engine and industrial factories. Technology affects us at various levels, and for both good and ill.

As one of the key transformative factors in a globalizing world, the advances in ICTs have transformed everyday life and how people interact and interconnect with each other, communities, states, and markets. The so-called "ICT-revolution", as noted and debated by scholars, politicians, and policy-makers, has had an inordinate effect on economies and societies, leading to what has been termed a "global shift" (Cerny 1995). This suggests two fundamental alterations to the global political economy. First, there is the movement from an industrially-based international economy to one that is information- and knowledge-based. For some, these changes signal the emergence of the "Third Industrial Revolution" which is both transnational in character and based on post-Fordist regimes of accumulation. Second, the ICT revolution is said to have profound positive and negative social, political and economic consequences that can become factors in determining development and underdevelopment. As such, ICT and its management have become a new rhetoric of development.

It is against this backdrop that the compendium of papers in this book examines how people's lives in Asia are being affected by ICTs and the new ways of communicating (i.e. via Internet, mobile phones, cameras, blogs, short messaging system, call centres) that come with it.

A CALL TO ACTION FOR ICT RESEARCH

Rich Ling (Chapter 1) opens this collection of papers with an examination of the parallels between the sociological efforts to understand the changes that had occured during the industrial period, and current endeavours to study the effects of new ICTs. Asian societies are experiencing the transition from a dearth of ICTs to universal access; hence, Ling argues that it is an opportune time for researchers to examine their impact. Whether it is technology that is shaping contemporary society, or whether it is society which dictates how technology is used is irrelevant. To Ling, more interesting are the consequences that result from the interaction between society and technology.

The succeeding chapters tackle this interaction at different levels, units of analysis, and theoretical or disciplinal lenses. The papers are characterized by three main themes: how the use of ICTs affect day-to-day living; how access to ICTs is changing (or not changing) society; and finally, how ICTs change how people work and are governed.

EVERYDAY LIVING: RELATIONSHIPS, POLITICS, LIFESTYLES, AND RELIGION

The primary use for ICTs is social in nature, and most of the chapters in this book are devoted to this. In particular, different writers discuss ICTs in terms of their effect on relationships, impact on lifestyles, use in socio-political events, influence on the practice of religion, and use in perpetuating lascivious activities.

In Chapter 2, Danny Miller discusses how the mobile phone is changing our relationships, exploring, in particular, its effect on families separated by migration. In a highly globalized world, this phenomenon of fractured families is becoming commonplace. As such, people turn to ICTs to bridge the distance, feel connected, and manage the households they have left behind. In this paper, Miller deliberates whether ICTs are indeed able to bind families closer and discusses the tensions that emanate because of their use.

In Chapter 3, Raul Pertierra, who has done pioneering research on mobile phone use in the Philippines (Pertierra et al. 2002), examines the transformative effects that new communicative media have brought to various aspects of public and private spheres among Filipinos. He does this by providing revealing excerpts of anecdotes, cases, and commentaries on day-to-day experiences with the use of ICTs. He argues that unlike previous technologies, new media is inducing changes that are not limited to people's relationships with the outside world, but also how people now view themselves.

In Chapter 4, Jean-François Doulet and Shang Dan look at how urban dwellers in China integrate mobility in their everyday life with the help of ICTs. In particular, they look at how access to information provides people with new spatial strategies, and allows them to become more mobile and confident in exploring the real world. In addition, they look at the changing socialization patterns among new urbanites, from small social circles based on deep personal relationships, to larger social circles based on common interests. They discuss this by providing illustrative cases of how relationships formed from the virtual world of the internet are transformed into real world relationships.

Bart Barendregt then discusses "mobile religiosities" in Chapter 5. He describes how Muslims in Yogyakarta, Indonesia creatively adapt and appropriate mobile communication tools and practices in their everyday lives. In particular, he looks at how ICTs have been used in Muslim Indonesia to not only spread the faith but also to serve as important markers of Islamic modernity. His paper is an interesting example of how institutions, in this case religious entities, are adapting to the rapidly developing informatized society.

In Chapter 6, Gopalan Ravindran discusses the "moral panics" that are generated as a result of the introduction of new technologies such as mobile phone cameras and the Internet. Ravindran highlights the harmful and detrimental applications of ICT, such as pornography and the invasion of privacy, and the social debates these have produced in Tamil India. The cases he presents provide an important counterbalance to the positive effects often attributed to ICTs. At the same time, the author presents a cautionary tale of how policy-makers can be prone to view ICTs in black-and-white, as leading to utopia or dystopia, rather than understanding the more complex reality in between.

ACCESS AND THE SOCIAL AND GEOGRAPHIC DIVIDES AMONG US

Various World Commissions have debated the benefits and risks of using

ICTs, and have concluded that denying or restricting the use of ICTs is more detrimental (Mansell and Wehn 1998). The next two chapters present accounts of the benefits and pitfalls of access to ICTs, and how access for the marginalized cannot be entirely removed from other social disparities they are living with.

In Chapter 7, the rationale for providing ICT access to distant communities is addressed by John Tarawe and Roger Harris. They present the social impact of one of the first telecentre projects put up in Asia, the e-Bario project, through the life stories of ten people in the community. The life stories represent the voices of members of the community, culled from interviews and written diaries, and provide a balanced presentation of the positive and negative consequences of the introduction of ICTs in Bario.

In Chapter 8, Jack Qui provides an engaging presentation of the life among the "have-less" by following three prominent case studies in China, as documented in blogs, the Internet, and newspaper articles. He argues that while the diffusion of "working-class ICTs" offers opportunities for upward mobility, the actual process of technological growth is accompanied by multiple social processes that perpetuate inequality, and exacerbate social conflicts.

WORK, COMMERCE, AND GOVERNANCE

The last four chapters present research on the impact and challenges of incorporating ICTs in organizations and work. The four papers deal with different types of organizations and work contexts: local government units (Chapter 9), small and medium enterprises (SMEs) (Chapter 10), call centres (Chapter 11) and home-based workers (Chapter 12).

Jocelyn Cuaresma considers the challenges of introducing and institutionalizing Geographic Information Systems (GIS) into the operations of three local government units in the Philippines in Chapter 9. Her analysis emphasized the roles played by leadership, organizational structures, and human resource capabilities. The paper discusses the non-technical issues in managing change, which were crucial in determining the varying levels of success that the three local government units achieved.

In Chapter 10, Jonathan Donner examines whether or not mobile phones are able to help SMEs acquire and maintain customers. He describes how, even with the presence of ICTs, small and informal businesses in India still rely on face-to-face interactions. Consequently, he argues that while

mobile phones may increase the intensity of social ties or familiarity with customers, use of this technology does not necessarily translate to more business or more income for the smallest of enterprises.

In Chapter 11, Regina Hechanova examines the state of and factors affecting the well-being and identity of customer service representatives (CSR) in Philippine call centres. Among the positive effects on CSRs, aside from better pay, are improvements in technical and social skills. However, the nature of the job has also led to high levels of burn out and fatigue. Hechanova provides recommendations for improving the management of the increasing number of call centre workers, whose well-being is crucial to reaping the benefits of the boom in the outsourcing industry in developing countries.

The last chapter by Kamolrat Intaratat and Piyachat Lomchavakarn documents how Thailand's women homeworkers use ICTs to improve the production process and broaden the market of their small business enterprises. The paper provides insights into the dynamics between gender relations and ICTs, particularly how ICT-enabled services for women should consider the nature of women's capabilities, work, and organizational capacities, as well as community ICT-infrastructure and state policy on enterprises and ICTs. Their paper highlights the steps that are necessary to fulfil the promise that ICTs purportedly provide.

TOWARDS BUILDING RESEARCH CAPACITY IN ASIA

This book aims to provide scholars and researchers with insights into the current areas, frameworks, and methods of inquiry on ICTs and society. This engagement of social scientists in various aspects of the "information society" mirrors a similar contemplation being done with respect to e-government (Heeks and Bailur 2007) and ICT and Development (Heeks 2007). Following the seminal papers in this volume, scholars can work towards deepening the understanding of the effect of ICT in the everyday life of individuals, communities, and in institutions of business, governance, politics, and religion, or other areas of inquiry not covered in this collection.

The papers in this book, while diverse, are not representative of the whole gamut of research currently being done on ICTs in Asia. It does provide, however, a snapshot of the kind of research being conducted and the challenges that confront researchers in this emerging field. Among these challenges are the need for conceptual frameworks and research methodologies that will provide a cohesive, empirically-based and theoretically-informed understanding of the events and imminent changes that come with ICT use.

In terms of methodology, interviews, focus group discussions, and surveys are still prevalent. Tarawe and Harris's use of life stories, Qui's case studies, and Pertierra's SMS anecdotes, for instance, provide a humanizing perspective that is essential in describing and understanding personal responses to this novel phenomenon. Hechanova and Donner, on the other hand, utilized a mix of quantitative and qualitative approaches.

However, with the new ways of communication that ICTs allow, creative methods for studying their use and impact have likewise arisen and should be taken advantage of. With the invention of the telephone, some lamented the possibility that documenting history will become more difficult with the death of letter writing, but with new ICT the opposite can be said. Social scientists are fortunate to have a wealth of information readily available to work with. Pertierra, for one, has based many of his analyses on SMS messages saved by his respondents. Qui, on the other hand, has made use of materials from the blogosphere. Further work will reveal the promise, as well as the technical and ethical issues that arise and require resolution in the use of these new data-gathering methods.

To end, what Lugo and Sampson (2008) have said regarding the informal sector and ICTs rings true with respect to the next steps for research on the interaction between ICTs and societies. There are still many areas that need to be studied, and they "need to be explored across nations in order to understand the extent to which these practices are reproduced … (and) would also need to be interdisciplinary, incorporating perspectives from anthropology, sociology, cultural and media studies and business studies" (2008, p. 116). Obviously, the disciplines are not limited to these. Psychology, informatics, engineering, economics, law, and other disciplines have as much to be concerned about when discussing ICT and society. This implies that ICT research would require greater collaboration and interaction from a diverse set of actors — in Asia and elsewhere — in order to keep pace with the developments that new ICTs create.

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1

WHAT WOULD DURKHEIM HAVE THOUGHT? Living in (and with) the Information Society

Rich Ling

INTRODUCTION

In this chapter I will discuss the interaction between mobile communication and society and I will consider the impact of mobile communication on social cohesion. This has been an issue that I have been thinking about for some time now. I have participated in various projects that have likewise considered issues associated with this (Ling 2004) and have written a book that delves into this issue at some length (Ling 2008).

I am going to start with a broader topic, however, the interaction between technology and society. This may seem vast and also somewhat clichéd. It is, after all, a very common theme for those of us who have taken an interest in this area.

Revolution, Evolution or What?

The interaction between technology and society is the core of sociology. The current discussion with regards to the role of technology in society

is, in some ways, an updated version of the traditional sociological project.

When thinking about the founding of sociology, a theme that ran through the work of, for example, Weber, Durkheim, Tönnies, Simmel, Marx, Compt and the others, is the impact of industrialization on the social fabric. These scholars, each in their own way, dealt with this central issue. These early social scientists were confronted with the reformulation of major social institutions. If we think of a simple list of major institutions such as the family, the church, the city, education and working life, the industrial revolution (both the transition to steam and later, the transition to electrical production) witnessed dramatic changes in these institutions. The family has moved from being an extended multi-generational affair to today's nuclear Mum-Dad-and-the-kids form. The church lost much of its influence, the cities ballooned, education was professionalized and democratized, and we moved squarely into wage-based labour. The traditional gemeinschaft society was nearly completely transformed into gesellschaft society, to use the dichotomy suggested by Tönnies.[1]

Today, when confronted with the new information and communication technologies (ICTs), we are, in some respects, also engaged in the same issue. There has been the introduction of a new technology into society. We, as social scientists, have the privilege and perhaps the responsibility of keeping an eye on it. What are the social impacts of ICT? It is important to try to understand how these technologies are being played out vis-à-vis the broader social situation. Are the Internet and the mobile telephone changing social institutions? Will they change the way we work, the form of the family, the way we educate ourselves and the rest? Will they change our sense of social cohesion and the way that power is applied and distributed in society?

We are still working through this. Enticing evidence comes from the Philippines where mobile communication has affected the way that government works. This has been one of the most dramatic events associated with the adoption and use of ICT. It is, however, not the only one, as I will discuss below.

Stepping back for a moment, however, it is worth pondering whether the so-called ICT revolution is of the same magnitude as the previous steam-based industrial revolution? Has the development of the transistor in 1947 by Shockley, Bardeen and Brattain had the same impact as the perfection of the steam engine by Watt in the 1760s? Have the PC and the mobile telephone had the same broad impact on society? As with the industrial revolution, has the family been reformulated? Has the nature

of the city changed to the same degree as it did during the introduction of the factory system? Has the nature of our wage-labour form of work changed in any significant way? Does the educational system operate much differently than it did a hundred years ago? Has the influence of the church increased or decreased in any appreciable way?

If I were to stand in the year 1907 and pose these questions of the previous 100 or 150 years, I would be able to answer "yes" in almost every case. However, if I stand in 2009 and pose the same questions of the previous century, the answer is not so clear.

My point here is not to deny that ICTs have had an impact. Rather the point is to put the issue into some sort of perspective. While we are past the worst of Internet mania, we do not have to reach too far into the past in order to find the most brazen rhetoric describing the possibilities associated with the introduction of this technology. Perhaps my favorite is Masuda who suggested that the Internet will, "crystallize participatory democracy and result in a rich symbiosis of god and man, without the compulsion of power or law but by the voluntary co-operation of citizens" (Masuda in Kumar 1995, p. 15). These comments, if true, would swamp anything that happened in the previous industrial revolution. However, time and a little sober thought has given another answer.

ICTs have undoubtedly changed the way that we operate, but they are definitely not of the same calibre as industrialization. They have changed forms of production and access to information. They have allowed us to control manufacturing processes and the way that we deal with information-related tasks. They have led to the elimination of certain types of work to be replaced with others. We no longer, for example, have filing secretaries, but rather we have web designers. I no longer spend hours digging through my tax forms with a puzzled look as I shift back and forth between forms and instructions. Rather, I receive a partially filled-out version and then nervously shift back and forth between web pages, print-outs and the suggested version of my taxes.

An interesting perspective on all this is provided by James Beniger in his book *The Control Revolution* (1986). According to Beniger, we have not really experienced an information revolution. Rather, the increasing demand for control of ever more complex systems has resulted in a parallel, but perhaps somewhat lagged development of information systems. In the period between about 1880 and 1920, many of the elements of the current control apparatus were in place. He notes, for example, that World War I was characterized by central planning to a degree that had not been seen before. World War II was in this respect a redux. The advent of the

transistor, seen in this perspective was a new step in the process and not the fundamental shift that some would have it to be.

Thus, the current era is not so much a revolution as a phase in the development of industrialization. Following Beniger, ICTs have taken on a life of their own, but they are still operating in the same general context. I go through this review of the situation not to dampen our spirits. I think that there are important changes in society that are stirring. However, it is important that we focus on the right things. Rather than being given the luxury of a broad Weberian analysis, we have to be a bit more cagey in our analyses.

THE INTERACTION BETWEEN TECHNOLOGY AND SOCIETY

You will notice that I have constantly described technology and society as having an interaction. I have been actively sidestepping the question of which came first, technology or society.

The idea of technical determinism suggests that in the final analysis it is technology that drives the formation of society. Marx is often seen through this lens. His statement that "A windmill gives you society with a feudal lord; a steam-mill, society with the industrial capitalist" (2005, p. 119) does a good job of encapsulating the notion that it is technology that determines the form of social interaction, at least at an abstract level. Others who have employed this perspective include Munford and his examination of mechanical time-keeping (1963), Cottrell and his analysis of diesel locomotives (1945), and Sharp's analysis of the introduction of steel to Australian Aborigines (1952). In some respects, Eisenstein's examination of the printing press (1979) and Beniger's examination of the control revolution (1986) also fit into this camp. The image here is of technology begetting technology and society being continually reformulated in the wake of this process.

At the other end of the spectrum, there is the idea of social determinism. This has been perhaps most completely explored by Bijker et al. (1987; 1992). From this perspective, it is social interaction that has agency when considering the development of tools. Further, various tools, while originally intended to function in one particular way, can be reinterpreted. The shovel, for example, is intended as a tool with which to dig holes, but we can also use the handle as a lever, we can "plant" the shovel in the ground and use it as a pole to hold up a line and can use it to lean on, etc. While the shovel functions best for digging holes, it can also have a range of other, more or less jury-rigged functions. Some technologies are particularly closed,

in that they are difficult to reinterpret and to use in other instances, while some are particularly open.

ICTs are particularly open. The original intention of electronic computers was to do the heavy mathematical work of calculating cannon shell trajectories, etc. In addition, they found a life in assisting bureaucracies in their work of sorting through large data bases. All of this has spun into personal computers (PCs) that can host World of Warcraft sessions and allow us to search the Internet for fondue recipes or assistance in arranging flowers. In a similar way, Shin Dong Kim (2004) describes the mobile phone as a type of communications device, as a clock, a calculator and as a flashlight. Recently, we have added music player, camera and a host of other functions to the device.

Social determinism suggests that technologies are a type of text where the author/inventor/manufacturer produces an artifact with a certain intention but that this is "read" and interpreted by the users. The intentions of the author have a bearing on the use of the object, but the user can interpret and redefine the artifact far beyond the original intentions of the designers or the producers.

The weaknesses with both approaches are clear. The technical deterministic view assumes that technology has somehow resulted in a type of technical procreation wherein there is little social intervention. There is not the sense that the technology arises in a particular social situation for particular purposes. The social deterministic approach also has its questionable assumptions. While there are intended uses, social determinism suggests that there is malleability with technology that is not really there.

The real problem comes, however when there is the discussion of primacy. Which came first? Was it the tool/machine or the social determination of a need? Every time I start to think about this, I get into an endlessly regressing loop. It is a little like trying to decide how many angels can dance on the head (or more correctly the point) of a pin. The discussion of technical/social primacy has a tendency to be our age's version of the metaphysical conundrums that Thomas Aquinas pondered in his book *Summa Theologica.* Trying to decide if technology results in society or if the action of society causes technology is a hopeless activity. Perhaps it is something that I can take up as I progress into my dotage and when I have the time to pursue hopeless crusades.

As I have alluded to above, the important question for me is not which causes what. The real question is what is the interaction between technology and society? It is here that I like to draw on the metaphor of the stream and the stone (see Figure 1.1). If I conceive of society as a type

FIGURE 1.1
Is it best to focus on the stone, the water or the turbulence of their interaction?

of flow like the water in a stream that is confronted with different barriers such as stones, I have a different sense of the situation. Rather than trying to decide which came first, the water or the stones, I concentrate on the turbulence that is caused by the interaction between the two.

Please do not misread me. I am not saying that neither geology nor hydrology is important and does not have important discussions. I am aware of the discussions in geomorphology with regards alluvial action, etc. I am only drawing a metaphor for trying to understand the role of technology in society that I fear has been sidelined as we pursue ultimate causality.

If we look at the interaction between the stone and the water, we can see that the flow of the water is disturbed when it meets a stone. It is the different ebbs, turbulence and maelstroms that are of interest. These are the things that are worth looking at. While it is interesting to ponder where the stones came from and the cycle of the water, etc., trying to decide primacy does not get us too far in understanding the turbulence. Understanding the turbulence means that we need to take for granted that both are present and that there is an interaction between them.

Moving out of the metaphorical world of stones and water into the world of technology and society, it is far more interesting to examine the way we make sense out of the ebbs, turbulence and maelstroms when the flux of society meets the solidity of a new technology.

The domestication approach has been particularly fruitful in this context (Silverstone et al. 1992; Haddon 2003). There are three general questions that this approach raises. First, what characterizes the adoption process at

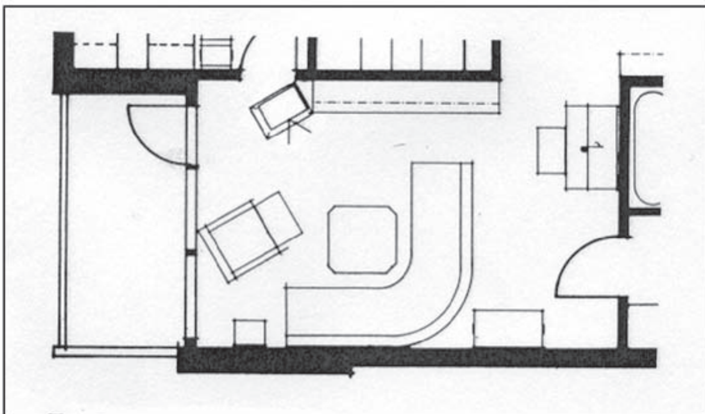
the personal level? Second, after adoption has taken place, how does the object or service become integrated in our daily lives? And finally, how is the object or service interpreted by others after it has been adopted? In each case, there is the assumption that both technology and society are present. Thus, the focus is on their interaction and not primogeniture.

Looking at the first of these, domestication theory examines how the individual goes through the process of discovering the technology and further how they evaluate the process of whether the technology will fit into the flux of their life. They might see it displayed in a store, or they might receive the recommendation of a friend. Regardless of where the exposure comes from, the individual then matches that mental image of the technology with their personal needs and goes through some mental process of checking to see if the artifact is something that is worthy of purchase or acquisition.

Next, the domestication approach encourages us to look at how the individual actually brings the artifact into their life. Where is it kept and how must other objects and routines be changed in order to accommodate the new item? Will the new object or service require a reapportionment of time or money? When we bring a TV, a PC, or the Internet into our homes, it means that we have to rearrange the way we move through the home, we have to rearrange the furniture, and we have to allocate our time in a different way.

Indeed, the adoption of a technology may clash with the very structure of the home. In Figure 1.2 we see the arrangement of furniture in a Norwegian

FIGURE 1.2
The furnishing of a Norwegian living room from the 1980s



apartment from the mid-1980s. The apartment was built in the early 1960s before it was common to have a TV in the home. Since that time, a TV has become an almost ubiquitous feature of the living room. Indeed, we can see the TV drawn into the upper left-hand side of the figure facing a curved sofa with a low table in front of it and another chair to the left of that. This arrangement is in conflict with the original sense of the living room. This can be seen most obviously, in that the TV blocks a doorway into one of the home's bedrooms.

This is an example of the turbulence when a newer technology is placed into a pre-existing situation. Provisions have to be made in the physical arrangement of the living space. Compromises in the aesthetics of the home are tolerated given the perceived benefits of the technology. This picture may, in the eyes of the architect, be a travesty against his or her art. In the eyes of the people living there, it is simply making the best of the current situation. The woman living here might have dreams of moving to a home with a larger living room or perhaps a TV room. This would perhaps allow her to pursue her interest in the piano that we can see to the left in the drawing. Further, the man might have plans of tearing down a wall after the kids have left in order to better accommodate the TV. In each case, the fact that they have a TV makes demands on the arrangement of the living room and the type of furniture that is found there. The ownership of the TV and its role in everyday life directs how they think of interior decorating. It is also an element in determining when other activities can be pursued. This illustration helps us to understand that the adoption and use of technology needs to be worked into both the physical and the temporal routines of everyday life. Further, as noted by Haddon, it is not a "one-off" situation (2003). The placement, timing, and style of use change and develop with time.

Finally, the domestication approach asks us to understand how the object or service will be interpreted by others in the owner's social sphere. The intentions of the individual for obtaining the artifact may be seen differently by friends and colleagues. The purchase of the latest mobile phone might be seen as a thinly veiled gambit to gain status or the subscription to an Internet service may be in the eyes of friends, an indication that the individual is finally becoming a part of the twenty-first century.

The project of the domestication approach is to examine how the adoption of technologies and services interact with various social structures. How do we proceed through the decision to purchase or not purchase the artifact? Once it is a part of our personal sphere, how does it impact on

our routines and the structure of our daily lives and then finally, if we use the object or service as a part of our presentation of self, how do others make sense of this presentation.

There is nary a whiff of social versus technical primacy here. There is little concern as to whether it is the technical chicken or the social egg that comes first. Both are taken as given. The thing that is important is the interaction between the two. Coming back to the metaphor of the stone in the water, it is of little relevance where the stone or the water came from. In the first instance, it is important to take the local micro situation into account. What are the specific formulations of status, routine, structuring, etc.? Does the placement of the personal computer (PC) in the home clash with our sense of aesthetics? What is important is to understand the interaction between the two and to make sense of the turbulence when they meet.

WHAT IS THE RESULT OF ALL THIS TURBULENCE?

Let me now look at this in terms of mobile communication. When we talk of ICT it has largely been synomonous with the PC and the Internet. Mobile telephony has often been treated as an interesting footnote. The mobile telephone has followed somewhat the same path as its ancestor, the landline phone. In the case of the landline phone, aside from a few hardy souls such as de Sola Pool and Claude Fischer, there was little academic interest, particularly when thinking in terms of the social dimensions of the device.

The mobile telephone has enjoyed a somewhat better academic reception. Jim Katz, Leopoldina Fortunati, Kristof Nyiri, Lana Rakow and several other persons have shown an early interest. There is also an active group of younger scholars such as Scott Campbell, Jonathan Donner, Fernando Paragas, Nicola Doering. But the field is still relatively open.

The adoption of mobile communication has also happened almost literally before our very eyes. The technological developments took place at different points in the 1900s. Radio communication was developed in the period immediately before and after World War I. The cellular approach to mobile communication, came from the late 1940s and 1950s and the development of, for example GSM, or Global System for Mobile Communications came in the 1980s. Further, developments in battery technology and miniaturization in the last ten to fifteen years have given us the incomparably small and multi-functional mobile phones that we have today. In addition, the development of pre-paid subscriptions and a variety of other subscription forms have made the mobile telephone accessible to people in a way that the Internet and the PC can not match.

The social impact of all this is that unprecedented numbers of individuals own and use mobile telephones around the world. According to the International Telecommunications Union (ITU), there was about one mobile telephone subscription for every other person in the world (ITU 2008). There were about 82 subscriptions for each 100 persons in Europe, followed by Oceania with 69, and the Americas with 52 subscriptions per 100 persons. Asia had 22 and Africa 11 subscriptions per 100 persons. About half as many persons had access to the Internet in 2005. This is almost to be expected since Internet access is far more complicated to set up and requires the purchase of far more expensive equipment.

By subscription type, as of January 2007, there were 2.2 billion GSM/3GSM subscriptions. That is, about eight out of every ten subscriptions was a GSM subscription. The remaining were largely the U.S.-based CDMA standard (GSM World 2007). In 2005, the Philippines ranked 16 in the world in terms of the absolute number of mobile phone subscriptions. This represented about 40 per cent of its population.

What do we use the mobile telephone for? We clearly see its use among teens in their various affairs and allurements. In addition, we see it when we are forced to overhear the people at the next table, or the next bus seat gabbing away in what is to our ears, a meaningless flow of jabber.

Another answer to this question is that we use mobile phones to communicate with each other. While there is the development of PC and Internet-like services via the mobile telephone, the vast majority of revenue comes from people simply talking to each other. Only a few per cent of our money is spent on data services via the mobile telephone. The vast majority of money is spent in order to engage in inter-personal interaction, be it texting or talking. Indeed, this follows the pattern of other forms of mediation (Oldyzko 2000). What people are willing to pay for is interpersonal communication.

There are several general themes associated with the use of the mobile phone. These include safety and security, coordination, and expressive interaction.

The first of these, safety and security, is often cited as the reason why a mobile phone is purchased. In discussions with users, it often comes out that they first become users as a result of having to face some situation in which the ability to contact others would have saved the day. Perhaps they got a flat tire, perhaps one of their relatives was sick and there was the need to stay in touch, perhaps they needed to stay in touch with the kids at home, etc. In some situations, there was real peril and in others, it was only an imagined possibility. I recall standing in line at a grocery store in

the late 1990s where, in addition to food, it was possible to buy a mobile phone. The fellow in front of me was making just such a purchase. I asked him about it and his response was that he needed to have it because he liked to spend time at his cottage. The message here was that the device was being purchased under the banner of security and safety. I hope that he never had to use it in that errand. Nonetheless, it was rationalization that he used when purchasing the device.

Once purchased, the mobile telephone has its most important role in coordinating interaction. The major impact of the mobile telephone making each individual addressable. Instead of calling to a location on the chance that a person will be somewhere nearby, we call the individual directly. Indeed, we are sometimes miffed when our intended interlocutor does not answer their phone. As we are individually addressable, whenever and wherever we find ourselves, there is a new world of coordination. In other places, I have called this micro-coordination (2002). That is, we now have an extremely nuanced way of interacting. We can call (or text) from the store to find out if a recipe calls for milk or cream. We can contact a spouse who is en route and request that they make a detour in order to, for example, get the kids. Mobile phone-equipped children can call when they are done with activities and thus parents do not show up way too early or too late in their role as taxi drivers or soccer parents. Finally, the mobile telephone softens our schedules in that we can call ahead to advise others we are running late. There are obviously limits to all this. We can not call to the airlines and say we are running late, and would they mind holding the flight a few minutes? Clearly, this type of interaction only functions within the small group and not necessarily in the interaction between the individual and larger social institutions.

MOBILE COMMUNICATION AND SOCIAL COHESION

The adoption by teens, the reliance on the device for safety and security, and using the mobile phone to coordinate interaction are the first things that we see when discussing the social consequences of this development. These uses are what we might call the primary social impacts. Taking a step back we are also starting to see traces of broader social impacts. Specifically, the mobile phone is playing into the way that we develop and maintain social cohesion.

This is a rather broad assertion. In other places, I have said that the mobile telephone is that one ICT that is contributing to social cohesion. Again, this is a broad assertion. I will try to back it up with some indication

as to how this is happening. In order to do this, I will take a short detour through some sociological history.

I assert that the mobile phone is a device through which we carry out social rituals. Here I am not talking about ritual in the sense of a repeated or perhaps obsessive type of action done without reflection. I am talking about the notion of ritual as developed by Durkheim (1995) and further developed by Goffman (1959; 1967) and Collins (1998; 2004). According to this line of thought, a ritual is an interaction between people where individuals have a mutual recognition of a shared mood. Durkheim writes:

> By themselves, individual consciousnesses are actually closed to one another, and they can communicate only by means of signs in which their inner states come to express themselves. For the communication that is opening up between them to end in a communion — that is, in the fusion of all the individual feelings into a common one — the signs that express those feelings must come together in one single resultant. The appearance of this resultant notifies individuals that they are in unison and brings home to them their moral unity. It is by shouting the same cry, saying the same words, and performing the same action in regard to the same object that they arrive at and experience agreement (Durkheim 1995, pp. 231–32).

Thus, ritual is an element in what Simmel would call sociation (1910–11). It includes the recognition of a common focus and the engendering of a commonly recognized mood. In this way, it is the catalyst for social cohesion. In this sense of the word, ritual is not a thoughtlessly repetitive interaction, rather it is a way in which individuals come together, create and maintain a sense of social cohesion.

Durkheim studied the role of ritual among the Aborigines in Australia. His emphasis was on their occasional gatherings and how they were used to integrate the group. Goffman took much of the Durkheimian perspective, stripped out the religious context, and reapplied it to interpersonal interaction in everyday life. At the conclusion of his essay on deference and demeanour, he writes:

> In this paper I have suggested that Durkheimian notions about primitive religion can be translated into concepts of deference and demeanor, and that these concepts help us to grasp some aspects of urban secular living. The implication is that in one sense this secular world is not so irreligious as we think. Many gods have been done away with, but the individual himself stubbornly remains as deity of considerable

> importance. He walks with some dignity and is the recipient of many little offerings. He is jealous of the worship due him, yet, approached in the right spirit; he is ready to forgive those who may have offended him. Because of their status relative to his, some persons will find him contaminating while others will find they contaminate him, in either case finding that they must treat him with ritual care. Perhaps the individual is so viable a god because he can actually understand the ceremonial significance of the way he is treated, and quite on his own can respond dramatically to what is proffered him. In contacts between such deities there is no need for middlemen; each of these gods is able to serve as his own priest (Goffman 1967, p. 95).

Goffman takes the broader notion of ritual and reduces it down to the level of everyday interaction. In Goffman, there is not the broad sweep of what we might call managed rituals. Rather there are rituals of greeting and departure. There is the ritual of telling a joke or exchanging gossip. There is the ritual of flirting and there is the ritual of disagreeing. There are the little marks of respect and forms of interaction that are carried out between individuals. The focus here is not on the collective as much as it is on interpersonal interaction. In the words of Collins: "For Goffman, every fleeting encounter is a little social order, a shared reality constructed by solidarity rituals which mark its entering and closing through formal gestures of greeting and departure, and by the little marks of respect which idealize selves and occasions" (Collins 1998, p. 22).

Thus, the assertion here is that social cohesion arises from ritual interaction, be it at the large Durkheimian or at the more micro Goffmanian level. In the former case, the individual is exposed to some process that is arranged and directed by others and may involve what Turner calls a liminal transition (1969). In the latter case of Goffmanian interaction, it is the individuals who stand in as both the producers and the participant of the interaction. In both cases, the essence of the interaction ritual is the same. It is the mutual recognition of a common mood in a bounded group. This is induced through the development of a sense of inclusion — and necessarily an exclusion of those who are outside the circle.

The issue that is left open here is the degree to which this form of interaction can be mediated. Durkheim was operating in a world that was almost exclusively face-to-face. Indeed, the groups that he studied were not particularly aware of either telegraphic or telephonic interaction. The point, of course was to examine how their colocated interaction resulted in their sense of solidarity. Goffman worked in an era where telephony was well established, but it was not the general focus of his work. In several places,

he invites the readers to focus their attention on "situations" by which he generally means physically copresent interaction (Goffman 1959, p. 238). In spite of this, there are several occasions where Goffman begins to examine the possibility of staging interaction via — or in spite of — the telephone. Perhaps most intriguingly he refers to the use of telephony in his signature concept of front and back stage. He suggests that telephony was an activity to be carried out backstage. He writes, "Here [in the backstage] devices such as the telephone are sequestered so that they can be used 'privately' (Goffman 1959, p. 112). Finally, Collins is quite consistent in his assertion that ritual interaction is by definition a copresent activity (Collins 2004, p. 78).

I am of a different opinion. While the idea of interaction ritual has been developed with the thought that it is a copresent phenomena, I assert that mediated interaction, and in particular interaction that is mediated via the mobile telephone, supports and extends the way that we experience ritual interaction. I am not so radical as to assert that mediated interaction will take over as the primary avenue through which we develop and cultivate our social sphere. It is clear that in most cases, we meet and nurture our social contacts in face-to-face interaction. At the same time, it is also clear that we can extend the form of interaction via the use of mobile communication. We can tell jokes, gossip and can use various forms of slang in mediated interaction. In the use of these devices, we are fulfilling the notion of ritual described here. When successful, these mediated forms of interaction engage the individuals and provide them with a forum in which they can engage in their ritual interaction. There is the sense of mutual engagement and the development of a common mood. Thus, I assert that we can look at mobile communication as a technology that supports and even helps to develop social cohesion.

One other example of mediated social interaction is the area of romantic involvements. This area of interaction shows particularly well how the interplay of copresent and mediated interaction can be used to fulfil love's purposes. While we have heard of people who meet and court via the Internet — or for that matter the telegraph (Standage 1998) — these are the exceptions. In the vast majority of cases, star-crossed lovers meet in copresent situations (Ling 2000). Mediation technology, and in particular the personal technology of the mobile telephone, allows us to draw out and also to anticipate the copresent interaction with mediated contact. Indeed material gathered by Ellwood-Clayton in the Philippines found many of these forces at work. She provides us with the following bit of texting dialogue between a woman named Leticia and a man named Captain.

Leticia: Does it mak u hapy 2 stel a kiss? Remember tho shalt not stel, best to ask!
Captain: I kno wen 2 do it
Leticia: Com show me how so I myt also
Captain: Jaz lyk a magican… I nevr reveal a secret…
Leticia: (sent a message with the graphic of a dancing bear)
Captain: wers my kiss?
Leticia: Y dnt u cum n get it? Latr, im nt yet going 2 bed. I's stil her at d prayer meetn, prayn 4 you…
Captain: Ur not praun. Ur thnkn of me (Ellwood-Clayton 2003, p. 233).

When thinking of the Durkheimian form of ritual interaction, this is a doubly interesting sequence. While Leticia is ostensibly engaged in a church service, that is, a situation where normally the rules of ritual inclusion are rather strong, she also finds the space to carry out a Goffmanian interaction that belies this angelic façade. While the context of one ritual interaction that is intended to cultivate her sense of sanctity and more to the point here, cultivate her inclusion in the fellowship of the congregation, she is also using the time to negotiate another connection. In each case, but perhaps the latter more than the former, she is working out a mutually recognized sense of the situation and cultivating a common mood.

In the case of Leticia and Captain, we see the way that mobile communication fosters the development of social cohesion. Mobile communication is a medium through which the two individuals work out their eventual relationship. Indeed there is starting to be abundant research showing that mobile communication supports interaction in the immediate social sphere. It is within the context of family and friends that mobile communication has its greatest impact.

MOBILE COMMUNICATION AND THE STRENGTHENING OF THE PRIMARY GROUP

Up to this point, I have been speaking in qualitative terms regarding the potential of mobile communication to engage our sense of local solidarity. There is, however, a more quantitative side to this analysis. From around the world there are starting to be analyses showing that mobile communication tightens the strong bonds inside the near sphere of friends and family.

Citing nobody less that Manual Castells, we can note that small primary groups are often born in copresent interaction, but that they are

reinforced via wireless communication (Castells et al. 2007; see also Smoreda and Thomas 2001; de Gournay and Smoreda 2003; Harper 2003). This gives us a model where the group mints their form of argot and interaction while together, but they are also free to elaborate them and play on their consequences in mediated interaction (Campbell and Russo 2003, p. 329).

In my own analyses in Norway, I also find that as teens increase their use of the mobile phone they report spending more time with their friends, less time at home and are less likely to report being "lonely" (Ling 2005; see also Koivusilta et al. 2005; Punamaki et al. 2006). Looking at material from Korea by Kim et al. (2006), by Wei and Lo in Taiwan (2006), by Smoreda and Thomas in Europe (2001), and in separate studies by Matsuda (2005), Dobashi (2005) in Japan, the same general picture emerges. Mobile communication tightens bonds in the primary group. Indeed, we can also look at the work of Donner in Africa where he found in more qualitative terms that in addition to its entrepreneurial functions, the mobile phone is used to enhance in-group communication (2007). According to Ishii working in Japan, "mobile mail [texting] appears to support only a closed network, whereas PC e-mail was found to promote friendship with distant friends" (2006, p. 360).

Turning a good phrase, Matsuda calls this the "full time intimate sphere" (2005, p. 133) and Habuchi calls it the tele-cocoon.

> The *keitai* (mobile phone) can serve as a means of maintaining existing relationships when it is used to strengthen ongoing collective social bonds. *Keitai* do not allow entry of strangers into such collective cocoons. [...] There is a zone of intimacy in which people can continually maintain their relationships with others who they already encountered without being restricted by geography and time; I call this a telecocoon (Habuchi 2005, p. 167).

When thinking more specifically about the role of texting, there are also studies showing that it tilts the interaction in favour of the smaller in-group. Reid and Reid (2004), for example, note that preference for texting corresponds to a preference for smaller and tighter social groups. They write that "Texters were more likely to text a particular group as opposed to many groups, and more frequently participated in several simultaneous text conversations, findings which taken together reinforce the idea that texters share interconnections within a close group of friends in perpetual text contact with one another" (2004, p. 5). Using data from the United

States, Campbell and Kwak (2007) have examined this in terms of the geographical dimension finding that both texting as well as voice interaction predict informal socializing for those who live within a 25-mile radius. Again, this supports the idea that texting is useful when it comes to connecting local peer groups.

This quick tour of the world points out that in a variety of locations using separately collected data the conclusion seems to be arising that mobile communication supports cohesion in the primary group. Ito and Okabe note:

> What is unique about mobile text chat is the way it is keyed to presence in different physical spaces. We observed mobile text chat in diverse settings: home, classrooms, and pubic transportation. Like internet chat and voice calls, mobile text chat can be used whenever two parties decide to engage in focused 'conversation.' What is unique to mobile text chat, however, is that it is particularly amenable to filling even small communication voids, gaps in the day where one is not making interpersonal contact with others… (Ito and Okabe 2005, p. 263).

The French sociologist Christian Licoppe has examined this and suggests a contrast between a style of interaction between friends that is interrupted with longer interludes to what he calls connected presence. In the traditional form of interaction, friends perhaps meet once a week and have a long chat on different topics that they have saved up for the special session. In the mode of connected presence, there is a very low threshold for initiating interaction. We have a communications device that allows us to contact those with whom we are close on seemingly the least provocation. Licoppe asserts that rather than saving up our thoughts and comments until we meet a friend on, perhaps, the weekend, we can establish contact on an ongoing basis. There is no need to wait. If, for example, we see a pair of shoes in a window display that our friend has been searching for, we can send a text message without delay. This might be enough to start a sequence of comments on other topics and perhaps eventually a call. Rather than seeing the interaction between friends and family as a series of intense interactions interrupted by time, Licoppe suggests that we look at these interactions as a type of ongoing conversation. That is, he encourages us to see this as connected presence. Indeed, as we saw above, in the case of Leticia and Captain, the boredom of attending a church service was enough to encourage their string of enticing messages.

There is, yet another layer to all of this, that being the local ideology of the group. There is perhaps the suggestion that the solidarity of the group arises simply under the weight of increased communication. This more mechanical approach would suggest that solidarity of the group comes from the increased ability to interact.

There are, however, other forces afoot. The argument of mediated ritual interaction suggests that solidarity also has other dimensions. It is not simply the number of interactions, but the solidarity is also dependent on the development of a common ethos. Within the small group the various types of ritual interaction help to develop solidarity. This is transformed into a type of local ideology.

An ideology has two basic components in this context. First, it needs some sort of load-bearing construction. Second, it needs to be continually updated with new episodes that support its general framework. The ideology of the teen peer group might have a general tenant that, for example, "Fathers are jerks". This forms the framework upon which various daily events can be placed. If one girl is not allowed to go to a party because of parental concerns, this becomes a brick in the larger edifice of fathers being jerks. If a certain boyfriend meets a cold response, or if a swing in the adolescent fashion pendulum results in parental incredulity, these can be noted in terms of the broader ideology, "Fathers are jerks". The ideology makes the various daily trials comprehensible for the adherents of the ideology. Another ideology might be that soccer is fun or that Ronaldhino is the best player. In each case, the broader ideology needs to be continually supported with new events that play in the same direction. There can be much effort given to collection. If, however, there are not enough events to support the broader ideology, it will likely wither and die. If the group does not agree as to the general ideology, or if enough arguments against the ideology arise, it will need to be modified if the group is to benefit from it.

Mobile communication facilitates the development and maintenance of these ideologies. It is a medium through which these can be developed, but more importantly, it is a way that the supporting events can be quickly broadcast to the group.

At several levels then, the mobile telephone supports the inner ecology of the small group. It is a device that allows us to extend the reach of ritual interaction. It allows for what Licoppe calls connected presence and, it helps us to cultivate the local ideologies that support the social cohesion developed in our interactions with others. The research that supports this general picture is starting to be reported.

BOUNDED SOLIDARITY

Given this ability to be in perpetual contact — to borrow a well-turned phrase of Katz and Aakhus (2002) — it becomes easy to see how the mobile telephone favours the primary group of friends and family. Seen in this way, the various quantitative results noted above become more understandable. The model is that via the use of the mobile telephone we have enhanced access to one another and this tightens the bonds within the group. These bonds, in turn, help to encourage the development of a local ideology that also contributes to the strength of these ties.

An interesting question is brought up by Portes in his analysis of social capital (1998). In some cases, he asserts that the internal bonds of the group are over configured. He cites, for example, participation in the Mafia. Others have looked at the over configuration of local groups and the corresponding paucity of weak links as, for example, enforcing poverty (Putnam 2000). The point is that the over configuration of strong ties and the corresponding absence of weak links has implications for the functioning of the group (Granovetter 1973; Burt 2001). The group does not enjoy the advantage of the types of information that these ties might provide. It is not the primary group, for example, that will give the individual information about a new job, an introduction to a potential new partner, or give them insight into the advantages of a new innovation. In the absence of this information the group exists in a form of isolation or balkanization in the words of Putnam (2000).

In order for the group to have a vital inner life, there needs to be a sense of cohesion and trust that is also supported by their own local ideology. At the same time, if the inner bonds become too massive, the group closes itself off to other influences in society and is impoverished in various ways. The teen clique that is more taken with its own inner ecology than with the broader society is perhaps the best example of this. A clique exists in a sense of bounded solidarity where the inner flux of events is so central as to deprive them of the influences that come from weaker links.

The logical conclusion of mobile telephone use in society pushes in the direction of bounded solidarity. However, it is not clear that the clique is allowed to exist in a form of splendid isolation. There are other forces in society that push in the direction of more openness. These include the natural malleability of the group as individuals come and go and as the different phases of the day, week and year demand that the individual be included in alternative social circles. In addition, there are other forms of mediation that seem to broaden, or perhaps make more superficial, our

social intercourse. These include, for example, the Internet and instant messaging. Online gaming, for example, exposes the individual to a broad mix of virtual connections. Instant messaging is often seen as the locus of less central friends and acquaintances. Thus, while mobile communication can easily be seen as the technology of bounded solidarity, there are other countervailing tendencies at work.

WHAT IS OUR ROLE AS SOCIAL SCIENTISTS?

In this final bit, I want to pull back from the specific discussion of social cohesion and mobile communication and try to say a few things concerning the role of the social scientists in all of this. In the introduction, I noted that we are, in some ways, facing the updated version of the traditional sociological project. In some ways, we are going about the same task as that which concerned Weber, Durkheim, Tönnies, Simmel, Marx, Compt and all the rest.

When seen in this way, it perhaps clarifies our role in all this. In addition, it might also serve as a call to action. What we need are reports from the front. We need to be out there observing these changes as they happen. This is our only chance to do this and it is important work. I am afraid that in Norway, the opportunity to examine the transition to mobile telephone access is ending. The children of today can not remember a society without mobile phones. It has always been there for them. Thus, if we are to be the Durkheims and Webers of our age, we need to be quick about it. In addition, if we are to be the Durkheims and the Webers of our age, we need to be good at observing what is afoot out there.

The questions are obvious. What is happening to social cohesion? How does the internet or mobile communication play into other institutions? Which is reforming which and what are the cross-cultural differences? What are the good, the bad and the ugly sides of all this and how are the power relations being played out here? It is clear that there is enough to keep us occupied into our dotage and more importantly, it is noble and important work.

Note

1. Society was transformed from a traditional local society with common values, moderate division of labour, and simple social institutions (*gemeinschaft*) into a society that is more cosmopolitan, based on self interest and little sense of shared interest (*gesellschaft*).

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2

WHAT IS A MOBILE PHONE RELATIONSHIP?

Daniel Miller

INTRODUCTION

A relationship that uses a mobile phone is not necessarily a mobile phone relationship. For example, a brother and sister living in London may develop a multifaceted relationship over fourteen years using many different media, and adopt mobile phones when they become cheap enough. This results in some minor changes, such as the micro-management of meetings in town, but these are generally insignificant when taken in the context of the relationship as a whole.

By contrast let's imagine a relationship in the Philippines (taken from the book *TXT-ING Selves*, Pertierra et al. 2002 and more recent literature that follows similar lines of enquiry, e.g. Ellwood-Clayton 2005, 2006; Pertierra 2005; Ramon 2006; Solis 2006). I can imagine a young woman just getting into the joys of texting. She likes the particular way it lends itself to short, ambiguous and suggestive as well as creative communication. At this stage she starts a texting relationship with a man she happened to meet when he overlooked her writing a text on a crowded bus. To be honest she had no real interest at all in the man at first. She simply wanted an excuse to practise and develop this new medium of texting. But one of the treats of texting was flirting, and after a while she began to enjoy his facility with flirtatious texts, and realised this was a man she had quite a bit in common with. They did meet from time to time, there

was even a brief sexual relationship between them, but that didn't work out so well, and soon they resumed what basically brought them and kept them together, the joys of text.

My third example comes from my fieldwork in Jamaica (Horst and Miller 2006). A staunch Pentecostal woman loves bringing the word of Jesus to all and sundry. She also enjoys what Jamaicans call counselling based on her conviction that she is inspired from above. A chance miscall introduces her to a teenager, whose hesitant phone manner betrayed a fragility she seizes upon to initiate a long conversation about this teenager's problems including her child's father who had betrayed her. This depth of confession and counselling might have been difficult if they had met face to face. But the anonymity and chance of this initial encounter led to a sustained exchange, even though the cost of the calls had an impact on both their budgets.

Which of these three cases is a mobile phone relationship? Not the first which just adds a rather inconsequential technology, of major interest to phone companies but not much to the participants. The second case is unequivocally a Mobile Phone relationship, as the primary concern is texting, and the other person is mostly there in order to facilitate the use of the phone; with the core relationship is to texting itself. The third case is more subtle. If we describe the second case using capital letters, we might say the third is not a Mobile Phone relationship, in that unlike the second case the relationship between persons is not secondary to the relationship to the phone. But I think we could accept that it is a "mobile phone relationship" in that the phone is instrumental to the relationship and not just incidental to it. Furthermore, this is by far the most common situation and the one I will focus upon in this paper. My point is that while it is tempting to concentrate on the most extreme phone-focused relationships, generally it is more important to locate the phone as a significant, but not determining aspect of relationships. So our principal concern should be not with the relatively rare Mobile Phone relationship, which is mainly of interest to those who sell phones, but to the far more common mobile phone relationship where we cannot really distinguish between the social aspect and the mediation of the object in the relationship. But even to do this we need to consider what we mean by the term "relationship".

In an ethnographic study I carried out with Heather Horst in Jamaica (Horst and Miller 2005, 2006), we found a local term *link-up* commonly employed for their most characteristic usage of the phone. *Link-up* comprises a very large number of very short conversations, in order to keep in occasional touch with the maximum number of people. This corresponds with earlier anthropological research that showed how Jamaicans knew of

hundreds of people they would call relatives, though they might not make use of any particular connection until the need arose. Through our analysis of the content of mobile phone address books, we found that this was true not just of kin but of all relationships, since only 15 per cent of names on address books were actually of relatives.

We recognized that linking-up developed on the basis of a prior pattern of Jamaican use of relationships. Typically, a new medium will be used first to address issues that were seen as already problematic in the field of communications and relationships. For example, remittances certainly existed before the phone, but in the past they tended to be based on annual rituals such as Christmas rather than the specific ad hoc needs of recipients such as a medical emergency or a child needing money to go to school. The mobile phone allowed for a considerable refinement of the remittance system, making it more responsive, especially because it was connected with another form of communication — Western Union money transfer. A second example would be the problematic relationship between baby-fathers and baby-mothers. This is a country where most children are born to unmarried couples and when children are young the baby-father does not normally cohabit with the baby-mother. Here the phone became very important in the everyday struggle of baby-mothers to solicit support for children from absent baby-fathers.

The results from Jamaica bring together two theoretical propositions that will be developed further in this paper. The first is the tendency to use the new technology to try and reduce discrepancies between the normative expectation of what a relationship is supposed to be, for example with baby-fathers, and what one's baby-father is actually like. This will be developed into a full theory of relationships. Secondly, the examples also exemplify a theory I developed with Don Slater and is presented in our earlier book on the media *The Internet: An Ethnographic Approach* (Miller and Slater 2000). Here we argued that most often the effect of the Internet was not to create something totally new, nor to be merely the continuation of some form of communication that previously existed. Rather, we argued that the Internet's initial impact was largely to help deal with some failure or frustration that was already evident in the prior medium of communication. Likewise with the phone, one can get just the right form of relationship.

We are all interested in what we mean by a mobile phone, but I want to take a bit of time to also consider abstractly the other part of this equation. The question of what we mean by a relationship. One might think that the question of what we mean by the word relationship would have spawned a very extensive literature. But actually it is quite hard to

tease out any kind of working definition of the term that we could easily appropriate to ask these important questions about the mobile phone. In a separate paper (Miller 2007), I examine several disciplines from philosophy to anthropology and psychology to consider what the word relationship means within each. To summarize these findings, most of the relevant literatures are not descriptions of relationships as part of day-to-day life, but are largely normative, that is ways of creating ideal or moral models of what any given relationship should be like. Philosophers such as Aristotle (1955; see also Cicero 1923; Pangle 2003) write less about friendship as experienced and much more about what an ideal friendship might be. Psychologists are concerned largely when people do not conform to what they regard as essential attributes of being a mother (see Bowlby 2005). There is a consequence to these findings. Philosophers and psychologists create models of how relationships are supposed to be and in turn these literatures affect us in our daily lives through the inculcation of such moral and idealized models. They may not come to us as some kind of abstract discourse of philosophy, but as Foucault argued, discourse may be embedded in more mundane forms. Take, for example, television. Many countries relay what have become the classic U.S. sitcoms as part of the daily fare of television, whether the *Cosby Show*, *Roseanne* or cartoons such as *The Simpsons*. All of these are set in family situations. All of them share a basic message, which is that although the actual persons may be commonly dysfunctional, difficult and wrong, there is an underlying warmth, compassion, and support that is based on a shared ideology about the idealized normative roles expected of family relationships.

The literature on relationships suggest a powerful element of normative morality that is more concerned with the ideals of relationships than their practice. This observation forms part of my own theory of relationships, which I originally developed in *The Dialectics of Shopping* (Miller 2001). This was based on a year's study of shopping on a single street in North London. My argument is that we live in a society with clear normative expectations of a series of roles and relationships that continue to matter a great deal to us. Being a parent or sibling or husband, consists of a whole series of expectations and idealizations of what the person who occupies that role should be like and how they should behave to us. But it is accompanied today by ever increasing diversity of actual relationships and behaviour and experiences of the ways we treat each other.

So on the one hand the literature and representation of relationships place emphasis upon the normative, and on the other there is ethnography

of actual relationships as they occur or equally fail to occur. What the ethnography has to take into account is that often central to the observed behaviour is the way people themselves confront or deal with these contradictions. The comparative study of relationships in the various disciplinary literatures seems to bolster my own theory which is that the word relationship almost always implies a basic contradiction between its own normative aspect — the ideal that we ascribe to that category of person or thing — and the actual entity that constitutes that thing or person at the time. I now want to see how this theory might be applied to an understanding of the use of the mobile phone in the Philippines. My argument will be that only by understanding this particular feature of relationships more generally can we explain an unexpected finding with regard to the use of the phone. That it does not necessarily bring families together in the way we might have expected.

FILIPINO SEPARATED FAMILIES

Together with Mirca Madianou of the University of Cambridge, I am embarking on a study of long-distance relationships, specifically those of separated families and couples, and the ability of particular media to sustain those relationships over time. The core of this study will be a focus on Philippine and Caribbean relationships and the very specific question of what kind of mobile phone relationships develop in the situation of separated Filipino families. In this case we are concentrating on the very specific circumstance of how relationships are maintained in long-term separated families, which is why the focus is on a mobile phone relationship in its own right.

I want to first consider some issues that arise out of current work on the mobile phone in the Philippines and then concentrate on a core study of these transnational relationships by the anthropologist Parreñas. If one looks at the early examples of the use of the phone during long-distance relationships, this was often seen as a rare and special event, often therefore an occasion for ritual with many associated formalities. There is an extraordinarily funny and moving description of long-distance telephone calls between family members given in the autobiography of the Isreali writer Amos Oz in his *A Tale of Love and Darkness* (Oz 2004, pp. 7–11) in which exactly the same formula of words is used every time they speak. They greet each other the same way, have formalized words that basically imply everything is fine and nothing has changed, but they still dress up to go and travel in order to make the phone call and have ritualized the

action itself as special. There is almost no informational content actually exchanged during these occasional phone calls.

At the other end of the spectrum are the mobile phone relationships that are being extensively studied in the Philippines which depend on the incredible frequency and routine nature of such calls today, especially through texting. The fascination in this work is with that extreme state of the mobile phone relationship where it seems the person is almost subservient to the relationship to the phone itself. The literature that has grown on Filipino texting since the original *TXT-ING Selves* book (Pertierra et al. 2002) shows a wide range of highly creative uses of texting, that extend in particular to various forms of flirtation and love (e.g. Ellwood-Clayton 2005, 2006; Solis 2006) and social networking more generally, including relationships to politics and to religion (Pertierra 2005; Ramon 2006). These papers suggest that mobile phones both extend the possibilities for making and also unmaking unconventional relationships, but also suggest the importance of the relationship to the phone and the various skills of texting. Indeed, based on this literature, some women find that actually having to interact with some men really takes away from the much more idealized, enjoyable, and satisfying genre of banter and flirtation through creative texting with men. A similar issue arose with a friend who was conducting an intense romantic relationship by Internet. He was desperate to meet up, but she simply didn't know how satisfactory this would be, since she couldn't know how much her relationship was to the man himself, or to the passion and intensity of the Internet relationship which had revealed itself to have all sort of potential for erotic and free expression that might be more constrained in face-to-face contact. As Wilding (2006) notes, each medium provides for its own genre of transnational communication. The mobile phone has to be situated within this proliferation of media genres, including the differences between texting and voice calls.

My starting point in turning more specifically to the case of the transnational family is the work of the anthropologist Parreñas and her books and papers (2001, 2005*a*, 2005*b*) on the more general aspects of these relationships, as well as an important study by Pingol of husbands left behind in one region of the Philippines (Pingol 2001). Much of Parreñas' concern is with political, economic and gender issues, but I want to concentrate on the more personal aspects of these relationships, the nature of the love itself that is central to these relationships, and the contradictions of the intimate. In her second book *Children of Global Migration* (2005*a*) Parreñas examines a fundamental problem created for families by Philippine migration that was the case long before the development of either mobile

phones or affordable Internet access. She notes there are approximately 9 million Filipino children under eighteen with at least one parent abroad as migrant labour (2005*a*, p. 12). This represents twenty seven per cent of the youth population (2005*b*, p. 317).

It seems quite clear from Parreñas that she had certain expectations of what she was going to find, or more particularly what she wanted to find. One might think that this situation exemplifies extraordinary acts of self-sacrifice, particularly when we consider mothers who are choosing to work abroad. Parreñas shows that in her sample the average mother spent only 23.9 weeks out of the last 11 years with their children. Fathers spent rather more time back at home since their work allowed more time off. That means that the mothers in question basically did not see their children grow up. The mothers gave their reasons for taking up this work largely in terms of the children's welfare, such as to support their education, medical bills and augment income in general. The expectation was that the rise of regular and cheap communication would help to ameliorate the negative consequences of this separation, and enable the children to feel close again to their mothers and to better understand and appreciate their condition. She also anticipated that they would be influenced by the more egalitarian and modernist forms of gender relations by which the father would take on more domestic roles, in recognition of the mother taking on more of the traditionally male role of the breadwinner.

However, most of the detailed description and analysis that is found in Parreñas' book is about how these expectations are not fulfilled. The reason for this, I would argue becomes much clearer in terms of the theory of relationships I have just described. What tends to happen is that the period of separation simply exacerbates the distinction between the idealized norms represented by mother and child, and the actual relationship, which here is significantly diminished. These norms are held both individually and collectively. As a result, the proximity afforded by the development of mobile phones, if anything, reinforces the most conservative and traditional gender ideals about relationships and leads many of these children to concentrate less on the material benefits that accrue to them and more on the sense of abandonment by their mothers.

At a collective level, Parreñas shows there is a dismal view taken of the families where mothers have gone to work in other countries and left their children behind (2005*a*, Chapter 2). These families tend to be stigmatized within the Philippines. It is generally assumed that children growing up without their mother are more likely to be badly behaved and involved in crime and other misdemeanours than a child with the full support of

a conventional family. Parreñas suggests from her evidence that this is not actually the case, but it is quite clear that this is believed to be the case, with much media attention to this as a social problem. Children are often taunted about the behaviour of their mothers. Official groups don't help by also condemning it. There is a lack of support groups and lack of help from fathers (2005*a*, pp. 139–40). In a similar way Pingol (2001) shows husbands left behind who take on female-associated activities of household and childrearing and are taunted mercilessly by, for example, female students for this potential loss of masculinity, and constantly try but fail to persuade their wives to return.

Particularly problematic are the views of the children themselves (Parreñas 2005*a*, Chapter 6). In almost every case, the children focus on the sense that they have been abandoned. In response to this, the mothers use the increased possibility of phone communication, more or less as might be expected: to return to what Parreñas refers to as highly intensive mothering. For example, some mothers phone every morning to make sure their children are getting ready for school (2005*b*, p. 328). Pertierra suggests these women strive to maintain an "absent presence" within their home communities (2005, p. 26). For example Parreñas (2005*b*) shows how women working abroad retain their traditional control over financial matters at home by using these long-distance communication devices.

Despite all this, the children regard the separation as irrevocable and say they will never again be really close to their mothers. As one child puts it, "telephone calls. That's not enough. You cannot hug her, kiss her, feel her, everything. You cannot feel her presence. Its just words you have" (2005*a*, p. 127). So increasing the frequency of phone calls can have the opposite to the intended effect: "regardless of the efforts of mothers to maintain open and regular communication with them … ironically also reinforces the idealisation of stay-at-home mothers" (p. 129). To appreciate this failure of increased mobile phone use we have to note that even mothers who return home more frequently are not necessarily regarded as better mothers (p. 129). By contrast, it is perfectly possible for fathers to be seen as behaving adequately in just keeping in touch by phone, unlike mothers, because for fathers this more occasional or distant relationship is closer to the normative expectations of fathers.

Another example of the failure of mobile phones in long-distance relationships has to do with threatened traditional gender roles. The fathers feel in danger of being seen as emasculated because their wives are now taking on so much of the traditional male role of breadwinner, which is one of the reasons they often refuse to take over some of the female responsibilities

for personal and emotional care of the children. Pingol (2001) documents the considerable range of potential reactions to this situation, based on the tension between traditional male roles as respectable or rogue, but here with the additional possibility of appropriating a more feminine close affection and bond with the children. Again, increasing frequency of phone contact may have ambiguous consequences for the fathers. Previously, a general fear of potential sexual infidelity could be suppressed partly because of cover of distance, but when one can potentially phone several times a day, at least in some cases, the phone can itself waken a much more active jealous fear of what exactly one's wife is doing at any particular time.

There is much evidence that although now abroad the mothers take on an even more gendered, essentially disciplinary, role with respect to the treatment of their children (2005*a*, Chapter 5). The children also tend to see their mothers as behaving inappropriately and therefore not as real mothers. Parreñas (2005*a*, pp. 112–18) provides considerable evidence that female extended family relatives who sometimes spend more care and attention on these children than mothers might have done are not seen as true substitutes for actual mothers. This is notwithstanding that the children are well aware of all the material benefits of their mothers being abroad, including often a better house, better schooling and money for such things as clothes and cinema and good food.

Parreñas seems often bewildered by her results and laments the conservatism of Philippine gender distinctions. Her detailed and empathetic account, however, makes clear the contradictions that this situation has given rise to, which often comes across as poignant or indeed tragic. But from a theoretical perspective what becomes clear is that where relationships tend to be focused on discrepancies between actual and normative models of those relationships, then it is perhaps not surprising that a situation such as this, which exacerbates that distinction, results in increased anxiety about the relationship itself, and an overwhelming emphasis on the normative rather than the actual behaviour of those involved.

What is equally clear is that in this scenario, the increasing intensity of the use of mobile phones does not have the predicted results: It does not bring the relationship closer. This is because mobile phone relationships cannot be understood without paying detailed attention to the nature of the relationship, and indeed ultimately to the theorising of what relationships in general are. Indeed there are other even deeper issues raised here that I hope to address in future work. Given the mothers are often leaving quite young children, who is it they are actually going abroad to help? Clearly, the younger the child, the more they are likely to represent a projected

ideal of the child one gives love and life for, rather than a specific child in terms of their particular behaviour and character. So it is quite possible that the reification of the normative is as much reinforced in the mother by her continued absence as it is for the child. The child therefore becomes even more idealized as a pure deserving object of self-sacrifice. In situations where the two actually spend time together, these ideals might be more tempered by, for example, the problematic aspect of behaviour that parents will always find in their children.

In my original study of shopping in north London, these issues became very evident (Miller 2001). To my surprise I found that generally mothers didn't like shopping with their children by their side. The reason for this was that shopping was an act of love and care in which women gave considerable time and labour. They naturally justified this in terms of their deserving and beloved children. The trouble was that when the children themselves went shopping, they often got bored, behaved badly and demonstrated that they really didn't care very much about the level of choice their mother was making as an expression of her love for them. In other words it was much easier to fantasize about one's wonderful and fully deserving children when they were not actually with you. You shopped more for the idealized relationship than the actual child. By studying consumption in London, it was evident that the relationship between mother and child develops quite slowly in terms of the balance between this projected and actual behaviour, and which ultimately develops as a more mature and reciprocal relationship (Miller 1997). This again shows why in the Philippine situation more frequent contact between mother and child by phone may have quite unexpected effects, such as, for example, making the child seem less worthy as the deserving recipient of this abstract ideal of self-sacrifice. Madianou has been writing most recently on the emotional response to media and I suspect this will provide a considerable addition to understanding the nuances of these contradictions with endless possibilities of guilt, jealousy, anger, love and mourning for loss.

To conclude. I started this paper with what seemed like a simple account of what we might mean by a mobile phone relationship. The temptation in such studies is to think that the most important and interesting findings are represented by that relationship which is most fully constituted by the mobile phone itself. We are fascinated by those cases where the person seems to take second place to the phone. My argument in this paper is the opposite: That to best understand the huge significance of the mobile phone in developing mobile phone relationships, we need to pay at least as much attention to the nature of the relationship as to the nature of the

mobile phone. Once we start to look more closely at what we mean by the word relationship we find that it contains many contradictions, and by choosing to focus on the example of Filipino mothers who are separated for many years from their children, these contradictions are particularly evident and very likely particularly poignant. It is the properties of these relationships, not the phone itself, that explain the outcome of increased use of the phone.

This is the point of a material culture approach. We start by thinking the distinction is between a relationship to an object (the phone), or a subject (the person), but then we start to see how relationships with persons all have their more individualized subject and generic object tension within themselves. Persons are often reduced to object-like phenomenon, even without the consideration of the phone object as a medium within that relationship. So a mobile phone relationship becomes a player in issues of the tragic and the aspirational, the formal and the informal, the ideal of love and bitterness of separation, but also maybe the bitterness of love and the ideal of separation. I simply don't know, prior to carrying out our own research, how such things emerge and develop, but in future work and alongside some of the other contributors to this volume, we aim to find out.

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3

TECHNOLOGIES OF TRANSFORMATION
The End of the Social or the Birth of the Cyber Network?

Raul Pertierra

> Recently a tourism official claimed that a mobile saved his life. A bystander took pictures on his mobile while the official was being menaced by kidnappers — seeing this, they fled. Another triumph for the mobile.

This paper examines some of the claims about the transformative consequences of new communicative media, especially as they apply to the Philippines. Modern technologies were introduced into the country soon after their discovery abroad but despite their transformative potential there was very little change in the basic structures of society. Why was this so? The transformative capacity of technology has been the driving force for social change in modern times. Why has the Philippines remained a conservative society unable to harness the potentials of technology despite its rapid introduction into the country? Are there cultural reasons for this social conservatism? Will the mobile revolution finally transform the Philippines into a technologically driven economy and society?

TRANSFORMATIVE CAPACITIES OF TECHNOLOGY

Despite having many features commonly associated with Western modernity, such as a vigorous democracy, an accessible education system, a relatively free media and an obsession with Western pop culture, the Philippines is not known for its technological development. The lack of resources is often blamed for the failure of the Philippine state to support science and technology but the opposite view is just as valid. The country's lack of resources is also due to its inability to harness the gains of technology for economic development. When the local legislature took over funding from the American colonial authorities in 1933, one of its first decisions was to drastically cut funds for the Bureau of Science, until then well known for its original research on tropical medicine and agriculture (Caoili 1991). Much of the technology for the Green Revolution was actually developed at the foreign-funded International Rice Research Institute (IRRI) in Los Banos. However, the country still imports much of its rice needs and remains one of the least efficient agricultural economies in the region. There appears to be deep cultural reasons for this failure to adapt science and technology for the country's improvement.

However, there are no cultural barriers against the importation and acceptance of technology in the Philippines. A brief history of technological acceptance reveals that modern technologies were present in the Philippines almost as quickly as they were invented in the West (Pertierra 2003). Modern shipping began in 1849, railways were established in 1887, electric trams plied city routes in 1905, motor cars were common by 1916 and in 1924 the first aircraft landed at Manila airport. As for communications technology, the telegraph was introduced in 1876 and in 1881 submarine cables connected Manila to Hong Kong. In 1890 a telephone service was available, prompting Jose Rizal to write a play on its misuse. The first films were exhibited in 1897 and by 1917 Filipinos had established a local film industry. The advent of talking films in the 1930s caused a rapid expansion of the movie industry and, until recently, the industry was the most vigorous in the region. The first radio broadcast took place in 1922 and in 1953 commercial television became available. The latter was initially and prematurely driven by the needs of political advertising (Del Mundo 1986). It has now become the main source of information and entertainment for most Filipinos. Despite these technological innovations, the Philippines has largely remained a conservative society unable to harness their transformative potential.

The main reason why technology has not had a major transformative role is that it mainly benefited metropolitan areas and was controlled by elite interests. These technologies did not enter into the everyday life of most Filipinos. In Luhmann's (1998) terms, technology lacked system-integration. It affected external but not internal system functionality. While the mass media is more accessible, these are under the control of special interests whose main concern is entertainment rather than conscientization. Communicative practices retained their traditional orientation and under these conditions, the new technologies were unable to produce significant social change. While some technologies such as the railway affect our relationship to space, others like the telegraph and the cinema alter our sense of time and with it our sense of ourselves. The latter are as much technologies of the soul as of the body. They reconstruct our identities and our understanding of the conditions of possibility. For technology to become the engine of social change, it must affect our relationship to ourselves and to the material world.

MASS MEDIA, MOBILES AND NATIONAL CONSCIOUSNESS

David (2004) has argued that television converted the Filipinos masses from an inchoate, local patrimony into an organized mass audience. The masses elected Joseph Estrada into the presidency in 1998 and remain the largest political force in the country. Estrada's election indicated that the mass vote was up for grabs and that traditional politicians no longer dominated the political landscape as they had done. In the present elections (2007), access to television was seen as the most crucial determinant of success (Teodoro 2007). While radio has remained local and vernacular, television has always been national. This signified a shift from an aural to a visual medium. Television's importance is not primarily related to the dissemination of information but rather to its entertainment value. To succeed, politicians have to transform themselves into media stars, while the latter can easily convert their popularity into political success. They can now also extend and individualize their visibility by using mobiles and the Internet. Some commentators (Magno 2007) have pointed out that political constituencies now include virtual as well as real ones. The major telecommunication companies can handle over a billion text messages daily and prepared themselves for the 2007 election campaign (*Philippine Daily Inquirer* 2007).

Now that the mobile has also penetrated television, making it more participative and interactive (e.g. programme ratings, posting messages),

what effects might this produce? Is this combination of mass/personal media likely to individualize a hitherto impersonal mass audience and transform it into more coherent and specific segments? There is some evidence that this may be happening.

Rafael is an eighteen year-old bisexual who frequently participates in TV channels that post text messages. Using this service Rafael has been able to meet groups of friends with similar interests. When asked how he felt about texting, Rafael replied "My attitude changed because of texting. I wasn't like this before … He feels that his social network has expanded" (Pertierra et al. 2002, p. 72). People sharing special interests or orientations like Rafael can now more easily coalesce. Similar examples can be readily found about the coalescing potentials of the Internet.

Political organizing is also facilitated by the new media. Bautista, a party list coordinator, explains:

> With cellphones we can coordinate our schedules effectively. Moreover, supporters can quickly inform us regarding "black" propaganda thrown against us — we reacted by contacting local radio stations. Cellphones "secure" our coordinators in a game of psywar. Our political opponents with bad intentions are less likely to harm our members knowing how quickly we can react. In San Remigio, where our coordinators were threatened, using our cellphones other members quickly responded and came to the rescue (Pertierra 2006, p. 54).

Hence, mobile phones become protective devices. They achieve this by acting as information beacons for colleagues and the general public. Examples such as the one concerning its salvational role against kidnappings are common. Mobile armed citizens can now quickly alert the authorities to report and sometimes prevent criminal activities. However, the full possibility of using mobiles as part of a growing sensing technology has not been sufficiently explored in the Philippine context.

There are nearly 43 million mobiles in the country, a penetration rate (50 per cent) higher than television and achieved in a fifth of the time. It has proved to be the most successful technological innovation the country has seen. The Philippines is known as the texting capital of the world with over 600 million texts sent daily. While most of these texts are personal messages, they also include practical instructions and calls for political action. While the economic consequences of mobiles have not yet been reliably assessed, their incorporation into everyday business activities can be presumed to have contributed to a more efficient economy. However,

its effects in significantly improving incomes of the poor remains to be shown despite optimistic claims made in other countries (Sullivan 2007).

Certainly their contribution to the consumption economy is widely acknowledged. Despite the enormous revenues accruing from texting and voice calls, there has been little direct evidence that profits will be invested in innovative or transformative industries. The evidence indicate that telecommunication companies are more interested in extracting higher revenues through value-added services rather than in investing in creative industries and technologies. Moreover, it is doubtful whether the Philippines has the necessary skills for technological innovation beyond mid-level maintenance. According to Saloma-Akpedonu (2006, p. 17):

> Hardware consultancy and supply, considered by many as the most sophisticated activity in the IT industry, had the smallest number of registrations, comprising less than one percent of the total.

Despite some promising exceptions, the Philippines ranks in the lower end of countries for technological development (Saloma 2006).

If television created a national audience as David (2004) argues, the mobile individualized its members, converting large collectivities into micro-political units or smart mobs (Rheingold 2002). By 2001, mobile phones had entered the communications landscape and sweeping claims have been made of its consequences (Pertierra et. al. 2002). The role of texting in EDSA 2[1] although exaggerated is nevertheless significant. The Internet has extended these micro-political units onto the global stage combining them into new and larger collectivities. The Filipino diaspora now actively participates in local everyday life while also giving it a global sensibility. At last, it seems that these new technologies will transform the structures of consciousness of most Filipinos hitherto unaffected by earlier inventions.

The Internet has not yet achieved the penetration rates of the mobile and remains limited to areas with landlines.[2] Nevertheless, the presence of Internet cafes has become a standard feature of most cities and large towns. For example, Tuguegarao with a population (2004) of 120,645 has 105 Internet cafes offering nearly 1,500 broadband connections (de Leon 2007). People use them over home connections for speed and privacy. While this usage is mainly among young people, their purposes range from school research, games, job searches, emailing relatives and friends, accessing pornographic or religious sites and exploring online relationships. The global condition has reached Tuguegarao, bringing with it new expectations and understandings of the world.

What consequences may be expected as a result of the mobile's and the Internet's incorporation into everyday Filipino life? Now that most Filipinos can readily stay in touch with relatives and friends anywhere, anytime, what effects on structures of kinship and friendship are likely to develop? These contacts now easily include strangers. Are these likely to generate new types of relationships? What effects are these new communication strategies likely to produce for personal and collective identities?

GLOBALIZATION AND ICT

While the structures of globalization may have been established in the nineteenth century, an awareness of the world as a synchronic whole can only have been experienced in the twentieth century following the rapid gains in communication technologies. The experience of a global simultaneous present is now almost banal. Live broadcasts of sporting competitions, entertainment, political crises, the weather and other events are a regular feature of daily life. Local events are sometimes first known by a global rather than by their national audience. This pace of the globalization of the local and the localization of the global can be expected to increase. This space-time contraction has led to the phenomenon of "glocalization" and a reduction in the importance of the national. A recent survey (PDI 2003, p. 1) indicated that Filipino Internet users are more aware of issues such as global warming (93 per cent) than even their American (13 per cent) counterparts.

According to Giddens (1999), globalization is associated with new understandings of the notions of risk/trust, an awareness of the invented character of tradition, the destabilization of institutions such as the family and a shift to democratic-individualistic orientations. ICT may be expected to affect these aspects of globalization as anonymous interlocutors become part of ordinary relationships. The incorporation of the stranger into systems of relationships alters notions of trust and risk. The inventedness of local traditions becomes more apparent as they are contrasted with rituals in hitherto exotic cultures that are now routinely accessible. Some of our informants have joined witch cults, deliberately rejecting conventional Filipino religion (Pertierra et al. 2002). Institutions such as marriage are now challenged by demands for divorce and for equal rights by marginalized groups such as homosexuals. Democracy, in both its political and individual senses, is furthered by the unrestricted communicative exchanges in the new media. Texting in EDSA 2 is well known but the democratization of discourse is another of its features (Pertierra 2006).

In addition, other important global structural changes have been taking place. Presently about 20 per cent of the working population is abroad, remitting over US$12 billion yearly (about 18 per cent of GDP). This is much larger than Overseas Development Aid (ODA — US$0.8 billion, 2005) or foreign investment (US$1.85 billion, 2005). These structural changes, in conjunction with the individualization and cosmopolitanization brought about by the new communications media, could transform the Philippines into a modern economy and polity.

CLASS AND ICT

The rapid penetration of the new media throughout Philippine society is one of its most promising features. Nevertheless, material and cultural resources significantly affect their access and usage. The digital divide expresses not only material but also cultural divisions that facilitate or prevent the full use of the resources of the new media. Industrial societies have been transformed into informational ones, where economic success is determined by the capacity to process and exploit information. This has resulted in a networked world where inclusion means being part of the net. Digital inequality is not only about the existence of infrastructure but also refers to "real access" (Kuvaja and Mursu 2003) including cognitive, social and cultural capital. Real access goes beyond infrastructure and refers to people's actual possibilities to use technology to change their lives. The paradigm of production-consumption is supplemented by one of communication-interlocution. The nexus linking production-consumption is replaced by "prosumers" who actively produce and consume.

We interviewed a group of students from an elite university on their use of the Internet. These students, all of whom enjoyed easy access to online resources, explained their experiences as follows:

> We think that the Internet constrains the cultural skills of people. Too much use of the Internet, specifically online chatting causes a person's social and communication skills to deteriorate … Cyberspace is slowly replacing the real world. Cyber-culture weakens interpersonal relations, particularly within the family. Since they mostly meet strangers in cyberspace, people experience emptiness, depression and emotional frustration. High quality relationships are not developed in virtual reality because there is no sincerity.

> Through the Internet, people get to meet others they would never encounter in real life. They may not interact physically but it is still

> better than not having the experience. Because of the Internet, people can see the world in different perspectives. They are able to know different things such as having complete access to the news. It doesn't make us less social when we surf the net. In fact, we can gain new friends through email or chatting (Pertierra 2006, p. 465).

Their comments are ambivalent and indicate unease in replacing the "real" world with its virtual equivalent. The latter does not guarantee the privileges and advantages that the former provides. In contrast, provincial students with more limited resources were less ambivalent than their city counterparts. The latter saw online resources as more instrumental and as supplementing their poorer material conditions. The Internet opened up areas of experience and information not normally available locally.

> I often search the Internet for definitions/medical terms of diseases for my nursing course. This is easier and more convenient to use than spending a whole day in the library where the information is often lacking.

> Jam, a friend, and an avid user of Friendster now has two new text mates whom she met in the Net. She spends her free time in the Internet Café.

> I often encounter female college students trying to meet foreigners using the web cam.

These latter examples are less ambivalent and see the Internet as having instrumental use as well as enabling authentic relationships. However, some poor families have expressed concern about the growing expenditures for mobiles (Pertierra 2006). Naturally, both sets of informants share many common experiences of the new media such as an interest in pornographic and religious sites, games and keeping in touch with family and friends overseas. But another aspect of class or status is indicated by the reluctance of elite students to accept text messages from unknown senders. Elite students express a dislike for these messages and assume that they originate from lower class people. Provincial users generally accept these messages and use them to extend their networks, often establishing new relationships. The Internet elicits fewer prejudices because national class markers are more difficult to identify. While the new media benefit members of all classes, they are more likely to have a transformative effect (but not necessarily economic improvement) on the poorer rather than the richer classes. For

the former, the new media open a world hitherto closed while for the latter it provides them with more choices. For both, the new media encourages individual pursuits.

THE MIDDLE CLASS AND ICT

One of the major questions facing sociologists in the Philippines is the extent and significance of the middle class, particularly in determining economic, political and social issues. Theorists of modernity point out the crucial role of the middle class not only in providing professional skills but also instilling the value and rewards of achievement. People born to wealth, and those trapped in a cycle of poverty, view the world as constitutively determining their future. They do not see life as requiring a long period of training to ensure professional success. People born to wealth or poverty naturally depend on kin and other private networks, rather than on achieved and public criteria of competence. If life in the palace or the village is characterized by the intimacy of relatives, friends and neighbours, modern middle-class life consists of interactions with strangers. Such strangers exchange services on the basis of formal rules and criteria of competence, while preserving their anonymity as part of urban life.

We have already mentioned how both mobiles and the Internet significantly expand the opportunities for accessing public information and contacts with strangers. Whether these opportunities will result in a shift from private to public networks is still to be determined. Nevertheless, the new media encourage the development of new social skills not only in encounters with anonymous interlocutors but also in strategies of self disclosure. Informants often describe their initiation into such exchanges as one of shock but eventually learn to routinize their responses.

Jonas is a twenty-four-year-old activist deeply involved in the Gay and Lesbian Legislative Advocacy network. Since most of their members are "virtual", contact is only possible using the mobile or the Internet. While it took some time before his sexual orientation and his activism was accepted by his family, they all now strongly support his cause.

> My father was gushing with emotion. It was the first time he texted me something like that saying "I'm proud of you". He was more comfortable saying that in texting because our family is not emotionally expressive. It was the first time that I told him, "Dad, I love you" through texting (Pertierra et al. 2002, p. 77).

We already mentioned the particularistic orientation following globalization. Students from elite colleges appreciated the cultural differences and opportunities available in the Net. Personal feelings and thoughts become important aspects of the cyber world.

Teenagers nowadays feel that they need to express what they … think but they cannot do so in normal circumstances. The cyber-world allows them to explore and develop their feelings and thoughts. The net is their only way to socialize with other people from different cultures around the world (Pertierra 2006, p. 46).

A participant in a Filipino gay spirituality Internet group describes his interest as:

> Cyberspace broke through this spiral (of silence) and gave birth to countercultures of people who are motivated by the need to bring about their own emancipation not only from oppressive structures of monolith religions but also from dualistic notions on the nature of human beings that influence our understanding of gender (Bantugan 2006, p. 332).

This discursive redemption and elaboration of personal thoughts and feelings so typical of the middle class is a marked feature of the new media. If nothing else, the discourse results in the constitution of new notions of agency (e.g. sexual, political, religious) hitherto undeveloped in traditional discourse. The shift in discourse from religion to spirituality indicates a corresponding shift from collective to individual orientations. This shift is linked to democratic and emancipatory approaches that stress personal rather than collective experience. The rise of Pentecostal sects expressed such a shift. For these reasons the new media is seen as a technology of liberation.

In the political sphere, the middle class is supposed to instill the respect for law and for individual rights, these being the foundations of a democratic polity. The middle class is also responsible for ensuring the independence of the public sphere, with its guarantee of universal rights for all individuals irrespective of birth or status. There are a host of text services meant to include ordinary citizens in affairs of government such as texting instances of corruption of public officials and reporting crimes (PNP TEXT 2920). But so far, the results have been disappointing (Signo et al. 2006). It is one thing to have the technology, quite another to develop the corresponding attitudes. More correctly, social institutions often are unable to adapt quickly enough to keep pace with technology.

Bantay Usok (Kuvaja 2007) is a popular anti-pollution drive initiated by the private sector. Citizens are encouraged to report smoke belchers by texting the registration number of offenders. During the first two years (2002–04) 300,000 reports were received but only 500 vehicles were tested and less than 300 summoned. Only a handful were actually charged. The public response overwhelmed the bureaucratic apparatus for implementation. This example shows the complex relationship between technology and its application within appropriate institutions. While it shows how quickly the technology can be appropriated, it also reveals the complex chain leading to structural change. The functional implementation of technology requires appropriate changes in social relationships.

The formative role of television and other mass media has been mentioned. This produced a mass audience whose political clout is increasingly appreciated. The mobile and the Internet particularize this audience, breaking its members into smaller autonomous groups but with the capacity to coalesce into larger entities when suitable. What earlier was an undifferentiated mass becomes a series of nodal linkages or smart mobs (Rheingold 2002). A political commentator describes these smart mobs as:

> Virtual constituencies … bound by some shared identity, whether this be gender preference or a shared grievance. And so we see the strong entry of gay rights activists … or party list groups (such as) Parents Empowering Parents composed of those defrauded by badly run preneed firms (Magno 2007, p. 12).

What is less often associated with the middle class is its crucial role in popularizing high culture. This cultural role of the middle class has political functions since such a popularization is often the basis for the constitution of a national culture. Moreover, such representations tend to be exemplary and serve as normative models for the public sphere. In fact, much of the public sphere is constituted by such exemplary and general representations. While the modes of life of a traditional elite or a peasant community generate corresponding representations, these tend to be organically linked to the conditions which produce them. Representations in the public sphere (i.e. law, art and science; Habermas 1984, 1987) under the conditions of modernity, often exercise a transformative force not generally present in organically produced ones. While the former are consciously based on artifactuality and for this reason serve as counterfactual exemplars, the latter are usually embedded in particular life-modes. For

the reasons discussed above, the middle class is ideally placed to express a national imagination and its members are best able to practise a way of life based on a conscious appreciation of culture as artifactual. Accustomed to view behaviour as a set of abstract rules, the middle class is ideally poised to respond to the creative challenges of high culture and to reproduce it for socially transformative ends.

The new media has been incorporated into aesthetic forms such as film and poetry. For instance, "TXT" is a horror film involving the sending of text messages by a dead and jealous lover to his girlfriend. She has to overcome the power he continues to exercise over her through these supernatural messages. On the other hand, "textual" employs a traditional poetic form. The National Commission for Culture and the Arts received more than 6,000 SMS entries dealing with an environmental theme as part of the 2005 National Arts Month. These examples indicate that the new media can be assimilated into older cultural expressions. Nokia has sponsored film competitions using mobiles, while digital technology has led to a revival of Filipino independent film-making. The distinction between high culture and popular culture no longer applies. The earlier broadcast media dispensed its messages from a centre to the peripheries but mobiles and the Internet have obliged them to incorporate and respond to audience responses. Much of popular culture is now dominated by interventions from the peripheries. Armed with their camera phones, hitherto mere consumers of news become its producers, sharing and swapping graphic stories and pictures.

KINSHIP

Philippine kinship is composed of bilateral descent groups. Bilateral kinship prevents the formation of stable lineages since each generation has competing claims. Affinity as much as consanguinity is the basis for kin group formation. Enduring group structures or coalitions are rare, as members are drawn apart by distinct bilateral obligations. Instead ego-focused kin groups coalesce around common temporary alliances. Kinship and local associations appear to be the main building block of Philippine society (David 2001; Dumont 1992; Zialcita 2005). Beyond kin and the local, most Filipinos feel little solidarity. Social institutions eliciting wider loyalties exist but are not very developed. Since the Philippine state cannot provide adequate essential services — e.g. education, health, employment and security — it is unable to demand the corresponding loyalty from its citizens. Perhaps, more accurately, state services are allocated on the

basis of kinship, locality or patronage rather than on the abstract rights of citizens. Hence its beneficiaries feel obliged to their patrons rather than to the corresponding state institutions.

Secondary associations generated by religious, political or economic interests are often beholden to specific leaders rather than collective principles. They also operate using the model of kinship. As these groups become large, they are often subject to fissions and divisions. Political parties are an obvious example of fission when leaders develop opposing interests and religious groups are also subject to this problem. Instead of permanent coalitions, Filipinos generally prefer temporary alliances composed of extensive networks. While these networks provide maximum flexibility, adjusting to changing circumstances readily, they also prevent long-term programmes. This is particularly problematic in politics, where new leaders establish their credentials by dismantling previous projects in favour of their own. Continuity is difficult to achieve under these conditions.

The most obvious advantage of the new media for kinship is their ability to enable synchronic ties with overseas relatives. The latter enjoy an absent presence in their village communities, able to participate in the routine decisions of family affairs. Most text messages and a frequent use of the Internet involve these kinship links. In addition, the quality of these links is also affected by the intimacy of these exchanges, seldom experienced in face-to-face interaction. Personal confessions, intimate thoughts and anxieties generally avoided in direct talk are the favourite subjects of texts and the Internet.

The phenomenon of an absent presence sometimes leads to unexpected consequences. Sarah worked in Hong Kong for several years and sent money to her husband regularly. He was supposed to use the money to build house extensions but instead used it for personal pleasures. Suspecting that something was wrong, Sarah spoke to her sister to confirm what was happening. She returned to the village but separated from her husband. Similar cases of close surveillance are now a common consequence of having mobiles (Pertierra 2006).

Nagasaka (2003) describes how mobiles have changed the communicative practices in an Ilocano village many of whose members work overseas. Prior to acquiring mobiles, rural villagers seldom communicated with their overseas kin except for emergency telephone calls or the exchange of gifts (*paw-it*) by returning and departing migrants. A developed system of sharing gifts and information assured that villagers and their overseas kin remained in contact. But the mobile significantly changed this system of communication, making it much easier. Apart from contemporaneity, the

messages themselves become more private and emotive. Nagasaka argues that Ilocano kinship is processual and contingent, dependent on regular exchanges and reassurances.

> It is in this context that everyday conversations associated with paw-it should be considered. To share their mutual experiences or incidents through everyday conversations is particularly significant for overseas migrants who cannot be physically present to engage in daily interactions in the village (Nagasaka 2003, p. 49).

Nagasaka gives an example of a typical conversation between a husband in the village and his overseas spouse:

> My wife asked how much money was withdrawn from the bank, how much is left and what are the details of the expenses, particularly those asked by the children — those they bought and those paid in school. She also asked their school performances and health status of Remy (one of his two children) who was then recovering from a fractured arm (her right arm was broken after falling from a tree). Aside from these, she also asked about the news from the neighbourhood. What was new and what was happening. And she talked about the news from friends and their living conditions in Hong Kong (Nagasaka 2003, p. 51).

The processual nature of local kinship depends on access to information (*damag*) and particularly to gossip. Most social interactions concern this exchange of information. But gossip is always about other people and never consists of personal confessions or admissions. It is a system of surveillance that deals with exterior behaviour rather than interior feelings. Fault rather than sin become the crucial determinants of moral behaviour (Pertierra 1988). Public shame through gossip, rather than contrition supports the normative world.

The facility to communicate intimate feelings via texts or voice calls has added a new dimension to family relationships. Exchanges between parents and children and between spouses indicate an emotional familiarity and closeness generally lacking in traditional families. Paradoxically, this closeness to absent parents occurs when children are looked after by extended kin, either grandparents or aunts. While the village households of overseas parents include extended family, the discursive closeness of mobile communications only includes absent kin. Discursive intimacy and spatial propinquity are disengaged. This intimacy of virtual communications may lead to the

nucleation of Filipino kinship hitherto a composite of Hawaiian generational and the Eskimo nuclear family. While extended family relationships are still strong, factors such as the urban drift, overseas work and contemporary culture may be favouring closer ties within the nuclear family.

GENDER AND ICT

The new media has been recognized as relatively gender neutral despite certain inevitable consequences of the "informatics of domination" (Haraway 1991). It is more the case that domination implies gender rather than that gender determines domination. In the Philippines, gender is more muted than in many other societies, from family roles to participation in the spheres of work and politics. Nevertheless certain gender preferences in the use of ICT have been noted. Saloma-Akpedonu (2006, p. 13) has made the most extensive study of gender in the ICT workforce. She points out that while men still outnumber women in most fields of ICT, gender parity is nearly achieved in some fields such as software development. There are significant "female" spaces in the industry. In general, ICT is conducive to the employment of women because it is a new industry requiring new skills not yet monopolized by men (Wajcman 1991).

However, there are some differences in texting practices between men and women. More men (85 per cent) receive and pass on sexual texts than do women (75 per cent). More men (31 per cent) use their mobiles to flirt than women (17 per cent). Men are much more interested in accessing pornographic sites than women. However, the latter access religion sites much more than the former and more women (45 per cent) than men (43 per cent) use the Internet to make new friends. Apart from the areas of sexuality and religion, the new media is generally gender neutral. Despite the differences mentioned, men and women are often as assertive in introducing topics such as sexuality or in employing romantic metaphors (Pertierra 2006).

Both men and women use the new media to explore aspects of their inner selves. Women use the Internet more extensively than men in this exploration, particularly to find marriage partners. Most of our informants admitted having established firm friendships through texting or the Internet. Some of these relationships resulted in face-to-face interactions while others remained virtual or online. Overseas workers often exchange and pass on mobile numbers to their friends and relatives in the hope of encouraging courtships. Nagasaka (2007, p. 219) writes:

> Young villagers told me that there are many cases where textmates become one's boyfriends or girlfriends. There is also a case in Salpad where a female domestic worker in Italy got married to her textmate in the Philippines. She got his cellphone number from his mother who (was) also working in Italy.

The high number of female overseas workers is also shaping the use of the new media. Their interest in keeping close touch with their village families has been mentioned. Given that these women have become the major income providers has given them an added status and importance. Pingol (2006) has shown how their financial independence has extended into areas of personal freedom, including a more assertive sexual agency. The case of Sarah (Pertierra 2006, p. 110) is typical of these independent women. While waiting for her return to Hong Kong Sarah exercises her new self confidence through texting.

> Interviewer: So, what do you think the cellphone has done to you? Do you feel different without the cellphone?
>
> Sarah: Yes, if there's no cellphone, I also don't think of him (her boyfriend). My daughter borrowed my cellphone for a month; I did not look for him. "Never mind" I said. But if I have the cellphone with me and no load, I feel that I must load.

In this case, the cellphone clearly gives Sarah a new sense of agency. It is not only a mnemonic device but in itself generates social practices. The mobile is not simply a medium of communication but an object to which one relates in a new way. The mobile is part of a relationship sui generis (Miller 2007). This self confidence also results from her experience of financial independence. The mobile complements the new economic role played by women working overseas.

VIRTUAL BUT REAL INTIMACY

The liberational and emancipatory role of the new media has often been noted. Partly motivated by the anonymity of interlocutors but also because of the intrinsically democratic and unconstrained element of interactions, intimate exchanges are a marked feature of these media. This intimacy often involves participants known to one another but also arises between unknown interlocutors.

Randy Solis (2007) has explored the role of texting in establishing romantic relationships in the Philippines. His accounts of these relationships reflect new notions of authentic virtual romances.

> While channel surfing one night, Lana chanced upon a popular TV program that allows viewers to chat with each other via text messages sent through mobile phones. One such message on the chat room came from a guy looking for female textmates. "I was extremely bored at that time," Lana says, "so I decided to text him using the number posted on the screen. He replied and he said that he was glad I responded to his 'call'."

This was the start of their relationship mostly conducted via texting.

Virtual chat rooms also provide new avenues for meeting potential partners:

> Gay men like Arbee have also taken advantage of this environment in searching for a potential romantic partner. Arbee relates, "I was texting a different guy then thru chat TV. That guy forwarded my number instead to this guy Mike, who started exchanging SMS [short message service] with me. Mike is my boyfriend now since then" (Solis 2007).

According to Solis, texting allows young people to evade parental meddling in their romantic affairs. "The mobile phone screen is able to create a private space that even if you are far from each other physically, the virtual space created by that technology is apparent," Arnel explains. "No one can hear you say those things or no one else can read them, assuming that it is not allowed to be read or seen by others." Texting technology is an effective and popular tool for courtship because it offers opportunities for free exchange with fewer chances of embarrassment. RJ feels comfortable sharing intimate messages via texting because he has less fear of outright rejection. "In a face-to-face conversation, you would tend to hold back some feelings or thoughts. Personally, I consider anonymity as a very important element in the development of our relationship. I am not really the aggressive, frank type of guy, so I tend to hold back in telling her intimate things face to face," he explains (Solis 2007).

In the Internet, online marriage sites are a common example of this new mobilizing potential. Constable (2005) has explored some of these sites and points out the opportunities it opens for both men and women for experiencing new bodily pleasures. While the Internet is often associated

with disembodied experiences, it actually encourages particular corporealities. Combining virtual and bodily experiences with cultural values, the Internet reconstitutes the lived body, resulting in new possibilities. Chen (2004) has written about the burgeoning of online marriage sites involving Taiwanese men and Vietnamese women. Traditional marriage brokers provide online sites for transacting these marriages, including brief visits to Vietnam to meet the women and their families. Many of our informants show an active interest in meeting foreign men as possible spouses. While these transnational links have been available for some time, the Internet provides real time exchanges approximating face-to-face meetings. It also provides opportunities for clandestine and private relationships. Virtual sites have now become a common way of extending courtships often resulting in actual marriages. As Chen and Constable argue, these online sites often use traditional images and practices. The new media are easily integrated into existing cultural structures while simultaneously transforming them.

CONCLUSION

The mobile phone and the Internet have been accepted into Philippine society with unprecedented speed. Their transformational effects have yet to be fully assessed but early signs indicate that, unlike previous technologies, the new media is inducing basic socio-cultural changes. Older technologies, while readily assimilated, rarely entered into the lives of most Filipinos or only did so under constrained circumstances. Mobiles have penetrated various aspects of the private and public spheres, including religion, politics and the economy. They affect not only relationships with the outside world but also transform orientations in the inner world. Functional capacity is enhanced both within and without the system. The new media not only enable their users to link more effectively with the environment but also interiorize these linkages to reconstitute the self. The environment is itself changing rapidly. Overseas work, tourism, virtual organizations, electronic transactions and transnational migration are transforming the social, political and cultural landscapes.

If the old media such as television constituted a national audience, the new media have both globalized and individualized their members into autonomous but linked units or smart mobs. Their political and social consequences are now being felt. Politics has to deal with both virtual and traditional constituencies. A hitherto hierarchical cultural order is quickly being subverted by popular choices. The results are unpredictable but certain to shake former structures. Traditional politicians, media stars and

gay activists, each drawing on their respective constituencies (virtual and actual), compete in the new order.

All the above takes place while the pace of globalization increases. The routine presence of the stranger made possible by the new media affects notions of risk/trust. The destabilization of tradition and the increased perception of the conventions of culture encourage more individual choices and orientations. Difference replaces similitude as the basis for identities. The democratization of life occurs at the political, social and cultural levels. New cultural forms are invigorating earlier ones such as poetry and film.

But older structures such as class and gender are not entirely replaced, only refigured. Despite earlier hopes of an emancipatory technology, the informatics of domination finds new forms of imposing itself. Nevertheless, the new media encourage a shift from a model of production to one of consumption. The sheer abundance of information makes it possible for ordinary people to become producers as much as consumers. This shift is seen in the latest trends in the use of Web 2.0, where users generate information rather than merely consume it. Moreover, the pace of change prevents older structures of domination from exercising their former hegemonic controls, opening opportunities for hitherto excluded groups such as women and minorities.

The Filipino family has undoubtedly benefited from the new technology, at least in its capacity to enable closer relationships. Diasporic ties and overseas work have become normal aspects of family life. But the new media also deepens communicative exchanges, allowing hitherto unexpressed aspects to express themselves. It encourages a condensation of ties within the nuclear family, and the democratization of feelings becomes a feature of family life.

The new media has been described as a technology of the soul as much as that of the body. They reconstitute our inner as well as our corporeal self, enabling new spiritual and bodily pleasures. Notions of authenticity are redefined. Romance increasingly takes on virtual and actual forms. Traditional institutions such as marriage are re-adapted to respond to new possibilities. Space-time compression creates new landscapes within which to live old and new identities. Virtual and actual spaces characterize contemporary life, combining the old with the new. Electronic communication ushers in new realities that combine elements of the natural and the spiritual worlds. Perhaps new prophets will soon arise to proclaim the new dawn. Cyber-theorists such as Gray (2002, p. 9) already predict our own deification. Hopefully a new skepticism will balance these new proclamations.

Notes

1. This is in reference to the "People Power" uprising that lead to the ouster of President Joseph Estrada.
2. Internet pentration is estimated to be only 12 per cent whereas mobiles are at 50 per cent (Khan 2006)

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4

BECOMING MOBILE IN CONTEMPORARY URBAN CHINA
How Increasing ICT Usage Is Reformulating the Spatial Dimension of Sociability

Jean-François Doulet and Shang Dan

INTRODUCTION

Transitional urban China is characterized by changing spatial and social patterns. The slow disappearance of Maoist social structures leads to more open social networks that have spatial impact.[1] Individuals are now freer to develop their own strategies, in terms of jobs, housing preferences, social belongings, etc. In this context, what is the role played by, specifically the Internet and the mobile phone?

CURRENT KNOWLEDGE ON URBAN MOBILITY IN CHINA

Urban mobility is more and more residence-based: Since 1992, Chinese urban dwellers are investing massively in the purchase of their home. This purchase is determined by the level of revenue of each individual but also by location preferences (some neighbourhoods are more fashionable than others). Emphasis on the residential location leads to a residence-based

mobility instead of the former work-based mobility of the Maoist era organized around the work unit, the *danwei*.[2]

Travel distances are increasing: In Maoist urban China, travel distances were limited because of a strong geographical integration of work and residence. This integration was organized within the work unit (*danwei*). Each individual could find housing and services provided by his/her work unit. Due to reforms, the work units are becoming obsolete, losing their role in providing social services. Today, companies have less control over the residential location of their employees: work places and residential places are scattered in the urban spaces, leading to longer travel distances.

Travel patterns reveal less confinement to the space of proximity: Proximity no longer ensures finding the services or products individuals need. In a more specialized urban space, individuals need to have a broader knowledge of the city to know where the best places (i.e. best shopping malls, best bars, best restaurants, etc.) are and how to optimize their needs.

Travel motives are more diverse: For decades, travel motives were essentially centred on home-to-work transits. Today, because of a more individual-based society and the multiplication of leisure-oriented activities, people are diversifying their urban experiences. Trips to job, school and shops remain the most common travel motives; however, for an increasing number of individuals, leisure motives are working their way up.

Transportation modes are faster: Up until the mid-nineties, urban mobility relied mainly on slow bus services and bicycles. With the on-going motorization process and the improvement of the transportation networks, people now have access to faster transportation modes (taxis, company cars, private cars, subway and trains).

RESEARCH ISSUES

In this context of growing mobility, it is interesting to point out the role played by ICTs: How are urban dwellers integrating mobility in their everyday life with the help of ICT tools? How are ICTs reformulating individuals' relation to space and helping them build more fluid sociability?

However, some notions need to be discussed first.

THE NOTION OF SPACE

New communication tools are challenging the notion of office or even the notion of working, making the location of the worker unnecessary

information: I can work anywhere I want, but at the same time I can be reached anywhere I am. “I am away from work” is no longer an expression that anybody can use to express the fact that he or she is out of his or her office. If space is becoming a non-parameter, time is also a new challenge. Spatial flexibility implies also time flexibility.

THE NOTION OF “MOTILITY”[3]

People are in the centre of a “mobility system” (both material and immaterial) that allows them to develop specific strategies to move (e.g. having a car, getting information about the traffic, being able to adapt to change in a trip, tools to plan one’s trip, etc.). What is interesting is not mobility in itself, but rather the potential of mobility: “motility”. Motility can be defined as the capability of entities (e.g. goods, information, or persons) to be mobile in a social and geographic space, or the way in which entities access and appropriate the skills for socio-spatial mobility according to their circumstances. It is shaped by needs, plans, aspirations, and understandings of agents, and relates to strategies, motives, values, and habits (Junge 2004).

This paper focuses on individuals’ strategies that refer to the inner logic of mobility practice and their attitudes toward mobility. First, a general analytical framework is provided to help understand how certain urban dwellers are integrating mobility in their everyday life with the help of ICTs: how ICTs are reformulating individuals’ relation to space and how Chinese mobile individuals are taking advantage of ICTs to build more fluid social networks. In this sense too, the paper discusses whether increasing mobility plays a role in the individualization process of everyday life of Chinese new urbanites.

METHODOLOGY

In his paper “the new mobilities paradigm”, John Urry pointed out: “The new paradigm will deploy some novel methods and exemplars of research. Research methods will need to be ‘on the move’, in effect to simulate intermittent mobility in various ways” (Urry 2004).

Thus, in this study, besides using in-depth interviews, we also tried some “mobile” methods. For example, we selected six respondents to elaborate the “seven-day time-space diary”, let them record for different periods what they were doing and where, and how they moved during those periods; meanwhile, we integrated map-tracking as an effective method to define

the territory of mobility and circle of sociality. We also applied the method of "participation-while-interviewing".

BEING MOBILE IN A SPACE RICH IN SOCIAL INTERACTIONS

In "the new mobilities paradigm", places are about relationships, about proximities and about the bodily co-presence of people doing activities together (Urry 2004).

In our study, while we find that work-related trips are predominant, leisure mobility trips are growing in number and featured with some new sociability patterns. Individuals are keen to meet other people for social fun, for example, travelling by their own car with lots of friends met online.

> I have a friend whom I've known since a trip to Yunnan in 2003. He posted a plan on www.sanfo.com[4] calling for people who wanted to join his team to go travelling in Yunnan and I registered through Email. We seven people, who didn't know each other before, had two meals together before travelling and had a very good time, ten days in Yunnan. After that trip, we kept meeting twice a year. I have a lot of friends that got to know each other this way, travelling and eating together. Unlike the friends made from working, this kind of relationship is very simple and is just about having fun together. I love it!

Through these new patterns of mobility and sociability, we see more and more urbanites mastering their mobility, both for work and for leisure. They feel in control even when they are in some places which are totally new for them. This trend of mobile individuals with a broader mobility territory is no doubt linked with a better knowledge of urban space. So, what is the knowledge of the urban space by the individuals and how are mobile technologies affecting the way people use space?

Along with the rapid development and restructuring process of Chinese cities, there are some new urban spaces that have appeared (Ma 2004). Firstly, individuals now are facing plenty of choices and spaces to spend their leisure time. The rapid development of the urban tertiary sector has created numerous spaces of consumption for the ordinary urban residents, including hotels, restaurants, small shops and personal services. Furthermore, these multiple spaces vary most of the time by specific activities, making urban trips more complex and dependent on the use of the automobile.

The urban space is scattered and distances between transit points are greater.

Therefore, in this more specialized urban space, the individual who has an active social life is always somebody who is characterized by an extensive urban mobility. In order to develop appropriate strategies of mobility, individuals have to acquire a sharper knowledge of the city to know where are the best places they can go to optimize their needs (especially the places to hold social meetings): parking facilities, traffic conditions, best shopping malls, best bars, best restaurants, etc. Becoming mobile requires a new perception of space and, also, a new relation to geography. Having access to real-time information eases the planning of the trip (no need to plan too much ahead with a lot of stress) as well as the trip itself (get access to relevant information along the trip). With access to adequate information, mainly online, Chinese urbanites can develop new spatial strategies.

EMERGING SPATIAL PRACTICES — AN INCREASED PERCEPTION OF SPACE

Valuing Spaces of Quality for Quality Time

Urban life in China is very active in public spaces like restaurants, KTV, bars. Home is for very close relationships: it is very intimate. People want to enjoy collective moments; they want to share and to release heavy work pressure.

> I seldom bring friends home to have parties, as my apartment is not very spacious and I see it as a private space mainly for family gatherings. For me, I prefer meeting friends in a restaurant or going out.

By having a clear understanding of their social networks, people can plan social meetings on different modes, depending on the type of social contract. Thus, people spend time looking for attractive places to go. For instance, there are more and more new websites giving information about trendy restaurants.

> In order to find some attractive place to meet, I often go to www.dianping.com[5] to search the information, read other's reviews and recommendations, and figure out the route with the map it offers.

Driving and Travelling: Enjoying the Feeling of Being "On the Road"

More and more mobile individuals now choose to travel by themselves, as they are demanding more of a share in the decision-making.

> I brought an SUV as I love driving my car and travelling around. My husband also has a car. For the national holidays, we travel together. When it comes to our own annual leave, we prefer to go respectively. Like this time, I am planning to go with the travelling friends I made online for the whole twenty days. Before each long-distance trip, I carried out preparations like a car check-up, figuring out the route, reserving the hotel and stocking food. As we had enough preparations, we don't think it is hard to do a long-distance travel by car, even on my own.

We see from this respondent that there is a search for freedom, independence and discovery. Being mobile is part of a new lifestyle and is opening a new social horizon.

Planning a Trip is No Longer a Constraint or a "Big Thing"!

Planning a trip is no longer a constraint but a part of everyday life, something not so exceptional. During the trip and the stay, people feel confident in adapting their time to unexpected events thanks to mobile technologies that help obtain the right information.

1. Mobile phone and walkie-talkies: always connected with others

> I don't feel that to organize a group of car travellers is a hard thing. Though there are over thirty cars but we can keep connected all the way with the help of mobile phone and walkie-talkies.

2. Heavy users of GPS and map

> I often go to Internet to search for the best route before my road trip and I've installed a GPS in my car in case I lose myself in the mountain. Besides all this, I always bring the map.

3. Bring Internet with me!

> Last time, we drove to Shandong and met an unusual traffic jam on the high-speed road. I went to the Internet, searched for the latest

news and got the detail of why this happened and how long it could be solved, instead of waiting there aimlessly.

4. Planning online with car-mates/travel-mates — collective intelligence

In order to organize vacations, people get information in advance using websites or discussion groups and make plans collectively. For the following case, we can see that individuality can be fully expressed from the very beginning with rich communication carried out online proposing original plans, followed by the mobile communication on a daily basis exposing everyone's personalities and communication skills, and finally through the face-to-face meetings where brainstorming as a team occurs. More importantly, people get a lot of social fun from this kind of collective group planning and making friends with each other in a larger social circle.

The process of planning a collective holiday (case-study)

1. Made a holiday plan two months in advance, deciding when and where I prefer to spend the holiday (this time, twenty days, to Xinjiang);
2. Logged on to www.lvye.org every week, paid attention to the travelling plans which fits my time and place preferences posted on the bulletin board.
3. Selected the best travel plan in terms of its schedule, budget, and team size.
4. Found the MSN account of the person who proposed this plan (the team leader).
5. Chatted on MSN to get detailed information and decided to join his team.
6. Exchanged our mobile phone numbers and had a telephone interview with the team leader.
7. When the whole team was set up, we met twice. For the first meeting, everybody took all the necessary documents to the meeting, like the route, schedule, accommodation form, list of things to bring along, introduction of the site and so on, discussed together and assigned tasks for each member (for example, each one was in charge of finding a good hotel in one city, as we visited several cities during the trip). For the second meeting, we met to confirm the hotel reservations, to reach an agreement together.
8. We regularly group chatted on MSN, to clarify the specific items for each participant to take and avoid redundancy.

New technologies are reconfiguring our relationship to the places we inhabit. With the near ubiquitous presence of cell phones in many cities, the rise of wireless networks, hybrid games and the use of geographic information systems, individuals can not only enjoy an easy trip but also share their creativity with other urbanites at the other end of Internet.

"MY CITY" — CITY 2.0 WITH EMOTIONS, STORIES AND CONVERSATIONS

Besides the individual experience, a collective-based experience of place is being built.

> I love to try new food, then comment on www.dianping.com and recommend to others. I even met some very interesting people in the forum including the top reviewers and went to dine at new places together. We are all big fans of good cuisine!

New Web 2.0 applications are a good expression of the idea of City 2.0, when individuals share their experiences of the city. New urbanites are accumulating their knowledge of urban space collectively based on their experience of places and spaces. The "urban yellow page" is a good case in point. Because of this creativity from different individuals, the urban space is no more a static entity; it's full of content, emotion, stories and conversations.

For instance, Mosh (www.mosh.cn) is a popular website for mobile individuals to organize their leisure activities in a more efficient and collective way. It is the first "Event Sharing" website based on web 2.0 in China. Mosh means "Moment Sharing". As a social tool, it advocates sharing at any time, can help you get information about all kinds of places and people you like. For mobile individuals, the information, services and communication provided by Mosh.com can be accessed at any time, any where with the applications on mobile phone. The Moshers who attend the same activity can have access to each other's contacts with MSN/QQ/Mobile bundled together.

Another example, Lvye (www.lvye.org) is one the most popular website for outdoor enthusiasts. Mobile individuals who love outdoor activities can easily find their team on the website. You can either lead a team or participate in a team; you can choose any type of travel; you can control your budget and have a cost-saving trip; you can also make friends on the

road. As all the information, including the route, budget, agenda, risks and attractive places are put online, and logistics will be solved by the team leader, planning a trip becomes a "one-minute" thing, just log on to Lvye.org and find your favourite team according to your preferences and interest.

> I got to know Mini on Lvye. When she sent me a message saying that there was a free skiing activity on a Saturday, costing only 50 RMB for the bus and entrance ticket, I was very excited. I made plans to go with a group of ten. Being a southerner, it was my first time to go skiing. Even though I fell countless times, the day was thoroughly enjoyable.

BEING MOBILE IN OPEN SOCIAL CIRCLES

According to John Urry's "new mobilities paradigm", since "mobilities produce and develop extensive and far-flung social connections" (Urry 2004), it is necessary to "examine topologies of such social networks and especially the patterning of weak ties that generate 'small worlds' amongst those apparently unconnected" (Buchanan 2002). We find there is a strong connection between mobility and sociability. Patterns of mobility involve intermittent face-to-face relationships with places, events and people. They are reshaping each other by the emerging practices in everyday life.

A MASSIVE EXPANSION OF WEAK TIES

The Internet is used as a platform for forging new relationships, in addition to those that are pre-existing. (Benkler 2006).Thanks to the Internet and ICT adoption, the sociability pattern of new urbanites today is expanding from small social circles based on deep personal relationships (like family gatherings, close friends events) to larger social circles based on common interest (like car clubs, travelling enthusiasts and cooking mates). There has been a huge increase in very weak ties in which others are known only in one very limited respect and who may never be encountered face-to-face.

> No matter if I'm at home or at the office, when I turn on the computer, QQ and MSN will log in automatically. I set up several different groups and we keep in contact online and offline. Majority of these friends are made online through some cuisine/eating website, outing website, travelling community.

> I group my contacts on QQ into eight circles. Different groups have different ways of eating and playing. "Elf vale" is a group of eating friends who loves spicy food, "Neighbourhood" is a group of close sister friends, "Huanghua Road" is composed of friends that often meet on bar streets. Besides discovering various delicious foods with these friends, I also go to some outing websites regularly to see if there is some attractive outing plan, then I will register and contact with the planner. From time to time, some of the outing friends become my good friends.

Weak ties are described in the social capital literature as allowing people to transmit information across social networks about available opportunities and resources, as well as provide at least a limited form of vouching for others — as one introduces a friend to a friend of a friend. But what we find from our respondents is that they are mostly using the Internet as a platform to launch these kinds of weak ties based on an interest or practice, such as travelling mates, eating out.

So what are the features of these kinds of weak ties? First, we find these weak ties are limited-liability social relationships and people don't search for lots of personal information from each other, they are more like leisure acquaintances. Secondly, this relationship is very simple; they don't expect lots of benefits from each other, what's most important are the moments they share together. Thirdly, they are free from existing social structures and are emerging as forms of communities, people can develop different kinds of weak ties and design their own social circles, selecting their communities and building their self-identity.

EMERGING MOBILE COMMUNITIES

As Wellman puts it:

> Communities and societies have been changing towards networked societies where boundaries are more permeable, interactions are with diverse others, linkages switch between multiple networks, and hierarchies are flatter and more recursive. Their work and community networks are diffuse, sparsely knit, with vague, overlapping, social and spatial boundaries (Wellman 2003).

In our context, the range and diversity of network connections is beyond the traditional family, friends, and stable co-workers. The emergence of networked individuals is not, however, a mere overlay, "floating" on top

of thickened pre-existing social relations without touching them except to add more relations. The interpolation of new networked connections, and the individual's role in weaving those connections allows individuals to reorganize their social relations in ways that fit better.

There are two typical communities we saw in our study of mobile individuals: one is the "Car club", and another is called the "Donkey friends travelling mates". We see them as two different kinds of weak ties in terms of social motivations.

The Car club is a community that gathers individuals who own the same brand of car and organizes activities together, like road trips. It is more based on similar culture practices and this new sociability is still linked to traditional values. People join this kind of club to seek social status and build their social capital.

– When you participated in a Polo car club activity, you are with whom? Are they are all youngsters and all with a car?

  No. The organizer will ask us if you have a car or not, and how many people will come with you. He will count the number of participants and arrange the meals. Some one will bring their friends along and some one will go with his family and kids.

– After this kind of activity, did you keep contact with them?

  Yes, for example, in our Polo club, there is someone who is in the business of spare car parts and someone who is in the insurance industry, we meet often and go to some good restaurants together.

– You see them as someone who may give you help for your career or your life?

  Yes. But it's not the only reason that I choose to make friends with them. We are all young people who want to make friends and the more the better.

Donkey friends is an outdoor enthusiast community; it can be seen as the reinvention of the "backpacker culture" in China. Backpackers have been described as "travellers who exhibit a preference for budget accommodation; an emphasis on meeting other people (locals and travellers); an independently organized and flexible travel schedule; longer rather than brief holidays; and an emphasis on informal and participatory recreation activities" (Loker and Pearce 1995).

This outdoor activity community has its own communication patterns, travelling habits, travel gear, and they love to record and share their travel

experiences. Through travelling together and sharing moments with people of similar interest and values, they are likely to find their inner self and real identity.

> The main reason that I love to travel with my Donkey friends is that our relationship is very simple, without consideration of business or other economic benefits. This relationship gives me a relaxing feeling, forgetting the pressure I have in my daily life.

Technologies are enriching their collective travel experience. Forums or BBS is the most important channel to gather people with the same taste and broadcast the news and information. QQ or MSN is a common medium for Donkey friends communication. It is easily accessible and without any cost. Group SMS are commonly sent by a team leader who acts as a social hub in the network, sending out travel updates to large groups they have met. Voice communications via mobile phones are used to a lesser degree, and primarily with friends and family at home. SMS is used to chat with those at home, and travellers they have met or are currently spending time with. MMS is increasing used to send photos when they are having their trips separately. Photos are commonly shared via web sites, in forum or blogs. Blogging travel stories are increasingly common as a way of sharing experiences and maintaining awareness amongst sparse social networks. With all this, communications within the community can be everywhere and planning trips becomes a collective experience.

OPENING SOCIAL HORIZONS — A STRONG ATTRACTION FOR "SOCIAL FUN"

Among the new urbanites, a strong attraction for "social fun" becomes the engine for opening new social horizons and self-development (being more open-minded, etc.)[6]

> I am a regular participant of the volunteer programmes held by www.lvye.org. Last week, I and other young volunteers gathered together through Lvye and went to a special school in the suburbs of Beijing, bringing love and information to the autistic children in the school. It's a way to make new friends who share the same values as me by helping others and thus make me feel that life is meaningful.

Individuals have to formulate particular situations (from eating out to selecting hobbies) to define their own identity. Finding the "Self" in the new

designed social circles becomes the most important motive for their mobile activities. The connection between motility and sociality generates a new form of mobility and in turn shapes the social life of today's urbanites.

> It seems that only being mobile makes me feel like I am truly enjoying my time and my life!

Being mobile is also seen by modern urbanites as a fashionable lifestyle. This positive attitude towards moving, combined with the spirit of freedom, independence, open-mindedness, becomes a very important element of the modern value system held by urbanites.

REINVENTED SOCIABILITY

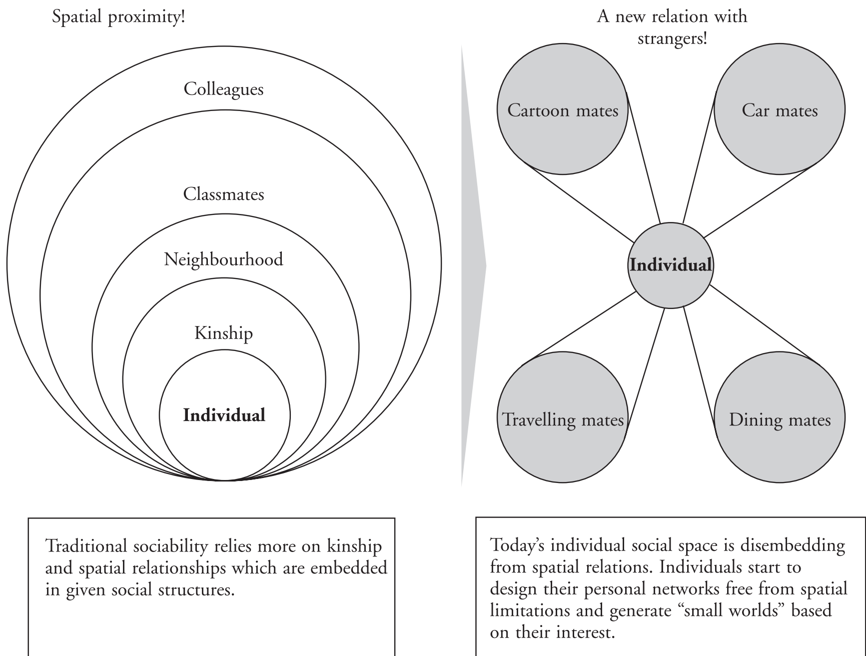
According to Fei Xiaotong's concept of "Chaxugeju", the Chinese system of organization is a pattern of discrete circles, a differential mode of association. It is like the circles that appear on the surface of a lake when a rock is thrown into it (Fei 1992).

The traditional Chinese way to create sociability is characterized by individuals being the core elements of the system. Everyone stands at the centre of the circles produced by his or her own social influence. Different circles are established to facilitate reciprocation in daily life. The pattern of organization applies not only to kinship but also to spatial relationships. These highly elastic social circles, which can be expanded or contracted according to a change in the power of the centre, cause the Chinese to be particularly sensitive to changes in human relationships (see Figure 4.1).

Even if today Chinese individuals are still preoccupied by the classic management of social networks — related to traditional social structures and made of stable and strong relations — some other individuals are developing a more complex form of network management made of a combination of strong and weak ties and fluid relations. The way of constructing networks started to change from belonging to hierarchical and sectored social groups to being interested in a particular lifestyle or leisure activity (Figure 4.1).

To today's youth, mobility is a fact of life that they embrace with enthusiasm and in a number of ways; mobility constantly transforms their social life and influences their way of perceiving and understanding the world, which in turn makes them demand an increasingly complex mobility.

FIGURE 4.1
The Reinvention of Sociability



CONCLUSION

Modern life in urban China is characterized by a new, reinvented sociability in a context of increasing mobility and empowerment of individuals. So, if we consider mobility as a social capital, how can we evaluate the benefit people take from being mobile in the information age? China now is in transition from rigid social structures to more flexible structures. Understanding individuals' practice of mobility is one of the keys to look into the recent social change.

Through our study, we kept asking two questions: how people assess their own mobile living arrangements? Is becoming mobile mainly an autonomous decision or a forced situation? We find that the Chinese are becoming mobile individuals in terms of their strategies to master their mobility; the connection between mobility and sociality is the key to understand the emerging sociability. Mobility is redefining urban life as a part of a widespread individualization process.

There are still many pressing questions waiting to be answered in subsequent studies, like the "mobility and gender divide". Is there a difference between men and women in their mobility patterns? Another question is how the emerging practices of mobility and the implications of Web 2.0 are reshaping the landscape of the city we are living in; in other terms, what are the social meanings of City 2.0?

Notes

1. To know more about changing social and spatial practices in contemporary urban China, see Davis (1995).
2. For many scholars, the *danwei* was the basic element of urban life in the sixties, seventies and part of the eighties.
3. To get a deeper analysis of the notion of "motility", see Kaufmann (2000).
4. <www.sanfo.com> is a website for "outdoor activity" fans to go traveling together.
5. Dianping <www.dianping.com> is a very useful site for finding restaurants in most major Chinese cities, the biggest restaurant review website in China. It relies on user ratings and reviews; it reviews restaurants as well as all kinds of local businesses, such as night clubs, beauty salons and spas, and shops. It also integrates map-searching and tagging functions.
6. Lvye, "green field", is one of the largest online communities of backpackers in China, and has attracted more than 100,000 free users. Technically, they should be called friends of backpackers, but pronounced in Chinese, the name of this popular group of outdoor enthusiasts means "friends of donkey".

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5

MOBILE RELIGIOSITY IN INDONESIA
Mobilized Islam, Islamized Mobility and the Potential of Islamic Techno Nationalism

Bart A. Barendregt

INTRODUCTION: MOBILE RELIGIOSITIES

Modernity, while occurring at a global scale, is multiple in character. It is often lacking the central master-narratives formerly associated with the term modernity. In this contribution, I consider one reading of modernity by focusing on the ways young Southeast Asian Muslims "make themselves modern" in creatively adapting and appropriating mobile communication tools and practices in their everyday lives.

Indonesia, the country referred to in this study, is not only a country that recently has begun to engage with its own mobile modernities, but being home to the largest Muslim population within a single nation, such a mobile modernity increasingly has come to be defined in Islamic terms. The ways mobile technology, and in its aftermath ideas on modernity, is domesticated and deliberated within religious circles has been little studied to date, although recently Katz (2006) has given a brief survey of it. Earlier, Rheingold (1999) touched upon the topic when explaining the Amish's

somewhat ambiguous attitude towards new technology and their constant negotiation of its use, including what he calls "their secret affair with the cell phone". Occasional mention has been made of novel "mobile rituals" such as the SMS Puja service (*The Tribune*, 5 September 2003), whereby an operator forwards a SMS prayer to Mumbai temples where it may be recited for its senders. Popular media have similarly signalled new forms of public devotion finding its expression in, for example, the popularity of mobile icons of Lord Ganesh in Indian society (Das 2003) or the text gospel described by Ellwood-Clayton (2003) for the Philippines. Most of these practices, once successful, will soon be picked up by adherents of other world religions or by commercial companies addressing religious audiences. But those practices or tools, as will be shown below, are not necessarily easily transposable from one belief to the other. This may be due to local peculiarities but also to religious taboos and restrictions.

In this aspect, mobile communication studies have hardly focused on everyday mobile practices in Muslim societies, let alone the Muslim societies of Southeast Asia. Largely influenced by the political climate, external observers have often been quick to associate mobile religiosity in a Muslim context with extreme practices ranging from SMS divorces by Malaysian Muslims or cell phones being used as detonators by Thai Muslim separatists. However, what is happening on a day-to-day basis if one talks about mobile communication in a Muslim society and to what extent are such practices specifically Islamic? Does its use differ from one Muslim society to the other, from one group to the other, or even among individuals such as when it comes to religious prescriptions to using modern technology?

Obviously I would not be able to answer all of these questions here but I hope this contribution may illustrate that in studying the mobile's impact on any society, culture, let alone a world religion, one should always be aware of the risk of oversimplification. Both in time (for example, religious holidays, fasting month, Friday prayers, etc.) and place (think of Shiite societies, Sufi sects, more conservative Middle Eastern countries versus, for example the traditionally more tolerant Southeast Asian Muslim societies) there is a rich pallet of related but often diversely interpreted Muslim practices.

Aware of this rich variety, this chapter focuses on the ways mobile practices add to an evolving Islamic consciousness in Central Java, particularly the Yogyakarta region. After a brief sketch of an emergent Islamic middle class culture in Southeast Asia as a whole and Indonesia and the Yogya region more specifically, the focus will be on its preference for life styling and the role of mobile gadgetry therein. An inventory will follow of the

current possibilities for mobile religiosity in the form of available religious content offered by cellular providers. This content will be evaluated according to the actual usage and needs of a young Muslim Javanese and not what is presently hyped and advertised by commercial parties. This paper concludes with a discussion about the potential use of mobile technology and the ways it might in the nearby future reconfigure a worldwide Muslim community. However, first a more general depiction is needed, to explain how mobile culture by and large manifests itself in the Yogyakarta region.

MOBILE MODERNITIES IN A JAVANESE SOCIETY

The data for this chapter were collected in the Special Region of Yogyakarta, with three million mostly ethnic Javanese inhabitants, the second smallest of the thirty-three provinces of Indonesia. This region, with the City of Yogyakarta as its capital, is reputed to be the cradle of High Javanese culture. Once the headquarters of the Republican army that fought the Dutch colonial forces, Yogyakarta still captures the mind of Indonesians as the City of Struggle. However, the city is also known as the City of Arts and Culture, and therefore an important pilgrimage destination especially for domestic tourists. Finally, and more important to this contribution, Yogyakarta is celebrated as the City of Education, housing five state and more than fifty private universities. A large part of Yogya's population consequently consists of students that come from all parts of the archipelago.

Mobile phones are tremendously popular among this student population, both as a means to keep in touch with what is happening back home, and also to stress their participation in a hip and modern youth culture that is visible everywhere in the city. To illustrate this point, in 2007 a small survey was held among roughly sixty young Javanese mobile phone users in the Special Region of Yogyakarta. Their age varied from 15 to 40-years old, mostly students, although teachers, vendors and some other professions were included in the sample. In spite of the current code division multiple access (CDMA) craze in Indonesia, with almost all local providers now offering cheap CDMA handsets and corresponding services, most of these respondents were still using a GSM phone at the time of the interviews. The reason for this was the complaint that the coverage of the CDMA services in some areas was not reliable and sent SMS could take up to a day to arrive. Another complaint was the generally dull outward appearance of most CDMA handsets. Especially young users stress the credo that increasingly "one is what one phones with" and many of them did not want to be seen with outdated mobiles.

It is striking that in spite of such behaviour and in contrast with much of the advertising efforts of mobile phone vendors most of the people interviewed used their often very hip phone primarily for SMS and to a lesser extent for voice-calls. Indeed some people used their mobile as an MP3 player, but a very small minority used a built-in camera. The use of mobile Internet and chatting functions, moreover, was hitherto even more scarcely used, this much in contrast with the thirst for the very latest model that should allow for such functions.

While generally not as hi-tech as Jakarta, Yogyakarta seems more representative of what is happening in other parts of Java, and to a certain extent for the nation as a whole. Officially, 75 million Indonesians, an estimated 30 per cent of the population, have access to mobile media. However, such an estimation hardly seems to take into account the popularity of second-hand and black market phones, which are not always included in such statistics. In addition, young people use more than one prepaid card — still the favoured system in much of the archipelago — and many of them use more than one handset, thereby typically reselling an old mobile every three months or so, to be able to purchase the latest model. While looking at official penetration rates, Indonesia might seem a minor player, but if it comes to mobile communication, the country promises to be one of the fastest growth markets worldwide with some of the latest CDMA and 3G technologies already being launched in the Yogyakarta region. The potential of the mobile market is felt even more when it comes to new public forms of mobile religiosity, which as with wider developments in society are at present noticeably on the rise in Indonesia.[1]

With respect to mobile religiosity, the survey presented here mostly included questions on how people of different religious backgrounds presently use their phones and if religiosity plays a significant role in their use (or non-use) of it. Of the people interviewed, more than 60 per cent were Muslim, and except for one Buddhist, most others were Christians, especially Catholics.[2]

The focus of this chapter will be foremost on Muslims and therefore on expressions of mobile Muslim religiosity. Besides this survey, additional data were obtained during interviews with spokespersons of providers and owners of cellular shops. An analysis of media such as newspapers, cell phone magazines, TV advertisements, SMS manuals and online forums provided more data on the religious debates in which the mobile is currently embedded in Indonesia. Finally, observation of users and personal subscriptions to religious SMS services were a supplementary source of information. Before turning to some of the novel expressions of mobile

religiosity that are around today, and the question to which extent they are the product of clever marketing or in practice truly used, let us briefly consider the background to mobile religiosity in Indonesian society.

MIDDLE-CLASS ISLAM AS A LIFESTYLE: "FUNKY BUT *SYARIAH*"

Looking at Indonesia today, for the first time since colonial rule a wealthy Islamic middle class is now successfully developing a cosmopolitan lifestyle. This process is coincidental with the dramatic emergence of a middle class in other parts of Asia. However, in Indonesia, these newly rich are not only urban-based, often young and well educated, but in contrast to their Western and East Asian counterparts, they frequently turn out to be orthodox and religious.

Indonesia stands out in this regard. Since the late 1980s, there has been a considerable growth of what Murray (1991) calls "Islamic chic". Economically its growth was accelerated by the consumer boom of the mid-1990s, but in a religious sense it has also profited from the lifted "ban" on public expressions of Islam since the fall of the New Order regime in 1998. Both processes have resulted in the new Muslim reveille that is currently being witnessed throughout the country; a hip, young and religious subculture that uses the credo "funky but *syariah*" — anything goes as long as it is distinctively Muslim.

Exponents of this new Islam which does very well among students and young intellectuals are the students' activist association KAMMI (United Action of Indonesian Muslim Students) and the political party Partai Keadilan (Justice Party). However, public Islam has also made itself visible in staging book fairs, talk shows, fashion and other forms of what one might eventually dub "Islamic capitalism". These young middle-class Muslims may therefore, as their more secular counterparts, be studied through their patterns of conspicuous consumption and a particular form of "life styling" (Heryanto 1999): the continuous appropriation of symbols of modernity. This emphasis on modernity distances itself from older traditional cultural practices while at the same time clearly challenging the notion that the only way to be modern is through a Western model (Barendregt 2006*b*).

New media technologies are prominent tools in emphasizing the notion of modernity in this Islamic lifestyle, its fetishist use often to such an extent that one should speak rather of "extra-modernity" (Göle 2002, p. 184): modernity's manifestations are overemphasized, as are the performances of

belonging to modernity. Audiocassettes, video-CDs and the Internet have in Muslim Indonesia been used to not only spread the faith, but also to serve as important markers for this Islamic modernity. Now, the new Muslim lifestyle has become portable.

The new Muslim seemingly wants to stress his or her mobility, be it in the sense of social or physical mobility, but also through the conspicuous use of mobile Muslim media. While overtly religious in form and function, most of such media are clearly influenced by secular predecessors. The latest craze, for example, in some Yogyakartan Muslim shops is a multimedia player sold as the “first Muslim iPod”. It links religiosity to a world of gadgets and lifestyle, while at the same time Islamizing “foreign” forms of popular culture and consumerism.

It is not strange that vendors have tried to tap into religious sentiments. Using such ocular aspects, as Göle (2002, p. 176) also affirms for other Islamic societies, Muslim social imaginaries are continuously reshaped and in such a way that different actors strive to lay claim to the public domain. One would expect similar claims if it came to something as omnipresent as the mobile phone. Here, the mobile phone is possibly contextualised as are the middle class and Islam. Let us therefore look at some of the present manifestations of this mobile middle class Muslim culture, starting with the very popular mobile content services that are found in Yogyakarta.

RELIGIOUS MOBILE CONTENT: BETWEEN CONSUMERISM AND USER-LED PRACTICES?

About eight national providers are currently active in the Yogya region. They generally distinguish between various segments within society, locally adapting their services (both pre- and post-paid) to such sub-populations as students, young people, and middle to upper class users. This division in segments helps providers, but also third parties to explore commercially interesting niches (i.e. customers interested in sports, music, cars, and fashion or information technology). However, according to a sales person of Indosat,[3] religious services are currently a best-selling content service in the Javanese market. Most of the providers active in Yogya see religion-oriented services as being three-pronged: (1) event-oriented content, (2) personalized ring tones and (3) so called Validated Added SMS (VAS) services.

Firstly, providers may financially support religious events, promoting their own interest through billboards, banners, and leaflets. However, this focus on events also includes the supply of special religiously oriented content during Christian holidays such as Christmas or lately also the Chinese New

Year (*Imlek*).[4] Further, being a predominantly Muslim country, Idul Fitr, the annual Islamic holiday after the end of the fasting month, deserves particular attention among local providers. Following tradition, people all over Indonesia return home at this time to restore social relations with their relatives and ask forgiveness for slights and misunderstandings. Idul Fitr is foremost a time for reconciliation. Over the last few years such reconciliation has, much to the regret of both travel companies and national postal services, been sought through Idul Fitr text messaging.[5] Anticipating possible congestion due to all the messages sent on this occasion, providers temporarily upgrade the already very crowded Yogyakarta network. Moreover, other steps are taken by providers to anticipate the end of the fasting month as special prepaid cards such as Indosat's *Mentari Mudik* (Mentari's homeward journey) are launched. These cards contain attractive SMS bonus deals for Idul Fitr messaging, and provide information on special numbers that may be dialled to receive the latest travel/traffic information since many people travel during the period.

A second religion-oriented service that has become very popular consists of so-called *Nada Sambung Pribadi* (NSP, literally Personalized Connecting Tones) or "ring-back tones". Most providers have their own service, where, for example, pop, Chinese or *dangdut*[6] can be downloaded. Lately, religious melodies have become a separate and very successful category of downloadable tones. Most religious ring and ring-back tones are adapted tunes of the tremendously popular Islamic boy-band music or *nasyid*. Indonesian groups such as SNada, the Fikr, or Malaysian ensembles like Raihan or Brothers supposedly earn more at the moment with selling ring and ring-back tones than with regular CDs or cassettes.[7] *Nasyid* ring back tones are advertised directly by the providers and also through cassette sleeves of the groups, whereby the music industry and the telecom sector seem to profit from already existing markets and thus mutually enforce each other.

A last category of religious oriented services is probably the most lucrative. This third sort of service is called Validated Added SMS (VAS, also known as SMS Premium), whereby a provider reserves a four-digit number for a commercial party. This third party provides the content, ranging from text messages, religious quotes, ring tones, wallpapers, and streaming messages. Among such services are *Do'a* ("brief prayers"), *Puisi Islam* (brief excerpts of "Islamic poetry")[8] or Islamic wallpapers (often veiled animation characters). Few companies are entirely devoted to Muslim services. Probably the best known Islamic content provider at the moment is the *Al Quran Seluler* service of the famous "tele-evangelist" AA Gym.

They provide a six-minute voice message streaming service; forwarding of religious quotes, prayer times and other religious content. It was introduced in Jakarta and Bandung in 2002 and has lately become available in other places in the archipelago as well.[9] Like other VAS services, the *Al Quran Seluler* is not affiliated to one particular telecom provider but facilitated by most of them through means of a specially assigned four-digit number. While it is no secret that the largest revenue goes to the telecom providers involved, content providers such as *Al Quran Seluler* also profit from this. A manifold of often similar religious services has been triggered by its success and has given way to now famous mobile preachers such as the pop singer turned religious teacher Opick, Jefri Al-Buchori or AA Gym's (first) wife Teh Nini. The latter (in name at least) provides the content for the *Keluraga Sakinah* service in the form of so-called *tausiah*, or "words of wisdom" that "guarantees" a happy family-life that is inspired by religious values. Nevertheless, as will be discussed below, not everyone is applauding the mobile stardom of these new Islamic celebrities.

Most of the interviewed users in the survey had heard of the above-mentioned content, having seen it advertised in the media or heard of it through the campaigns of their providers. Asked if they had ever made use of such religious services, half of the Muslim users included in the sample acknowledged having done so in the past.[10] The majority of downloads were for ring tones, and more recently ring-back tones. In a few cases, respondents mentioned downloading other content such as clips, streaming services, or the *Al Quran Seluler*. An explanation for this might be that most of these services need both a mobile with GPRS functions, and in some cases, mobile Internet. These features are too expensive for the average young Javanese user and do not seem to go well with the prepaid cards most respondents used. Whereas many respondents mentioned obtaining religious ring tones or wallpapers through small by the road cellular shops, others had learned of these possibilities as they had been given free ring tones or other features by their provider, or while adding credit to their prepaid cards.

Providers were often wrongly associated with the above-mentioned VAS services, rather than the third parties who were responsible for the religious content.[11] Ironically, other than religious services, such commercial parties also offer games, love horoscopes and so-called sexy dancers or "close-up wallpaper girls", often in one advertisement. This shows that religion has become a business just like any other. This raises the question: to what extent is mobile religiosity bottom-up and led by

users needs (e.g. young Muslims eagerly looking for ways to publicly express their faith) or is demand artificially created, much in line with similar services in the secular domain? Again, some of these questions will be addressed below.

In general, young Javanese Muslim users were very positive about mobile technology and its impact on religious life. It makes communication easier, while also enabling a lifestyle that combines the hip and the devotional. Now, time on the road could also be dedicated to learn more about one's religion. Instead of bringing a hard copy of the holy book, a digital format or forwarded messages could serve as teaching materials.[12] Also, other forms of religious communication are facilitated, users would argue. Some of them mentioned how they could now forward their personal and intimate problems to an *ustaz* or *kyai*[13] using SMS. It is fast, private and more preferable to bringing up such problems in public meetings at the mosque, for example.

However, the downsides of using mobile technology for religious life were also mentioned. Many users brought up the enormous rise of mobile pornography (see Barendregt 2006*a*), and especially its dissemination among school kids and the under-aged. Also, using mobiles has led the Javanese youth to consume in a way that does not correspond with their living standard, thus forgetting about more important matters.

However, while many pointed out religious groups which supposedly did not agree with new media, such as the Internet or some of the practices associated with it, only a few could imagine that Muslims would be against the use of mobile phones. Many non-Muslim respondents even expressed their surprise that even "Islamic hardliners" seemed to approve of mobile communication. A case in point was Salafi-oriented young women[14] who were known for their strict veiling and refusal to communicate face-to-face with persons of the opposite sex. Mobile phones, as many said, has enabled them to communicate with their male peers without giving up their principles. Some respondents even argued that such girls turned out to be the most consumptive of all mobile phone users.

In conclusion most respondents stated that the phone could be used in both positive and negative ways depending on its user. This also applies to its religious use: mobiles could be used by fundamentalists and terrorists, spreading hate messages, and has indeed led to often artificial needs, but it also allows for Islamic mobile banking[15] and the easy mobilization of religious peers for charity events, helping fellow men after the occurrence of natural disasters.

SOME DEBATES: RELIGIOUS RESTRICTIONS, MOBILE CELEBRITIES AND ISLAMIC CAPITALISM

More interesting than what is commercially on offer, or the real practices of users, are the debates that are triggered by the different forms of mobile religiosity. Many users said that mobile technology in a religious context made them wonder about how to translate religious etiquette into the mobile era (whereas only few would have raised the topic of mobile etiquette in a non-religious context). It was regularly mentioned how both Christians and Muslims were annoyed at how the mobile was now invading churches and mosques. Many pleaded for banning mobile media in the house of God altogether.

On the other hand, new forms of communication also lead to some good habits. Both Christian and Muslim users now commonly use the standard abbreviation "GBU", God Bless U, to end their text messages, using English street language as a means to stress a religious and modern identity. Furthermore, many Muslim respondents distinguished themselves by starting every text message sent with the Islamic "Ass. wr wb" (from *Assalamu' alaikum warrahmatulahi wabbarakatu*, meaning "peace be upon you, and mercy, and blessings"). Voice call services also use this traditional Islamic greeting, although one might wonder how traditional such a greeting actually is to Indonesian Muslim societies.[16]

Besides formulating a novel mobile etiquette, the phone had Muslim users frequently thinking about older taboos and new challenges when using their mobile in an everyday religious context. A cellphone containing the Quran, for example, brings along such questions like: is one allowed to take a cellphone containing the Quran to the WC or is one allowed to step over it? Additionally, it turns out that while reinterpreting religious practices in a mobile era some things do not work out in the new media format, while others have to be adapted in new creative ways.

Let us focus next on some of the challenges Muslims have been confronted with in formulating a new mobile religiosity, i.e.: the forwarding of text messages and the perils of the visual; disagreements with the stardom of Islamic celebrities, and the pros and cons of Islamic capitalism.

CASE 1: RELIGIOUS VISUALITIES AND TEXTUAL RESTRICTIONS — SMS MUSLIM

While most religious services seem, at first glance, interchangeable with secular ones, there may be potential differences. Moreover, some religions

seem, for various reasons, better equipped to enter the mobile age than others, at least as far as concerns the current status of available mobile hardware and software.

In the secular domain most of the above-mentioned VAS services were quite visual in character. Advertisements of commercial parties promise wallpapers, themes and videos. These services also have religiously-oriented equivalents. Christian respondents, for example, confirmed that they recurrently download and decorate their phones with wallpapers of either Jesus or Mother Mary. For Chinese users, all sorts of mobile religious paraphernalia are also available, mostly visual in character. However, in the case of Islam, visual downloads are somewhat restricted, supposedly due to the taboo on depiction of God, the prophet Muhammad, or indeed all living organisms.[17] Even while respondents hardly came up with this issue, there seems to be a self regulatory policy among providers whereby Islamic content is restricted to Islamic calligraphy. In a few cases, animated figures or veiled Islamic celebrities can be downloaded. However, one wonders how much longer such content will be supplied as discussions on the status of such celebrities have started to emerge recently (see below).

As a consequence, much of the Islamic mobile content has been textual and auditory rather than visual in character.[18] Textual and audio excerpts mostly derive from either the Quran or the Hadith, the sayings and explained actions of Muhammad and/or his companions. However, such services might pose considerable challenges in a Muslim context. A small booklet might serve as an example here. In 2006, *SMS Muslim* (Zulyana 2006) was published under an additional title that promised "a collection of SMS that opens the eyes, calms the heart, and enlightens the spirit". This SMS manual offered a collection of what Ellwood-Clayton (2003, p. 256) has defined as "Hallmark religious texts". Among these texts were those that taught good Muslim behaviour, ways of worship or provided good-luck wishes. They also contained regular greetings that were adapted to a religious context, as the following message illustrates:

> Whatever you cross (sic.), whatever your pain. There will always be sunshine after the rain. Perhaps you may stumble, perhaps even fall. God is always ready to answer your call. Happy Ramadhan! (see Zulyana 2006, p. 79)

The above-mentioned example is about 184 characters (the spaces in between not even taken into account) and exceeds the 161 characters an ordinary text message allows for. It proves that most of these SMS manuals

hardly stem from practice and are difficult to use in forwarding messages. In fact, most of the respondents, regardless of their religion, denied ever using such manuals, suggesting that, rather than a functional use, the SMS manuals increasingly serve as a literary genre in itself.[19] Furthermore, these SMS manuals also point at other possible restrictions on translating secular mobile practices into religious ones. As mentioned, some Muslim SMS manuals use excerpts of Quran and Hadith. In the introduction to one such manual, the writer, Zulyana, offers her apologies for serious modifications of these standard texts, possibly realizing the religious taboo in doing so:

> The language used in this book, is not standard language, but more colloquial language. If a slight modification has occurred in taking excerpts from the hadith or translations have been used it's for the sake of simplicity without the intention of changing the meaning.

Whereas more secular Indonesian language SMS manuals take pride in offering a hip and sexy language, full of abbreviations, and the use of icons and other short cuts, quotations from Islam's holiest books do not allow for such modifications: one can not simply clip, add, or adjust excerpts of it. A possible way out of such restrictions might be the creation of new Islamic content, for example, in the shape of spiritual advice given by well-known Muslims. This has been done, but again triggered other debates.

CASE 2: OBJECTIFICATION, FRAGMENTATION AND THE DANGERS OF ISLAMIC STARDOM

As one of the advantages of mobile technology some people stressed that through messaging they could now directly communicate with the religious clergy to ask them for advice on personal matters. This is by no means unique to mobile communications, since a similar process has been previously witnessed for other new media. For example, there are "cyber *imam*" on the Net, who increasingly figure as spiritual advisors to young people. This somehow proves Hefner's (1998) argument that the new Muslim media have come to emphasize processes of objectification in which Islam, from an everyday practice, develops itself into a closed ideological system that can be used in all facets of life.

Parallel with this objectification runs a process of fragmentation in which Islamic knowledge is no longer the exclusive domain of scholars or trained experts. The religious four-digit services seem to illustrate such

fragmentation of authority in the Muslim world as the supply of spiritual advice has not only become a commercial service, but has led numerous people to act as spiritual guides. The best known of such spiritual guides is KH Abdullah Gymnastiar, more popularly known as AA Gym.

The *Manajemen Qolbu* Company, which is officially responsible for all of AA Gym's media expressions, has positioned itself firmly in the New Muslim market by using not only youth literature, and pop music, but also radio. It has its own regional television station, MQTV, and a website, CyberMQ.com, covering national and international news, but also Islamic economics, charity and information technology. Since 2002, *Manajemen Qolbu* also works together with the Indonesian telecom industry offering the *Al Quran Seluler* that is one of the first truly successful four-digit services. The popularity of the *Manajemen Qolbu* services can be explained due to the star status of AA Gym. At the same time, AA Gym's superstar status seems much derived from his clever use of modern media. He was not the first one to do so. In the past, religious front men such as KH Zainudin M.Z. have done similar things, using humour and social criticism and combining them in a new media format, in his case, popular cassette sermons. AA Gym is also not the last to have done so. Increasingly, good-looking young "teachers" have come to compete for the consumers' favour. Some people have questioned this Islamic stardom, condemning these new media priests for the excessive personal attention they receive.

Similar things can be said in the case of wallpapers portraying veiled Muslim celebrities that are especially popular during the fasting month: do these Muslim celebrities function as positive role models or are we looking here at the first steps towards "new forms of idolatry"?

CASE 3: CAN AND SHOULD GOD BE SOLD? — ISLAMIC CAPITALISM

The most voiced critique when it comes to religious mobile content has been the fear for ongoing commercialization of the religious domain. Islamic SMS manuals have appeared in answer to Christian SMS manuals (see *SMS Kristiani*, Ang Tek Khun 2005) and after the tremendous success of Lebaran text message services, similar services have been launched for the Christmas days. Christian respondents have feared that such religious mobile services could spark religious factionalism and competition between adherents of different world religions, especially in the already polarized society of Indonesia today. In fact, mobile technology has, in at least one case, led to a worsening of inter-religious relations: this was when hate messages and

gossip forwarded by mobiles escalated the Poso conflict on the island of Sulawesi. However, the fears for religious competition, to some extent, also seem to be influenced by years of New Order doctrine that outlawed any publication that sparked factionalism, ethnic or religious strife. Obviously this is not the intention of the commercial services under study here.

Some Muslims condemned the four-digit services on the ground of their forthright commercialism, stating that God's lessons, Christian or Muslim, should not be sold for money. They argued that whoever owns a Quran or Bible does not need a digital copy of it, let alone to pay for it. Other respondents, however, also recognized the positive potential of such religious services, albeit they were a little hesitant towards new forms of religious capitalism. There was also a third category which precisely applauded such forms of religious capitalism for spreading the faith. They also argued that it could be a means of making the commercial domain more religious.

In fact, all sorts of global popular cultures have been Islamized in recent years: think of Islamic board games, Mecca, Qiblat and Zam Zam Cola, or the Islamic Barbie doll (Barendregt 2006*b*). Whereas Westerners, in reaction to such expressions, fear too much similarity to their own forms of pop culture and experience it as a stranger's intrusion in one's own domain, Islamic hardliners have on the other hand condemned the same expressions as forms of Westernization (Göle 2002). Nevertheless, in practice both of these processes are currently taking place in the Muslim world when it comes to mobile religiosity.

This brings us to a somewhat related issue that has been brought about by the exceptional rise of Islamic hardware.

"MADE IN MECCA": MOBILIZED ISLAM VERSUS ISLAMIZED MOBILITY

The idea of Islamic hardware brings us back to the "first Muslim iPod", briefly referred to above. In fact, the Muslim iPod was manufactured as an "Islamic encyclopedia" and became the latest version of the increasingly popular digital Quran or so called "pocket Muslim". Supposedly named after its main distributor, such pocket Muslims are handhelds with all sorts of Islamic multimedia features. Among its functions are a "by al Sharif al azhar — the late mufti of Egypt" authorized digital Quran (in various languages, one of which is Malay), various Islamic books in electronic format, a collection of texts (*do'a*, both written and in audio format), and an animation preparing one for the annual pilgrimage to Mecca. Recently introduced in Yogyakarta, the pocket Muslim is rapidly becoming a bestseller

in the region. The handhelds are mostly produced abroad, sometimes proudly bearing the certificate "Made in Mecca".[20]

In the absence of national Indonesian brands, Middle Eastern telecommunication companies have become interested in the Southeast Asian market. They do so by targeting it with often Western-styled products but aimed at a cosmopolitan Muslim audience, thus further complicating the global-local interrelationship. Obtaining extensive media coverage in the West (see also Katz 2006, p. 23), for example, the Dubai-based IltoneTel Corporation in 2004 introduced the first GSM handset, the Ilkone i800, designed for the Muslim community with built-in services such as an Islamic Hijri calendar, a prayer direction indicator and prayer time alerts.[21] The name "ilkone" derives from the Arabic word for universe, implying that manufacturers expect the device to keep the users in touch with the Islamic universe. Also, this device exemplifies a possible scenario of mobile religiosity in the Muslim world that searches for a truer and more authentic Islam by consuming products from the Islamic "heartland": the Middle East.

However, many Indonesian Muslims have simultaneously come to criticize the association of a more pure Islam with the Middle East, stressing the need to not confuse Islam with an Arab discourse (Arps 1996, p. 395). However, this scenario, in which mobile technology on the surface is profoundly Islamized, is at present very popular among young Muslim students and intellectuals, especially those with a Wahhabist orientation.

The other possible scenario is not so much an Islamization of mobility, but on the contrary, a mobilization of Islam. In fact, many of the content services are extensions of already existing practices in Indonesian Muslim societies. This is the case when young people approach a religious spokesman with personal problems but facilitated by SMS. Moreover, many of the functions, such as a prayer compass, wallpapers with Islamic calligraphy, and a digital copy of the holy Quran are widely available through local and often far more inexpensive means. They can be obtained through free downloads from the Internet, at cellular shops or from pirated software which are widely available in Yogyakarta. Seen from this mobilized Islam perspective, stressing function rather than form, many young Muslims do not disapprove of the outward appearance of Muslim mobiles like the Ilkone, but they fail to see the added value of such gadgets. Why buy a digital Quran if one has a hard copy at home, and why pay for an expensive phone with call to prayer functionality if one lives in a country where mosques are omnipresent? This is striking as most young Indonesian users do not care so much for the functional use of their phone but are more interested in its hip appearance.

The two possible options, Islamized mobility or mobilized Islam bring up all sorts of related and equally interesting matters. Being a hard-to-control medium, the mobile phone, is in essence a small and unstable genre that easily moves across borders. Mobile technology is gradually dominated by a few big transnational players, but will this also reconfigure the Islamic community or *ummah*? Will Arab telecom vendors and content providers try to reach out to the Southeast Asian Muslim Malay much as it has done through previous media, or will it be the other way around, whereby an increasingly dominant Muslim Malay community will dominate the outward appearance of Islam and in its aftermath, public expressions of it, be it mobile or not. In some instances, the use of mobile technology has already led to new transnational Islamic projects. Indonesian provider Telekom has recently started its *Telekom Ibadah* service, targeting Southeast Asian mobile phone users on pilgrimage to Mecca, by opening special lines and customer services in the Arab countries. Probably the near future will bring more of such transnational Islamic linkages.

SOME PRELIMINARY CONCLUSIONS: ISLAMIC TECHNO-NATIONALISM OR "BACK TO ISLAM"

In summary, mobile religiosity, its possibilities, uses and new challenges have led to all sorts of new questions for young Javanese Muslims, and their Islamic peers in other societies. Should technology be Islamized and is there something of a genuine Islamic technology? Or should one rather care for functionality and isn't all technology eventually God-given and therefore Islamic? Or as one respondent answered when asked for the prospective of mobile technology in the near future: "the wisdom of man is but a drop in the ocean as compared to the wisdom of Allah".

Lately, Islamic technology has become a hot issue, and not only in the Muslim world. Think of Iran's supposed drive for nuclear weapons, whereby Islam, technology and nationalism seem to merge, resulting in a new form of Islamic techno-nationalism. Just recently, the Malaysian *Star* newspaper (28 February 2007) published the plans for a 25 billion Malaysian ringgit hi-tech city in Medina which Malaysia would help build. The newspaper quoted the Malaysian Deputy Prime Minister stating that "it shows [how] two Muslim countries can cooperate and collaborate in the interest of the *ummah* (Muslim community) and can indeed transform the Muslim world". Such initiatives do not come out of the blue but are concurrent with much hyped nationalist projects such as Malaysia's hi-tech twin cities of Putrajaya

and Cyberjaya, but also similar prestigious IT projects in neighbouring Muslim nations. Such projects do much to position Muslim Southeast Asia as the new electronic centre of the Islamic world.

The idea of an Islamic technology is also dealt with in the domain of popular culture, for example, in Muslim sci-fi movies such as "Blessings for the twenty-first century", made by the Malaysian Islamic boy band Raihan. In this film, mobile technology serves to spread a message of peace and faith (Barendregt 2006*a*). Keeping such developments in mind, a final question that was addressed to the respondents was their opinion on the possibilities of, and need for a genuine Islamic technology. Not surprisingly, many Muslims approved of such a possibility, with many perceiving of it as a reality that is already under way. In this respect, it is significant to point out the changing mood in the Islamic world whereby, some years after 9/11, Muslims worldwide are fed up with playing the role of underdog and the constant association of their belief with terrorism. Muslims cry out for a "back to Islam" movement, hoping to show the world a more positive face of Islam: a worldview focusing on development, harmony and technological progress, while religiously inspired.

Talking about mobile religiosity and the possibilities of Islamic technology, such religious sentiments are easily aroused, as many Muslims argue that the world has become a better place exactly due to supposed Islamic "technological" inventions such as algebra. To this background one should understand the new modes of Islamic capitalism but also the urge of some Muslims to further Islamize mobile technology. In this aspect, don't be surprised if the near future will bring more eye-catching examples of Islamic mobile religiosity, compared to which the Muslim iPod, *Al Quran Seluler* or Pocket Muslim are just first steps towards a new mobile *ummah* that is "funky but at all times *syariah*".

Notes

1. As elsewhere, it is not these latest technologies that should be held responsible for the enormous growth of the mobile market, but rather the participation of hitherto digitally less well-off groups; market women, pedicab drivers, but also school children and the older generation. Such leapfrogging in Indonesia is made possible by the vast supply of second-hand phones, shops selling phones through intricate credit deals, and recently through inexpensive CDMA packages.
2. This is not wholly representative for Yogyakarta as a region as in 2004, 91 per cent of the population was reckoned to be Muslim and only about 6 per cent Christian (*Daerah Istimewa Yogyakarta dalam Angka* 2004, p. 106).

As most interviews were done in the capital of the province and especially among young academics, quite a few of them turned out to be Catholic. It can be argued that the survey therefore had a somewhat urban bias. Furthermore, for people not accustomed to the Indonesian situation, it is good to realize that officially, every citizen is prescribed to adhere to one of the world religions. The actual extent to which one practises one's religion may obviously differ.

3. It is a provider especially popular among the young.
4. Whereas the economically well-off Chinese minority (there are approximately seven million Indonesians of Chinese descent in the country) poses a commercially interesting market with most providers offering semi-religious ring tones and wallpapers during Chinese New Year, Javanese religion, by law defined as a superstition (*kepercayaan*) rather than religion, seems hardly to be taken serious by mobile providers.
5. The popularity of SMS texting towards the end of the fasting month has even given rise to literary genres such as *Lebaran SMS Pantu*, a SMS manual (see below) with a collection of prefab Idul Fitr greetings.
6. It is a genre of dance music especially popular among the lower classes.
7. *Nasyid* is a cappella music which combines Malay language lyrics, social criticism and religiosity with fashionable youth culture (for a description, see Barendregt 2006*b*). On the web, various ring tone portals may be found where fans offer their self-composed nasyid ring tones. See, for a Malaysian example, <http://ringtonenasyid.multiply.com>.
8. Many such commercial content providers are often very hard to approach, as addresses and even names of companies are seldom mentioned in advertisements.
9. The service has proved to be very popular in urban areas where in 2005 added-WAP services now also provide video content and MMS Q: calligraphic images for rupiah 4,000 (about US$0.35) a message.
10. Looking at the non-Muslim respondents similar answers were given, with the difference that Christian respondents more often mentioned that they had downloaded wallpapers for their phone, but more on that below.
11. While "secular ring tones" were often obtained through so-called *CD bajakan*, pirated CDs with illegal software and collections of ring tones, no CDs were found with equivalent religious ring tones.
12. Mobile phone users in the United States, Canada and Russia, but also Indonesia, where the service is known as Moving Bible, use similar services, in which bible scriptures are sent to registered subscribers. Both Pertierra (2005, p. 29) and Ellwood-Clayton (2003) mention a Philippine variant, the Text God service.
13. Religious teachers or experts.
14. Puritans who adhere to a Wahhabist version of Islam.
15. The Bank Syariah Mandiri, an Indonesian Muslim bank working according

to *syariah* law, has recently launched its mobile banking programme, which enables payment or transfer through mobile phone. For a Malaysian case, see Amin et al. (2006).

16. Some respondents remarked how the usage of such a greeting had long been popular among students. However, only in the 1990s had it become popular outside the campus, similar to the overt veiling so popular among young intellectual Indonesian women. In this sense they both are symptomatic of the wider Muslim reveille referred to above.
17. In 2004, for example, the Hollywood-produced animation film “Muhammad the Last Prophet” was released. This Walt Disney-like movie, financially sponsored by the Saudi Badr International Corporation was aimed at a younger audience but stood out among similar movies as it respected the taboo on the depiction of God or the prophet. The prophet’s representation is dealt with through sound and cinematography.
18. For a treatment of the special role of the listener in Islamic scholarly works see Hirshkind (2004).
19. This brings us to the question to what extent such services are truly designed for the mobile era or rather mobile interpretations of practices long existent? Interestingly, both magazines and books have recently offered so-called *ring tone rohani*, religious ring tones, with religious basically referring to Christian practices. Last year a small Indonesian language booklet was published containing Christian ring tones (Siswanto 2006). The booklet, dedicated to the Lord Jesus, offers blessing songs (*lagu pujian*) that can be played back on the cellphone and guitar.
20. Similar digital Quran are also fabricated in Korea and sold as “World-Wide First New Millennium Technology for Holy Quran”, see <http://www.quranbook.com>.
21. Similar services have been provided as a text-back service in countries like Jordan, France and the UK: after texting the word “prayer”, the MyAdhan (“your intelligent call to prayer”) forwards fasting and prayer times for that particular day (see <http://www.myadhan.com/>, last accessed May 2005).

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6

MORAL PANICS AND MOBILE PHONES
The Cultural Politics of New Media Modernity in India

Gopalan Ravindran

INTRODUCTION

Stanley Cohen's (1980) concept of "moral panics" and his conceptualization of "folk devils" are as relevant today as they were during the 1970s. Today they find immense scope in examining the "moral panics" engineered around the technologies of mobile telephony and the Internet, particularly in the contexts of new media modernity.

The rapid proliferation of mobile phones in India in recent times, along with the rise of the information technology-enabled services sector and Internet-based media, has come to define the age of new media modernity in India. Such a proliferation can not go without attendant problems for the society and the individual users of mobile phones. One important facet of the new media modernity is its crisis state. It is as crisis driven as Gidden's (1991) age of high modernity. Moral panics concerning new media technologies have multiplied in India in tune with the proliferation of mobile and Internet-based media, at least going by the constructions engineered by media and other agents. This chapter examines the nature

and operationalization of such moral panics in the context of cultural politics of new media modernity in India.

MORAL PANICS, SOCIAL CONTROL AND CONTROL SOCIETIES

Stanley Cohen's work on the moral panics caused by the media coverage of *mods and rockers* is a classic with an enduring appeal. According to Cohen (1980, p. 9), moral panics arise when

> a condition, episode, person or group of persons emerges to become defined as a threat to societal values and interests; its nature is presented in a stylized and stereotypical fashion by the mass media; the moral barricades are manned by editors, bishops, politicians and other right-thinking people; socially accredited experts pronounce their diagnoses and solutions; ways of coping are evolved or (more often) resorted to; the condition then disappears, submerges or deteriorates and becomes more visible.

In our times, there is a need to push the agenda of moral panics research to higher levels. One such plane is where moral panics are revealed not by the sociology of social control (as posited by Cohen), but by the praxis of moral panics and control societies. To get a clear introduction to the agenda and challenges thrown up by control societies, one need not go any further than the two dominant notions of control societies in Western academic thought.

The first notion of control society was articulated by Michel Foucault in his work *Discipline and Punish* (1995, pp. 195–228). Writing on the emergence of disciplinary societies during the eighteenth and nineteenth centuries, Foucault focused on the controlling power of enclosed spaces such as family, school, hospital, prison, etc. He said these spaces of enclosure controlled the nature and movement of people who passed through them. Foucault's conception of disciplinary societies is rooted in the enclosing nature of institutions. To enclose is to discipline. To discipline is to control. For instance, the prison sought to not only enclose and confine its inmates, but discipline them through their constant sense of being under surveillance by the panopticon the prisoners could not see. Their feeling of being the subjects of constant surveillance by the panopticon defined their subjectivities. In a sense, disciplinary

societies were essentially primitive control societies. They were divorced of the explicit rigour and aggressiveness control societies that are in the making sport. If the patterns of emerging control societies in the wake of globalisation, 9/11 and the widespread projections of moral panics purportedly caused by Internet and mobile communication technologies are anything to go by, we have no doubt entered the age of post-disciplinary societies.

The second notion of control society was sketched by Gilles Deleuze in his essay "Postscript on Societies of Control" (1992, pp. 3–7). Deleuze sought to capture the crisis in which the core institutions of disciplinary societies find themselves today. Deleuze sees the end of these institutions due to the emergence of new factors of control. These are modulation, perpetual control and competition. The enclosed spaces of prison, family etc., are not endowed with these factors of control.

Deleuze's notion of a control society is rooted explicitly in Foucault's disciplinary societies. However, he also factors in the new dimensions necessitated by the growing mediation of the technological environments. In the only substantive reference in his essay to the controls of technologies, Deleuze (1992) said:

> The conception of a control mechanism, giving the position of any element within an open environment at any given instant (whether animal in a reserve or human in a corporation, as with an electronic collar), is not necessarily one of science fiction. Felix Guattari has imagined a city where one would be able to leave one's apartment, one's street, one's neighborhood, thanks to one's (individual) electronic card that raises a given barrier; but the card could just as easily be rejected on a given day or between certain hours; what counts is not the barrier but the computer that tracks each person's position — licit or illicit — and effects a universal modulation.

It is obvious from the reading of Deleuze's vision that disciplinary societies belong to the age of enclosed spaces of the physical kind. Control societies belong to the age of enclosed spaces which exist in physical, cyber, mobile and meta spaces simultaneously. It is a world where the geographically located/constrained space of Abu Ghraib prison is as enclosed and disciplining (or controlling) as the intimidating images of Abu Ghraib (*Guardian* 2004) and other prisons people got to relate to through pictures shot with the help of mobile cameras.

NEW MEDIA MODERNITY IN INDIA: SOME REFLECTIONS

Every age has its share of moral panics. The age of new media modernity is no different. Giddens (1991, pp. 109–143) characterized the age of modernity as the age of risks. Bauman (1994, pp. 166–67) also sought to relate to the history of modernity as tension-ridden. According to Bauman, "modern existence forces its culture into opposition to itself. This disharmony is precisely the harmony modernity needs. The history of modernity draws its uncanny and unprecedented dynamism from it. For the same reason, it can be seen as a history of progress: as the natural history of humanity.' As the present chapter seeks to locate itself on a plane of new media modernity in India, one must focus attention on the following questions: How relevant are the conceptions of Giddens and Bauman in relating to the question of modernity in India? Are there any useful conceptions one can draw from the works of Indian scholars on modernity? Answering these two questions is vital for us to proceed further.

Even a cursory look at the Indian writings on modernity reveals that we can not proceed solely on the basis of their conceptions of modernity. The academic conceptions of modernity in India have not gone beyond the sphere of post-colonial politics, in general, and the processes of modernization and liberalization, in particular.

In the writings of Kaviraj (1997), Nandy (1997, pp. 329–42) and Chatterjee (1997), what emerges strongly is the conception of Indian modernity as the opposite of Indian tradition. Inherent in their conception of modernity is the notion that caste and religion are the hallmarks of Indian tradition and that they are impacted greatly by the forces of modern politics in post-Independence India. Such an approach inevitably raises moot questions, such as: (i) where are the non-political sources of modernity and tradition such as media, popular culture, technologies, society etc?; and (ii) where are the micro-level sources (the contexts as defined by the daily routines of individuals) of modernity and tradition in such conceptions?

It is obvious that such conceptions would not allow room for the notions of either Giddens or Bauman to come into play in this paper. If Bauman and Giddens are to be taken seriously in the context of the present paper, one must relate to the moral panics, their "folk devils," and the agents who construct them as emblematic of modernity.

In the age of new media modernity, the pervasiveness of the new media technologies has only pushed the classical duels between tradition and modernity to a new plane, where the same risks and panics are only made to exist in terms of their relationships with their new sources. The new sources are anything from a mobile phone application (e.g. multimedia messaging service (MMS)) to a job in a call centre.

In the present times, both a call centre job and the handling of MMS signify more threats and risks than opportunities, at least in the eyes of the Tamil press. It is not uncommon to come across headlines in the Tamil press which portray both mobile phones and call centres as sources of cultural degeneration (Kumar 2006). It is also common to come across headlines which portray disco houses and Tamil films as cultural threats (Saravanakumar 2005), and come across stories which point accusing fingers at Tamil television serials (Chandrasekaran and Ganesh 2005). It seems more a case where the essential logic of modernity refuses to go away, even as newer trajectories such as new media modernity are emerging. The above-mentioned examples point to the need to conceptualize new media modernity not as a point of disjuncture in the ongoing journey of modernity, but as an additional and attractive trajectory.

THE RISE OF "MOBILE PHONE FOLK DEVILS" AND THEIR DETRACTORS IN INDIA

India has been witness to an explosive growth in mobile phone communication in recent times. Every month, millions of new users are joining the mobile phone population. With the rapid addition of new subscribers, the Indian mobile phone market has emerged as one of the two fastest growing markets in the world. In December 2007, there were nearly 172 million mobile phone subscribers in India. Approximately five million new mobile subscribers monthly joined this swelling population from October–December 2007 (COAI 2007). Such a massive proliferation has a bearing not only on the projects of new media modernity, but also on the scale and number of attendant moral panics.

Recent times have seen a rapid proliferation of moral panics constructed around the technologies of mobile phones and Internet in India. Indian media are awash with stories of misuses of mobile phone technologies. Indian news channels miss no opportunity to blow the moral panic whistle with regard to their coverage of new media. All sections of the Indian

press appear to attach importance to the factor of associated criminality when they report on incidences involving wrongful uses of mobile phones and the Internet. Some sections have gone overboard in turning isolated incidents of wrongful uses of mobile phones and the Internet as a basis for constructing scare stories about new media technologies. The following are some cover stories from the Tamil language press:

(i) "Cell Phone Revolution: Satan in Palm" (Bharatithamizhan 2006);
(ii) "Tragedy Caused by Cell Phone: College Student Arrested for Killing Co-Student" (*Dinamani* 2007);
(iii) "Seller of Cell Phone Memory Cards with Obscene Pictures Arrested" (*Dinamani* 2007); and
(iv) "TADA for Jeans…POTA for Cell Phone! The Plight of Colleges under Excessive Controls" (Gnanavel and Navaneethan 2005).

The words TADA and POTA in the last headline refer to the draconian Indian laws against terrorism. They were repealed after a prolonged political campaign against them.

In the majority of cases where Indian media and authorities have constructed mobile phone moral panics, only the young users have been blamed for causing threats to the accepted norms of social behaviour. They are seen as the "folk devils" armed with mobiles. Every young user of mobile phones is pictured as a potential deviant in the eyes of family elders, media, authorities of educational institutions and law enforcement agencies. It is hence necessary to stretch the logic of Stanley Cohen's concept of "folk devils" to include not only the deviants, but all the young users who have been pictured as potential deviants.

The growing wave of bans against the use of mobile phones in universities, colleges and schools across India is a strong indicator of the moral panics the age of new media modernity portend for Indians. With every passing episode of "misuse" of camera phones and other digital technologies by youngsters, what gets projected in the mainstream media is the scandalous potential of mobile phones to manage the unthinkable, voyeuristic journeys for one and all.

A classical case, illustrative of the above, rocked India during the last week of November 2004 (Suri 2004 and Harding 2004). The case of what is now popularly known as the DPS MMS rests squarely on the nature and extent of the journey of the 2.37 minutes of video showing explicit sexual acts by two secondary-level students of Delhi Public School at Keshavapuram, New Delhi. Shot using a high-end camera phone in 3gp format by both the boy and the girl in the video, the footage started its first leg of the journey

when it was transformed by the boy as an MMS content. The second leg of journey started when the MMS was sold by the boy for Rs.50 to friends days after the video was shot and the couple broke up the affair. When the circulation of MMS came to light, the girl and the boy, belonging to elite families in Delhi, were quickly expelled from the school. The matter became too hot to handle when the third and fourth legs of the journey of MMS started. The MMS was transformed into a hot-selling pornographic CD by merchants of Palika Bazaar in New Delhi, a place well known for the sale of pornographic content. The fourth leg of the journey went to the plane of the Internet when a student of another elite Indian institution, IIT (Indian Institute of Technology), Kharagpur, posted the content for sale on Bazee.com, the Indian affiliate of the auction portal eBay. The student and the CEO of Bazee.com were arrested quickly.

The media coverage of all the legs of the journey of the DPS MMS content was aimed at the creation of a new moral panic around the technologies of the camera phone and the Internet. Visions of camera phones as the little dangerous devices (Arunkumar 2004) and the Internet as the ultimate source of new age crimes were filling the airtime and space of Indian media.

It did not take much time for other self-styled custodians of Indian morality to echo the sentiments of Indian media. Several schools and universities across the country started to ban camera phones from the campus. Some institutions went overboard and started to direct students how to dress modestly and look decent in the campus (Viswanathan 2005). The institution of dress codes became an auxiliary device for the moral agents to drive home the message that things were getting out of control, not only because of the corruptive potential of the camera phone, but also the acts of dressing by their objects of desire. The prevailing thought assumed that both the device of voyeurism and the device of the object of desire (the revealing dresses) must be banished from the campus in order to restore the moral health of students. The move by the Anna University in Chennai, Tamil Nadu, to ban mobile phones (Doraisamy 2005) rested on this logic.

WHO IS INTERESTED IN PLAYING THE MORAL PANIC GAME?

The present study employed a focus group discussion to understand the locations of the mobile phone "folk devils" in the cultural politics of new media modernity. To provide scope for clarity and understanding of the issues

at hand, twenty students from the Master's programme in Communication at the Manonmaniam Sundaranar University, Tirunelveli, were chosen to attend a free-wheeling focus group discussion on the cultural politics of mobile phone moral panics in India on 8 March 2007.

The conventional focus group format was used more as a curtain raiser for the participants to explore and discuss the issues. To get more structured, nuanced and in-depth responses, the respondents were later asked to reflect on the discussion threads of the focus group discussion and write down their views on the key questions raised in the discussion. The key questions were:

(i) Are we justified in our fears of camera phones?
(ii) Who is driving the moral panics?
(iii) What's the way out?
(iv) How are the cultural politics of mobile phones striking chords in the daily lives of students?

The respondents were asked to remain anonymous to facilitate the articulation of their views in a frank manner. The study chose to examine only eleven responses from the twenty focus group participants as they clearly distinguished from the rest in terms of their focus and substantive content. The eleven respondents included five females and six males. Though the respondents did not take head-on all the four key questions, they did attempt to grapple with the issues at hand regarding the cultural politics of mobile phones in general, and how the same has been influencing their mobile phone usage as well as their views on the complicity of certain actors in the moral panics constructed around mobile phone technologies.

The dominant supposition of moral panic studies that media and other agents of social control (such as police, law-makers, and judiciary) are responsible for the construction and circulation of moral panics is amply corroborated by the dominant supposition of the young mobile users. Their responses regarding the role of media and other agents of moral panics seek to put the blame squarely on the agents of moral panics. The respondents are able to clearly distinguish between their own complicities as users and the factor of associated criminality that media seek to attribute to all users of camera phones on the basis of isolated incidents of camera phone misuse. For instance, it is not uncommon to come across media reports which seek to stigmatize a new media use on the basis of hand-picked incidents of new media crimes and spread scare stories about the new media technology and its majority of users. This is attested by the

views of one respondent on the kind of coverage accorded to mobile phone crimes on one of the popular Tamil television channels, Vijay TV, recently.

> For the past one week, Vijay TV has been telecasting a programme on the wrongful uses of camera phones in its programme on crimes. Through such programmes, the media seek to influence the psyche of people. By telling that camera phone users photograph the breasts, waistlines and the faces of women without their knowledge, this programme wants us (to) think that camera phone users are really bad.

The programme in question is a special focus weekly programme on crimes. It is entitled *Crime: What Happened?*. Such programmes not only serve as the springboards of motivation for the other agents of moral panics, but sow the seeds of antipathy towards new media technologies in the minds of parents and elders of young users.

Many respondents narrated their plight on account of the strong distrust of mobile phone technologies by the parents of young users. The implications appear to be more inhibiting in the case of young female users whose parents appear to have been completely swayed by the scare stories on mobile phones by the media. This becomes evident in what one young female user said:

> When a few mobile users commit wrongs, media tends to exaggerate the problem. When we watch such reports all of us get a wrong notion of mobile phones. When I asked my parents to get me a mobile, my parents pointed to this wrong potential of mobiles only. When an educated person, like me, has misconceptions about mobile phones, my parents can not be any better. Only the media are cultivating the moral panic about mobile phones in a big way.

The plight of the users in the face of such parental anxieties can be more if the users and their parents belong to rural areas as this respondent experienced,

> I come from a village. When I use my mobile phone, people at home get suspicious about my act as I start talking only after 10 pm. I talk after 10 pm because of low charges. But my people question me, why are you talking during late hours? I think they are worried probably because somebody would have told them that I would turn a bad boy because of my mobile use. People at home are in the habit of

> watching television serials and they are worried that their son would also be like the characters in such serials. This baseless fear still lurks in my parents' minds.

The notion of primary definers and secondary definers of moral panics, as articulated by Stuart Hall and his colleagues in *Policing the Crisis* (1978), becomes more relevant here, albeit with a slight twist, in relating to such instances wherein media appear to perform their role as the primary definers of mobile phone moral panics and the parents simply re-articulate the concerns of the media to their wards as secondary definers. As secondary definers, the role of parents as guardians of accepted social norms is no different from that of the institutionalized guardians of social norms such as law-makers, policy-makers, police, judiciary, etc. Their anxieties are made to feed on each other by the anchoring role of media. The anchoring role of media is only the other name for stoking up spirals of moral panics. What follows media reports of mobile and Internet crimes are not only more such reports, but more reports of police actions against the prevention of mobile and Internet crimes. Such reports include reports of police searches in public places, such as railway stations, of those suspected of misusing their camera phones. Such police actions seem to be crude as they can seriously violate the privacy of the majority of genuine users of camera phones. In these reports, we have not been told about the privacy violations committed by the police, but are only given the same old message: "Beware, if you are a camera phone user and rushing to catch a train, you can be stopped by the police and asked to show the stored images in your camera phone."

Going by the tenor of the majority of responses quoted above, it is apparent that the young mobile users are more than aware of the role of media as primary definers and its impact on the roles of secondary definers such as police. Even as the young users put the blame squarely on media for creating moral panics around mobile phones ("Only the media are cultivating the moral panic about mobile phones in a big way"), they also seek to relate to the roles of the secondary definers such as the police and intelligence agencies ("Media are aided by the police and intelligence departments. Police are keen to inform us that 'mobile phone beauties' have been caught indulging in prostitution. Intelligence people are known for linking mobile phones with terrorists"). Here again, the theses of Cohen (1980) and Hall et al. (1978) regarding the stages and actors involved in the construction and circulation of moral panics get their support, albeit in the context of new media modernity defined by settings that are farthest from either Brighton beach or Birmingham.

On the question of whether authorities should be vested with the right to ban the use of camera phones in public places and educational institutions, some respondents were categorically against the idea of banning camera phones. One respondent said:

> The moves of Anna University Vice-Chancellor in banning mobile phones and certain kinds of dresses for girls are not in tune with our times. … Except the media and the Vice-Chancellor of Anna University, no one is scared of camera phones to this extent. Some of my relatives have purchased camera phones. None of them are taking this moral panic seriously. Banning camera phones is not a wise move.

The rationale behind such views is the strong belief of the majority of the respondents that technologies can not share the blame for what users do with them. The blame game, according to them, is only orchestrated by the media forcing people to fear camera phones.

> Media are responsible for taking the misconceptions about camera phones to the public. Because of the ways in which camera phones have been used by some and the simplified technology available in camera phones to take pictures, people are relating to camera phones with reluctance and fear. Through the camera phone, the nude pictures of the girl student spread to her friends' mobiles. This is because of the crime committed by the girl student's friend. This problem was not because of the technology,

said the same respondent. Both male and female users felt that the problem was not with camera phones, but with the users who misuse them and the agents of moral panics who spread fears about the camera phones. One respondent said:

> Camera phones are being used by many for wrongful uses. We have baseless fears concerning the same. Somewhere, in an unknown place, some wrong would have happened. When people watch such events in media, they think every camera phone user is like that. Technological uses are about both bad and good effects. When something good happens, they talk about the good. When something bad happens, they talk about the bad. This is today's society. … Whatever be the other reasons, it is the society which indulges in either exaggerating or belittling a thing. It is painful to note that only a small minority has been doing this in a big way using their power and influence.

The visions flowing from the above takes us closer to what this paper attempted to capture in the first section of the chapter. The first section of the chapter sought to connect moral panics not only as instruments of social control, but also as emblematic of Deleuze's conception of control society. It is a conception wherein the factors which gave rise to Foucault's disciplinary societies are replaced by the factors of technologies. We no longer require the enclosed spaces such as prison, family, school etc., to discipline the subjects. We no longer require the spatially separated panopticons to discipline the subjects. Ours is the age of networked surveillance and our subjectivities depend not on any single enclosed space for us to be disciplined.

What is the connection between the scenarios of mobile phone moral panics outlined above and Deleuze's conception of control society? The connection is not direct, but is made all the more interesting to relate to because of its invisibility to the conventional approaches to moral panic studies. It has been mentioned that camera phones are handy tools for techno-voyeurs. Camera phones are the panopticons in the palms of individuals engaged in the surveillance of their objects of desire.

What is central to the notions of voyeurism and surveillance is the factor of desire for control. A group of college girls in a campus event can become the objects of desire for fellow students who seek to engage in techno-voyeurism/surveillance from afar with their camera phones. As a surveillance technology and as a tool for voyeurism, camera phones are part of the technologies that Deleuze's conception of control society accommodates easily. When such a technology becomes the object of desire by the institutionalized panopticons of media, police, law-makers and other agents of moral panics, what we must read is not an irony, but an interesting characteristic of the emerging control society. It is a characteristic borne of the cultural politics of the individual panopticons versus the institutionalized panopticons.

The moral panics woven around isolated incidents of misuse of camera phone technology ought to be read as integral to the cultural politics of new media modernity wherein the individual panopticons are sought to be projected as the villains. Such a projection is necessary for the control society to emerge with the help of institutionalized panopticons. Here is the subtle twist to what Deleuze sought to capture as the basis of control society. In his conception, *individuals* are made to mutate as *dividuals* because of the controlling nature of the factors of modulation, perpetual continuity and competition. In such a conception, subjectivities are not

defined by enclosed spaces, but by our shifting locations in the shifting spaces of modulation. In short, we can be disciplined even without entering enclosed spaces such as prison. We can be imprisoned in the anywhere spaces constructed by technologies. But in the conception of the present paper, there are also non-technological factors at work in the construction of such a control society. The institutionalized panopticons also seek to perform the work of technologies in creating *dividuals* — individuals who can not be the masters of their subjectivities.

The cultural politics of new media modernity is emblematic of the creation of subjectivities that are made to distrust the same technologies which are being put to (mis)use by the institutionalized panopticons for surveillance and control. This is a game where individuals are made to pay dearly for using their panopticons even as the institutionalized panopticons engage in greater surveillance and control.

This situation is akin to what Baudrillard called the pornography of war. In his famous critique of the events flowing from 9/11, Baudrillard (2005, p. 24) said:

> For images to constitute genuine information they would have to be different from war. But they have become precisely as virtual as war today and hence their own specific violence is now superadded to the specific violence of war. Moreover, by their omnipresence, by the rule that everything must be made visible, which now applies the world over, images — our present images — have become in substance pornographic; they therefore cleave spontaneously to the pornographic dimension of war.

In a sense, the images of the "folk devils" as constructed and circulated by the agents of moral panics are images of pornography, going by the logic of Baudrillard. What we must seek to contrast are the pornographic nature of the images circulated by the agents in a virtual manner and the actual pornographic acts of "folk devils" with mobile phones. This is not to say that the students who made themselves infamous by their obscene MMS in New Delhi are not guilty. This is to drive home the point that because of the large-scale surveillance by the agents of moral panics with the help of both technological and non-technological apparatuses, we have become subjects of pornography in the eyes of the institutionalized panopticons. Given the conditions of pornography of war outlined by Baudrillard, we can not trust the images, sounds and texts that are planted by the agents of moral panics in the cultural politics of new media modernity.

CONCLUSION

As new media modernity gathers momentum in India on the wings of the rapid proliferation of mobile phones and Internet-based media, there has been an explosive growth in the number of media reports and legislative/executive measures aimed at curbing the alleged acts of misuses/abuses of mobile phones and Internet-based media. It seems the much publicized case of the Delhi Public School MMS scandal in 2004 was only the harbinger of a seemingly non-stoppable flood of cases of misuse of mobile phones and Internet-based media by Indian youth. The manner in which these cases have been orchestrated by the primary and secondary definers of moral panics has cast the young users of mobile and Internet media as extraordinary "folk devils". Such a perception holds the young users of mobile phones and Internet media as potentially dangerous deviants who must be monitored, pursued and contained. This has also cast an erroneous impression of new media technologies in the minds of the general public. When the legislative and executive branches of government join hands with the media and other moral panic agents in the growing surveillance and control measures aimed at the mobile phone and Internet users, what looms large is the emerging control society and its engine, the cultural politics of new media modernity.

The responses of the young mobile phone users mentioned in this paper strongly attest to the concluding remarks above. Their responses also reveal the fact that the young mobile users are the likely victims or losers in the cultural politics of new media modernity. It is fairly obvious from the above that there is more to mobile phone moral panics than the scare stories about isolated incidents of mobile phone abuse/misuse.

Moreover, it is evident from the present work that the advent of new media modernity in India has brought with it a host of challenges, not only for the users of new media technologies and their detractors in India, but also for those who seek to understand them. One of the challenges faced by those who seek to understand the implications of new media modernity relates to the task of conceptualizing the emerging control society and its engine, the cultural politics of new media modernity, without attaching any central role to either the technologies of control society or the non-technological factors of control society. Such challenges would only grow in their magnitude as the users of mobile phones swell in their millions with every passing month.

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7

STORIES FROM E-BARIO

John Tarawe and Roger W. Harris

INTRODUCTION

Bario has no road access and previously meagre or non-existent telecommunications services. The e-Bario project provided public telephones, computers for the two schools, a telecentre with computers and satellite access to the Internet. The project's objective is to demonstrate the opportunities for sustainable development in a remote and isolated rural community in the use of ICTs, and how they could be applied to the problems and opportunities for development among remote communities of ethnic minorities. E-Bario has won many awards and was featured by the International Telecommunications Union as "one of the most notable of Malaysia's Internet development initiatives" (ITU 2002). As the project continues to evolve, it is timely to evaluate its outcomes and impact on the community. In this regard, this paper examines a collection of stories told by members of the Bario community and situates them within the context of a wider, more comprehensive evaluation.

STORIES AS RESEARCH

According to Dart and Davies (2003), who originated the Most Significant Change evaluation technique, there are five advantages to using stories for evaluation: engagement, insight, sense-making, memory, and discussing hard messages.

Most Significant Change (MSC) is a methodology for participatory impact monitoring that involves the collection and systematic participatory interpretation of stories of change. It is a qualitative approach that does not rely on quantitative indicators. It has been widely used in the monitoring of aid projects throughout the developing world.

Engagement: Unlike other forms of evaluation which may involve using survey instruments, stories are inherently engaging for people. People love to experience and hear other people's stories. People warm to stories and become engaged. Stories are one of the more participative forms of communication. In the telling of a story, the story can be thought of as being told twice; once by the speaker, the next time by the listener. Stories engage the mind and the person.

Insight: Stories told in casual conversation can harness another sort of information; they provide insights into how storytellers construct reality and to what they attach importance.

Sense-making: If storytelling is considered to be a sense-making system, then the natural storytelling process can be harnessed in a structured way to help practitioners make sense of the complex nuances of impact and outcomes associated with programme intervention. A good story defines relationships, a sequence of events, cause and effect and priority among items.

Memory: Storytelling is also important in terms of organizational memory. Stories are central to human intelligence and memories of those elements are likely to be remembered as a complex whole. If stories about the impact of interventions can infiltrate the collective memory of an organization, practitioners will gain and retain a more deeply shared understanding of what is being achieved.

Discussing hard messages: In some cultures, stories are used to convey messages that could otherwise be painful or unacceptable to disclose. In organizations, storytelling can provide a safe space for practitioners to discuss the "un-discussable" issues such as negative impact and undesirable change.

The stories reported here reflect all of these dimensions about the e-Bario project and provide insights into its impact on the Kelabit community of Bario. Ten interviews were conducted to reflect a cross section of the

community. Interviewees were asked to speak or write openly of their opinions and experiences relating to the project. They are transcribed here with only minor editing; in some cases they have been translated, in other cases they are presented as given. For all the storytellers, English is not their first language. Each story is followed by a commentary which situates it within the wider context of the project, its history and its evolution. An analysis of the stories is also provided.

STORY 1: THE HEAD MAN

Penghulu Henry Jala Tamalai (as recorded and translated)

The e-Bario project has been very important to the young and older generations in Bario. I have many comments on the e-Bario project. All of them are good and none that I know are bad.

This project has given us some awareness of what kind of technology is there outside of Bario. The transition from the old time-consuming typewritten letters to the easy typed e-mail has been one of the needs and improvements for the project.

The connectivity from Bario to local Malaysian contacts and overseas through the Internet and the public telephones has helped not only the local communities but also government departments and agencies. The e-Bario project has also opened up the doors to the outside world whereby the people outside Bario would know of Bario. This is why we (the Kelabit community in Bario) have been considered by the World Teleport Association (WTA) in New York as one of the top seven most intelligent communities in the world in the year 2001.

With the availability of Internet facilities, we are able to market our Bario rice via the Internet. But the most important part of the project has been for the tourism industry, whereby through this facility tourists can contact us via e-mail.

The solar panels of e-Bario should be improved by adding more numbers to the current ones. This would allow the full potential of the e-Bario telecentre whereby it could operate daily and after hours. At the moment, it only operates from 10am to 5pm, Monday to Saturday. But this has been an improvement from the previous status of only four hours of operation daily when e-Bario started due to the lack of panels for electric power generation.

My vision because of e-Bario is that one day Bario would be a centre or a capital for the Kelabits in the next ten to fifteen years. In the same sense,

Bario would also be connected to the world by linking itself with a road. This, in turn, would open the doors for development and improvements like agriculture in Bario.

This project, such as e-Bario, will one day open up doors for the Kelabit people that are currently working in the urban areas such as Miri, Kuching, Kuala Lumpur and overseas to come home to Bario because of the availability of such facilities to come.

I want to imagine in the year 2020, we would be comparable to our urban counterparts. This Vision 2020 is our Malaysian Plan to improve and develop Malaysia as a whole. This is what I think it would mean for Bario by having such a project like this.

Comments

Prior to the e-Bario project, up until 1998, electronic communications in and out of Bario consisted of a rudimentary two-way radio service hook-up with the national telephone system. The service was run by an operator who worked normal office days and government hours only. The procedure involved waiting in queue for the operator to contact the telephone exchange in Penang (West Malaysia), who would then book a telephone call hook-up at a certain time. At the designated time, the caller had to return to the radio office to take the call. If the call failed, the whole procedure had to start again. The old folks grew up with this as the principal means of communication with the outside world alongside written letters.

Against this background, the introduction of card-paid public telephones, which the e-Bario project brought about, represents a huge improvement, and is highly popular. The population are familiar with public telephones from their experiences in the towns. The public telephones have heralded a new phase in the relationship that the community has with technology, and through it, with the rest of the country. A door has been opened onto the outside world that was previously kept shut for the most part and because of this (at least in part) the community now feels it has a legitimate role both within and in contribution to national development.

STORY 2: THE LODGE OPERATOR

Millie Balang (as written by herself)

I am Madam Millie Balang. I own a lodge called De Plateau Lodge. This Lodge started operation way back in mid-1997. My marketing strategy to

advertise my lodge was through the mass media and the distribution of business name cards to every person whom I am in contact with personally. When the e-Bario Telecentre was initiated and being implemented I was encouraged by the Project Coordinator Mr. John Tarawe to market my lodge through the e-Bario Telecentre accessibility. My lodge was included in the websites like the Kelabit Homepage, <www.ebario.com>, <www.wildasia.net>, <www.hostelbookers.com>. When you click Malaysia, then click Bario, you can see “De Plateau Lodge”.

This has had a great impact to my business publicity where people throughout the world, when visiting the <www.kelabit.net> website, they know the availability of accommodations in Bario and do direct booking room reservation to my email address contact. The accessibility through the Internet is indeed a great help to my personal contact to various lifestyles of business people globally. As a business ethic, you have to find the fastest means of communication with the expedition and precision of message to deliver to your customers, and to contact relatives who are staying in the cities or towns.

I undoubtedly believe that ICTs are the most effective means for immediate communications globally. The ICTs managed by the e-Bario Telecentre Management is reliable and affordable. For this reason, it is my pleasure to recommend that the e-Bario Telecentre be maintained and upgraded for better facilities due to its creditability and reliability in providing equal access to ICTs for rural communities. To conclude, I would like to extend my appreciation to e-Bario Telecentre’s facilities that enabled my family and the communities in Bario highlands to communicate via Internet.

Comment

There has long been a steady trickle of tourists into Bario from around the world. The number of arrivals has increased since the tourism web site opened. In 1998, there was only one travellers’ lodge in Bario. In 2007, there were ten. The number of flights in and out of Bario has increased from six per week to two per day. This has had trickle-down effects on the local economy, for instance, providing more opportunities for the farmers to send their produce to the markets in town and providing them with easier travel.

STORY 3: THE RETIRED GOVERNMENT SERVANT

David Labang @ Raben Bala (as dictated by him)

The significant outcome of the e-Bario project is that Bario has become

popular to people outside of Bario. To the locals that are interested in the facilities of the project, it widens and increases their knowledge. This also creates wider usage of the facilities and improvements for those that are interested in making use of the e-learning project. However, it does not benefit everybody here. For example, farmers are not business people and they don't use this facility.

The Internet facility such as e-mail is probably one of the most useful facilities I considered as an indirect result of the project. E-mails are used to contact family, friends and tourist customers and this is used mostly. However, the e-Bario telecentre is not a 24-hour operated service but only opens during normal office hours. I believe that the potential of this e-Bario project is still not fully used.

My opinion on its short- and long-term outcome is different. I would agree that in the short term of this project, it would benefit the people that are interested in this new type of technology in the rural area. However, in the long-term plan, lets say ten to fifteen years, the project still has not been able to sustain itself properly. There was no working paper for the management of e-Bario before and after the research project has been given to the Kelabit community to take over. This would mean that we still have not solved the management problem yet.

I am aware that the outcome of the project has been the public telephones and has benefited the community generally through telephone communication via VSAT satellite connection. But from my point of view, it has not benefited the community as well as I would hope or expect. I would think that the telephone company that owns these public telephones here in Bario are the ones that benefited the most.

If the community would have owned the public telephones and only paid for these certain rental charges like normal people do in the urban areas, then I would consider that the community would benefit from these public phones because they would sell the phone cards to the local users and get a profit from it.

Comment

The management and operation of the e-Bario telecentre has always been uncertain. It was originally performed by unpaid volunteer staff, although payment is now possible owing to the increasing revenues that the centre is able to earn. The original implementing agency, Universiti Malaysia Sarawak (UNIMAS), handed the project over to the community in 2006. The community formed a private company to take it over and

is now working to implement schemes that will generate more revenue. However, it is still dependent on donations and subsidies to maintain its services. The most important activities that can be implemented will be those that will increase the relevance of the centre to the community.

STORY 4: THE GOVERNMENT SERVANT; SARAWAK FOREST COOPERATION (SFC)

Monnie Radu (an interview)

Monnie Radu, a Kelabit, has been working for the Forest Department (Nurseries) for the past twelve years in Bario. Now that the department has changed its management systems he has been transferred to the new SFC (Sarawak Forest Cooperation) management in Bario.

He mentions that the significant outcome of e-Bario is that it provides e-mail and Internet facilities so that he could communicate to the outside world. The computer facilities at the e-Bario telecentre have made a lot of improvements in his life and work as a whole. Now, at the age of forty-six, he has been able to learn a lot of computer skills for his work through e-Bario. He is now able to do typing, data processing, scanning and use other computer facilities and services that the e-Bario telecentre has provided. He thinks that the e-Bario project is something that is very useful for the community that uses it. He hopes that in the future, e-Bario could improve on its management and present facilities.

> The improvement of newer and faster processor computers is what I would like to have. These computers are getting old and very slow compared to the ones that I have seen. The staff that are working voluntarily at the present time are working hard for e-Bario and I hope that a steady income over time will contribute to sustain e-Bario. That is what I hope for the future.

He considers that if there was no e-Bario, communications to the outside world, outside of Bario, would be limited. The indirect outcome of the project is that the Bario Nature Tourist Guides are able to take the opportunity to work and earn by guiding tourists without even using the Internet, because in most cases, the lodge operators are the ones that organize and are in communication with the tourist that are coming to Bario.

He recalled an incident involving a helicopter that went missing in the mountains that required a big search and rescue operation. Without the telecommunication and computer facilities that e-Bario telecentre provided, it would have been more difficult to organize such an operation. The telecommunications and e-Bario telecentre was the first priority before anything else started.

Comment

For a community as isolated as Bario, any improvement in communications is very welcome. As the improvements were achieved with contemporary information and communication technologies, it is easy to appreciate how the community could have a high level of enduring interest in them. Increased awareness of computers and the Internet has benefits that can improve individual performance in other areas of their lives, although these benefits are hard to identify, quantify and isolate from other sources of knowledge. Knock-on effects of the telecentre are seen in the incomes generated by tourists. An unexpected benefit is also highlighted by the role of the centre in the tragedy of the nearby helicopter crash, which claimed four victims. For the duration of the search, the telecentre became the operations centre of the search and rescue mission.

STORY 5: THE RETIRED SHELL EMPLOYEE (SHELL BERHAD)

Garawat Ulun @ Udan Turun (an interview)

The significant outcome from e-Bario project has been the introduction of the Internet facilities. It has also put Bario on the globalization map. I think that the short- and long-term change in behaviour would be “globalization” whereby we in Bario would be equally in the same standard as those that are in the urban areas. We have the same opportunities globally in terms of telecommunications and other developments that support improvements for urbanization.

I believe that the benefits of this project would be our capability to be in contact with our prospective clients worldwide. These clients are tourists who are interested in going to Bario for a visit.

However, I fear that the indirect outcome from having this e-Bario would be the unhealthy things that you can get from the Internet itself. The free-flow of mass information can easily be accessed and such documents or sites are not

healthy for children and adults. This has not been a problem yet because most of the locals seldom use the Internet and access these things but most of the information that I would want to download from the Internet is the availability of R&D (research and development) information for rural areas.

Comment

There is awareness in the community of the negative aspects of Internet access. It also appears that this is not yet a problem because the Internet is not accessed by many people.

STORY 6: MANAGER, LABANG LONGHOUSE (HOMESTAY) & E-BARIO MEDIA & PUBLICITY OFFICER

David L. Labang (an interview)

David has been living and working in Bario for more than two years after living in New Zealand for more than nine years. He did his tertiary studies in New Zealand and was also a trainee pilot doing his Commercial Pilot Licence (CPL). After working for a number of years in New Zealand, he felt that he needed to come back to his tribal roots to learn and understand who and what a "Kelabit" is. He felt this way because he was born and raised in the city.

When he began living in Bario, he realized that there were many potentials that e-Bario telecentre could create and help the community with. He started using the Internet facilities to chat and e-mail with friends. He has been corresponding with his clients or tourists by using e-mail at the telecentre.

He is also aware that there are only a few literate ICT people in Bario; so he normally helps others in writing formal letters to various departments, printing documents, storing pictures into CDs for tourists and other types of work that requires his knowledge and skills. Although he is working on a voluntary capacity, he believes that community work is needed for such a place to improve itself. Working as a volunteer for a community project without pay is not a big problem for him. He believes that by contributing his time and skills, he indirectly makes a big difference to the lives of others in Bario. "I also pay to use the Internet on a personal time basis even though I am working for e-Bario because ethically e-Bario needs to sustain itself anyways."

After helping out at the telecentre for two years, he has experienced the bigger and long-term challenges that e-Bario faces. These challenges

have developed because of the many significant improvements and services that the committee has solved over the years. The desire to improve further and the will to take up new challenges is always a Kelabit mind-set. Being normal is not a mission at e-Bario. But to improve the way of life for the Kelabit community in Bario compared to the urban community through e-Bario is always an exciting and challenging task. Thus, e-Bario has become something like the expression "thinking out of the box". Rather than only settling for Internet, telecommunications and other computer facilities services, they have done other ventures like organizing functions, festivals (e.g. Bario Food and Cultural Festival) and coordinating projects. In the future, David believes that because of the many obstacles they've experienced and overcome, e-Bario can one day be better than just sustaining itself in terms of financial gains for its staff but also to increase the population in Bario. "Not only the numbers of tourists increase but the number of Kelabits will eventually increase by creating jobs for them in Bario."

Since David is also working as a manager for his lodge in Bario, having Internet facilities has helped him greatly. He mentions that, "Without e-mails, there would not be any progress in the tourism industry. Without tourists, the socio-economy of Bario will not improve." Indirectly, e-Bario has helped greatly in terms of getting tourists into Bario. "Most times, it's the tourists that want to communicate to us initially and this is possible only through e-mail."

Comment

David is a young professional and it seems that the e-Bario project contributes towards his decision to remain in Bario. While re-emphasizing tourism as a mainstay of the local economy, it is also evident that the community is beginning to appropriate the technology and the centre for purposes that were not originally envisaged. E-Bario is evolving into a community development organization that involves itself in activities that are not directly concerned with the use of ICTs, but which, nevertheless, benefit from the access to ICTs that the community now enjoys. In this respect, the concept of community ICTs seems to resonate with that of community development (in the sense of physical community); a notion that is less apparent in developed countries, where the use of ICTs is more focused on virtual communities.

STORY 7: THE CAFÉ OPERATOR

Rosline John (an interview)

Rosline has been living in Bario for more than seventeen years now since she moved from Miri after marrying her Kelabit husband from Bario. She and her husband are café operators while taking care of their four children who are studying in Bario.

The situation that she is in, being away from her own village, is that she is now able to contact her family members who are far away from Bario and she is able to tell them her news. Usually, her family will e-mail her on the Internet or contact her on the public phone. But if she is unable to be reached by the public phones, they would send a message to her e-mail and she would call them back after reading the e-mail.

> The changes in behaviour in Bario have been good. We are able to use the Internet and public telephone because of e-Bario. The postal service in Bario is not very good and I only used the radio-telephone service once because I didn't know how to use it and it was complicated for me. With a public telephone and Internet services, it is not as complicated as before the project began.

She believes that without any form of telecommunications to the outside world, the socio-economy of Bario wouldn't have improved. This is especially true for the tourism industry in Bario and the Kelabit Highlands in general. In Bario, the tourists use the Internet services at the telecentre more then they would use the public telephone. She believes that it is the normal way for many people outside of Bario to communicate nowadays.

Her business as a café operator has improved with the opening of the telecentre during its daily operating hours. The visitors and users of the telecentre (local and tourist) would stop, rest and order a cup of coffee or tea at the café shops before and after using the Internet. Some locals would also stop and order something while waiting to use the public telephone or wait for a call from their families outside of Bario.

> Practically, the e-Bario telecentre has helped us café operators in an indirect way. The telecentre was built up just nicely here and the term Internet café obviously works here.

Comment

The telecentre is strategically located adjacent to the local market and cafés; an important consideration for attracting customers to both establishments.

STORY 8: THE LOCAL NATURE GUIDE

Larry Lanyau Bujang (an interview)

I have been a tourist guide for more then ten years now. I started working as a tourist guide in Mulu around the mid-nineties and by the year 2000, I moved to Bario. I don't normally use the Internet but can see an improved trend in activity among the community here which is hard to explain.

I feel that the significant outcome of having this e-Bario project, since it has been introduced, was that you can connect to the outside world. What I mean by outside world is, outside of Bario. It also helps others such as tourists to click "search" for Bario and get connected to Bario through the Internet.

At the present time, in terms of change in the behaviour of the community, it is actually good. The people that know how to use the computer facilities use it. I admit that I do not use the facilities as much as the others because I need more training in using the keyboard to type my e-mails. I also do not know what will eventually happen in the near future with e-Bario.

If it weren't for the e-Bario project, there would not have been public telephones in Bario which was the first development phase of the project. The telecommunication facility is what I use more compared to the computers at the e-Bario telecentre. However, with this public telephone, I can easily reach or be reached by my family members and the tour operators in Miri so that I could get some information from my clients or tourists about their arrivals for my guiding business.

The lodges and homestay operators in Bario do get tourists into Bario. They are the ones that normally do most of the work through the Internet at e-Bario telecentre and are the ones that initially invite the tourists and visitors into Bario. My job is to get employed as a local nature tourist guide and take these tourists for jungle trekking. That is my function in line with Bario tourism.

The unexpected outcome of the e-Bario project to me has been the numbers of tourist coming into Bario. This does not only create work for me but also for my fellow colleagues in Bario. In fact, it has somehow

improved our social economy indirectly. Maybe not all of us in Bario have benefited from it, but I think it does improve most of our daily lifestyles among the community some way or another.

Comment

The impact on tourism and its impact on the economy are further stressed. It is also evident that people who are not able to make direct use of the computers in a telecentre can still benefit from it.

STORY 9: THE BUSINESSWOMAN

Rose Gerau (an interview)

Rose Gerau is a businesswoman and runs her own grocery shop in central Bario. She sells dry food, hardware materials, motorcycle parts, kitchenware, household items, toys and clothes. One of the few bigger shops in Bario that typically caters to the needs of the Bario community.

She started her business in 1993 in another smaller shop not far from her present location. She began running her business as a communication service centre. She owned and operated radio-telephone equipment which was used to make telephone calls outside of Bario.

Her business was good for about four years until the end of May 1997. During those four years of service, the community would come to the shop and use the radio-telephone to make a call to their families, close relatives and friends who were in the urban areas like Miri, Kuching and Kuala Lumpur. However, the telecommunication business faded away when the public phones were installed in Bario because of the e-Bario project. The radio-telephone service became obsolete when satellite public phones were introduced.

She recalled that it was not an easy job providing radio-telecommunication services to the public. She operated her business during office hours between the hours of 8 am and 5 pm. However, she would end up operating her service until midnight so that her customers could use the radio-telephone. This happened because people had to queue in line to wait for their turn among other radio-telephone operators, such as hers, in the rural areas in the state as the country only had a few frequencies to operate on. This queue would last for hours until the end of the day just to have a turn to make a short phone call to say a few words on the radio-telephone. Customers would just want to say a few words to their family members

to check on them and if the phone did not answer or was engaged, then the caller would miss their turn and have to start again.

Her customers stopped using the radio telephones when there was the transition to public phones. The inconvenience of waiting in line to make a call on a radio-telephone was one of the main factors that affected her business as a telecommunication provider. However, she admits that public phones were a more effective and efficient way to communicate to people outside of Bario.

> The rate of a radio-telephone (call) is much cheaper compared to using the public phones. I guess the "people" (the community) like the idea of an upgrade of services and most of all, it's the time-saving factor. There were three channels (frequencies) that the radio-telephone operators (Telecom) open for us, I had number 471. The secondary school had one number and another place had one. Even though each of us was operating to provide services to the community, you still had to wait for your turn. I guess the problem was that the timber camps were mostly blocking the time and created queues for hours. Between public phones and radio-telephones, you get to speak personally to your call recipients on a normal public phone rather then speak publicly on "air" (any radio-telephone) to hear. Secondly, I don't have to pay this yearly license and monthly payment to telecom for using the radio-telephone anymore. Until now, there are still alot of people that owe me money for using the radio-telephone after ten years but that was a public service that was important to everyone.

While she understands that public phones were installed as part of the e-Bario project, she admits that e-mail from the Internet is something important since postal services are not that established in Bario. She recognized that the e-Bario project has played a big part to promote Bario and the Kelabits in this remote area. Indirectly, business is good because e-Bario has been a key player as a telecommunication provider in promoting Bario to the number of tourists that come.

She also mentions that "E-Bario did a good job in promoting (the) local food to locals and foreigners during the 2006 Bario Slow Food Festival in Bario. I hope it continues to promote local food in the future."

She, herself, does not use the radio-telephone anymore but uses the public phones. For her, public phones, including the Internet service, have been beneficial for her business. Ordering supplies from Bario or receiving calls from customers in Bario when she's in Miri allowed her to have the flexibility of managing her shop much more effectively then before.

Comment

The previous radio-telephone service was a vital lifeline from Bario to the outside would, but it was an antiquated and cumbersome method for communications. Contacts with the outside world are not limited to social exchanges; Rose conducts exchanges on the Internet in support of her business.

STORY 10: THE RESEARCHER

Sarah Hitchner, Department of Ecological Anthropology, University of Georgia.

Sarah Hitchner is a doctoral student at the University of Georgia. She is conducting research in and around Bario, examining the various cultural sites including megaliths and longhouses, and mapping their location with the help of a Global Positioning System (GPS). She is also interviewing the residents of the area to establish an oral history. She intends to construct a cultural database containing videos and ethnographic information which can be depicted on a Geographical Information System (GIS). Her work involves local people whom she is training in the use of the GPS and on entering the data into the GIS. She has distributed seven GPS devices to villages in the surrounding area. The data will be owned by the Kelabit people under the stewardship of e-Bario.

Her research is intended to help the community in at least two important areas: (i) It will help in the protection of important cultural sites from the forest logging that is encroaching on the area and from destruction and theft. The sites of the various megaliths that are scattered throughout the surrounding forest have cultural and historical significance, as do the sites of former longhouses that may no longer exist. (ii) The research will make it possible for the inhabitants to map their village boundaries, the land where they have native customary rights, their community forest reserves and their water catchment areas. The community have been encouraged by the government to establish the boundaries of these areas and the GPS and GIS technologies will empower them to achieve this.

E-Bario is an important collaborator in Sarah's programme by mobilizing local resources and providing technical support. The Internet connection provides Sarah with the critical capability to communicate with her supervisor in America and with other sources of technical support. The facilities at the telecentre are valuable for conducting her research activities; such as computing and printing and for setting up the database. Most importantly, the telecentre provides a viable means of handing over the research and

associated software tools to the community so they can use them for themselves. E-Bario will become the official repository of her data; the GIS, photographs, and videos. Sarah says she couldn't have conducted her project without e-Bario.

Comments

Bario is well known within the global anthropology community, and the residents are well aware of this. They are also aware that such research can produce desirable benefits for themselves and for the wider community, to the extent that research is now acknowledged alongside agriculture and tourism as a key component of the local economy.

E-Bario has strategically positioned itself as a facility to be used by researchers which will attract them to conduct their research in Bario, rather than elsewhere. By making available not only the computers, the Internet and other information technologies, as well as a ready supply of experienced and skilled local research assistants, e-Bario makes it possible for visiting researchers to "hit the ground running" as soon as they arrive in Bario. It therefore provides the community with a competitive edge in attracting outside researchers who can contribute in a variety of ways to the local economy and to the enrichment and preservation of the local culture.

Sarah's programme is not only a perfect example of this, it goes even further, by empowering the community with technology and skills that they previously did not possess, thereby leveraging e-Bario's capability towards continuing community benefits after her programme is completed; and further infusing the community within the information society and a knowledge-based economy.

ANALYSIS OF THE STORIES: THE IMPACT OF THE E-BARIO PROJECT

The following table highlights how the stories contribute to an evaluation of the e-Bario project, as suggested by the five advantages of using stories for evaluation. Whilst each story makes a contribution to one or more of the five advantages, the most salient are shown to avoid repetition.

TABLE 7.1

	Engagement	Insight	Sense-making	Memory	Discussing hard messages
	Stories are probably one of the most participative forms of communication. Stories engage the mind and the person.	*Stories provide insight into how storytellers construct reality and to what they attach importance.*	*The storytelling process can help practitioners make sense of the complex nuances of impact and outcomes, relationship, cause and effect and priority.*	*Organizational memory. Practitioners understand what is achieved.*	*In some cultures, stories convey messages that could be painful or convey negative impact and undesirable change.*
Story 1 The Head Man	The e-Bario project impinges on the wider relationship between the Kelabit community and the outside world.	The project provides incentives for people to return to Bario, an important factor in its development.			
Story 2 The Lodge Operator	Raises the realities of earning a living in a remote community.				
Story 3 The Retired Government Servant		Raises important issues concerning the project's management.			Points out that farmers are not using the facility and suggests longer opening hours and strengthening sustainability.

TABLE 7.1 (*continued*)

	Engagement	**Insight**	**Sense-making**	**Memory**	**Discussing hard messages**
	Stories are probably one of the most participative forms of communication. Stories engage the mind and the person.	*Stories provide insight into how storytellers construct reality and to what they attach importance.*	*The storytelling process can help practitioners make sense of the complex nuances of impact and outcomes, relationship, cause and effect and priority.*	*Organizational memory. Practitioners understand what is achieved.*	*In some cultures, stories convey messages that could be painful or convey negative impact and undesirable change.*
Story 4 The Government Servant Sarawak Forest Cooperation				Describes an important incident (search and rescue) in which the project played a key role.	
Story 5 The Retired Shell Employee (Shell Berhad)					Warns about potential negative effects of the Internet.
Story 6. Manager, Labang Longhouse (Homestay) & e-Bario Media & Publicity Officer		Helps in understanding about the role of the telecentre as a development agent.	Explains the reasoning behind a desire to stay in the community.		
Story 7. The Café Operator			Highlights some indirect effects of the project.		

TABLE 7.1 (*continued*)

	Engagement	**Insight**	**Sense-making**	**Memory**	**Discussing hard messages**
	Stories are probably one of the most participative forms of communication. Stories engage the mind and the person.	*Stories provide insight into how storytellers construct reality and to what they attach importance.*	*The storytelling process can help practitioners make sense of the complex nuances of impact and outcomes, relationship, cause and effect and priority.*	*Organizational memory. Practitioners understand what is achieved.*	*In some cultures, stories convey messages that could be painful or convey negative impact and undesirable change.*
Story 8. The Local Nature Guide		Describes how a low frequency user obtains benefits from the project, and that telephones are more important than computers and the Internet.			Indicates an uneven distribution of benefits within the community.
Story 9. The Businesswoman			Highlights how the centre killed one business but aided another.	Highlights the previous, cumbersome, arrangements for communications.	
Story 10. The Researcher		Suggests how the project attracted external resources into the community.		Indicates how the project can help to preserve community memory.	

DISCUSSION

The ten stories offer a broad perspective of some of the impacts of the e-Bario project. They reveal several factors of importance to the interviewees, including:

- the impact of the project on the relationship between the Kelabit people and the rest of Malaysia;
- the economic effects within the community, in terms of incomes from tourism;
- the social effects, in terms of returning residents;
- problems with the management of the project;
- problems with the project's sustainability;
- problems with the uneven distribution of the project's benefits;
- concerns over potential negative impacts;
- unexpected benefits and indirect effects;
- outcomes relating to wider development processes within the community;
- the historical perspective, how it used to be with communications; and
- the future perspective, how it could be with communications.

While many of these insights would probably not have emerged from a purely quantitative approach to an evaluation, they fail to capture the hard data required to assess the extent of some of the benefits that have emerged. For example, how many people are enjoying increased incomes from tourism revenues, and how much have those incomes increased? How many people have actually decided to return to Bario, or spend more time there, and to what extent was their decision influenced by the presence of the project? Additionally, there are gaps in the stories, e.g. concerning the impact of the project on the schools in Bario, which were equipped with computers and Internet access.

CONCLUSIONS

While the stories are useful, they do not paint a complete picture. Similarly, while hard data is useful, neither does it paint a complete picture. However, the stories do point to some of the complexities that telecentre projects confront when they inevitably intervene in multifaceted and unpredictable social situations that are themselves evolving, both under their own dynamics and also in response to the influence of the project. Used together, and

interactively, stories and data can be combined to generate a rich depiction of a project's outcomes and its role in the continuing development of the community.

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8

LIFE AND DEATH IN THE CHINESE INFORMATIONAL CITY
The Challenges of Working-Class ICTs and the Information Have-less

Jack Linchuan Qiu

INTRODUCTION

Are we living in an information society? Decades of debate have passed by (Kumar 1995; Duff 2000; May 2002; Webster 2002). Today, the notion of an information society — as a *society* consisting of its ordinary members, not just the elite — makes more sense than ever before. This is because of a single pivotal turn since the late-1990s: the spread of low-end information and communication technologies (ICTs) such as the Internet café (Slater and Tacchi 2004; Qiu and Zhou 2005) and, increasingly, inexpensive mobile phone services (Castells et al. 2006) that provides unprecedented information access to average people. This new class of ICTs are what we call *working-class ICTs*, which in the context of contemporary urban China refer more specifically to services such as the Internet café, prepaid phone cards, SMS, and the low-end mobile service, Little Smart (Qiu 2005, 2006). These newly connected people are what we call the *information have-less*, "an informational — and therefore social, economic, and political —

category in the evolving network society, which sensitizes us to a new set of phenomena, problems, and policy options" (Cartier, Castells, and Qiu 2005, p. 10).

The rise of working-class ICTs and the information have-less constitutes a centrepiece of the information society at present, when this emerging techno-social system becomes more inclusive, of the forms of technologies, groups of people, accompanying social problems, and contradictions and dilemmas involved, with all the complexities and paradoxes of human society. This enlarged scope of the information society provides a fresh opportunity for the understanding of social issues in general, and the Chinese informational city in particular.

The concept of the informational city was developed by Manuel Castells to explain fundamental changes in the economic structure and industrial system of urban America, and is further expanded to account for a full range of social problems and social change facing cities in industrialized countries (1989*a*; 1989*b*; 1998). Similar processes of restructuring are also under way in China, although specific patterns characterize the Chinese transformation. This paper critically examines the social issues facing the Chinese informational city in the context of the techno-social emergence of working-class ICTs and the information have-less. By using the term "the Chinese informational city", the discussion here is limited to urban China. This is where the bulk of China's information society development is currently situated, within the peculiar context of rapid commercialization juxtaposed with the persisting power of the Chinese party-state (Qiu 2004). In the society at large, polarization and fragmentation certainly exist (Sun 2003; Li, Li, and Sun 2004). But when it comes to the distribution of ICT resources, the overwhelming evidence points to the rise of working-class ICTs and the information have-less in the lower-middle strata of the urban society (Cartier et al. 2005; Qiu 2006).

So, is the spread of working-class ICTs synonymous with modernization, upward social mobility, and empowerment for the information have-less? As will be argued below through the synthesis of existing research findings and my fieldwork conducted in Chinese cities since 2002, although this techno-social emergence indeed provides opportunities to build a more equitable urban community, the spectre of social exclusion persists. It keeps taking unanticipated forms, haunting us with fatal consequences. The have-less people suffer, because technology itself offers no solution. While certain members of China's upper and middle classes fight for democracy and justice using new means of communication, the majority of the have-less are busy solving personal problems within the confine of

their immediate environment. Tension and resentment then accumulate over time. When they burst, they cause real disruption and destroy lives. Death in the Chinese informational city is the ultimate expression of systemic exploitation, suppression, and the despair they inflict. Yet at the same time, it is also the most powerful form of struggle for equality, dignity, freedom, and the true essence of human life.

The task of this paper is to first provide an overview on the lower strata of the Chinese informational city including its underground informal economy, to which much of the working-class ICT business belongs. Then, the main discussion will be devoted to three catastrophic events that killed have-less youngsters, including (a) the Lanjisu Internet café fire in Beijing in 2002, (b) the killing of a migrant, Sun Zhigang, in Guangzhou in 2003, and (c) the Ma Jiajue dormitory murder case in Kunming in 2004. These are among the most discussed and most controversial cases in China's cyberspace at the beginning of the new century, partly because they victimized well-educated youth, who have been heavy-users of these working-class ICTs and widely seen as the future of the society. Why did these tragedies happen? What did they reveal about deep-seated social problems concerning information have-less and the social shaping of working-class ICTs through everyday practices of discrimination, power domination and contestation? How did they trigger reactions in public opinion and the escalation of urban control, online and offline? I will give each case a descriptive account, followed by a comparative analysis to distil the general lessons from the three tragedies.

THE LOWER STRATA OF THE CHINESE INFORMATIONAL CITY

The Chinese informational city, like any city, is a social system that organizes production and consumption under conditions of increased mobility. It is "informational" because the deployment of ICTs is a defining aspect of this social system. Equipment manufacturing, data processing, the delivery of tangible ICT goods and intangible ICT services — these activities make up a large part of the urban economy and provide the fundamental basis for other types of work and consumption activities, as well as processes of power, identity, and urban culture, to take place. The formal systems of working-class ICTs have been addressed on other occasions, thus the focus of the following discussion is on the informal systems found predominantly in the lower strata of the Chinese informational city.

In his seminal discussion of the informational city, Castells understands the informal economy as being based on "downgraded labour" and "concentrated in the largest and most dynamic metropolitan areas" (1989*a*, p. 225). Along with Portes, he contends that the informal economy has a few basic characteristics (Castells and Portes 1989) that capture much of the essence of what's going on in the lower strata of the current information society underneath the usual glamour and glitter associated with ICTs. First, the informal economy, "unregulated by the institutions of society" (p. 27), is a common phenomenon in both advanced and less developed countries. Second, the informal economy is not a mere "lag" from traditional economy but can represent innovative solutions from the bottom up. Third, despite its seemingly marginal or plainly illegal status, the informal economy is often an integral part of the national economy. Fourth, much of the informal sector actually developed under the auspices of government tolerance: "Informalization is … the expression of a new form of control characterized by the disenfranchisement of a large sector of the working class, often with the acquiescence of the state" (ibid).

Although identified in the late-1980s, these characteristics of the informal economy are highly pertinent to the reality of low-end developments in the Chinese informational city. China has a rich tradition of underground and semi-underground economy ranging from Qing Dynasty secret societies (Chesneaux 1971) to working-class street life in the post-Mao period (Dutton 1998). But to map the lower-strata of the information society that too often escapes our attention, we can start with a few notes that reflect the manifold phenomena and complex dynamics under discussion.

First, working-class ICTs serve as objects of economic exchange, usually through cash. While China's haves and have-mores start to rely on credit cards, members of the have-less participate in the digital economy by purchasing prepaid phone cards or patronizing Net-bars using cash. This has to do with the lack of commercial credit system for the majority of the have-less people. It is also because vendors often are not registered with the authorities and therefore are evading government taxes and other regulatory measures.

With regard to the hardware of low-end ICTs, there is the huge black market, and "grey" market of used devices and parts. An example is the sale of revamped mobile phones. In this business, there are usually three sources of supply: (a) used handsets sold or pawned by the original owners, including penniless migrants who exchange their mobile phone or pager for food, (b) equipment being stolen or robbed from the legal owners in either petty thefts or organized crime, and (c) surplus production or stocks

of commodity sold in bulk. While sales in all three categories, especially the first two, tend to belong to the informal sector, the process of revamping phones provides bottom-level jobs for have-less workers.

This mode of operation is not limited to the handset market. It also applies to used computers and accessories such as the recycling of printer cartridges. While hardware is recycled in the second-hand market, content and software are circulated through pirated discs. The informal economy of content provision dated back to the underground trading of cassette tapes in the 1980s and of CDs in the 1990s (De Kloet 2005). Although some consumers of these pirated audiovisual materials are from upper-class backgrounds, the people selling illicit copies remain members of the have-less, as Wang and Zhu found out through their investigation of film piracy in China (2003). The piracy market is also closely connected to China's video disc player industry that produces most of the world's VCD and DVD players. This "hardware-software dynamics" (ibid. p. 107) is yet another demonstration for the multiple ties between the informal economy and state-regulated formal economy.

Besides its connections with formal industrial establishments, the informal economy also has multiple ties with the local state, whose practices are often uneven across space and over time. While some may play a suppressive role and clean up underground operations, as in the case of the Internet café (Qiu and Zhou 2005), others may be highly tolerant of informal and illegal ICT-based activities. One such case is the garbage computer industry that once materialized in Nanhai, Guangdong Province, where underground plants were set up to refurbish used computers smuggled into China (Qiu, forthcoming). Migrant workers were hired to produce these garbage computers, which were in surprisingly high demand. Although it violates multiple laws concerning taxation, the environment, and labour protection, this industry provides jobs and lifts the economy of the communities.

I refer to this as "the globalization of garbage" (forthcoming) because the factory owners relied on the Internet to place orders for tons of discarded foreign computers from the United States or Japan after they browsed the photographs of the garbage products on the Web. This points to another aspect of the connection between working-class ICTs and the lower strata of the Chinese informational city. That is, the new means of communication often serve as a critical informational and organizational basis for underground and semi-underground activities to be arranged among have-less members. Without low-end ICTs, it would be much more difficult, if not impossible, for the urban underclass to form their own networks from

the bottom up. These include the online forums of Net-bar owners and operators, the Weblogs put up by workers on strike, and, perhaps most prevalently, the translocal networks maintained through SMS.

Not all of these activities are of a commercial nature. But at the same time, not all of them are benevolent and constructive for the emergence of working-class communities. Indeed, gangsters and organized criminals are adopting these low-end ICT services too, for unscrupulous purposes such as drug trafficking. Although gambling is strictly outlawed, it has entered the urban underclass and some rural areas via the Internet café (Jiu 2005). The same is happening with online pornography and the commercial sex trade, when pimps can control unemployed girls and laid-off females and attract customers using inexpensive ICTs. Another deadly business building on working-class ICTs is the "black market of blood (*maixue heishi*)" in Shanghai, where buyers, known as "blood heads (*xuetou*)", put up advertisements on the Internet to recruit the poorest members of the have-less people to sell their blood (Hu 2005).

The most extreme form of ICT-based black market operation is probably the sale of assault weapons and the provision of gangster services such as coercion, physical injury, kidnapping, and killing. A reporter received one such message, which reads, "For long time our gang provides guns and ammunitions, drugs, spyware, smuggled cars, fake currency from Taiwan, as well as private detective, professional killer, and fake ID services. Contact Ah Qiang [mobile phone number]" (XinhuaNet 2006). Although police authorities deem such SMS as spam — which is itself a new element of the informal economy — it remains unclear how many such messages are hoaxes, how many are real, and why this particular type of spam is reported consistently in different parts of the country (Qiu 2007).

From here on, we discuss three fatal cases that victimized members of the have-less. All of them concern the youth, mainly because youngsters adopt working-class ICTs earlier than the older generations. As a result, ICTs have played a more central role in the everyday life of young people, even at the critical moments of life and death. The perishing of young lives powerfully arouses public sentiment, thus adding to the weight of the cases in public discussion. But most importantly, youngsters are more vulnerable in an alienating environment imbued with inequality and violence. In this sense, although the key persons involved are youngsters, their extreme acts and experiences epitomizes the contradictions and sufferings, systematically inflicted upon the entire lower strata of the Chinese informational city.

LANJISU: THE FURY OF THE ABANDONED

The Lanjisu Internet café in Beijing was set on fire by two young teenagers, aged 13 and 14, respectively at around 2:30 am, 16 June 2002. It killed 25, and injured 13, mostly college students from the nearby Beijing Science and Technology University (Bai 2002). This was the deadliest fire in the history of the national capital since the founding of the People's Republic (*Beijingshi haidian zhi* 2004). This event triggered a series of crackdowns on Internet cafés throughout China (Qiu and Zhou 2005).

But there are multiple versions about what happened that night, and why. Most press reports used the frame of illegal Internet café, commonly known as "black Net-bar (*heiwangba*)", blaming the owner for his greed and heartlessness while expressing sympathy for the young lives that perished in the fire. Yet, suppressive state policies are often blamed too (Murray 2003). The teenage arsonists and the shop operators have their share of responsibility, which has to be understood in the social and policy context of the time. So what can we learn from the tragedy about the life of the information have-less and their connections with working-class ICTs? To make full sense of this case and use it as an entry point to the city underneath, we need to examine the making of at least three types of have-less people: (1) the shop owners and operators, (2) the users/customers, and (3) the perpetrators.

First, who owned and operated the shop? Why did they ignore fire codes by setting up the Internet café in an old three-storey building with only one exit, plenty of flammables, and iron bars sealing the windows? The shop owner is Zheng Wenjing, a 36-year-old Beijing *hukou* holder. He operated the cybercafé with his girlfriend, Zhang Minmin, "an unemployed personnel from Gaomi City, Shangdong Province" (Li and Ma 2003).

Although available information is limited about the lives of these two persons, we can piece together how they made their business decisions under the structural constraints at the time. These constraints were not new. Nor have they disappeared since the Lanjisu fire. In October 2004, more than two years after the tragedy, the national police authority still estimated that nationwide "black Net-bars" were more than twice the number of registered legal Net-bars (Feng 2004). Zheng and Zhang's decision-making process with regard to their Internet café therefore in many ways reveals the common challenges facing small entrepreneurs providing working-class ICT services.

Like these other microentrepreneurs, Zheng and Zhang probably had no access to bank loans. Instead, they would have to rely on personal and

family savings, as well as funds borrowed from friends and relatives. But they were among the least fortunate. Before the fire, they had been caught and subjected to monetary penalty six times. Their old shop, called "Duke (*Bojue*)", was forced to close in the clampdown late 2001 and early 2002. But believing in the huge market potential (which is in fact correct), they probably thought the campaign against Net-bars would soon be over. Thus, when Lanjisu opened in the new site, it boasted high-configuration computers and fast network connection, which means the couple must have invested heavily in the hardware, the core of market competitiveness for similar Internet cafés.

Zheng and Zhang therefore must have been under serious financial stress, after being fined six times, being forced to relocate, and yet still upgrading the equipment. Opening the new shop in May 2002 without finishing proper paperwork was their personal decision, made in the context of their financial situation, following a typical pattern of Net-bar operators at the time. Indeed it was quite common at the time to start a business without completing all the necessary paperwork. The delay was caused by the bureaucratic inefficiency of the authorities, which, along with the suppressive environment of crackdown, should take an important part of the responsibility for the fatal consequence.

It was in this context that Zheng and Zhang chose to locate their Net-bar at the site of the fire, an old building in an ordinary low-profile residential community of Beijing. The three-storey structure was rented by other business owners, one of whom put up the iron bars on all windows to prevent theft. Later on, Zheng and Zhang were accused of their oversight for not removing these bars that prevented young customers from leaving. They were also criticized for filling up the shop with cheap, flammable carpets. But given the dire financial situation they were forced into, could they afford fireproof materials and leaving their expensive equipment at the risk of theft? If they applied for a loan to remodel the building to meet the fire code, which bank would consider their application?

Turning to the young victims of the fire, why were so many college students there at 2:30 am? They went there because the Internet café offered competitive prices for Internet access with good machines and fast connections. Also, the Net-bar operators sometimes provided free food and drink to some customers, perhaps attempting to attract them to come back repetitively. But the main attraction was fast Internet access at an affordable price, the single most important factor that explains the phenomenal growth of Internet cafés (Qiu and Zhou 2005).

Lanjisu and its predecessor Duke were both located in the Haidian District, an area with the largest concentration of universities nationwide. The location is not coincidental, given that this was relatively early in the take-off period for Internet in China, with the highly educated accounting for the larger chunk of the user population. College students, in this sense, are a particular group of early adopters. Net-bars are attractive precisely because schools are not. Despite their swelling investment in hardware and software, universities and other schools only have limited success in assisting students to construct a social space of their own. Computer labs are strictly managed and closed late in the evening. Even if students have personal computers, electricity in the dormitories is often cut off before midnight, to send youngsters to bed in an authoritarian fashion. Campus bulletin board system (BBS) can provide information and a basis for community-building, yet they are increasingly controlled and their dull interface is no match to the dazzling colours of online games.

The attractiveness of the Internet café is, in this sense, a partial product of the failure of the formal education system to embrace the multi-dimensional ICT needs of students. Other than the cybercafé, there is no alternative place for Internet access that provides affordable service around the clock. Thus, when Lanjisu opened business in May 2002, college students teemed. When it was burned down, 21 of the 25 victims were from the nearby Beijing Science and Technology University (Bai 2002).

This reveals a general pattern: when places of connection materialize in working-class neighbourhoods, they tend to attract have-less customers of similar demographic profile in large numbers. The ICT services are merely part of the operation, while the social function of such places is at least equally important. So students, or members of other have-less groups, tend to come together and spend time with their peers in the shared physical space. In so doing, they also become more vulnerable, for gangs now know exactly where to prey. When a tragedy happens, it affects a lot of lives.

Lanjisu was set on fire by two arsonists, Song Chun and Zhang Fan, aged 14 and 13, respectively. There have been contradictory accounts for the immediate cause of the incident. In the online forums of Net-bar operators, one story goes that Song and Zhang were refused entry into Lanjisu because they did not meet age requirement set by China's Internet café regulation (Qiu and Zhou 2005). This implies that the Lanjisu operators were actually law-abiding and they were innocent victims too.

However, media and academic publications reveal that there was a verbal clash between the Net-bar operator and the teenagers, with the former ridiculing the latter for being penniless: "Without money, you

dare to come here again?" (Liu 2002). The utterance offended Song and Zhang so much that they went to get some gasoline, poured it on the only entrance of the building, and torched it. The Net-bar operators could have avoided the catastrophe had they treated the two underage customers with proper respect.

What really happened was probably a combination of both versions. The operators did not admit the kids in part because of the regulation (although they were breaking regulations anyway by offering a 24-hour service), in part because they knew these two teenagers were in a poor financial condition, as Song and Zhang went to Lanjisu several times before. From a rational, commercial standpoint, it was perhaps wise to keep the customer base mainly consisting of college students rather than secondary school dropouts. But the calculation of risk vis-à-vis profit in this case proved to be a discriminatory device against these two particular kids, who had been suffering from prejudices and mistreatment for most of their young lives.

The sufferings of Song and Zhang, like most kids of the urban underclass, started with their parents and the shattering of their families at young age. Since the divorce of his parents, Zhang Fan was supposed to be brought up by his mother because his father was imprisoned for a violent crime. But the mother provided little care, giving him some money, a rented room, and little else. She seldom dropped by (Wu 2002).

The main culprit of the fire, Song Cun, was brought up in an even worse environment. His parents were divorced when he was a little over one. The father won custody but was woefully incompetent in raising the child. He was jobless, after being dismissed from work for negligence and misdemeanour. He had fights with others, was sent to a detention centre, and since then, became a drug addict. He did not re-marry but had three relationships. Two of the "stepmothers" frequently beat up little Song Cun. One even knocked him into coma when the boy was nine-and-a-half. Yet, the father was indifferent. He went on using drugs with this stepmother, often leaving his son to starvation and loneliness (Shang 2003).

In February 2002, three and a half months before the Lanjisu catastrophe, Song Cun's father was sentenced to one year in jail for repeated drug offences. A couple of days later, Song stopped going to school for he felt looked down upon and ridiculed by teachers and classmates (Wu 2002). Thus, long before the fire, he was already full of anger and hatred. He simply could not stand being abandoned again.

The boy was of course not born to be an arsonist. As his grandfather recalls, he was a smart young kid, able to recognize all the pieces in Chinese

chess at the age of four. According to his teacher, for a brief period, he "almost changed into another person", into a diligent student, when he was thirteen. The reason was that he heard that his biological mother, a chief manager of a computer company at the time, would support him to study in America (ibid.). Although the hope soon vanquished with the deterioration of his family conditions, this short period of aspiration shows that Song Chun could have been a normal member of society had he received more care and support.

Song and Zhang both had bad reputations among their classmates. When their families did not give them enough money, which happened often, they would bully other students, rob them, and treat them violently. Zhang Fan even broke the arm of one of his classmates (ibid,). In so doing, they entered the vicious circle in which their financial difficulty and lack of family support were translated into further social isolation and rejection by their peers. It escalated to such an extent that they were almost completely detached from the community they lived in. Lanjisu Net-bar was among the very few places where they could be reconnected, online and offline, with other fellow human beings. Thus was the tragedy of Lanjisu, which was indeed the most dramatic expression of the tragedies that Song and Zhang had to live through.

In August 2006, two months after the Lanjisu fire, Song received a life sentence and Zhang was sent to a juvenile re-education centre because he was under fourteen. But this was not the end. Nowadays, it remains a severe problem that urban institutions and communities too often fail to provide effective social services to dismissed workers like Song's father and the children of divorced working-class parents. Family violence, drug abuse, juvenile delinquency, the evils of social exclusion tend to blend with and perpetuate each other at the very bottom of the have-less stratum. When tension accumulates and is not properly channelled, it will explode and cause catastrophic destructions such as the Lanjisu fire.

SUN ZHIGANG: PERISHING IN JAIL

Sun Zhigang is perhaps the most famous member of China's "floating population", although he himself would not have known this when he was killed at the age of twenty-seven. At the time, he was a grey-collar employee living in an urban village in Guangzhou. On his way to an Internet café on the evening of 17 March 2003, he was detained by the police for not having a "temporary residential card (*zanzhuzheng*)", the official permit for migrants to maintain residential status in urban areas. He was then sent to

a special holding centre for unregistered migrants in Guangzhou Psychiatric Hospital where he was beaten to death, within sixty hours of his arrest (Chen 2003; Fong 2003).

Sun grew up in a rural village in Huanggang, Hubei Province. He did well at school and managed to go to college. After graduating from the Art Department of Wuhan Institute of Science and Technology in 2001, he had been working in Shenzhen until February 2003, when he joined Daqi Clothing Company in Guangzhou as a graphic designer. When arrested, he had only been in the city for less than a month and his temporary residential card was, in fact, still on the way. He was therefore arrested on false grounds from the very beginning of this case.

As previously discussed, there has been widespread discrimination against migrants in Chinese cities, where illegal detainment and physical abuse have become banal. Sun Zhigang was not the first migrant killed in detention; nor was he the last. But in several ways, he was "lucky", despite his deadly misfortune. Because of other factors, justice was finally done for him and his family. Due to unprecedented public uproar, in the mass media but especially in online forums, Guangzhou police admitted the wrong doing, and the murderers received heavy sentences. Most important, the Beijing Central Government abolished the Regulation for Detention and Deportation of Urban Vagrants and Beggars and replaced it with a more lenient system aimed at providing help to needy migrants.

This tragic case had an exceptional impact on public opinion and government policy because, first, Sun Zhigang was not an average migrant. He was college-educated, which could arouse much more sympathy among the urban middle class. Second, the incident occurred at a special time shortly after China's new generation of leaders, Hu Jingtao and Wen Jiabao, formally assumed power. The new leadership was in search of some change in policy, which, all of a sudden, became clear in the midst of the SARS (Severe Acute Respiratory Syndrome) epidemic: the new government had to prioritize protecting the lives of its people more than anything else.

When Sun's death was exposed, the SARS outbreak was brought under control, although still raging in mainland China. The timing was crucial because the government needed to demonstrate its sincerity in carrying out the people-first policy. Political control over media coverage was therefore relaxed in terms of all life-and-death cases. Meanwhile, because the epidemic was not over, Chinese urbanites tended to spend more time online, both to monitor the environment and to shun public space. Thus, for several weeks, the death of Sun Zhigang was discussed extensively online in mainstream

Internet portals such as Sina and Sohu, with the number of click-throughs on this case only trailing SARS reports (*Sina News* 2004).

The spatial location of the tragedy was also crucial to the ascendance of this case to national and international prominence. Guangzhou, the capital of Guangdong Province, is the main hub for have-less migrants in South China. It plays a key functional role directing newcomers from the inland regions into urban villages and export-oriented industries, before further social integration takes place. Moreover, it is also known for the plight of migrants during their painful process of being uprooted, subjugated, and victimized in the estranging urban society. The case of Sun Zhigang was therefore quickly elevated from the mishap of one individual to the suffering of all migrants epitomized in a symbolic city.

Finally, the Sun Zhigang case has been often celebrated as a showcase for the growing power of online public opinion in China or even the invincibility of the Internet in restoring freedom and justice in authoritarian countries (Xiao 2004). The optimistic view has to be taken with a grain of salt given the special timing and location of the case and the special status of Sun with his college education. Yet at the same time, the Internet and mobile phone were indeed essential to the transformation of the case from the misfortune of an individual family to a national uproar.

According to Chen Feng, who broke the story, he first learned about Sun Zhigang in an Internet forum for journalists in Guangzhou, where a college student posted the petition letter from Sun's family (personal interview). Chen followed this up and got the mobile phone number of Sun's high school classmate, who happened to live in the city and was involved in finding out the truth about Sun's death. At the time, Sun's father and brother were in Guangzhou, being stonewalled by the authorities. But their message was transmitted through ICT-based interpersonal networks to reach Chen and one of his colleagues at the *Southern Metropolitan Daily*, where information about the case was finally released to the general public.

Were there just this newspaper article, the case of Sun Zhigang would not have evolved into such a major issue of public concern. According to my interview with Chen Feng, the real tipping point was when Sina and Sohu, the two largest Internet portals of the country, put the story on their news section, which immediately generated a deluge of posts by netizens denouncing the brutality and demanding a thorough investigation. On the second day after the story hit the Web, the Guangzhou police, which refused to cooperate for more than a month even after the publication of Chen Feng's first newspaper article, quickly responded by visiting the

Suns to offer condolences and seek a compromise. From there on, the new leadership in Beijing intervened, bringing murderers to justice and abolishing the discriminatory measures of 1982, all of which would not have happened without the strong public opinion in online forums.

While the storm of public opinion received much attention and celebration among the urban middle class, two important aspects in the death of Sun Zhigang remain to be addressed. On the one hand, have-less migrants were adopting working-class ICTs for self-help by extending and strengthening their translocal networks at the grassroots level. Some of these networks are age-old, whereas others are brand new. Whichever the case, they empower the less fortunate have-less people with their own system of information exchange, resource-sharing, and social support.

The most crucial translocal network in the case involved the friends and former classmates of Sun Zhigang. In Guangzhou, Sun was living with his friend Cheng, whom he called for help from the detention centre. From there, the bad news spread through working-class ICTs to reach Sun's family in Hubei.

When Sun's father and brother came to Guangzhou, it was also this network of friends and classmates that mobilized indispensable help including accommodation, financial and social support. It was through members of this network that the information was transmitted to journalists at the newspaper, through the Internet forum to Chen Feng, himself an alumnus of Wuhan University from Hubei.

Also important to note is that Sun's father and brother initially had problems finding legal representatives until they accidentally came across a hometown fellow (*laoxiang*) from Huanggang in a Guangzhou restaurant, who happened to work for a law firm owned by another Hubei person. After hearing case details, the firm agreed to provide their service at the very low price of 300 yuan. It was this Hubei lawyer who helped put together the petition letter that was later circulated in the online forum that Chen Feng was part of (*Beijing Youth Daily* 2003).

There is a historical dimension of the Wuhan-Guangzhou connection that needs to be stressed. Since the 1980s, many college graduates from Hubei Province have settled down in Guangzhou, and other cities in Guangdong. Besides economic explanations, the migration pattern is built on a particular legacy of the Maoist system of regional management. In this old system, Hubei and Guangdong both belong to the south-central region (*zhongnan diqu*) of college administration.

Thus, in the Maoist era, many Cantonese intellectuals moved to Wuhan, who then, in the 1980s and 1990s, helped students find jobs

in Guangzhou and cities nearby. The historical ties became strengthened with the accumulation of alumni networks in Guangdong. It was hence unsurprising that Sun Zhigang graduated from a university in Wuhan to work first in Shenzhen and then in Guangzhou, where he had more access to the social resources based on his college connection. After all, ICT-based networks do not materialize from nowhere but on the basis of translocal ties that have accumulated over time.

MA JIAJUE: A CONTEMPORARY ROBIN HOOD?

Ma Jiajue was a student studying biotechnology at Yunnan University, the best college of this southwestern province. In February 2004, after quibbling over a mah-jong game, Ma used a hammer and killed four of his dorm-mates one by one. He hid the corpses in the cabinets of the dormitory and ran away with travel plans made earlier based on information collected on the Internet. After a month on the run, with high-profile coverage in both the mass media and online forums, Ma was hunted down on 15 March in Sanya, Hainan Province. He had little remorse for those killed and refused legal assistance (Jiang 2004). On 17 June, he was executed at about the time when he and the four victims were supposed to graduate.

Public sensations were so intensely attached to the pursuit of Ma Jiajue that the case has registered deeply in the collective memory of an entire generation, as one of the bloodiest consequences of the commercialization of higher education and the increasing degree of inequality among college students. While mass media reports tend to frame Ma as a cold-blooded murderer, the overwhelming online opinion among have-less youngsters was to portray him as a legendary bandit, someone like Robin Hood with "the immense personal prestige of celebrated outlaws" (Hobsbawm 1969, p. 109).

It is indeed not too overstretching to extend the notion of "social banditry" to include Ma Jiajue. According to Hobsbawm, social banditry is "a form of individual or minority rebellion within peasant societies" (ibid. p. 13). Although urban China today does not fit into the category of peasant society, the element of rebellion — by not only Ma Jiajue the individual but also his have-less sympathizers, who formed a significant online minority group — is remarkably strong.

Meanwhile, Ma Jiajue did come from a peasant background. He grew up in Ma'er Village, Binyang County, in the southwestern Guangxi Province. The village land has been encroached by the expanding Bingyang City,

and Ma Jiajue's family is among the remaining few that keep farming the ever-decreasing rural land (Shi et al. 2004, p. 6). His parents earn less than 300 yuan per month from agricultural work and helping iron clothes for a nearby clothing store (defence statement by Ma's lawyer).

Growing up in poverty, Ma Jiajue was academically gifted compared to other kids in the village. He excelled in elementary school and was admitted to the best middle schools in Bingyang City. There, he won various awards for physics and math contests. Yet it was also in the city that Ma Jiajue started to taste the bitterness of poverty and urban discrimination. He had difficulty getting regular meals and keeping warm. Girls called him "Old Uncle Ma (*malaoshu*)" and laughed at him, which he hated silently and only complained about in his diary (Shi et al. 2004, p. 8).

Feeling estranged and desperate, he began breaking school regulations and was censured repetitively (*XinhuaNet* 2004). This, however, did not prevent him from getting high scores in the college entrance examination, with which he could have gone to a better university. But he chose Yunnan University in Kunming because it was relatively close to home. Despite the decision, Ma Jiajue was only able to go home once during his three-and-a-half years in college and he only called home once every several months due to financial difficulty. He continued to struggle for basic life necessities by selling physical labour, trying to get enough food and not to go out barefoot, when his affluent classmates showed off their new mobile phones and motorcycles.

Unfortunately, the period between 2000 and 2004 was characterized by intensifying commercialization of higher education in China. Throughout the nation, professors and university administrators became more obsessed with money-making, while shifting attention away from students. Job prospects declined dramatically with the oversupply of college graduates. In the meantime, financial disparity on university campuses became more apparent, creating more discrimination against needy students like Ma Jiajue, who now felt that he was rejected by the mainstream urban culture.

Among those killed by Ma Jiajue, three were also from poor families, all in west China, although none of them faced as much financial difficulty as Ma. The four of them were among Ma's best friends. But under the deformed micro-structure of the university dormitory, they also hurt Ma with their dose of humiliation. According to Ma's defence lawyer, one of them used to pee on Ma's bedding. In cold winter, one of them hired Ma for one or two yuan to hand-wash dirty clothes, and Ma agreed to do it under the financial pressure. Abnormal interactions like these sowed seeds for estrangement, antipathy, and hatred, which sought their catharsis after

the verbal clash at the mah-jongg game and led to the fatal consequences at the end (Zheng 2004).

The case of Ma Jiajue is emblematic of social problems facing have-less youngsters in the commercializing education system. It also reflects ways of ICT application within China's police system. The pursuit of Ma Jiajue is among the most high-profile manhunts in the history of the People's Republic due to the combined usage of ICTs, mass media, and monetary incentives. When the Ministry of Public Security (MPS) issued its A-Level Most-Wanted Alert for the arrest of the suspect on 1 March 2006, the order reached all regional branches of the police system within an hour, and every police and security guard on the ground within twelve hours. Until the arrest of Ma on 15 March, 1.7 million police was mobilized throughout the nation. In Ma's home province, Guangxi, police made 110,000 trips to investigate more than a thousand people somehow connected to Ma Jiajue and to check 43,000 public places, including particularly Internet cafés (Lan 2004). Moreover, to hunt down the suspect known for his online activities, police authorities monitored and tracked information flows on the Internet among the general public, especially among the have-less youngsters. But without proper checks and balances, such actions quickly became the basis for yet another crackdown campaign on working-class ICTs, thus affecting the overall life of have-less people in the city underneath.

Unlike other A-level Most-Wanted Alerts, the pursuit of Ma Jiajue carried a reward of 200,000 yuan. Information about the Alert, the award money, and Ma's photograph were unprecedentedly broadcast on national TV. As a result, the police received 1,560 "effective clues (*youxiao xiansuo*)". In some of the cities that Ma had never been to, like Shanghai, Ningbo, and Gansu, the police was also "mobilized on massive scale (*daju chudong*)" due to the large number of real or false clues (ibid.).

The high-profile nature of the pursuit had two unintended consequences. On the one hand, the police were overloaded with information about the possible whereabouts of Ma Jiajue, especially given the record-high monetary incentives provided by the authorities. Most of the information, however, was useless, if not misleading. It also generated a large number of imposters pretending to be Ma Jiajue, online and offline. These included have-less youngsters and members of other groups pushed to the fringes. They were sympathetic to Ma's sufferings and now they were negatively affected by the abusive uses of police power.

"Everyday, there were suspicious information and clues and imposters pretending to be Ma Jiajue" (Liu 2004, p. 15). The police stance was, however, "to believe all were true" (ibid.). With the escalation of actions

on both sides, the pursuit evolved into a most colourful and paradoxical showdown between the authorities and the less powerful, who were adopting working-class ICTs to empower themselves.

As mentioned above, the image of Ma Jiajue delivered by mass media could not be more different from the one emerging in online forums. Due to their official obligations to serve the police and tendencies of market-driven journalism, the press and broadcasting media largely "demonized" Ma Jiajue, using sensational headlines such as "How A College-Student 'Butcher' Grew Up" (Shi and Ma 2004).

The mass media reports typically emphasized that Ma Jiajue was a frequent visitor of "illegal websites": He watches action movies and pornography on the Internet. He spent hours browsing online content about how to hurt or kill people, how to hide evidence, and how to attack police. He also downloaded materials about survival skills in the wilderness, and was making his runaway plan based on information collected online (*Nanguo zaobao* 2004).

Despite attempts to demonize Ma Jiajue in the mass media, public opinion on the Internet was overwhelmingly sympathetic to him. A content analysis of 448 Internet posts in Baidu BBS (*baidu tieba*) showed that, while 6.1 per cent of them had negative opinions on Ma Jiajue and another 8.2 per cent held neutral positions, a full 40.8 per cent of them regarded Ma positively in a sympathetic light (Yang 2004, p. 38).

To the compassionate netizens, Ma Jiajue qualifies as "the noble robber" (Hobsbawm 1969, p. 34). For he never hurt anyone again during the three weeks when he was on the run, when he was trapped in poverty and desperation, surviving on food found from garbage bins. For at school, he toiled to earn an honest livelihood by himself, while, at home, he had a high standard of filial piety, caring especially for his mother. For he was intelligent and capable of outsmarting the police. For he was fearless, embracing the death sentence to send the strongest message in defence of traditional values against the fall of the society into excessive commercialization.

Online discussions like these might contain elements of fiction and should be taken as collective making of a heroic bandit rather than reflections of what Ma really was. Of the posts, two were most widely circulated and perhaps contributed the most to public sympathy towards Ma Jiajue in China's cyberspace. One was a report on how Ma responded after he was caught and offered a change of clothing. Wearing the detainee uniform, he sighed, "This is the best thing I've ever worn." The policeman standing next to him reportedly was moved to tears.

The other was a piece of poetry allegedly written by Ma Jiajue from his prison. The poem entitled *Changhenge*, meaning "The Elegy of Endless Sorrows", started with his thoughts behind the prison bars in Kunming, also known as the Spring City (author's translation):

> Rain falls on the Spring City at springtime with a rush of chilly air. Looking at the rusted prison bars I thought of my parents, how poor they are. To support children going to school from dust to dawn, they farm hard ironing clothes under candlelight half *yuan* a piece.

The poem continues to tell the story of his life: how he grew up in poverty; how he suffered from discrimination; how he fell in love with a girl, who tore his love letter into pieces in public; how he learned to play computer games in college, in order to socialize with classmates; and how he could not stand being humiliated, over and again, by his dorm-mates. It runs to 255 lines and ends with a reverie that, at last, he returns home, "strolling slowly in my lovely, simple, dear hometown."

Ma Jiajue was executed on 17 June 2004. This, however, did not conclude the events but in fact martyred him and made his life the ultimate legend of a defiant have-less. Chinese netizens memorialize him in myriad ways. They identify with him, calling him "Brother Ma (*mage*)". His pictures, especially the one used and popularized by the most-wanted alert, were modified into hundreds of icons and cartoon-like images showing him laughing at the police, ridiculing the world at large. Someone summarized his life using antique language mimicking the famous *Shiji* (*Records of the Historian*) of the Han Dynasty, and the text remains posted on 4,730 Web pages as of August 2006. Two DV (digital video) films about Ma Jiajue's life and death were made by college students at Peking University and Tsingtao University, respectively, again sparking public debate two years after the execution.

OLD GHOST, NEW SPIRIT

What should we learn from the tragedies of Lanjisu, Sun Zhigang, and Ma Jiajue? The three events, occurring in 2002, 2003, and 2004, respectively, may appear to be quite different at first glance. But together they demonstrate the disastrous consequences of inequality, discrimination, and injustice. When urban institutions of the information society fail to address the old structural problems, tension and hatred accumulate, and a deadly result is ensured. Yet, meanwhile, the aftermath of the tragic events

also show that, however preliminarily, working-class ICTs have begun to bridge social gaps both within the information have-less and between it and the general public. They have also provided new means for cultural expression at the grassroots. There is therefore some light at the end of the tunnel.

All these three incidents started with episodes that were probably banal in China's urban life: two teenagers were refused access to an Internet café; a migrant worker failed to carry his temporary resident card; a college student had an argument with his dorm-mates. Things like these happen everyday. But in the peculiar context of the Chinese informational city, with the spread of working-class ICTs coupling rapid commercialization and continued hierarchical control over urban places, the conflicts escalated and exploded, when the most alienated members of the information have-less turned violent. They vented anger on others, hurting everyone and everyone's family, themselves included, through the ultimate destruction of human life.

The roots of these disasters are age-old social ills: economic disparity, the unequal distribution of power, the exclusion of have-less from urban culture, and the lack of care to those who have been driven to the fringes of society. In the three cases, these problems took their own forms to reflect the failure of particular urban institutions, old and new. At one level, the Lanjisu fire was about unnecessarily heightened tension in the regulatory system of Internet cafés. But more fundamentally, it had to do with the lack of effective social services for disadvantaged urban families struck by divorce, unemployment, and drug abuse; and for the children of these families, facing discrimination at school and in local community.

The death of Sun Zhigang exposed the horror brought by the abuse of police power that haunts the lower strata of the Chinese informational city, especially have-less migrants. It also showed how the internal structure of the detention centre could turn a group of strangers into a killing machine, and how this structure could extend itself through working-class ICTs like the mobile phones used by prison guards. Most essentially, the case was about urban prejudice against migrants, institutionalized in the household registration system, whose restriction has been eroded due to the public uproar following this case.

Like the teenage arsonists in the Lanjisu fire, Ma Jiajue suffered from social isolation. He had few friends, and poverty prevented him from spending time with his families, even on the phone. The real culprit was, however, the excessive commercialization of education. When one of Ma's dorm-mates "disappeared" for several days, his girlfriend tried to find

him and sought help from the university. Yet no one responded until the corpses started to decompose and could be smelled (defence statement of Ma's lawyer). If this was the average level of care a college student could receive, how about other members of the have-less people?

Ma Jiajue, Song Chun, and Zhang Fan — these people became violent because urban institutions have done violence to them by ignoring their needs, treating them with disrespect, and leaving them under the dark powers of savage capitalism. They were not born to kill. But they killed anyway because the places they happened to be in were alienating.

There is another classic pattern. When the fatal events occurred, have-less perpetrators were singled out, quickly hunted down, sentenced, and even executed. In the process, because targets were set on the individuals rather than the systematic problems behind them, the incidents would lead to heightening control over working-class ICTs and further discrimination against the have-less. Access at cybercafés, for instance, would become more expensive and cumbersome, which would trigger more underground actions to challenge the inequalities of the status quo. This would then attract further crackdown and form a vicious circle of power contestation, setting up the stage for the next disaster.

It is equally important to acknowledge that the three tragedies, given the scale of their impact upon public opinion, all caused some change in policy. The death of Sun Zhigang had the most influence by expediting the reform of the migrant registration system, with several cities eradicating the temporary resident card system and a few provinces abolishing the binary distinction between rural and urban residents altogether (China News Agency 2005). Since the case of Ma Jiajue, universities have paid more attention to have-less students giving them at least more loans, although that in itself is still insufficient to restore social equality. The Lanjisu fire put the problem of Internet cafés on thepublic agenda in an unprecedented way, providing justification for repetitive crackdowns locally and nationwide.

Most of these policy changes, however, failed to address the deeper social roots of these problems, namely inequality, lack of respect for the have-less, and the exclusion of them from policy making processes. The crackdown campaigns on Internet cafés in fact generated more "black Net-bars", whereas the issues facing families of the underclass, like the family of Song Chun, remain to be solved. The trend of commercialization has not changed, but accelerated. In the university system, tuition hikes expanded from the undergraduate to postgraduate levels in 2006 (*Beijing News* 2006). Job prospects keep declining, while staff members keep focusing on profit-making, leading to major conflicts such as the college student

uprising in the Shengda College of Zhengzhou University (Kahn 2006). As of spring 2007, the temporary resident card system was still in operation in Guangzhou, where Sun Zhigang was detained for not having the card (fieldwork, Guangzhou). To a large extent, the discrimination of have-less migrants has persisted as the country maintains its elitist system while age-old social ills and savage capitalism continue to rule the city underneath.

The three cases, however, also showed hope for spontaneous grassroots formations to connect the have-less with each other and with the general public. Such connections could be based on traditional networks such as the Wuhan-Guangzhou link in the case of Sun Zhigang. They are often extended through working-class ICTs. In other cases, the new means of communication may also give rise to entirely new linkages like the online forums for Net-bar operators emerging from the aftermath of the Lanjisu fire, or the groups of netizens sympathizing with Ma Jiajue, pretending to be him in the heat of the manhunt, and exchanging Flash MTV's to commemorate their legendary bandit. While working-class ICTs may indeed be used against the have-less under particular structural constraints, the questions remain open as to if and how they can become the backbone of new infrastructures of care, and of more inclusive urban communities that constitute the Chinese informational city.

The role of working-class ICTs is notable in these cases because they differ from mass media in terms of their content and organizational principles. As can be seen clearly in the cases of Lanjisu and Ma Jiajue, newspaper and TV were heavily biased toward the official version of the stories while ignoring alternative perspectives, for instance, by considering why the Net-bar operators had to set up their business as such, endangering others' and their own lives? Because the online forums were bottom-up formations relatively free from the political and commercial constraints shaping mass media, they could foster discussions that are less simplified and more compassionate for all have-less victims involved, including the young perpetrators themselves, thus contributing to a less deformed public memory. Grassroots forums enable the users and providers of working-class ICTs to speak up, to share with each other and identify with each other. It is this unique role that distinguishes them from traditional mass media.

However, in the case of Sun Zhigang, mass media and working-class ICTs had a much closer affinity than in the other two cases. Journalists at *Southern Metropolitan Daily* relied on the Web and mobile phone to piece together the first news report, which was then relayed onto major Internet portals to create a huge impact on public opinion. As discussed earlier, this was perhaps more of an exceptional case due to the timing of the incident

during the SARS epidemic, when the new leadership of China had just came into power and was searching for a new basis of legitimacy.

But at the same time, the case also shows that, at the operational level, there is affinity between working-class ICTs and mass media, or at least the new metropolitan newspapers that identify themselves more closely with the urban underclass. When political control loosens, when new media and mass media can reinforce each other, the synergy will become a strong force to better the lives of the have-less. This was probably why the death of Sun Zhigang caused more policy change in the right direction than the other cases.

Such a synergy is of the utmost importance because what it represents is not only inter-media relationships but also ties between the have-less and the general public, including members of the urban elite. Indeed we can see this pattern in the cases of Lanjisu and Ma Jiajue, albeit in different ways, when issues long facing the urban underclass finally leapt from the small circles of have-less victims to the top of the agenda in mainstream policy discussions, through online forums and mass media. Sadly, for the leaping effect to take place there has to be the death of some college-educated youth, which was what happened in all three tragedies.

AN INTERIM CONCLUSION

The purpose of this article is to critically synthesize existing empirical evidence about working-class ICTs and the information have-less and to integrate this pivotal techno-social emergence conceptually with the understanding of the information society in general, and of the Chinese informational city in particular. The goal is only partially fulfilled at this point. Although we can say a few things given the above synthesis and analysis, we still know too little about life and death in the lower strata of the Chinese informational city, which calls for a systematic undertaking on the subject in future research.

As discussed earlier, while the diffusion of working-class ICTs offers opportunities for upward mobility, the actual process of technological growth is accompanied by multiple social processes that perpetuate inequality, exacerbate conflict, leading to the death of have-less individuals and causing agony in the families and communities they belong to. The spread of ICTs cannot be separated from the informal economy, where used computers, pirated movies, and refurbished mobile phones are traded in large quantity. These low-end businesses not only provide jobs to the information have-less but also help materialize much of the organizational structures of the

information society, especially its lower strata, with extensive ties to traditional networks and the institutionalized formal economy. Black markets — of ICT products, of blood, drugs, assault weapons, gambling, and gangster services of all kinds — thus flourish because marginalized groups can now use working-class ICTs for internal coordination and information dissemination to the entire informational city.

There is, therefore, a wide spectrum of activities and events in the lower strata of the Chinese information city, in which the three fatal disasters discussed above are only the tip of the iceberg. Gangster activity, police brutality, factory suppression of labour activists, starvation and conflicts within the families of the unemployed — the sufferings and killings of the information have-less go on everyday. Yet most of them are not reported because those killed are not college-educated; because even the have-less themselves have grown apathetic to the silent perishing of human lives.

But our interim conclusion is not just a pessimistic note. At least, when it comes to the gravest tragedies, when have-less youth cannot be protected from life-threatening danger even after getting higher education, the key channel for upward social mobility for have-less individuals, chances are that the urban society at large will be informed and engaged, through the combination of new and old media, in an effort to protect the future of China. This collective will is not immune to manipulation. But it is, nonetheless, the most solid basis to start with, in order for solutions of age-old social problems to be addressed, debated, and implemented; in order for the information society to be sustained as an inclusive techno-social system.

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9

INSTITUTIONAL RESPONSES TO GIS ADOPTION FOR RPTA IN LOCAL GOVERNMENTS

Jocelyn C. Cuaresma

GIS: A TOOL IN PROMOTING EFFICIENT TAX SYSTEMS

Real property taxes (RPTs) are the most viable revenue source of provinces, cities and municipalities in the Philippines. Real property tax administration (RPTA) involves the formulation, implementation and evaluation of policies on real property ownership, valuation, taxation, and records management. If properly administered, real property taxes can contribute as much as 30 per cent to total city and provincial income. Despite having a clear tax base, RPTs are poorly administered. The problems occur in all stages of RPTA. Specifically, the administration of RPTs is troubled by inaccurate tax maps, inaccurate and incomplete data, poor assessment, low valuation, duplication of records, incomplete payment history, and inefficient reporting of assessment and collection performance. Based on audit reports on local governments' financial performance from 2002 to 2006, RPT delinquencies, or revenue lost from tax evasion, have increased over the last five years reaching PhP24.7 billion in 2006. This amount is equivalent to 48.1 per cent of the total potential revenue from RPTs nationwide. Inefficiencies continue to manifest despite the growing adoption of Geographic Information System-based (GIS) tax information systems by local government units (LGUs) (NCC 2003).[1]

GIS has the potential to improve every stage of the RPTA process. The literature suggests that GIS adoption and implementation require significant amount of leadership, organizational and management support. Somers (1994) proposed that organizational factors such as the ability to get political and administrative support, including support for sufficient funding and cooperation of staff and end users, must be addressed to ensure the long-term success of a GIS project. She emphasized that any organization adopting GIS should determine the appropriate role of GIS in the organization, and the organization must in turn understand the implications of that role (1998, p. 157). An organization's culture, lack of understanding of GIS, and unpreparedness are also obstacles (Crosswell 1991). As such, managing organizational change is a key issue when implementing new information systems in an organization (Zhao 2002). In fact, Ramasubramanian (1999) says that many factors affecting the successful or failed GIS implementation have little or nothing to do with the technology. Rather, GIS implementation can be hindered by institutional barriers. To ensure success in implementation, Ramasubramanian suggests having clarity in problem definition, forging strategic alliances, adopting incremental planning, and developing local knowledge.

Two related studies — a survey of 514 British local government authorities (Campbell and Masser 1991) and twelve case studies of British local governments (Campbell 1994) — contained important but mixed findings on GIS adoption and its impact, namely that:

(a) The most important perceived benefit was the improved information processing facilities (such as data integration and better access to information);
(b) GIS adoption had no significant impact on savings; some better quality decisions at the operational level (38 per cent), managerial level (28.8 per cent), and strategic level (25 per cent);
(c) GIS adoption had limited impact on local governments even after a minimum of two years of experience.

This study presents some observations on the institutional responses of local governments that have adopted GIS in RPTA. The institutional responses ranged from reorganization, creation of GIS offices, groups and/or committees, conduct of GIS training, and acquisition of GIS technology. The paper explains that weak institutional responses can hinder or delay the successful implementation of a GIS-based Real Property Tax Information System (RPTIS). Observations were derived primarily

from the experiences of three local government units selected on the basis of their known adoption of GIS in RPTA and their willingness to be the subject of the study. They were the Cagayan de Oro City Government; the Iligan City Government; and the Bulacan Provincial Government

Interview data were complemented by focused group discussions with technical staff members in the Assessor's and Treasury offices in the study areas, ocular inspection of the GIS facilities, written materials supplied by resource persons and website information.

A GIS-based RPTIS is successfully implemented if it is sustained and continuously used in solving the inefficiencies in RPTA. Institutionalization follows successful implementation. Institutionalization is defined as the sustained and continued use of an innovation (Moore 1993). Prior to institutionalization, an innovation such as GIS goes through a process of diffusion wherein the innovation is initiated into an organization, adopted, communicated through channels over time among members of a social organization, and implemented (Rogers 1995, p. 12). An innovation is institutionalized if it is adopted by a critical number of actors within the organization leading to its persistence (Bitar 2006, p. 3).

In the three LGUs, successes were achieved in varying degrees depending on the scope of institutional reforms and policy changes, and given the circumstances and differing context within which IT and GIS technology were introduced. Success in institutionalization of the GIS-based RPTIS was assessed based on the following:

(a) Highly institutionalized — the GIS-RPTIS is in place in both the Assessor and Treasury offices; the GIS database is updated in real time or on per transaction basis;
(b) Moderately institutionalized — the GIS-RPTIS is in place in the Assessor's office; the GIS database is updated in real time or on per transaction basis;
(c) Not institutionalized — there is no GIS supported RPTIS database yet in place.

GIS ADOPTION IN RPTA IN THREE LOCAL GOVERNMENT UNITS

Cities and provinces in the Philippines are authorized under the 1991 Local Government Code to impose taxes on real property, namely:

- Basic Real Property Tax (Basic RPT);

TABLE 9.1
Comparative Profile of the Case Study Areas

	Cagayan de Oro City	**Iligan City**	**Bulacan Province**
Population	563,114 (2005)	285,061 in 2000	2.25 million (2005)
Land Area	412.8 km^2	813.37 km^2	2,637.68 km^2
Total income	PhP 1.402 billion (2006)	PhP 965.5 million (2006)	PhP 1.542 billion (2005)
Component LGUs	80 *barangays*	44 *barangays*	20 municipalities, 2 cities and 568 *barangays*
Number of Real Property Units	167,687 (2005)	100,000 (2006)	698,000 (2006)
Period of RPT computerization	1991 to 1996	1997 to 2002	1997 to 2002
Year GIS was adopted in RPTA	1997	1997	1997
Name of the GIS-based RPTIS	Revenue Generation System (RGS)	Tax Revenue Assessment and Collection System (TRACS)	G-RPTIS

- Real Property Tax for the Special Education Fund (RPT-SEF);
- Tax on Transfer of Real Property Ownership;
- Tax on Real Property Benefited by Public Works; and
- Tax on idle lands.

The administration of real property taxes in provinces is more difficult compared to that in cities since the former normally have bigger land areas and more real property units. Similarly, provinces share the administration of real property taxes with component municipalities and *barangays*[2] with which they share the proceeds of the Basic RPT and the RPT-Special Education Fund. In cities, proceeds are shared only with barangays. Table 9.1 gives some comparable statistics on the three case study areas.

Cagayan de Oro City Government: Revenue Generation System

Cagayan de Oro started to computerize assessment and treasury operations in 1991. It was one of the earliest local authorities to adopt textual-format computerized solutions in revenue generation and did so to address inefficiencies and the lack of transparency in determining tax delinquencies and tax collectibles (Mendoza 2006). Prior to this, the City Treasury spent two to three months preparing the "Abstract of Collections" document and other revenue reports, which became the basis for programming disbursements and for computing the shares of barangays (or village governments) from real property taxes. Delays in preparing the Abstract of Collection lead to delays in preparing financial reports required by the Department of Finance and the Commission on Audit. The slow processing of collection reports further delays the computation and remittance of the barangay share in the basic RPT.

Significant policy reforms and strategies were undertaken from 1998 to 2002 (refer to Box 9.1). The reforms included the creation of the GIS Division under the City Planning and Development Office (CPDO) in 1994 and under the Philippine Regional Municipal Development Project (PRMDP), the formulation of a Strategic Business Plan, the creation of the Information Technology (IT) Group, an IT Team in every city department and the City Trainers Pool.

Box 9.1. IT-related Reforms in Cagayan de Oro City Government

- Hired computer programmers in 1993 and assigned them to the Treasury Office
- Acquired GIS technology in 1994
- Created the GIS Division under the City Planning and Development Office
- Created the Computer Division, City Treasury Office
- Created the IT Section-Administrative Division, City Assessor's Office
- Participated in the PRMDP in 1997
- Created an IT/GIS Group
- Formulated the GIS Business Plan
- Created an IT Team in every city department
- Created the City Trainers Pool (CTP)

Development of the Revenue Generation System (RGS)

The development of the RGS took place over a period of five years. External technical assistance was received from the United States Agency for International Development-funded Regional Cities Development Project in 1991 (Mendoza 2004). Three programmers were hired in 1993 to develop the real property tax information system.[3]

In mid-1993, Cagayan de Oro entered into a memorandum of agreement with the National Computer Center (NCC)-Mindanao for technical assistance in the development of an integrated RPT and business permits/licences assessment and collection system. NCC, however, was slow in developing a programme for Cagayan de Oro that the latter proceeded to develop a system independently (Alampay 2006, p. 12). The procurement of servers, personal computers and software, and the training of city hall staff members followed in 1994. Data capture and cleansing of the 120,000 real property units (RPUs) were conducted from late 1993 to mid-1995. In-house system development, data conversion and testing took place in the second half of 1995. Finally, the Revenue Generation System (RGS) was rolled out in the Assessor's and Treasurer's offices in January 1996.

Features of the RGS

The RGS is a GIS-ready programme composed of two modules: (1) Real Property Tax Module; and (2) Business Permits and Licences Module. Each module has the following features listed in Box 9.2 (Mendoza 2006).

Box 9.2. Modules under the RPTS and BPLS, Cagayan de Oro City

Real Property Tax System (RPTS)	Business Permits and Licensing System (BPLS)
o Assessment	o Online preparation of payment order
o Online billing	o Online preparation of Mayor's Permit
o Online collection	o Online query access
o Production of financial reports	o Online retirement of Business Permit
o Online access	o Billing
	o Collection
	o Online preparation of financial reports

Source: Mendoza, 11 August 2004.

GIS adoption

GIS technology was introduced in the city government through two foreign-assisted projects — the Decentralized Shelter and Urban Development (DSUD) Project in 1994 and PRMDP[4] in 1997–98. Under the DSUD project, Cagayan de Oro acquired an analogue satellite image covering about twenty-five per cent of the city's urban area, two desktop computers, a digitizer and a plotter. Selected staff members from the Planning and Development Office, Assessor's Office, Treasury and Engineer's Office were trained on land use data interpretation and map digitization. The training gave them an opportunity to start the development of a GIS application for RPTA.

Under PRMDP, Cagayan de Oro received assistance in the form of training and GIS technology. Hence, PRMDP helped enhance Cagayan de Oro's RGS by developing its GIS application.

Reforms in the City Treasurer's Office

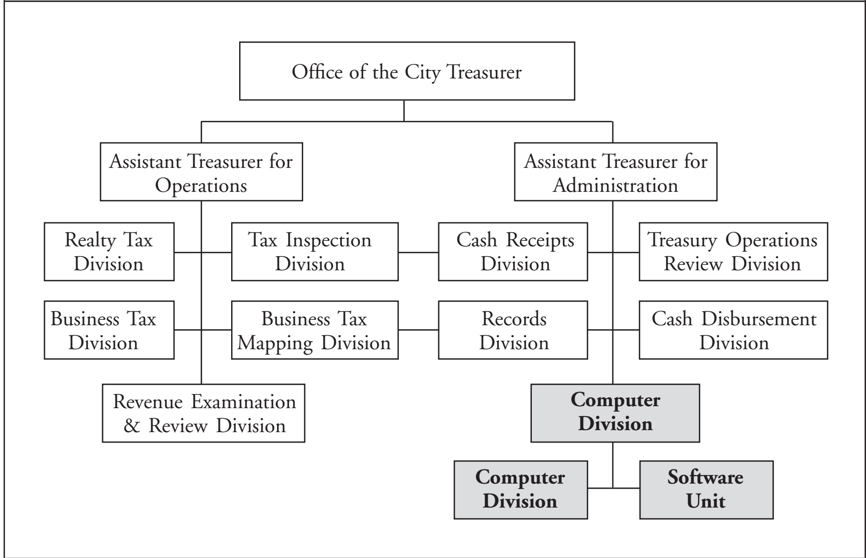
An important organizational change in the Treasurer's Office was the creation in 1995 of the Computer Division and its two units (Box 9.3). The Computer Division is responsible for the development of the textual RGS database and other information systems for city hall offices. As of 2006, the Division has thirteen personnel including five IT officers/computer programmers. The office hosts the RGS server.

Reforms in the City Assessor's Office

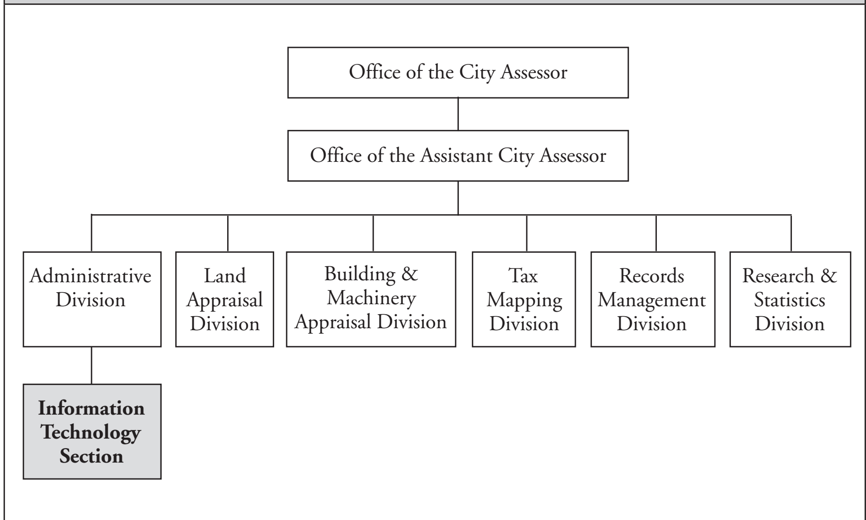
The organizational structure of the City Assessor's Office (CAO) has the following features: (1) an IT Section[5] created in 1995 under the supervision of the Administrative Division (see Box 9.4) with ten plantilla items: (1) the splitting of the "Appraisal" function into two divisions: Land Appraisal, and the Building and Machinery; and (2) the creation of a Research and Statistics Division in 1968 (separate from the Records Management Division).

The Tax Mapping Division (TMD) maintains two sets of analogue tax maps, namely: (1) maps for land parcels in each section in every barangay; and (2) maps for buildings and improvements. The analogue tax maps are maintained TMD, while the GIS maps are maintained by the GIS Division.

Box 9.3. Organizational Chart: City Treasurer's Office, Cagayan de Oro City Government



Box 9.4. Organizational Chart: City Assessor's Office,Cagayan de Oro City Government



Creation of the GIS Division

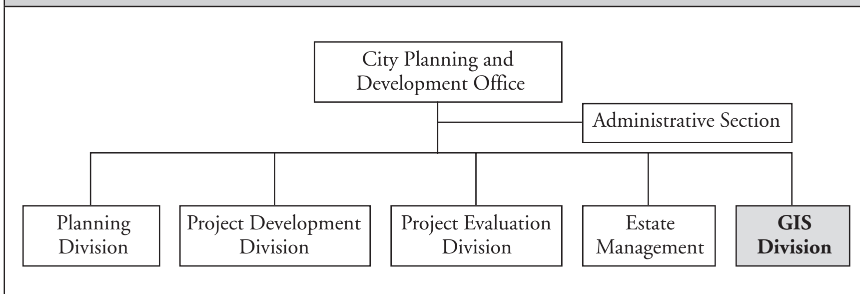
The GIS Division was formerly the GIS unit created in 1994. It is one of five divisions of the City Planning and Development Office (CPDO) (refer to Box 9.5). It has six permanent GIS-trained staff, and hosts the GIS server. The GIS Division operates under a budget separate from CPDO. Its finances were strengthened with the issuance of City Ordinance No. 8278-2002 dated 8 July 2002, which mandated the imposition of fees on the production of city maps. Proceeds from the sales accrue to a trust fund for the use of the GIS Division for the purchase of map printing supplies and materials. Cagayan de Oro was among the first local governments in the country to establish a GIS Office and digitize topographic data (2004 State of the City Address, <www.cagayandeoro.gov.ph>, 24 September 2006).

Personnel Management-related Reforms

The City Trainers Pool (CTP) was created through Executive Order No. 63-99 dated 16 April 1999 as a permanent group to assist the Human Resource Management Office in capacity-building activities. Its twenty-six members were handpicked from various city offices to form a diverse and dynamic pool of experts in the planning, implementation and evaluation of city government-funded training programmes.

Based on interviews with the GIS/IT personnel (16 October 2006), the CTP consists of two distinct groups: the IT/GIS Group, which is composed of the IT staff of the Treasury and Assessor's offices and the GIS Division; and the Human Resource (HR) Group. Members of the IT/GIS Group serve as resource persons in IT/GIS training, while the HR Group members act as resource persons on civil service-related training activities.

Box 9.5. Organizational Chart: City Planning and Development Office, Cagayan de Oro City Government



The IT/GIS Group is officially designated by the city mayor to develop information systems for city hall offices, ensure the development of an IT Team in every department, evaluate IT procurement requests from various departments, set standards and specifications in IT equipment and programme the acquisition of IT equipment in city hall. Prior to the issuance of the executive order, the IT/GIS people conducted meetings and activities only informally, preventing the group from functioning effectively.

Status of the RPTIS

Based on interviews with the chiefs and technical personnel of the Computer Division-Assessor's Office and the GIS Division-CPDO, the Revenue Generation System is operational but not fully utilized. The spatial database is not updated in real time (interview data, 17 October 2006). The GIS point person in the Assessor-Tax Mapping Division who is tasked to update the spatial database said that he was not provided with an appropriate GIS workstation. Because he has not been using GIS, he has forgotten how to use it. Instead, he manually updates the analogue tax maps. Transactions involving digitizing work, e.g. subdivision or consolidation of parcels, are forwarded to the GIS Division.

Strengths and Weaknesses of IT Reforms

Organizational and management reforms that were carried out helped the city government put in place a GIS-based RPTIS. Top-level support was manifested in the creation of IT structures in the Assessor, Treasurer and Planning departments, and issuance of executive orders and similar IT-related reform initiatives. At the department level, the efforts of the City Mayor were complemented by GIS implementers particularly in the City Treasurer (current and former), the CPDO Coordinator and the Chief of the Computer Division-Treasury Office. The CPDO Coordinator served as the political and administrative link between the concerned departments and the executive and legislative officials of the city government. The Computer Division Chief was the one who led the development of information systems for city hall offices (interview data, 29 August 2006).

GIS and RGS have improved the work of the Assessor's Office in speeding up assessment procedures and generation of assessment documents and reports. For instance, RGS has made data search faster, e.g. by property owner. It has enabled the Assessor's Office to finish the General Revision of the market values of real properties within a few weeks instead of months

TABLE 9.2
Estimated Collectibles in Real Property Taxes, 2004–06, Cagayan de Oro City
(in million pesos)

	Basic RPT	RPT-SEF	Total	Percentage Increase
2003	12.3	0.5	12.8	
2004	75.7	23.4	99.1	674.2
2005	176.9	79.6	256.5	158.8
2006	220.6	64.8	285.6	11.3

Sources: Commission on Audit Annual Audit Reports 2003 to 2006.

and with greater accuracy. The systems enabled the Treasury Office to hasten the processing of payment transaction and generation of treasury reports periodically submitted to city officials and national government offices. Similarly, RGS facilitated the computation of the shares of barangays from the proceeds of RPTs. Based on interviews with the Treasury Collection Clerks and the Computer Division Chief, RGS promoted accountability through the automatic generation of official receipts. Cashiers no longer wrote out official receipts manually. The online query feature of RGS allowed users to view and verify tax declaration data.[6]

While GIS and RGS have generally facilitated data search, map query, data updating, report processing and the like, the information systems have not been used to more accurately determine potential income from real property taxes. The observation is based on the Commission on Audit finding that the Treasury continues to use the estimated taxable assessed value of real properties[7] as the basis for determining the annual RPT collectibles. This makes the projected annual RPT collectible unreliable and unrealistic (see Table 9.2). In principle, RGS should be able to generate the complete list of real property taxpayers in the local government. The rising level of RPT collectibles show that little effort is exerted to actually use GIS information to locate delinquent properties and conduct actual tax collection.

Iligan City Government: Tax Revenue Assessment and Collection System (TRACS)

Prior to 1997, the Assessor's Office attempted, albeit unsuccessfully, to develop in parallel two information systems, namely: (1) the Field Appraisal and Assessment Sheet (FAAS)-based Assessment System in a Disk Operating

System environment; and (2) the Tax Assessment Database Management System using Windows 95 Operating System. Information systems were also developed in the Business Permit and Licences Office, i.e. a Windows-based Mayor's Permit System, and a Tax Calculation System in the Treasury Office. Parallel to the computerization efforts in these offices was the spatial database development at CPDO. While the primary purpose for GIS acquisition in 1995 was to facilitate the preparation of the 1995–97 City Comprehensive Master Development Plan, Iligan utilized GIS in the same year in the tax mapping operations of the Assessor's Office.

Given prior unsuccessful computerization attempts, the city in 1997 ventured into another tax computerization attempt, as a pilot city of PRMDP in 1997. PRMDP introduced the Tax Revenue Assessment and Collection System (TRACS) and GIS. Governmental reforms in support of the adoption of TRACS were, however, limited (refer to Box 9.6). Furthermore, the period during which TRACS was implemented happened during the economic slowdown caused by the closure of industrial and manufacturing firms from 1998 to 2002. The city government had to immediately address problems of higher unemployment and the increase in demand for city services with a smaller amount of financial resources. The closure of huge firms resulted in the reduction of city revenues by half.

Box 9.6. Significant IT-related Reforms in Iligan City Government

- Acquisition of GIS technology
- Training on GIS
- Participation in PRMDP, adoption of TRACS and GIS
- Formulation of the Strategic Business Plan
- Creation of the GIS Section

Features of TRACS

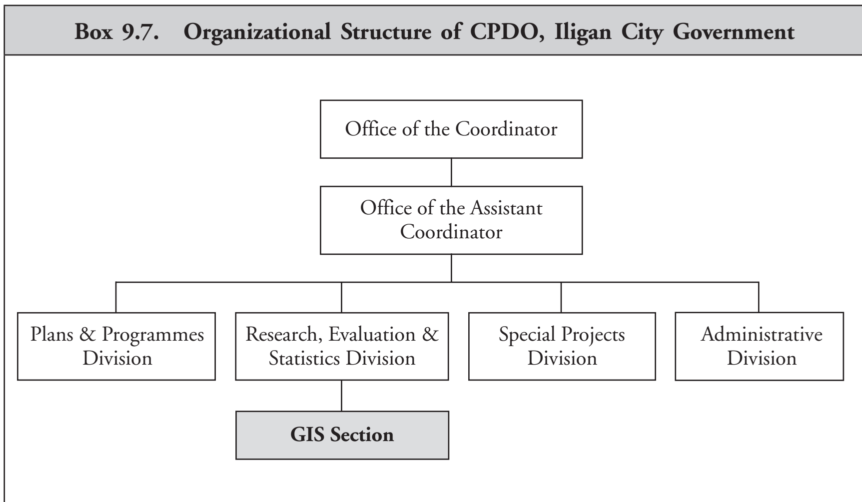
TRACS is an integration of three databases: (1) Real Property Tax Module; (2) Business Permit Module; and (3) Tax Collection Module. Likewise, TRACS has three important features, namely: (1) it is an enterprise GIS database.[8] Initially, four offices — Mayor, Treasury, Assessor, and Planning and Development — can share the database to enable them to monitor various accounts of taxpayers; (2) it integrates the administration of real property taxes, and business taxes, permits and licences, enabling the simultaneous monitoring of payment of these taxes and fees; and (3) it is GIS-ready.

Organizational Reforms

IT-related organizational structural and personnel reforms in Iligan were smaller in scale than in Cagayan de Oro, and focused more on capacity-building in GIS. No visible change in the structure of the Assessor's Office and the Treasury Office was observed from 1997 to 2003. The only IT-related structural change was the creation of the GIS Section under the CPDO-Research, Evaluation and Statistics Division (Box 9.7). The GIS Section had four permanent staff members, who joined a study tour in Australia under PRMDP. Locally, the GIS staff attended training[9] on GIS. TRACS users' were made to undergo users training and training on customer service skills.

IT-related organizational reforms picked up in 2004. In November 2004, Mayor Lawrence Ll. Cruz created an ICT Task Force composed of technical staff from all city departments, consultants and IT specialists from outside the city government as a consultative and recommendatory body on IT matters. Likewise, the mayor issued Executive Order No. 331 in 2005 creating the multisectoral Iligan Information and Communication Technology and E-Commerce Council to act as the policy-making body on IT development in Iligan. Amidst these reforms, the city organization remains without a central department to handle information systems development and management.

Box 9.7. Organizational Structure of CPDO, Iligan City Government



Personnel Management Reforms

In the City Assessor's Office, IT/GIS capability is found in two divisions: the Tax Mapping Division with five GIS-trained personnel, and the Evaluation Division with one staff (a Reproduction Machine Operator) lodged with the tasks of networking, database management, maintenance of the TRACS-RPT Module, and reports and statistics generation. The Treasury Office has two GIS-trained personnel. The plan to create a TRACS Division[10] in the Treasury shows that no particular division is currently in charge of TRACS.

Status of TRACS

Based on an interview with the GIS personnel (12 October 2006), the link between GIS and TRACS is not yet in place because the GIS database is only 40 per cent complete (interview data, 13 October 2006; <www.iligan-city.gov.ph>, 8 March 2007). The GIS staff has not completed the spatial database for TRACS. The problem stems mainly from the use of technical descriptions from land titles as the basis for creating the parcel maps. The technical descriptions contained major errors.[11] Hence, TRACS went online in December 2003 without the GIS enhancement.

Strengths and Weaknesses of Reforms

The reforms in Iligan were not enough to enable it to successfully implement GIS in RPTA after ten years. Having a GIS Section in CPDO and GIS-technical personnel in the Assessor and Treasury Offices proved insufficient to support the full implementation of TRACS. The RPT Module of TRACS is not yet in place.[12] Without overemphasizing the reform weaknesses, it may be stated that Iligan has no central department on GIS and IT matters. A technical constraint on the conduct of the TRACS-RPT Module was the use of technical descriptions from land titles in order to build the GIS database for RPTIS.

Based on interviews with the GIS technical staff members, GIS data were used for presentation purposes, e.g. during orientation programmes to brief audiences on the uses of GIS. In RPTA, the use of the GIS was limited to querying land use maps and viewing sample parcel maps.

Bulacan Provincial Government: GIS-Real Property Tax Information System (G-RPTIS)

Reorganization and e-Governance Framework

Computerization in the Bulacan Provincial Government was part of a set of comprehensive reform initiatives undertaken from 1996 to 1998 under Governor Roberto Pagdanganan and from 1998 to 2007 under Governor Josefina M. dela Cruz (refer to Box 9.8). During the period, the province-wide reorganization was implemented in phases, and an e-governance framework adopted.

Box 9.8. Significant IT-related Reforms in the Bulacan Provincial Government

- Adoption of an e-Governance framework
- Phased-implementation of the comprehensive provincial reorganization, resulting in the following organizational changes, among others:
  - creation of a top-level GIS Committee;
  - creation of a department-level information office, the Provincial Information Technology Office (PITO);
  - creation of the GIS Centre under the Provincial Planning and Development Office;
  - merger of the Assessor's Office and the Treasurer's Office into the Provincial Assessor and Treasurer's Office (PATO);
- Formulation of the Provincial Information Systems Strategic Plan (ISSP)
- Acquisition of GIS technology and aerial photos
- Adoption of a Memorandum of Agreement with municipalities on the implementation of the G-RPTIS

When dela Cruz became governor in 1998, no department heads were replaced or removed. Instead, the department heads including the Provincial Administrator were given prime roles in crafting the vision of a lean government manned by honest, competent and dedicated government workers. The Governor sought the support of all provincial constituents including the members of the Sanggunian (or local legislative council), department heads, technical staff, the rank and file, and mayors, assessors and treasurers of component municipalities.

In more concrete terms, the Governor led the formulation of the Provincial Information Systems Plan (PISP), acquisition of standardized GIS data and GIS technology, building staff competence and adoption of appropriate organizational and human resource management reforms.

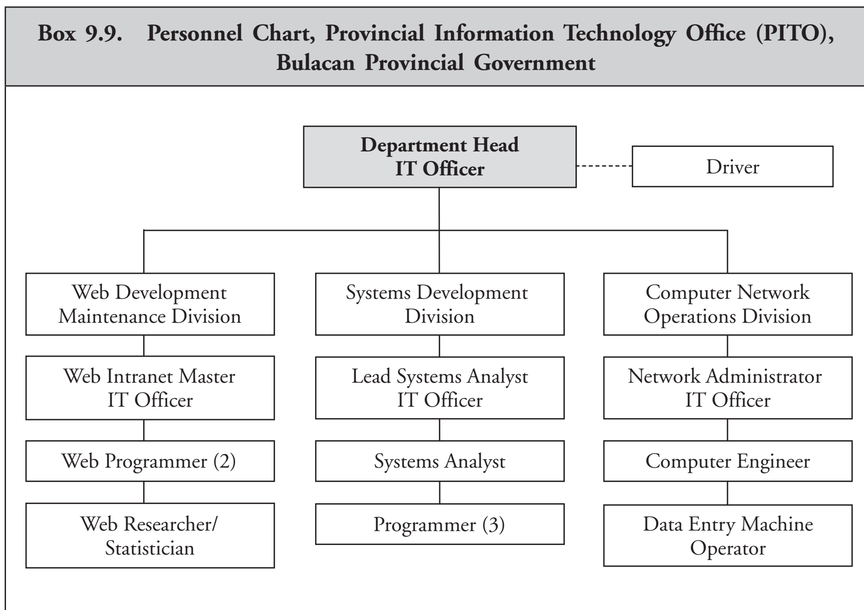
As expected, reforms were not cheap and results did not come about immediately. It cost the provincial government P52 million to implement the eGovernance programme (Dela Cruz 2006, p. 52).

Organizational Reforms

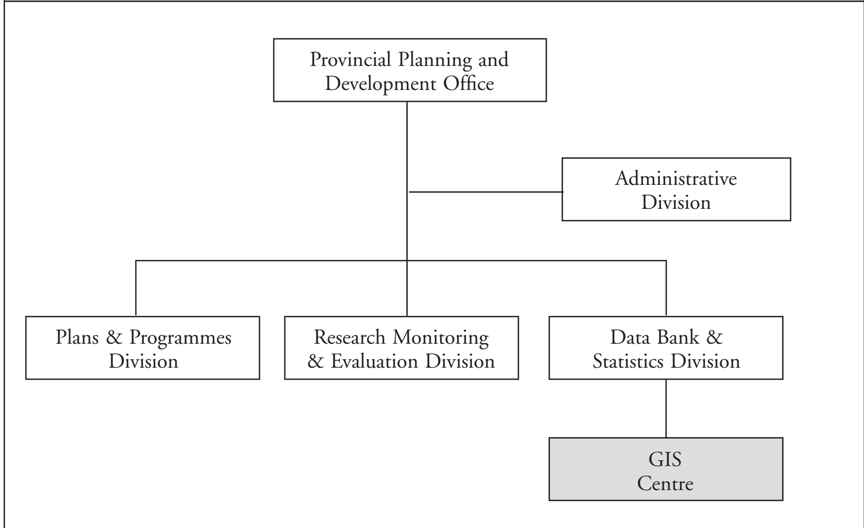
Bulacan pursued the most extensive organizational reforms among the three case study areas. Two IT-related reforms were the creation of the Management Information Systems Division (MISD) in 1996 under the Office of the Provincial Administrator and the formulation of PISP in 1997. MISD, which became the Provincial Information Technology Office (PITO), a fully-pledged department, was tasked to implement PISP (refer to Box 9.9 for the personnel chart of the PITO). As of 10 April 2006 (interview data), PITO had twenty-two personnel.

The GIS Committee was formed in 1997 to develop the government's GIS capability. The committee was composed of technical people that included the PITO head, the Provincial Administrator, the Planning and Development Office Chief, the Provincial Treasurer, and two Provincial Board Members. This was followed by the creation of the GIS Unit as an ad hoc unit. The GIS Unit was transformed into the GIS Centre in

Box 9.9. Personnel Chart, Provincial Information Technology Office (PITO), Bulacan Provincial Government



Box 9.10. Organization of the Provincial Planning and Development Office, Bulacan Provincial Government

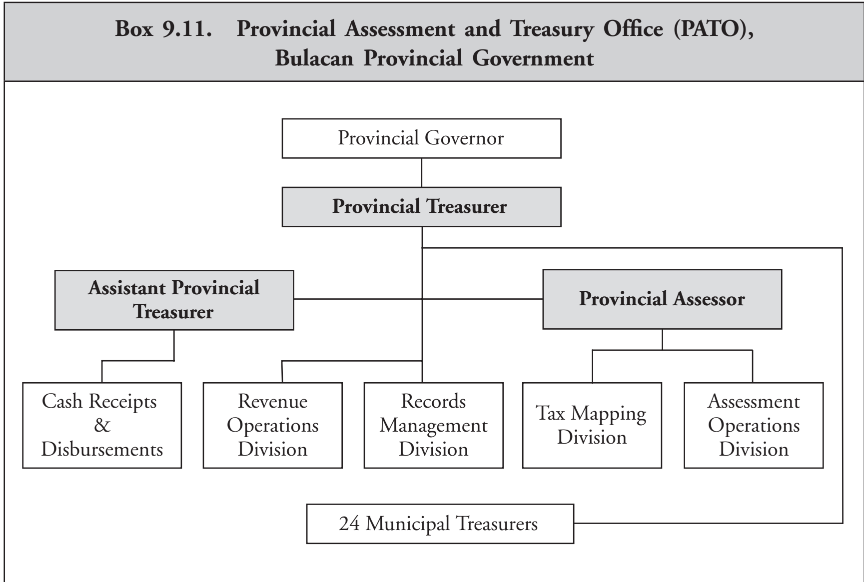


2002 and located within the Provincial Planning and Development Office (PPDO) (refer to Box 9.10). In 2006, the GIS Centre was manned by seven GIS personnel, each equipped with a GIS workstation.

Having PITO and the GIS Centre enabled Bulacan to develop spatial information systems in-house. In developing RPTIS, data capture activities took place from April 2000 to November 2001 in PITO where a data encoding center was put up. Twenty data encoders (one encoder per municipality) were hired to capture data from the Field Appraisal and Assessment Sheets. The cost of data encoding was shared equally between the provincial government and component municipalities. The RPTIS operation was rolled out in 2001 (Dela Cruz 2006, p. 56).

PITO developed a programme of continuous upgrading of computer skills and led the conduct of orientation programmes and practical training for local executives, technical and administrative staff. It provided IT expertise and addressed all technology concerns of the provincial government and component municipalities and cities, including systems development, database build-up, and infrastructure development, upgrade and maintenance. The Provincial Board supported the real property tax computerization project by passing a resolution adopting the Memorandum of Agreement between

Box 9.11. Provincial Assessment and Treasury Office (PATO), Bulacan Provincial Government



the Provincial Government of Bulacan and its component municipalities in implementing the project.

Parallel efforts were taken to build the province's GIS facility. The GIS software acquired in 1997 was replaced in 2000 by a more powerful platform called Geomatica. The GIS Centre's first major task was to enhance RPTIS into G-RPTIS. In 2003, the provincial government bought satellite images[13] to facilitate the overlay analysis and digitization of tax maps.

A unique reform initiative was the merger of the assessment and treasury functions into the Provincial Assessment and Treasury Office (PATO). The merger, which was fully implemented in 2002, is unique in the recent history of local governments in the country (Box 9.11).

According to the provincial officials interviewed,[14] the merger facilitated communication and coordination between them. The Provincial Treasurer heads the department and exercises administrative supervision over the Provincial Assessor (an Assistant Department Level position) and the Assistant Treasurer. According to Provincial Assessor, the arrangement was acceptable since she continues to perform her job as before, subject only to the administrative supervision of the Provincial Treasurer. The merger streamlined the two departments and reduced their total number of staff from 82 to 54.

Features of G-RPTIS

G-RPTIS integrates the real property tax system for the entire province with its component cities and municipalities. Its purposes are: (1) to maintain an up-to-date, accurate assessment roll of real property units in the province; (2) to generate assessment notices and lists of past due accounts on time; and (3) to set up a centralized data storage system that allows decentralized processing of real property assessment and acceptance of real property tax payment any time, anywhere in the province. In general, the system allows municipal governments to process assessment rolls, generate assessment notices and determine past due accounts.

In the provincial government, G-RPTIS was deployed in two offices — Assessor and Treasury. The Assessor utilizes the Assessment Operation Module, while the Treasury utilizes the Billing and Collection Module (refer to Table 9.3). Real property unit data are stored in a central database at the provincial capital, but the database is accessible to municipal assessors and treasurers anywhere in real time. The database holds data on 620,000 real property units in the whole province. As of 5 April 2006, RPTIS had been installed in eighteen municipalities and one component city of Bulacan. Municipalities where RPTIS is already rolled out can already automate

TABLE 9.3
Components of RPTIS in Bulacan

Provincial Assessor's Office		**Provincial Treasurer's Office**	
1. Assessment Operations Division	Appraisal and assessment of real property	1. Revenue Operations Division	RPT billing
2. Tax Mapping Operations Division	Pre-Field, Field and Post-Field Activities (tax mapping operation)	2. Cash Division	Tax collection
3. Records Management Division	Records Management (reports and documents management)		

Source: Provincial Government of Bulacan.

assessment tasks, generate billing statements and record tax payments (Borbe 2006, p. 17).

The GIS component in municipalities is not yet operational, pending compliance with hardware and software requirements, but they already have direct access to the G-RPTIS data server maintained by the provincial government via a secured website (<www.bulacan.gov.ph>, accessed 1 December 2006).

Strengths and Weaknesses of Reforms

GIS adoption and implementation in the Bulacan Provincial Government is founded on the following:

- An e-governance framework;
- Implementation of a comprehensive provincial reorganization;
- Formulation of the Provincial Information Systems Strategic Plan;
- Creation of the Provincial Information Technology Office (PITO);
- Creation of the GIS Centre; and
- Acquisition of GIS technology and spatial data.

PITO and the GIS Offices of Bulacan are responsible for the conduct of IT and GIS capacity-building programmes. These offices enable Bulacan to train and build staff capacity continuously (Dela Cruz 2006, p. 56).

Table 9.4 shows the improvement in processing RPTA transaction “Without” and “With” G-RPTIS. With G-RPTIS, Bulacan was able to reduce the time spent in processing RPT-related transactions. G-RPTIS facilitated much of the work of the Assessor’s Office. It simplified the storage, updating and retrieval of tax maps and allowed easy parcel viewing and verification of improvements and property valuation. The manual processes of subdivision and/or consolidation of parcels on tax maps were replaced by on-screen digitizing. The manual assignment of property identification numbers (PINs) was done away with, thus avoiding duplication of PINs. G-RPTIS automatically assigns new PIN to a new parcel as defined by the user. Searching individual real property units can be done in an average of five seconds. The automated implementation of the General Revision, which involved updating the “Field Appraisal and Assessment Sheets” and individual parcel reassessments, was shortened from one year to three months. The generation of financial reports was shortened to one day compared to a month-long preparation in the past (Provincial Government of Bulacan, 20 March 2006).

TABLE 9.4
Comparison of Processing Time without and with G-RPTIS, Bulacan Provincial Government

Processes	Processing time without G-RPTIS	Processing time with G-RPTIS
Processing of Real Property Unit	30 minutes (average)	2 minutes (average)
General Revision of the Schedule of Market Values of Property	1 year (each RPT record is individually reviewed for re-assessment)	3 months (the new schedule of base unit value is simply encoded, then every property information is automatically updated)
Generation of reports and documents	1 month	Tax bills and notices of delinquencies are generated in 1 day

Source: Provincial Government of Bulacan, <www.bulacan.gov.ph>.

TABLE 9.5
Estimated Collectibles in Real Property Taxes, 2004–06, Bulacan Provincial Government
(in million pesos)

	COLLECTIBLES			ACTUAL COLLECTION			
	Basic RPT	RPT SEF	Total Collectibles (A)	Basic RPT	RPT SEF	Actual Collection (B)	B/A
2003	225.2	336.6	561.8	105.3	150.8	256.1	45.6%
2004	242.2	321.6	563.8	111.9	161.2	273.1	48.4%
2005	157.4	210.5	367.9	111.7	161.2	272.9	74.2%

Sources: Commission on Audit Annual Audit Reports 2003 to 2005.

Bulacan used RPTIS since 2003 to estimate the potential amount of real property tax revenues in a year as shown in Table 9.5 (COA AAR 2005, p. 40). The figures, however, gave mixed results and needed explanation. On the one hand, the nominal amount of collections from 2003 to 2005

was stable. On the other hand, the 2005 estimated RPT collectibles were much lower than the previous year's estimates, which resulted in a much higher collection performance. The Provincial Assessor and Treasury Office explained that the reduction in collectibles was due to the following:

- Failure to update the appraisal and classification of real property;
- Exclusion in 2005 of real properties covered by the national land reform programme, where land ownership was transferred to farmer beneficiaries but the lands are not yet fully paid for by the latter;
- Failure to properly identify idle lands;
- Exclusion of real properties with multiple claimants (with court cases); and
- Exclusion of real properties without owners (COA AAR 2004, p. 27).

The above list of problems identified by PATO shows that the office gained a better appreciation of the extent of the problems in RPTA. With the aid of GIS, PATO was able to generate more accurate information on land parcels subject to agrarian reform and more efficiently resolve agrarian-related problems. Since 2004, the provincial government and its component municipalities have adopted strategies to address the agrarian-related and RPTA-related problems. They have conducted regular tax information campaigns, house to house survey and actual property inspection to update assessment records, held consultation meetings with subdivision developers, and established a Real Property Assessment and Tax Payment Assistance Centre to make payment more accessible and convenient to taxpayers.

SUMMARY OF OBSERVATIONS ON INSTITUTIONAL RESPONSES

Computerized solutions in RPTA and the adoption of GIS in the three LGUs occurred in the early 1990s. In adopting GIS, Cagayan de Oro, Iligan and Bulacan shared the common objectives of improving RPTA, i.e. to create an accurate and up-to-date database of all real property units; to establish an accurate assessment of real property values for tax collection purposes; and to promote efficient collection of real property taxes.

The three LGUs have responded differently to GIS adoption in RPTA (refer to Table 9.6). The experiences of the three study areas show that institutionalization of GIS in RPTA is enabled (or inhibited) by the presence (or absence) and degree of strength of reforms, namely:

TABLE 9.6
Summary of Institutional Responses to GIS Adoption in RPTA

RESPONSES	Cagayan de Oro City	Iligan City	Bulacan Province
Has an ISP?	GIS Business Plan	None	Yes
GIS office and location	GIS Division, City Planning and Development Office (CPDO)	GIS Section, CPDO	GIS Centre, Provincial Planning and Development Office (PPDO)
IT office	IT Section, Assessor's Office	None	Provincial Information Technology Office (PITO) Department
Structural change in the Assessor's Office	Creation of an IT Section	None	Integration of Assessor and Treasury offices into the Provincial Assessor and Treasurer's Office (PATO)
Structural change in the Treasurer's Office	Creation of the Computer Division	No IT-related change	
GIS champion, implementers and users[15]	City Mayor; CPDO Chief; GIS Chief; Computer Division Chief; technical people	CPDO Chief; technical people	Governor, GIS Centre Chief; Assessor; technical personnel Provincial Administrator; Departments Heads
No. of GIS staff in the Assessor's Office	1 staff with basic GIS training	6 GIS technicians	4 GIS technicians 3 – with basic training
No. of GIS Staff in the Treasury	3 GIS technicians	2 GIS technicians	3 – with basic training
No. of staff in GIS Office	5 GIS technicians	4 GIS technicians	7 GIS technicians

TABLE 9.7
Assessment of Institutional Responses to GIS Adoption in RPTA

RESPONSES	Cagayan de Oro City	Iligan City	Bulacan Province
Leadership support	Moderate	Limited	High
Organizational reform	Moderate	Limited	High
Personnel management reforms	Moderate	Moderate	High
Technology support	Moderate	Moderate	High
Overall assessment of the current status of GIS-RPTS	Moderately institutionalized – the Revenue Generation System is operational, although the spatial database is not updated in real time	In process – TRACS-RPT module is not operational; spatial database build-up is ongoing	Highly institutionalized – G-RPTIS is operational

(1) leadership support; (2) organizational reform; (3) personnel management reform; and (4) technology support.

Among the three LGUs, Bulacan Province introduced the most extensive IT-related reforms and is assessed to have successfully implemented GIS-RPTIS. Cagayan de Oro's RGS is fully implemented but not fully utilized. Iligan's TRACS-RPT Module was not yet in place (refer to Table 9.7).

CONCLUSIONS AND RECOMMENDATIONS

The experiences of the three LGUs show that successful GIS implementation can be enabled, if not hindered, by institutional and technical issues. The

case studies further show that GIS implementation is a slow process. GIS implementation in RPTA alone can take ten years or more without assurance that benefits will be reaped during the period. There is also no assurance that the system will be sustained. Sustained use of GIS depends on a set of factors that include leadership support, organizational strengthening and/or change, human resource strengthening, and technical support or periodic upgrade of the GIS technology.

A lesson for local governments that are planning on adopting GIS is the benefit of having a department-level IT office to set policy and performance standards, evaluate IT project proposals, monitor IT equipment procurement, develop and conduct IT training programmes and maintain IT technologies. Having an IT department may help ensure the formulation and continued implementation and monitoring of an information systems plan or GIS business plan, where priorities in the development and upgrading of critical applications are established, the technology and training needs of city offices and personnel are identified, and a systematic basis for resource allocation are provided. It helps ensure the availability of budget for IT personnel, personnel training, technology procurement and upgrading. The IT department must work closely with the GIS Office when it comes to development and management of spatial information systems.

In the area of RPTA, adopting GIS necessitates strengthening the capability of the Assessor and Treasury offices. These offices must have the needed GIS technical personnel, equipment and GIS data, first, to accomplish RPTA tasks and second, to raise the standard in RPTA performance. The use of GIS in automating tax mapping, tax assessment and collection transactions accomplishes the primary reason for GIS adoption. Taking action on GIS-supported information, e.g. information on under-valuation, under-assessment, under-collection, and non-collection of taxes, should be the next step to maximize its use.

GIS offers users the facility of reinventing the process of planning and decision-making in RPTA. Generating the “Real Property Tax Account Register” is one process that can be fully supported by GIS. From the Register, the “List of Delinquent Real Property Owners” can be culled. Failure of the people involved to generate the “List of Delinquent Real Property Owners” defeats the purpose of the GIS. Ultimately, decision-makers have the full control of making GIS useful and suitable for the organization.

Notes

1. As of December 2003, 320 local governments had GIS facilities, with some LGUs using GIS in RPTA (NAMRIA 2003).
2. A *barangay* (also called village) is the smallest political unit into which cities and municipalities in the Philippines are divided (Republic Act 7160 or the 1991 Local Government Code).
3. Since 1993, the IT personnel from the Treasury Department have developed information systems for city hall offices including the RPT Information System, Business Permits and Licensing System, Financial Management System, Human Resource Information System and the Legislative Tracking System (Mendoza 2006).
4. PRMDP was piloted in the cities of Cagayan de Oro, Tagbilaran, Bacolod, Iligan, General Santos and Puerto Princesa. A major component of PRMDP was the Land Information System with two subcomponents: TRACS and GIS (PRMDP 1999).
5. The Assessor's Office originally proposed the creation of an IT Division.
6. For instance, by property ownership, name of owner, Tax Declaration Number, and Property Index Number.
7. The "Real Property Tax Account Register" or the certified list of real property taxpayers and the amount of tax due from each of them is not used in determining the annual RPT collectibles.
8. An enterprise or corporate database is considered the highest level of systems development. It is a multi-purpose system that is part of the operational framework of an organization and supports a wide range of applications across the entire organization (Tomaselli 2004, p. 2).
9. The training programmes included Geographic Positioning System, GIS, 3D Modelling, Advanced Visual Basic, Crystal Reports Making, Systems Administration, Networking Essentials, TRACS Modules, SQL, TRACS Data Structure, and Ad Hoc Reports Design. Cagayan de Oro staff attended the same GIS/LIS (Land Information System) training programmes conducted under PRMDP.
10. There is a plan to convert the Funds and Accounts Recording Division into the TRACS Division.
11. Instead of creating closed polygons, some technical descriptions create lines, open and/or overlapping polygons, and polygons that are out of bounds.
12. The other TRACS modules (Business Permits and Licensing System Module and the Tax Collection Module in the Mayor's Office and Treasurer's Office, respectively) are operational.
13. A satellite image is a photograph of the earth taken by satellites, e.g. the IKONOS satellite system located 400 miles above the Earth collects (grey-scale) images of data on the ground (<http://www.ssd.itt.com/heritage/ikonos/shtml>, accessed 21 March 2007).

14. Interview 10 May 2006.
15. Tomaselli (2004, p. 6) identified three types of "GIS people", namely: (1) the champion, one who sees how GIS can benefit one or more tasks that the organization has to do; (2) the implementer, or one who is typically a mid-level professional who sees how GIS can benefit oneself in doing one's own specific job and who may also see the big picture and the benefits for the organization but lacks the influence of the champion; and (3) the users, or those who use the GIS in their work on a day-to-day basis.

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10

CUSTOMER ACQUISITION AMONG SMALL AND INFORMAL BUSINESSES IN URBAN INDIA
Comparing Face-to-Face and Mediated Channels

Jonathan Donner

OVERVIEW

In both the popular press and the academic/development literatures, there is much enthusiasm about the potential of information and communication technologies (ICTs) to improve the productivity of small and informal businesses in the developing world. Clearly, ICTs can help small businesses replace travel and save money, compare price information, respond to existing customers, and find new customers (Saunders et al. 1994). As more small businesses gain access to ICTs, the research community is working to provide a more detailed understanding of the magnitude and details of these improvements. This study contributes to this effort by focusing on the role of ICTs in customer acquisition and retention by the smallest of enterprises. To do so, it surveys 317 sole proprietors and operators of small businesses with five or fewer employees in and around urban Hyderabad in Southern India.

The mobile telephone has become the ICT most useful to small and informal businesses as a means for developing and maintaining contacts with

customers (Donner 2006; Esselaar et al. 2006; Vodafone 2005). However, we know relatively little about the relative importance of mediated versus face-to-face means of customer interaction. Molony's (2006) ethnographic work in Tanzania suggests that the trust accrued through face-to-face interactions trumps the convenience of any telephone, but additional quantitative work is necessary to further this line of inquiry, and to bring it into other developing-world contexts.

In this survey, respondents were asked to report how various customers were acquired — via walk-in, referral, landline telephone, mobile phone, internet/email, etc. The results are presented and discussed in two parts. The first is descriptive, focusing on the aggregated responses from the 317 small businesses. These responses suggest that face-to-face interactions dominate customer interactions, even among those with access to ICTs.

The second part tests four hypotheses about the role of landline and mobile telephones in shaping the business networks of small businesses. Four tests explore whether telephony enables more specialized, hands-off, numerous or distant relationships with customers; only a significant relationship between landline ownership and total number of customers is found.

BACKGROUND

The term "small and informal business" refers to a broad range of enterprises in the developing world. The most numerous of these enterprises are sole proprietorships, often home-based, temporary, or part-time. Beyond the sole proprietor, the boundaries of the small and informal enterprise space are blurry. For example, the European Union defines microenterprises as having up to 10 employees, small enterprises as having between 10 and 49 employees, and medium enterprises as having between 50 and 250 employees (European Union 2003). In the development community, the definition of a microenterprise is sometimes capped at 5 or fewer employees. Using this defintion further contrasts the smallest firms with small and medium enterprises (SMEs), which, although less numerous than microenterprises, are more likely to be formal, dynamic, stable, or growing concerns. Formality is a second delineation. Some enterprises pay taxes, keep a payroll, and hold bank accounts. Others do not, and comprise what some governments call the "informal sector" (Mead and Morrison 1998). A third delineator is revenue, which, although often difficult to measure among the informal sector, can be a proxy for enterprise complexity and/or ICT behaviours. Researchers and practitioners often employ all three delineators in order

to separate the experience of the "smaller" businesses from their larger counterparts. We define small and informal businesses as those non-agricultural businesses with five or fewer employees. This broad category includes the development community's "ideal" of a microenterprise (e.g. underfunded, informal, relatively simple), but also includes a few more prosperous enterprises, as well as self-employed professionals. It excludes SMEs from the analysis and discussion.

The small and informal business category is important because it contains more enterprises than other kind of non-farm business. In India, for example, there were at least 44 million non-agricultural unincorporated/proprietary enterprises in 1999. Of those, 36 per cent were sole proprietorships, and 64 per cent had five or fewer employees (National Sample Survey Organization 2000). These millions of enterprises are found in urban and rural areas alike. Even if they are not the primary engine of national growth, small and informal enterprises are important for broad-based economic development, and for many households' livelihoods (Mead and Leidholm 1998).

ICT USE IN SMALL AND INFORMAL BUSINESSES

In recent years, economic development practitioners have lauded the potential of ICTs to increase the productivity and vitality of small and informal businesses. For example, optimistic stories describe rural artisans (UNDP 2005) or small manufacturers (Cloete et al. 2002) using the Internet to sell products to American suburbanites, and of farmers using text messages to check crop prices (King 2004). Efforts to frame ICTs as only part of the solution, and to illustrate other problems facing businesses, have kept the academic and policy dialogues on a more even keel (Humphrey et al. 2003; Moyi 2003).

Perhaps the most comprehensive assessments of the ICT behaviours of both microenterprises (Duncombe and Heeks 2002*a*) and SMEs (Duncombe and Heeks 2002*b*) were conducted in Botswana by Richard Duncombe and Richard Heeks. Their reports illustrate that not all microenterprises use ICTs in the same way, nor to the same degree. They employ a simple grouping mechanism based on ICT use to delineate non-ICT users, telephone-only users, and IT users of various intensities (non-networked PC users through to intensive ICT users). Their work with Botswana's SMEs also clearly stresses the utility of the telephone, relative to the Internet, and the importance of face-to-face meetings, relative to mediated sources.

Other more recent research has focused on mobile use by small and informal businesses. Samuel, Shah, and Hadingham (2005) highlight the importance of mobiles to microenterprises in South Africa, Tanzania, and Egypt; roughly 60 per cent of the microentrepreneurs surveyed reported that the mobile had increased the profitability of their business. Esselaar and his colleagues found that the mobile phone was the most important ICT to SMEs and microenterprises across thirteen African nations (Esselaar et al. 2006). Research from Rwanda suggests that operators of small and informal businesses use mobiles to pursue a mix of business and personal motivations (Donner 2004; 2006), and to extend the reach and responsiveness of their businesses (Donner 2005).

Jagun, Whalley, and Ackerman (2005) note potential problems with mobile use by microentrepreneurs, illustrating how unequal access among Nigerian fabric weavers offers advantages to some users, but also significant informational and competitive disadvantages to non-users. Molony's (2006) study of ICT use by Tanzanian microentrepreneurs finds more enthusiasm for the mobile telephone than for the Internet, but also stresses the continued importance of the interpersonal, face-to-face interactions in building and maintaining trust between business.

The efforts by Duncombe and Heeks in Botswana and Molony in Tanzania assess ICT use relative to and in combination with face-to-face communication, thus keeping the focus on the entirety of an enterprise's communication environment. This paper builds on that work by shifting the focus to urban India. With its growing IT-enabled software and business process industries, India's experiences symbolize the importance of ICTs to the developing world. However, India remains a poor country, with an average per-capita 2006 GDP of only US$842 (Economist.com 2007). A survey of small businesses in any of its cities will include more tailors and neighbourhood shops than accountants and software entrepreneurs.

RESEARCH QUESTIONS

The research goals of this study are twofold. The first is to add to the perspectives forwarded by Duncombe and Heeks and Molony, by describing the current ICT practices of small and informal businesses in a way that explicitly compares mediated behaviours to non-mediated practices. The second is to test four hypotheses about how access to telephony structures the ways small and informal enterprises communicate with customers.

By focusing on relationships with customers, the analysis draws on two distinct literature streams. The first concerns how small businesses in the developing world cultivate social capital and security by limiting their economic interactions to a subset of possible trading partners, with whom they can establish trust over time, or through interlocking relationships of friends and family. Clifford Geertz (1978) observed this phenomenon among Morocco's market bazaars. Similar themes have been raised by Marcel Fafchamps (2001) in his work in sub-Saharan Africa.

The second draws on established ways of thinking about the impact of telecommunications on society. The adoption of the telephone by industrialized societies in the twentieth century brought significant changes to the configuration of urban areas and suburbs, home and domestic spaces, and workplaces themselves (Castells 1996; de Sola Pool 1977; Saunders et al. 1994). The mobile phone continues these changes; for people who may previously have not had a telephone, it affords the same benefits of low-cost and real-time connectivity at a distance. At the same time, as a constant companion of the individual, rather than a fixture on a wall or street corner, it increases reachability even beyond that provided by the landline. By allowing for micro- and hyper-coordination of social and economic activities (Ling and Yttri 2002), the mobile quickens the metabolism of cities (Townsend 2000). Further, some argue that both the mobile phone and the Internet de-couple places and relationships, allowing for the cultivation of more specialized ties at a distance (Wellman 2002).

Previously unconnected, small and informal businesses with a new mobile phone might be caught up in the quickening metabolism, becoming more reachable, and engaging the same customers more frequently and productively (Donner 2005). They might also change the shape of their customer set, attracting new/more customers to their goods and services (Donner 2006). One way to differentiate between these possible changes is to explore the various properties of a business's set of customer relationships. They can be described in terms of size (number of customers), multiplexity (whether relationships are multidimensional or one-dimensional, limited to work, or advice, or friendship, etc. (Fischer et al. 1977)), familiarity, and geographic distance.

This survey asked small business owners about three of their customers: their "best" customer, and the two last customers with whom the respondent communicated, prior to the interview. The questions about the recent customers were added to more closely approximate a representative sample of customers. Respondents were asked to describe the nature of the relationship, how well they knew each customer, and whether the customer

lived close to the location of the enterprise. In addition, respondents were asked to estimate how many total active customers their business had. Four hypotheses were tested:

- Enterprises with access to mediated communication technologies (landlines and mobiles) were expected to have less multiplexity amongst their relationships. In other words, we expected phone users to be less likely to trade with friends and family, and more likely to trade with "business only" customers.
- Enterprises with access to mediated communication technologies were expected to report a higher proportion of transactions with customers unfamiliar to them. In other words, we expected phone users to be more likely to trade with weak ties than with a set of familiar customers.
- Enterprises with access to mediated communication technologies were expected to report a higher proportion of customers living outside the businesses' immediate neighbourhood.
- Enterprises with access to mediated communication technologies were expected to report a greater number of customers, overall.

Of course, the tests of these relational properties had to account for differences between the businesses themselves. The sample combined suburban and urban settings, and survivalist businesses making US$75/month with more prosperous businesses. Both factors (locale and socio-economic strata) were treated as controls in the analyses.

METHODS

A survey was carried out in one of India's largest cities, Hyderabad, and in one of its nearby suburbs, Sangareddi, a town of 50,000 people, by Hansa Research, a specialized survey research firm in India. Surveys were conducted by trained enumerators, based on face-to-face intercepts in both home and business settings in various parts of both municipalities.

Ideally, we would have been able to analyse a purely random sample, but as is often the case in developing countries (Casley and Lury 1987), no comprehensive list of informal businesses was readily available. To approximate a representative sample, Hansa interviewed respondents in numbers proportional to their distribution across five tiers of socio-economic status, as elaborated by the firm in its nationwide "media readership survey".[1] The tiers — determined externally to this study — combined occupation titles (unskilled worker, skilled worker, petty trader, shop owner,

businessman w/employees, clerical) with education/literacy levels. Though we are confident that the survey represents a broad cross section of small enterprises in Hyderabad, three significant barriers to generalizability come immediately to mind: the first is, of course, that we have focused on a relatively prosperous urban area and only one suburb, though the bulk of India is still rural. Second, the sample mirrors Hyderabad's distribution across Hansa's five socio-economic strata, but we do not know whether small and informal businesses are distributed in this way across the population. Third, because of the face-to-face, roaming intercept method, the sample over-weighted small retail and service shops, at the expense of small, informal manufacturing endeavours, many of which are home-based, and hard to find. Nonetheless, the survey is adequate to provide a rough picture of the ICT and customer recruiting/retention behaviours of this group of businesses, and to support exploration of the nature of their mediated and non-mediated customer relationships.

RESULTS

Profiles of ICT use and Customer Relationship Behaviours

A total of 317 small businesses in Hyderabad (68 per cent) and Sangareddi (32 per cent), were interviewed for this analysis. Fifty-eight per cent were sole-proprietors; 24 per cent had one employee. Businesses with six or more full-time employees were excluded. Most were drawn from various services (55 per cent) and from retail (39 per cent). Most (78 per cent) were stand-alone, the others were roaming (9 per cent) or co-located with the home (12 per cent). More than half (53 per cent) of the respondents had completed secondary school.

The businesses were truly small; most fit the classic development definition of a microenterprise (Mead and Leidholm 1998), although some of the more prosperous businesses in the sample were better described as "small businesses" or professionals. As would be expected, few were full participants in the formal economy — only 10 per cent of respondents reported having a tax identification number.

Table 10.1 provides details on the general distribution of income (after expenses) of the enterprises, across the five socio-economic quintiles created by Hansa Research. The average enterprise in the sample earned a little over US$100 per month for its proprietor.

TABLE 10.1
Yearly Business Income by Socio-economic Strata (Job Title + Education)

Overall	A (n=53)	B (n=59)	C (n=57)	D (n=62)	E (n=86)
$1,404	$2,689	$1,720	$1,208	$1,069	$769

Note: Question was asked as monthly revenue, less expenses, in Rupees; conversion to U.S. dollars is as of March 2007.

Table 10.2 illustrates the use of various ICTs by businesses in the sample. More than 90 per cent of respondents had a television at home. Roughly 25 per cent had a landline, either at home or at work. As for newer "mediated communication devices", 7 per cent of respondents — concentrated in the two highest socio-economic strata — reported having a personal computer. A remarkable 59 per cent of respondents reported owning a mobile phone. Ownership of mobile phones was greater than 60 per cent for all but the poorest quintile of respondents.

Table 10.3 details attributes of respondents' best and two most recent customers — a total of 951 customers. We found no customer interactions initiated first by landline, mobile phone, or PC. In more than 70 per cent of the cases, first contact was made when the customer walked into the establishment. In another 16 per cent of cases, customers were referred by a friend, family member, or another customer.

In a few cases — 5 per cent, 8 per cent among best customers — landlines were a primary channel for ongoing customer interactions. However, face-to-face interactions are the heart of almost all ongoing customer interactions, dwarfing any mediated channel. This is unsurprising, since (a) 40 per cent of respondents had no phone, and (b) respondents had the phone numbers recorded for only 30 per cent of all the customers they described. Phone number capture was predictably higher among best customers, for whom the proportion was closer to 50 per cent. But clearly, many customers, including all first-timers and many repeat visitors, come and go with very little formal information retained. For the respondents in this survey, business is face-to-face.

And yet, most respondents claimed to know those faces. Sixty-five per cent (65 per cent) of respondents report knowing their best customer "very well". Respondents used "not very well" to describe their level of familiarity with only 23 per cent of all customers and only 3 per cent of

TABLE 10.2
ICT Use by Socio-economic Strata

	Percentage of respondents reporting					
	Overall	**A (n=53)**	**B (n=59)**	**C (n=57)**	**D (n=62)**	**E (n=86)**
Mobile Phone	59.0	86.8	69.5	73.7	61.3	23.3
Home						
TV	92.1	92.5	96.6	91.2	83.9	95.4
Landline	25.2	62.3	27.1	24.6	19.3	5.8
PC	7.2	30.2	10.2	0	2.0	0
Work (for non-roaming businesses)						
Landline		47.2	40.4	16.1	20.4	1.5
PC		24.5	5.0	8.9	1.9	0

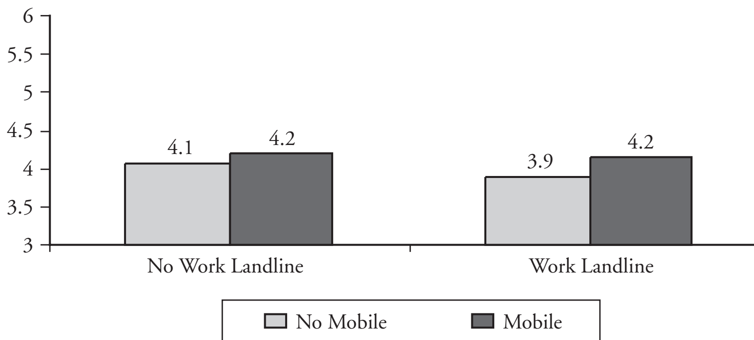
best customers. Familiarity and friendship were not synonymous: 60 per cent of all customers and 47 per cent of best customers were described as strictly business relationships. In terms of customer location, 85 per cent came from the immediate neighbourhood, or from a nearby part of the city. Business is not only face-to-face; it is local, and it is usually between people who know each other.

Although not mentioned in Table 10.3, two other observations from the survey reflect the informality of businesses. Fifty per cent kept books in their head, the other half on paper, with only 2 per cent using electronic methods. Ninety-five per cent of establishments took only cash.

Tests of Hypotheses

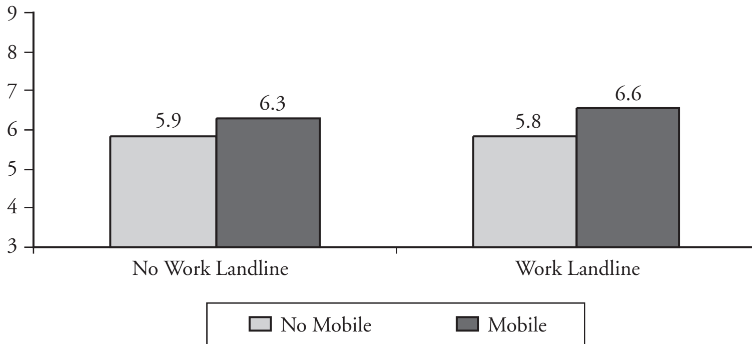
Analysis of variance (ANOVA) was used to test the hypotheses about changes to the configuration of customer relationships. With the exception of the dependent variable, the ANOVAs were identical. Detailed results from all four tests are in Appendix 10A.

FIGURE 10.1
Customer Multiplexity by ICT Use
(no significant relationship)



Multiplexity was represented on a scale from 3 to 6. Respondents were assigned one point for each relationship described as "strictly business", and two points for each described as also friend or family. After controlling for socio-economic strata (using a five-level version of the Hansa Research stratification variable), and location (Hyderabad versus Sangareddi), there

FIGURE 10.2
Customer Familiarity by ICT Use
(no significant relationship)



were no significant effects for landline or mobile phone ownership on multiplexity. The interaction was also non-significant. In other words, the test provided no evidence that businesses with telephones had customers who were any more likely to be described as "strictly business".

Familiarity was represented on a scale from 3 to 9. Respondents were assigned one point for each relationship described as unfamiliar, two for each described as "somewhat familiar", and three for each "very familiar" relationship. After controlling for socio-economic strata and location, there was no significant effect for landline ownership. The interaction was also not significant. There was a small, significant effect for the impact of mobile phone ownership on perceived familiarity of customers $F(1,307) = 10.4$, $p < .01$, two-tailed. However, this was in the opposite direction to that which was hypothesized — those with mobiles reported higher levels of familiarity with customer — thus the null hypothesis was not rejected, and the results of this test are inconclusive (Lehrera et al. 2007). As a whole, the model was a fairly weak predictor of familiarity, as the overall R^2 was a modest .118.

The *customer distance* variable was created from a question asking respondents to report (if known) where each customer lived, relative to the location of the business. As per Table 10.3, customers living elsewhere in the city, or further afield, were considered customers from "elsewhere". Respondents were given one point for each customer living in the same

TABLE 10.3
Customer Relationships

Attributes of 3 customers (1 best, 2 recent) for 317 respondents		All Customers (n=951)	Best Customer (n=317)	Others (n=634)
How was first contact made with customer?	Walked in	72.8	67.8	75.2
	Referred	16.1	21.7	13.3
	Approached by business owner	10.6	10.1	10.9
	Called, SMS, or Email	0	0	0
How would you say you most often communicate with the customer?	Face-to-face	96.9	96.9	96.9
	Landline	4.8	8.2	3.2
	Phone Booth	1.5	2.5	0.9
	Mobile	1.4	1.3	1.4
Do you have a record of the customer's phone number?		30.5	49.5	21.0
How well do you know the customer?	Not well	23.7	2.8	34.1
	Somewhat	45.1	31.9	51.7
	Very well	29.8	65.3	12.0
Is the relationship "strictly business"?		62.1	47.0	69.7
Where does the customer live?	In neighbourhood	40.6	51.4	35.2
	Same part of city	44.9	44.8	45.0
	Elsewhere	13.1	3.8	17.8

area, and two for each living elsewhere, resulting in a scale on the distance variable from 3 to 6. The overall R^2 for the model was a small .061, meaning the model has little explanatory power. There was a significant interaction effect between mobile and landline ownership: $F(1,307) = 6.0$, $p < .05$, two-tailed. The relatively few businesses with a landline and without a mobile had the highest proportion of customers from elsewhere. On its own, the landline term was not significant. The mobile term was significant at $F(1,307) = 6.1$, $p < .05$, two-tailed; but this relationship was not in the hypothesized direction (the observed pattern was that those with a mobile had fewer distant customers), thus, as was the case with familiarity and multiplexity above, the results are inconclusive.

FIGURE 10.3
Customer Distance by ICT Use
(significant mobile/landline interaction))

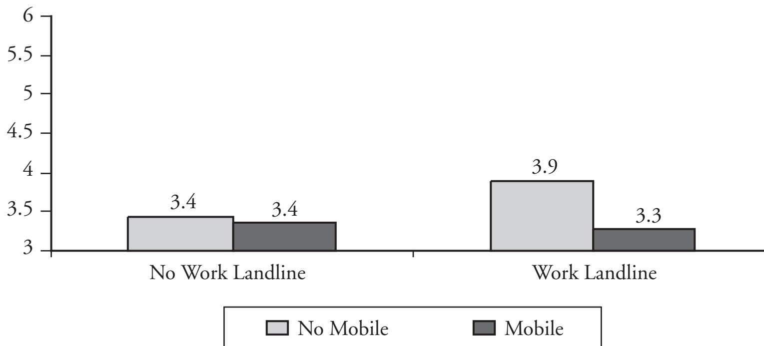
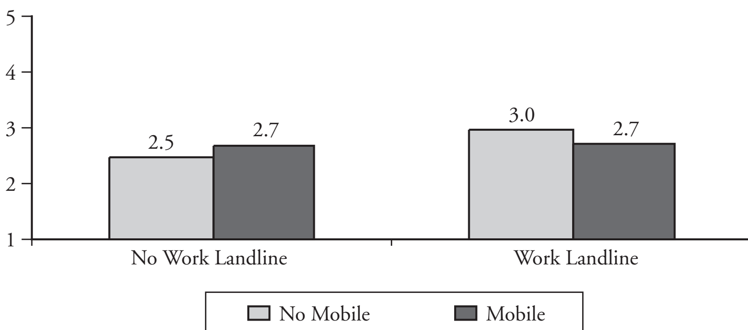


FIGURE 10.4
Number of Customers by ICT Use
(significant effect for landline)



The final ANOVA evaluated ICT use and number of customers. Respondents had been asked to estimate the number of active customers, as "less than 10" "10 to 50" "51–100", "101–1000" or "more than 1000". The resulting five-level ordinal variable was used as the dependent variable. Neither the mobile term nor the mobile-landline interaction were significant. The work landline term was significant: $F(1,315) = 12.3$, $p < .01$, two-tailed, meaning this analysis supports the hypothesis that landline owners have more customers. Compared to the other models, the overall R^2 for this model was a stronger .365.

As an interesting aside, note that in all four models, the location of the interview was a significant covariant — as might be expected, respondents in the suburb were more likely to report multiplex relationships, to be more familiar with their customers, and to have local customers. The suburban businesses reported more customers, on average. Socio-economic strata was not a significant covariant in any of the models.

Discussion

As an input to a discussion about the role of ICTs in small and informal businesses, the descriptive results are complex — in a good way. On the one hand, we see a remarkable penetration of the mobile phone into the smallest businesses in urban India. Upwards of sixty per cent penetration in all but the lowest quintile of urban businesses is something that would have been unimaginable even a decade ago. All indications are that penetration of mobile telephones will continue to rise among small and informal businesses.

And yet, the businesses clearly remain fixtures in their neighbourhoods, and are supported by face-to-face interactions with local customers. There was little evidence of businesses transacting with customers from outside the city limits, and not a single instance of exporters in the sample. Shopkeepers and service people are familiar with most of the customers, but they don't capture many details about their interactions with them. Most do not retain phone numbers, fewer still track individual transactions. The informality that defines most of these businesses (no books, no taxes, and cash-only transactions) extends to customer attraction and retention. A focus on the supplier side might have yielded different results and more formalized (or mediated) relationships. But as far as customers go, many of these businesses survive only when customers physically come to them.

Therefore, the first theme of this discussion is to underscore the importance of examining the totality of the information and communication

behaviours of small and informal businesses. If we had just asked about ICT use, the overwhelming importance of the face-to-face would not have come through. This is not to say that mobile phones are not helping these businesses; research suggests that they do help some businesses, some of the time (Donner 2005; 2006; Samuel et al. 2005), and it's clear that small and informal business owners are voting with their wallets and investing in handsets. However, by their own reports, entrepreneurs' businesses still depend on face-to-face interactions, even if the mobile or landline is present.

The descriptive data on the structure of customer relationships is also complex. By this analysis's calculations, roughly 40 per cent of customers and 60 per cent of best customers are also considered friends or family. Is 40 per cent "enough" to suggest that trust benefits which accrue to friendship and family ties characterize the commercial relationships of these small businesses? Or shall we focus on the other half — those customers with whom respondents have a "strictly business" relationship? This data reminds us that customer relationships are heterogeneous.

Telephony's Impact on Customer Relationships

From here on, the discussion focuses primarily on mobiles, the ICT with the widest adoption among small and informal businesses. This particular analysis yields relatively little new information about the impact of mobile use on these businesses. Three of the four hypotheses — that telephony leads to less multiplexity, less familiarity, and greater dispersion among customers — were not supported.[2] The only clear observable relationship was between landline use and total number of reported customers. However, in the spirit of productively reporting inconclusive findings (Lehrera et al. 2007) the analysis does merit some further discussion.

The research hypotheses were informed by previous research with Rwandan microentrepreneurs (Donner 2006), which had uncovered some evidence of new "weak" ties in the networks of mobile owners. Though this study was not designed as a direct re-test, we did expect to see echoes of this weak ties effect reflected in a higher observed proportion of customers described as distant and/or "strictly business" among mobile owners. Whether or not these similar patterns are actually manifesting among the Hyderabadi firms we spoke to, these "echoes" are not observable via the hypothesis tests reported here. Furthermore, since almost all the customers described by respondents were acquired via walk-ins or referrals, the descriptive data does not support the assertion that mobile

use is directly helping most small and informal business owners attract new customers.

Of course, failure to disprove null hypotheses are nothing more than that, and this paper should not be interpreted as a negation of any relationship between mobile use and the shape of a businesses' customer set. Instead, the analysis's primary contribution may be as an indicator of avenues for further refinement of tests and concepts. Three paths for additional research are apparent.

A first approach would be to look more carefully at the link between mediated relationships and face-to-face transactions; Molony's (2006) ethnography in Tanzania is a guide here, describing how the mobile was favoured for some transactions, but face-to-face generally ruled the day. So much so, in fact, that perhaps the lack of observable relationship between telephony and the nature of enterprises' customer sets was the relative unimportance of mediated versus face-to-face communication. Nevertheless, it may also be possible that the mobile phone has a role to play in accelerating and deepening relationships that are still face-to-face at their core. In this case, a research frame of mobile-mediated versus face-to-face interactions should be replaced by one which examines synergies and interactions between them. To support customer relationships, the channels may be complementary rather than competitive (Chaffee 1982); more questions about this management of a communications repertoire (Haddon and Vincent 2005) might help improve our sense of how mobiles function in these small business settings and whether, controlling for other factors, mobile-enabled (amplified?) customer relationships are more profitable, trustworthy, or secure.

A second task is to explore the microeconomic impact of mobile use among small and informal businesses, based on measures of productivity and income. However, a single cross-sectional survey may not be the best way to examine the impact of mobile phones on businesses' incomes. Nor is self-report — where respondents are asked whether the mobile helps them earn more money — necessarily sufficiently reliable. Even adequate pre- and post- measures are notoriously difficult to gather among a population that, as can be seen from the discussion above, isn't well known for keeping good financial records. A notable model for this line of research comes from the fishing sector in Kerala, India (not microenterprises per se, but sharing some similar properties). Using weekly surveys of boats landing at ports in Kerala over a five-year period, Jenson (2007) finds that mobile phones clearly improve the stability of prices commanded by fishermen.

Jenson's work with fishermen is doubly-illuminating. The rigour — and patience — of the methodology is itself a source of guidance, but so is the study's, focus on a single sector, which allowed for particularly tailored questions and focused hypothesis. By contrast, the heterogeneity of activities among the small and informal business sector, in general, presents additional difficulties for ICT researchers. Thus, the final line of research might be to question whether the "benefits" of ICTs, and mobiles in particular, apply equally to all kinds of small and informal businesses, and, if not, to develop a better taxonomy of the properties of businesses which are more likely to benefit from the various functions of ICTs. For example, taxi drivers might value micro-coordination, wholesalers may value more accurate price information, and others (perhaps a shoe-shine kiosk or roaming knife sharpener) may not be able to find benefit in ICT use at all. This last line of analysis, perhaps in combination with the other suggestions (customer-amplified relationships, focus on profitability) might help the research community further refine how it describes the roles (not role) of ICTs in small and informal enterprises.

CONCLUSION

The results of the interviews with 317 small and informal businesses in urban India found that face-to-face customer interactions well outpaced mediated interactions, even among those firms with access to mobiles, landlines, or both. When people argue that mobiles will help close the digital divide, the technology's usefulness to small and informal enterprises is often one of the primary implied benefits (e.g. *Economist* 2005). However, as this discussion has pointed out, some work remains before we can claim to understand precisely how these benefits translate into profits or productivity. Helpful anecdotes and ethnographic studies are starting to surface from around the world, suggesting that mobiles are being used by some small and informal businesses in very productive ways, but it might take longer for the impact of mobiles to be felt by the majority of small businesses, and the impact might not be as significant as many of these anecdotes would suggest. If the interactions of these tiny businesses remain primarily face-to-face, with the mobile offering an augmentation, rather than a radical transformation, of how these businesses operate, then changes in income might be less evident. This is an important question, as many are looking to mobiles to have a positive impact on the livelihoods of hundreds of millions of households around the world. Though this small study has done more to frame questions for future studies than to resolve any debates, we hope that others will join the inquiry.

APPENDIX 10A
ANOVA Summary Tables

TABLE 10.A1
ANOVA Summary Table for Effects of Landline and Mobile Use on Multiplexity

Dependent Variable: Multiplexity

Source	Type III Sum of Squares	DF	Mean Square	F	P
Corrected Model	39.5	5	7.9	5.23	.000
Intercept	193	1	193	128	.000
SEC (Strata)	.001	1	.001	.000	.997
Urban vs. Suburban	36.8	1	36.8	24.4	.000
Landline (Work)	.036	1	.036	.024	.877
Mobile	2.13	1	2.13	1.41	.236
Landline*Mobile	.386	1	.386	.256	.613
Error	446	309			
Total	5879	315			
Corrected Total	505.7	314			

R^2 = .078

TABLE 10.A2
ANOVA Summary Table for Effects of Landline and Mobile Use on Familiarity

Dependent Variable: Familiarity

Source	Type III Sum of Squares	DF	Mean Square	F	P
Corrected Model	74.03	5	14.8	8.04	.000
Intercept	558.5	1	558.5	303	.000
SEC (Strata)	4.56	1	4.56	2.48	.117
Urban vs. Suburban	48.19	1	48.19	26.2	.000
Landline (Work)	6.85	1	6.85	3.72	.055
Mobile	19.08	1	19.08	10.36	.001
Landline*Mobile	.524	1	.524	.284	.594
Error	554.5	301	1.842		
Total	123001	307			
Corrected Total	628.5	306			

R^2 = .118

TABLE 10.A3
ANOVA Summary Table for Effects of Landline and Mobile Use on Distance

Dependent Variable: Distance

Source	Type III Sum of Squares	DF	Mean Square	F	P
Corrected Model	12.65	5	2.53	3.93	.002
Intercept	314.4	1	314.4	489	.000
SEC (Strata)	1.24	1	1.24	1.94	.165
Urban vs. Suburban	5.88	1	5.88	9.15	.003
Landline (Work)	1.71	1	1.71	2.67	.104
Mobile	3.89	1	3.89	6.05	.014
Landline*Mobile	3.84	1	3.84	5.97	.015
Error	193.5	301			
Total	3770	307			
Corrected Total	206.1	306			

R^2 = .061

TABLE 10.A4
ANOVA Summary Table for Effects of Landline and Mobile Use on Number of Customers

Dependent Variable: Number of Customers

Source	Type III Sum of Squares	DF	Mean Square	F	P
Corrected Model	109.9	5	22.0	35.5	.000
Intercept	22.64	1	22.64	36.6	.000
SEC (Strata)	.082	1	.082	.132	.717
Urban vs. Suburban	103.6	1	103.6	167.5	.000
Landline (Work)	7.62	1	7.62	12.3	.001
Mobile	.004	1	.004	.006	.939
Landline*Mobile	.908	1	.908	1.47	..227
Error	191.1	309	.619		
Total	2488	315			
Corrected Total	301.0	314			

R^2 = .365

APPENDIX 10B
SEC Generator from Hansa Research

TABLE 10.B1
SEC Classifications, by Household's Chief Wage Earner

	Illiterate	Literate but no formal edu.	School up to 4 years	School 5–9 years	School SSC/ HSC	Some college but not grad.	Grad./ post grad. — general	Grad./ Postgrad. — professional
Unskilled workers	E2	E2	E2	E1	D	D	D	D
Skilled workers	E2	E1	E1	D	C	C	B2	B2
Petty traders	E2	D	D	D	C	C	B2	B2
Shop owners	D	D	D	C	B2	B1	A2	A2
Businessmen/industrialists with number of employees:								
– None	D	C	C	B2	B1	A2	A2	A1
– 1–9	C	B2	B2	B2	B1	A2	A1	A1
– 10+	B1	B1	B1	A2	A2	A1	A1	A1
Self employed professional	D	D	D	D	B2	B1	A2	A1
Clerical/salesman	D	D	D	D	C	B2	B1	B1
Supervisory level	D	D	D	C	C	B2	B1	A2
Officers/executives-junior	C	C	C	C	B2	B1	A2	A2
Officers/executives- middle/senior	B1	B1	B1	B1	B1	A2	A1	A1

Notes

1. <http://www.hansaresearch.com/IRS_2007_Brochure.pdf>.
2. There was a significant interaction term in the distance analysis: businesses with a work landline and no mobile had the highest proportion of longer-distance customers. Perhaps the causality is reversed as to what was implied in the hypothesis — that those enterprises with more success maintaining customer relationships over a distance, via a landline phone, had less motivation to purchase a mobile.

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11

THE VIEW FROM THE OTHER SIDE
The Impact of Business Process Outsourcing on the Well-being and Identity of Filipino Call Centre Workers

Ma. Regina M. Hechanova

Just as technology has revolutionized the social fabric and quality of our lives, so has it created radical changes in the structures, systems, and culture of work. Tavistock's Socio-technical Systems theory suggests that an organization's technology and social systems are intertwined. The challenge for organizations and its leaders is to make sure that man and machine are complimentary and there is a balance in desired outcomes. On the one hand, technologies are typically harnessed to achieve greater productivity. At the same time, however, the technologies an organization uses should enhance, and not diminish, the wellbeing of individuals (Cooper and Foster 1971). This challenge has become all the more important given the increasing role of technology in organizations.

Organizations vary in their application of ICT. At the most basic level, ICTs are used merely as supplement work processes and transactions such as when a computer is used to generate a report. At the other end of the spectrum, technology shapes work processes and structures. This is best exemplified in business process outsourcing (BPO).

Information and communication technology has allowed the transfer of work activities to other organizations and countries who can provide the service at lower costs and/or with better efficiency. Although BPO can take many forms, the biggest chunk of outsourcing comes from call centres.

A call centre combines a human agent with computer and telephone-based technologies to enable efficient customer interaction. Supported by computer systems, customer service representatives (CSRs) interact with clients over the telephone in either responding to queries, complaints or orders (inbound calls), or in soliciting sales or information (outbound calls). The services provided by call centres are wide and range from telemarketing, advisory services, credit collections, handling requests, complaints, sales, billing, transcriptions, technical helpdesks to order-taking (Hewitt 2005). Customer service representatives typically attend to between 60 to 250 clients per eight-hour shift (Dieckhoff, Freigang-Bauer, Schroter, and Viereck as cited by Zapf et al. 2003). How does such technology impact on the job design of CSRs? Call centre work has been characterized as having poor decision latitude, low complexity, and high division of work (Zapf et al. 2003). To ensure efficiency, CSRs are given rules, for example, the average handling time of customers should not exceed five minutes. Such relatively short-cycle and routine interactions with customers are mostly controlled by automatic call distribution systems and CSRs have little control of when and whom to speak to (Holman 2002). To prevent inexperienced CSRs from making mistakes, responses are scripted and CSRs follow detailed instructions and rely heavily on standardized computer programmes (Deery, Iverson, and Walsh 2002).

Such job design has obvious business advantages. Simplified tasks do not require specialized personnel. In addition, only a relatively short period of vocational training is required. All these serve to keep personnel costs low. Such emphasis has led critics to label call centre work as modern-day "Taylorism" (Zapf et al. 2003).

Beyond its impact on job design, outsourcing technology may impact the identity of call centre workers in developing countries as outsourcing sometimes requires workers to actively rid themselves of their culture as they adopt Western names and identities, accents and cultures. A backlash created by offshore outsourcing is that workers in developed countries resent that they are losing employment to less developed countries. Thus, some CSRs are not allowed to say what country they are operating from and are given fictitious names and locations. Such a charade also

requires not just speaking in English, but also includes intensive accent neutralization and training on the culture of the client's country. Although some may simply view this as role-playing, there are those who argue that it diminishes their own cultural identity. According to Professor Harish Trivedi of Delhi University, "It's the ultimate humiliation. We are being asked to pretend to be foreigners. No one wants to know us as being Indians — our identity is not good enough" (Pal 2004). Berry et al. (1989) suggest that "culture shedding" where one leaves behind or unlearns aspects of one's culture may lead to a sense of loss or difficulty in forming a coherent identity.

Much of the research on call centres has been done in the West, which is unfortunate because the growth in outsourcing is happening in Asia. Hence, this study seeks to extend knowledge of call centre work by examining the impact of outsourcing on the well-being and identity of Filipino call centre workers.

METHODOLOGY

The study used a phased, mixed-method approach by obtaining both qualitative and quantitative data through interviews and questionnaires. The first phase used a grounded approach and the results were used to refine the hypotheses and shape the survey in phase two.

Phase One: Interviews

Interviews with thirty call centre customer service representatives (CSRs) working in international accounts were conducted to explore the impact of call centre work on their well-being and cultural identity. Convenience sampling was used although respondents had to have been in the job at least six months. Questions in the interview explored the impact of their work on their well-being and cultural identity and included questions such as: What do you like most about your work? What do you like least? What changes have happened to you as a consequence of your work? How does your interaction with people of other cultures affect you? and How do you feel about taking on another identity at work? How does it affect your cultural identity? Thematic analysis was conducted, the results of which were used in both designing as well as explaining the results of the survey.

Phase Two: Survey Questionnaires

Sample

A total of 991 call centre agents responded to the survey. The respondents came from ten call centres. Three of the ten had less than a thousand employees. The rest had 1,000 to 6,000 CSRs. Two of the ten call centres were in-house call centers. One call centre catered exclusively to international clients, one call center catered to domestic clients and the rest had both local and international clients.

Respondents' ages ranged from 18 to 60 years with an average age of 25. Number of years of services ranged from less than a year to 10 years with an average of 18 months. The majority (74 per cent) of respondents were first-time workers. The majority of CSRs were female (54 per cent) and single (82 per cent), handled inbound accounts (79 per cent), dealt with international clients (80 per cent), and worked for outsourced call centres (88 per cent). In terms of job level, more than three-quarters of respondents (76 per cent) were at the agent level. The majority (60 per cent) of CSRs had graveyard shifts. However, the same percentage also claimed to have recently shifted their work schedule. The nature of work varied with majority handling customer service (37 per cent) and technical (34 per cent) functions.

Measures

Well-being was measured using the short version of Pines and Aronson's Burnout Scale (1988) consisting of ten items and utilizing a seven-point scale with a higher score indicating greater burnout. Internal consistency reliability of this scale was α = .90.

Job Satisfaction was operationally defined as employees' evaluation of different facets of their work such as work hours, work conditions, etc. This was measured using Warr, Cook and Wall's (1979) global job satisfaction scale consisting of fifteen items and utilizing a seven-point scale with a higher score indicating greater job satisfaction. Internal consistency reliability of this scale was α = .92.

National Identity was measured using a survey constructed based on the interview. It consisted of six items such as "I have a strong sense of being a Filipino", "I am proud of being Filipino", "If I could choose, I'd choose to be a citizen of another country (reverse-coded)". Items utilized a

five-point scale with higher scores indicating greater identification. Internal consistency reliability of this scale was $\alpha = .82$.

RESULTS

Perceived Impact of Work on Well-being

Responses of CSRs reveal both positive and negative aspects of call center work. On a positive note, CSRs reported becoming more understanding and patient. For other CSRs, their experience has made them more understanding of other CSRs from other organizations (Table 11.1).

A great majority also reported that their work allowed them to improve their English skills. Said one CSR, "Before, I would be too shy to talk to a foreigner because my grammar might be wrong or I can't find the right words to say. Now, I have greater confidence."

The majority also reported becoming more adaptable. The need to become adaptable stems from a number of factors. For some, it is prompted by changing work assignments, "There are times, when you least expect it, that you are put in different situations. For example, you can be pulled out from the floor and be asked to train others. The change happens very fast — you just need to adapt to it." For others, the adaptability is honed because of the diversity of the workforce, "In our call centre, there are different personalities and around 30 per cent are gay — male and female. I've become more open and learned to accept people who are different from me."

TABLE 11. 1
Reported Positive Impact of Work

	Frequency	Percentage
Became more understanding	835	84
Improved English	778	79
Became more adaptable	753	76
Developed skills	752	76
Became more patient	712	72
Good training for future jobs	590	60
Increase financial stability	581	59
Contributed to economy	540	54
Provided me a direction	394	40
Supported my education	99	10

Three out of four CSRs also said they developed leadership and interpersonal skills and were provided good training for future jobs. As one CSR reported, "We get a lot of training-on the language and culture of our clients and customer service training. I can apply these somewhere else on a daily basis."

The majority also mentioned that their work allowed them to become more financially stable. As an interviewee said, "My family used to tease me that being a college graduate, I can do better. But when they learned how much I make compared to my previous job they understood. Now my husband also works for a call centre."

A minority also said they were proud to be part of the call centre industry because of the employment opportunities it has provided the country and because it enabled Filipinos to stay in the country. Reported one CSR, "Actually, I used to be a hardcore activist — but you have to look at the positive side of things. In the case of a call centre job, I know that the call centre industry has contributed to the Philippine economy. I still express my support in my friends who are fighting for a cause and are out in the streets. But there are other ways to be a Filipino and I tell them this is how I want to contribute."

On the other hand, there is also a downside to the job. The majority of CSRs reported feeling physically tired because of lack of exercise and sleep (Table 11.2). As described by a CSR, "This schedule really throws off your body clock. Even if you force yourself, you never really get eight hours of sleep and when you wake up, you still don't feel rested." Some CSRs reported being susceptible to colds or flu because of the lack of sunshine, exercise and a confined work environment. Others talked about voice strain and even losing their voice because of long hours talking on the phone. Still others reported bouts of urinary tract infection because of their inability to go to the restroom except during scheduled breaks. Still others report unhealthy lifestyles — bad diets, increased smoking or drinking, increased or decrease in weight. As one CSR explained, "Coffee and cigarettes seem to be staples in the CSR culture."

A third of CSRs reported diminished time for family and friends. Recounted one CSR, "I have no social life any more because my friends have normal day jobs and I'm the only one working nights. I still live at home but hardly talk to my family anymore. Even when I am home, I am asleep so my parents just communicate with me via text." Another CSR decried the loss of holidays, "The consequence I had to deal with was postponing all my holidays. Or because I am sleep deprived, I would

TABLE 11.2
Reported Negative Impact of Work

	Frequency	Percentage
Lack of sleep	554	56
No exercise	549	55
Diminished social life	351	35
Diminished time for family	346	35
Gained weight	332	34
Increased smoking intake	275	28
Became more sickly	210	21
Lost weight	201	20
Hampered career growth	191	19
Became more cranky	153	15
Made me drink more	151	15
Negatively affected family relations	124	13
Hampered education	75	8

sleep instead of going to family gatherings. So I have a bad reputation in my family because I am always not present."

For other CSRs, the impact was more psychological. One of five CSRs reported becoming more cranky and grouchy. A minority also said their work negatively affected their family relations. As one mother said, "There were difficulties at home because my children knew that I was working at night but didn't understand why I was asleep during the day. My family also couldn't understand why I had to work during weekends or holidays. I became cranky and would lose my temper. My kids would ask, 'why is Mom always cranky?'" In fact, scores on Pines and Aronson's Burnout Scale show that 28 per cent of CSRs have scores placing them in the burnout zone. One in ten CSRs fall under serious burnout, and a small percentage (3 per cent) have scores that suggest they need professional help (see Figure 11.1). The most common burnout symptoms reported were tiredness and difficulty sleeping.

What causes the burnout? Job satisfaction items were regressed against burnout and as seen in Table 11.3, burnout is partly predicted by satisfaction with responsibility, promotion, work conditions, recognition for good work, firm management and work hours. These account for 27 per cent (Adj R^2) of the variance in burnout.

FIGURE 11.1
Range of Burnout Scores

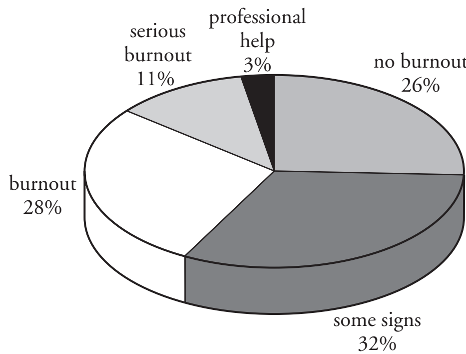

TABLE 11.3
Job Predictors of Burnout

Satisfaction with	Beta	Sig
Responsibility	–.15	.00
Promotion	–.15	.00
Work Conditions	–.11	.00
Recognition for Good Work	–.09	.01
Firm Management	–.09	.04
Work Hours	–.08	.04
Autonomy	–.05	.22
Abilities	–.05	.24
Co-workers	–.04	.23
Job Variety	–.03	.56
Boss	.01	.87
Pay	.01	.87
Job Security	.01	.89
Management-Employee Relations	.02	.68
Openness to Suggestions	.04	.33

CSR Work and Cultural Identity

We asked CSRs whether or not it was necessary to mask their identity and location. The majority of CSRs report that they are allowed to identify themselves as Filipino and from the Philippines (70 per cent). Eighteen

per cent of CSRs are allowed to identify themselves as Filipinos but cannot say they are located in the Philippines. Around one in ten are not allowed to identify their nationality and location.

The majority of CSRs (53 per cent) are not required to use Western names. For some 13 per cent, however, the adoption of another name is optional and utilized by CSRs whose names are difficult to pronounce. As explained by one CSR, "When you give your name and they don't understand it, they will ask for it again. Your call time lengthens so I'd rather just give a name easy to understand just so they won't keep asking you for your name." More than a third of CSRs (34 per cent) said that they adopt American names. However, they do admit that they are in the Philippines. They say this makes it awkward for them to explain why they have American names.

The work appears to have a positive impact on the identity of the majority of CSRs (Table 11.4). The majority claimed greater confidence in dealing with different people and that their work has made them proud of being Filipinos. As one CSR explained during the interview, "Although India is better in sales, Philippines is better in customer service. The boom in call centers is because of our culture and attitude, so I am proud of it." Another CSRs commented "Filipinos are really superior when it comes to customer service." They cite traits such as cheerfulness, adaptability, and patience as assets of Filipinos that make them great in customer service. As recounted by one CSR, "There are times you really feel good about being Pinoy. Like when I get callers who find out I'm a Filipino and say 'Oh you Filipinos are the most hospitable people I know'. That makes you feel good."

TABLE 11.4
Impact of Work on Identity

	Frequency	Percentage
Became more confident	768	77
Made me proud of Filipinos	673	68
Learned not to take things personally	670	68
Became more assertive	621	63
Learned new information about other countries	595	60
Learned to deal with racism	507	51
Made me feel inferior	60	6
Made me feel ashamed about being Filipino	18	2

Two out of three CSRs also reported that they became more assertive. For example, one CSR said, "Now that I know how people from other cultures work, and knowing their systems there, sometimes I get irritated with how we are here. Why we are not as disciplined as them. When I talk to a customer service agent from another company here, why they are not that professional."

CSRs also report learning new information about other countries. As one CSR said, "We get training about our client's culture. Now, when I read news or books, I am also more conscious about how the information may be useful when I relate with my clients." Their interactions have also created certain impressions from communicating with clients. In fact, for some CSRs, interactions with foreigners have also increased their pride in their own race. Said one CSR, "Before I used to think foreigners were superior to us. Now, I realize that's not necessarily true. There are dumb and ignorant foreigners as well… We are all just equal."

On the other hand, some of those handling international accounts do report occasional racism among clients. There are those who will put the phone down or demand to talk to an American when they learn that they are non-Americans. However, as explained by a CSR, "Most of the racism comes from resentment that workers from developing countries are taking away the jobs from the West." Another CSR attributed the discrimination to a sense of superiority or ignorance about the country and its people. As recounted by a CSR, "I have encountered clients from the U.S. who cannot imagine how someone in a developing country can advise them on their stock investments. Others simply react to speaking with someone whose accent is different or who cannot understand them." How does such experience affect them? The majority of CSRs (68 per cent) have learned how to deal with racism and do not to take it personally. However, for a small minority, the racism makes them feel ashamed of being a Filipino.

Interestingly, CSRs who are required to hide their nationality reported significantly lower national identity (*mean* = 4.18) compared to CSRs who could identify their nationality to their clients (*mean* = 4.45; ($F = 14.5$, $p < .05$). As one CSR who works for a call centre that implements identity-masking said, "Sometimes we think it's a pity that we can't' say we are from the Philippines especially because we know we do good work."

DISCUSSION

This study examined the state of and factors that affect the wellbeing and identity of customer service representatives in Philippine call centres. The

results suggest that call centre work has both positive and negative effects. The most common positive effect of call centre work on agents include improved skills, becoming more understanding, confident, patient and adaptable and having greater financial stability.

On the other hand, 40 per cent of agents do manifest signs of burnout. This is higher than a similar study among Australian call centre agents where the rate of burnout was 25 per cent (Lewig and Dollard 2003). What can explain the higher incidence of burnout? One possible explanation is that Asian call centre workers are disadvantaged because of time zone differences. The majority of CSRs in the study are in graveyard or shifting schedules because they cater to clients in the West and need to adapt to their working hours. Research on night shifts reveal that problems associated with this type of work are classified into three kinds: disruption of circadian rhythm, physical and psychological problems because of fatigue, and problems associated with a disruption to family life (Muecke 2005).

The most common negative impacts reported were lack of sleep, fatigue, and becoming more sickly. This is consistent with physical effects of night-work attributed to a disruption of a person's circadian rhythm. People who sleep during the day obtain less sleep than night sleepers. Beyond the length of sleep, disruption in the circadian rhythm also affects the quality of sleep. Studies show that sleep inversion causes changes in the sleep structure. Day sleep is characterized as more fragmented with increased wakefulness, particularly toward the end of sleep (Lavie 2001). Because fatigue is a function of the amount of sleep and the time of day when it is received, fatigue accumulates faster during night-work compared to day-work (Muecke 2005). Such fatigue has been found to impact both physical and mental health. Diminished sleep is associated with a weakening in the body's immune system. Not surprisingly, rotational shiftworkers report higher rates of sickness than those working regular hours (Panton and Eitzen 1997). The unusual eating and fasting times of night-work also disrupts the digestive cycle of the body. Hence, some health problems experienced by shiftworkers include obesity and gastrointestinal disorders such as peptic ulcers, indigestion, nausea, diarrhoea and constipation. In addition, studies suggest that the irregular work hours associated with stress, poor diet and exercise regime (Muecke 2005) – symptoms reported by Filipino CSRs.

CRS also report disruption in their social life. A study among Indian call centre workers reveal similar results. As Mirchandani (2004) concludes, workers in call centres become "detached from the spaces of social life such as markets, households and transportation links, which occur only during the day" (p. 365).

Call Centre Work and Identity

Erez and Earley (1993) explain that exposure to foreign cultures sharpens a person's awareness of who they are. Their cultural self-representation theory posits that there are three motives that serve to develop and maintain one's identity: self-enhancement, self-efficacy and self-consistency. According to them, one manifestation of self-enhancement is selective perception and attribution bias. In the case of CSRs, it was quite evident during the interviews that they took pride in compliments from their clients. At the same time, although they do encounter racism, CSRs say that they have learned to deal with it by not taking it personally. This suggests a cognitive self-regulatory process of sampling, assessing and interpreting information from interaction with clients. Thus, CSRs may selectively remember the positive comments that enhance their esteem and, at the same time, have learned not to attribute the negative complaints to themselves.

The significant differences in national identity of those who are required to mask their nationality suggest that self-consistency is at play. Although occasional racism is a reality, it appears that most Filipino call centre agents have learned to cope with it. In fact, their work actually appears to have increased, rather than diminished, CSRs' sense of pride in being a Filipino. The comments of interviewees suggest that the pride comes from knowing that they are competent enough to be able to help foreigners. In fact, having to hide one's nationality may be the ultimate form of racism for CSRs. Those who can say they are Filipinos at least have the opportunity of receiving positive feedback (especially since it appears to be more frequent than negative feedback). This is not the case among those who mask their identities.

Implications for Future Research

As in all studies, this research had its strengths and limitations. One of its strengths is the use of a mixed-method approach obtaining both qualitative and quantitative data. A limitation, however, is that the call centres were not randomly drawn. One difficulty experienced is that many call centres, especially the smaller ones, were not open to research. As a researcher in the Philippines, this is an unfortunately common experience. It seems the Filipino organizations are wary about being assessed or obtaining employee opinion because they fear the information would reflect poorly on them.

Another limitation of the study was the use of self-report in measuring the variables. Hence, common method variance may have increased the

relationships between criterion and predictors. In addition, because the study was cross-sectional, the issue of causality is problematic. Proof of impact would be strongest in longitudinal studies that allow measures of wellbeing upon entry and after a given period of time.

The study also focused on call centre worker samples. In the future, comparative studies with other service professionals would be important to examine whether reported changes are indeed unique to the call centre industry.

Beyond the variables examined in this study, there are other variables worth examining. For example, the nature of call centre work also appears to be evolving. Holman (as cited in Zapf et al. 2003) differentiated two call center models: the mass service and the high commitment service models. The mass service model aims at high market volume and low added value. In this model, jobs are low in complexity and control. In contrast, in the high commitment service model, market volume is low but the added value is high. Future studies could compare call centres that have evolved into higher-value services versus those that utilize the mass service model.

Implications for Organizations

Limitations notwithstanding, the study elicits several implications for managing call centres in the Philippines.

Improve Work Schedules and Load

Given the difference in time zones, night shifts are a given for Filipino CSRs unlike their counterparts in the West. The graveyard schedule may also be exacerbated by long work hours, mandatory overtime, short breaks, and shifting schedules — things that organizations have control over through effective workforce planning. A major debate in night work is whether to opt for permanent night-shifts as opposed to rotating shifts. An argument for the former is that a permanent night shift would maximize adaptation and minimize disruptions. On the other hand, advocates of rotating shifts contend that this scheme minimizes the number of consecutive night shifts worked. However, there appears to be no consistent findings to support the benefits of a rotating shift. On the contrary, studies among nurses reveal that permanent night shift nurses report fewer health, sleep, social and domestic complaints compared to those in rotating shifts (Barton 1994).

The relationship between the nature of the shift and its outcomes appears to be influenced by the element of choice. Barton (1994) found

that permanent night shift workers who did not choose their present shift schedule reported greater health, sleep and social disruption than did those who had specifically opted to work at night.

One implication of these findings is that call centres should consider the impact of shifting schedules and avoid radical shifts in biorhythms of individuals. In addition, tolerance to night work appears to increase when individuals have a choice. Such consideration can be factored into the workforce planning practices of call centres.

Rethink Job Designs

Satisfaction with job responsibilities predicts burnout among CSRs. Call centres need to look at improving the design of CSR work including providing a greater variety of opportunities to use different skills and reviewing discretion levels. For example, Grebner et al. (2003) suggest that one way to do this is by reducing computer control to allow agents greater latitude in making decisions about breaks of shifts. To avoid boredom due to repetitious tasks, call centres can give their agents regular breaks from calls or keyboard work by letting them rotate on tasks or projects (Carlaw et al. 2003). Another way is to increase job latitude rather than requiring agents to refer complex questions to specialists. Variety can be built into call agent work by combining direct customer contact with post-processing tasks, rather than having these executed by back-office people. Batt (2002) found that although high involvement practices are rare in cost-conscious markets such as call centres, those that practised high-involvement practices reported lower quit rates and higher sales growth in customer services.

Engage Call Centre Workers

Satisfaction with firm management also predicted burnout. Other than rethinking job design, call centres may wish to explore other means of making work more meaningful by engaging them in the management of the organization itself. North European countries and Japan are known to utilize more collectivist approaches such as quality circles, the *ringi* system of bottom-to-top decision-making (Erez and Earley 1993). Interestingly, such an approach appears to be taking root even in the United States. A study of 848 call centre professionals by the Incoming Calls Management Institute (ICMI-2004) reveal that three-quarters of call centres involve agents in engaging and challenging off-phone tasks and projects, the most common of which are peer mentoring programmes and serving as trainers.

Other strategies utilized are involving agents in task forces, involvement in company committees, quality/process-improvement activities, etc.

Beyond this, call centres may consider engaging not just the workers themselves but their families as well. Filipinos especially are very family-oriented (Hechanova, Uy, and Presbitero 2005; Jocano 1999). The results reveal that an area of difficulty for CSRs is not spending enough time with their family especially during holidays. Given the uniqueness of the industry and its demands, call centres can reach out to families of CSRs through orientations and activities that will allow them to spend time and appreciate the work of their family members.

Provide Employee Well-being Programmes

One out of four CSRs reported signs of burnout. Particularly because call centre workforces are generally very young, it is important to create a fun and supportive work atmosphere to help alleviate the stressfulness and tediousness of work. Many call centres already do this in many ways through rest and recreation activities and time off. Some practices reported by respondents include: celebrating holidays such as Halloween by wearing costumes to work, providing massages, stress debriefing and team-bonding activities for CSRs. Other strategies by other organizations include providing a games room, giving additional time off and providing exercise programmes (Carlaw et al. 2003). In addition to these, however, professional help such as counsellors may also be warranted for agents experiencing serious burnout problems.

Create a Conducive Work Environment

The issue of stress is not just psychological but also physical. The long hours of sitting in front of a computer create strain on the body. Call centres can alleviate such strain by ensuring that CSRs have adequate equipment, work stations are ergonomically designed, and CSRs have opportunities to stand, stretch and relax. A study in the United States found that the majority of workers report that the number one distraction is noise. Call centres can ensure that the physical work environment minimizes ambient noise (Carlaw et al. 2003).

Ensure Effective Talent Management

Lack of satisfaction with promotion opportunities predicts burnout and may explain the high turnover rate in the industry. This highlights the need for

call centres to provide agents with information on their career paths and opportunities in the organization.

Reward and Recognize Performance

Results show that CSRs who were satisfied with the extent to which their company rewards and recognizes good performance experienced less burnout. This suggests that beyond financial rewards, the use of intrinsic and psychological rewards should not be overlooked.

Training and Developing CSRs and their Leaders

Organizations can help their CSRs better cope with the demands of their work by providing them with training on stress and lifestyle management. For example, night work is difficult enough without it being exacerbated by poor diets and unhealthy lifestyles that appear to be fairly common among CSRs. In addition, CSRs do report stress emanating from client interactions. Call centres can empower their CSRs through proper training and coaching on customer handling and dealing with racism and discrimination.

Given the nature of the work, call centre leaders need to be highly competent in motivating and coaching workers. They need to be able to spot burnout and counsel workers who have undergone stressful encounters. This requires a systematic process of identifying and training leaders especially because call centre leaders tend to be young themselves.

Nationhood and Motivation

Results show that the majority of CSRs feel great pride in being a Filipino as a result of their work. Although this study did not explicitly set out to determine the source of such pride and identity, we discovered some call centres focus on building national pride as a means to motivate their agents. Top management constantly reminds employees that Filipinos have a gift for such work and challenges agents to look at themselves as representing their country. Hence, comments of being able to contribute to the national economy may reflect conditioning of employers rather than individual reflections. This approach is very different from the typical approach of other call centres that utilize monetary rewards as a means of motivating workers.

As technology continues to flatten the world, developing countries such as the Philippines are in a good position to participate in what is

fast becoming a global economy. In a country with a high unemployment rate and increasing migration of workers, the call centre industry provides many advantages — it boosts the economy, prevents brain drain and keeps families intact. However, the study reveals that call centre work is a double-edged sword. The challenge is how to buffer the negative effects so that technology not only benefits organizations but also the quality of life of its workers.

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12

EMPOWERING THAI HOMEWORKERS THROUGH ICTS

Kamolrat Intaratat and
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INTRODUCTION

This chapter discusses how Thailand's homeworkers use information and communication technology (ICT) to enhance the production process of the small business enterprises and widen market reach of products they are selling. It also presents the issues confronting homeworkers in the use of ICT in their work, particularly those from vulnerable groups.

This research is part of a regional study on women homeworkers from three Southeast Asian countries — Indonesia, Thailand and Malaysia — where people use ICT in their work. The study tries to answer two main questions:

- What are the key gender-specific issues and challenges faced by women homeworkers living among Thailand's urban poor?
- How can women homeworkers be empowered by using ICTs for economic activities, and take ownership and control of the management of social networks, information-sharing and other activities?

Considered in this research are three issues concerning women and their use of technologies:

1. *Marginalization of women in the labour market.* Although labour force participation of women in Thailand is high, issues related to women's employment status and the recognition of the contribution of women in reproductive and productive work are still lingering concerns. The participation in economic activities increases the burden of women as they bear most of the responsibilities for the domestic work. Household division of labour is still stereotyped and the introduction of ICT usage may add, rather than reduce, homeworkers' burden and responsibilities.

2. *Unrecognized contribution of women.* Many women, especially the subcontractors or waged-homeworkers, remain unrecognized in the production process. In producing the parts of end-products, women have not been the main users of technology.

3. *Masculine culture of technology.* In some cultures, inherent factors that hinder women from using technology still exist. These factors promote a masculine view of technology. In Thailand, this situation gradually changed as women gained access to ICT, which became affordable, wider in coverage, and user-friendly. Thus, ICT acted as a vehicle to promote gender equity.

Review of Literature

Although much has been written about homeworkers in Thailand and other issues regarding the use of ICT, there is a dearth of research concerning Thai homeworkers and their use of digital technology.

Homeworkers can be classified into two main groups: (a) those who work individually from their homes; and (b) those who work in groups (e.g. housewife groups, women's groups) (Arunyawat 2003).

A study by Kasetsart University (1999), which looked at a sample of 1,110 homeworkers in various locations throughout Thailand, showed that 67 per cent of homeworkers worked individually from home as assemblers or producers, 13 per cent helped in the home-based business of the family or worked in groups, while another 9 per cent were employees of homeworkers. The rest were contractors and subcontractors.

Data from the Office of National Statistics (2002) indicates that as more women shift from doing home-based work on a part-time to full-time basis, the sector has been steadily increasing since 1999. Women comprise 80 per cent of homeworkers in the rural and urban areas. The minimum age is 10–13 years old, with the largest number between the

ages of 20–49 years. The majority of them are married (Chasombat 1999), and have attended primary school (Rakawin 1997). The Office of National Statistics classifies homeworkers into four categories: (a) individual home-based workers; (b) homeworkers working in groups; (3) homepreneur or freelancer; and (4) small or micro enterprise (Office of National Statistics 2002).

Various studies (e.g. International Standard Industrial Classification 1990; National Statistics Office 2000; Na Lamphun and Nualsiri 1998). show different categories of home-based work. In general, however, home-based work involves:

(a) garment, garment alterations and repairs;
(b) embroidering;
(c) knitting, hand knitting, machine knitting, crochet;
(d) making artificial flowers;
(e) weaving and dyeing of textiles, weaving tennis, basketball or fishing nets, carpet weaving;
(f) making souvenirs, rolling cigarettes and incense sticks;
(g) sewing and gluing shoes;
(h) services (e.g. dressmaking, hair-dressing, childcare);
(i) food preparation/process, cake-making and decorating;
(j) packaging supplies;
(k) assembling electronic components, assembling gold chains;
(l) wood carving, pottery; and
(m) professional services, data processing.

In these activities, the main problems that homeworkers encountered were the: (a) irregularity of wages or payment; (b) sustainability of job orders; (c) lack of professional skills; (d) irregular working hours; (e) insufficient labour protection; (f) health and safety issues; (g) use of child labour, and (h) access to professional training.

Apparently, their access to ICT training was also limited, with the staff of relevant offices and organizations not being exposed to ICTs. In these organizations, the staff were mostly into providing economic (e.g. income-generating) assistance.

Methodology

Three locations in Thailand were selected for the fieldwork. These were Bangkok, including Greater Bangkok, Chiangmai, and Khonkaen. These sites were selected based on the criteria of high concentration of homeworkers

and the presence within the same vicinity of various industries that have high growth potential.

Four methods were used to gather information on how women use ICT, namely: interviews, focus group discussions (FGD), oral histories and observations.

Key informant interviews were used at the first stage of the research project. Homeworkers and sectoral stakeholders were interviewed to get the profile of homeworkers and identify common characteristics among them. For the key informant interviews, the main criteria in selecting the homeworkers from the three Thai study sites were vulnerability (e.g. income level, health status, number of dependents) and actual or potential access to ICTs.

Seventy-five homeworkers, including 3 male homeworkers and 72 female homeworkers from urban poor areas that could access ICT infrastructure were selected. Among the 75 interviewed, 52 were "normal" urban poor homeworkers with household incomes between US$50 and US$550 per month. Twenty-three came from the vulnerable group with 17 per cent of them being single mothers, widowed or divorced. Seven were HIV/AIDS positive and 2 had chronic illnesses while another group of 10 homeworkers had a high level of lead in their blood due to their work with fishing net weights. About 11 per cent were living below the poverty line. The majority (69 per cent) of those interviewed received primary school education.

The team also interviewed 40 sectoral stakeholders who worked directly or indirectly with homeworkers. The composition of the 40 sectoral stakeholders were: 19 from government agencies (GOs); 5 from non-governmental organizations (NGOs); and 16 from the private sector and others agencies.

The focus group discussions, oral history and observations helped to highlight issues, challenges and activities related to home-based workers and their use of ICT at work. They also helped develop the profile of the homeworkers illustrating their characteristics and giving visibility to them and their work.

Six focus group discussions — two per site — were carried out. Subsequently, oral histories were taken from ten homeworkers. Two homeworkers were also selected for observation. Finally, to capture the entrenched nature of the various gender and ICT issues, the research teams also conducted two case studies in Chiangmai, and in Bangkok as a way of doing a comparative study.

INSIGHTS FROM THE FIELD

This research focused on the homeworkers and their families and examined gender-specific issues and challenges faced by urban poor women in carrying out home-based work within their homes and communities. In addition, it discusses the factors that facilitate or hinder their use of ICT for work.

I. Profile of Home-Based Work Environment

After the Asian Financial Crisis of 1997, economic reforms were introduced to strengthen small and medium-sized enterprises (SMEs). Homeworkers in Thailand could register with the Ministry of Labour. They were classified into 374 groups/types of homeworkers such as housewives' groups, elderly groups, HIV positive groups.

This study involved two main groups of homeworkers — those who worked individually from home and those who worked in groups in the vicinity of their home. Those who worked in groups may be homepreneurs working with members of their families or employing waged homeworkers on a part- or full-time basis in their home-based enterprise.

A great majority of the homeworkers were in government programmes such as the *One Tambon, One Product* Project (OTOP) that started in 2000. Many lived or returned to their home villages to take advantage of this assistance.The OTOP group was the most visible and generally accepted by all levels. Each village was expected to produce at least one quality product. Aside from this, they had access to the Ministry of Labour's loans from US$1,250 to US$5,000 through revolving funds. These loans could be used for production materials or career and income-generating activities for all registered homeworker groups that meet the following qualifications:

- Group membership should not be less than ten;
- Age of group member should not be less than fifteen-years-old;
- There must be an elected group leader; and
- There must be clear operating objectives.

Homeworker Personal Characteristics

Records show that more than 80 per cent of homeworkers in Thailand were women (Chasombat 1999). The majority of homeworkers interviewed in this study worked individually from home, although a significant number worked with others as groups (e.g. family-based enterprises). These patterns

resembled the findings of the study done by Kasetsart University (1999). Those who work individually at home may be small-scale homeworkers or homepreneurs with others working for them. Homeworkers who worked individually belonged to or were registered with groups, but may or may not be active members of the group.

From the interview survey, the majority of the homeworkers were of working age with the oldest being 80-years-old and the youngest being 23-years-old. No one in the group was below the legal working age although the data from the Office of National Statistics indicated the prevalence of child labour (ages 10 to 13) in homeworking. A third of the 75 homeworkers interviewed were between the ages of 30 to 39; 24 per cent, between 40 to 49-years-old; and 24 per cent, between 50 to 59 years.

The majority of the homeworkers (69 per cent) were married and with children, although a significant number of their husbands were migrant workers. Husbands working elsewhere within Thailand returned home two to three times a year, while those working abroad went back every two to three years. A few homeworkers narrated sad tales of "disappearing" husbands who came and went away without informing their wives of their intention. One told of her unskilled husband who was unable to hold a steady job and squandered the money earned. He was later killed in a brawl.

While some homeworkers talked about other women's husbands coming home with sexually transmitted diseases and HIV/AIDS, it was not certain how many of these women also suffered the same fate. They bore the main burden of caring and maintaining the family and aged dependants with little or no remittance from their "absent" husbands. Many of the homeworkers believed that a "good wife" could make ends meet no matter how little the husband provides.

Many of the homeworkers chose to work at home because of domestic responsibilities, which are largely carried out by women. Others were migrants from the rural areas and could not easily get jobs in the formal sector. There were also those who returned home after losing their jobs following the Asian financial crisis in 1997 and were attracted by the incentives given to homeworkers and home entrepreneurs.

Many had worked in a formal working environment such as a factory, but realized that these jobs provided them with only a small income that was barely able to meet their basic needs for transportation, lunch and clothes. Others, who received income that could not cover domestic help or send children to nursery schools, were bound domestically. Because of their desire to work more independently and with flexibility, they opted for home-based work.

The shift from a part-time job to full-time home-based work among women has increased since 1999 when more incentives for home-based work were made available by the government and new opportunities arose in the industries and markets.

Household and Home-based Work Socio-economic Features

Most homeworkers interviewed in Bangkok lived in rented dwellings, mostly in slums. Workers interviewed in Chiangmai and Khonkaen were more likely to own houses or live in lower or middle-class suburban residential areas. The slums in Bangkok were at the midst of the lower or middle-class residential areas. Houses in the urban areas were overcrowded, lacked ventilation and had poor sanitation. The poor sanitation especially in the city slum areas became breeding grounds for mosquitoes and flies. The areas were infested with mice and other disease-carrying vermin. In contrast, around the city fringes, the home-based workers were working in the open air, or in well-ventilated areas.

Most homeworkers in urban and downtown areas lived in nuclear family households. People in suburban areas were more likely to keep extended families. However, in some slum households, relatives from rural areas and other tenants may seek "temporary" shelter with them, albeit not necessarily as household dependents, as they may bring resources from home or work casually for self-support.

Many homeworkers entered home-based work to earn extra income because their earnings were minimal. Other reasons for this choice may vary from reducing loneliness during the daytime to preserving the traditional skills handed down by their ancestors. Initially, they might not gain any support from their family members and would have to prove that they can manage all the burdens and challenges of both domestic responsibilities and productive work.

The household income of the homeworkers interviewed ranged between US$50 and US$550 per month. The average working hours were 10 to 12 hours per day, while average income was between US$2 to US$5 per day, i.e. a monthly income of between US$50 to US$150.

Twenty-four homeworkers (32 per cent) earned US$51 to US$150, while 15 homeworkers (20 per cent) received US$151 to US$250. Research results indicated that the female Northern homeworkers, belonging to the sewing group, earned around 100 baht per day (US$2.50/day) or US$80 per month. Homeworkers in the silk and pottery making sectors

take in more than US$100 per month. In contrast, homeworkers working in the garment and fishing nets sector only earned US$20 per month. This is already near Thailand's poverty line, which was US$25 per person per month in 2005.

Roughly a quarter of the homeworkers had an income near the poverty line level (US$26 to US$50). The majority from this group were primary earners with occasional income from husbands or children doing casual work. Although the rest had earnings which exceeded this amount, the cost of living in the three sites selected was higher. Although the homeworkers earned more than the national poverty line income, they were still poor.

Skills and Training

The homeworkers interviewed were mainly engaged in the following types of work:

- Garments/Clothes: Sewing, embroidery, clothes decoration, and cloth mattresses (40 per cent)
- Handicrafts: Wood carving, weaving, clothes hangers, mulberry papers and products, and artificial flowers (25.5 per cent)
- General home-based work: Food services, decorative items, other types of souvenirs, and factory-related products i.e. powder puff which is not a handicraft (12.4 per cent)
- Local knowledge home-based work: Silk weaving, cotton weaving and decoration, and Benjarong pottery — high-end products which allow home workers to earn higher income (10.6 per cent)
- Fishing net weaving (8 per cent)
- Services: Traditional massage, beauty salon (4 per cent)

Their work was primarily centred around the making of creative products with only a few linked to the food-processing industry. Some products, such as silk and pottery, were for niche markets. There was a slight differentiation in the type of homeworking among the three sites as noted below.

Some of the home-based work skills, such as silk and pottery making, were passed on from one generation to the next. Of the homeworkers interviewed, many said they learned very few skills from formal school education. Some skills were acquired from previous jobs, normally factory jobs or jobs with village work groups. Some government agencies and contract companies (e.g. Department of Community Development, Ministry

of Interior; Bureau of Labour Skills Development, Ministry of Labour; Department of Non-Formal Education, etc.) provided or supported the training of homeworkers.

Activities or Efforts to Address Gender Issues of Urban Women Homeworkers

Both groups of homeworkers — piece-rate or waged homeworkers and the homepreneurs — faced challenges. The waged homeworkers had problems meeting urgent deadlines; completing and delivering their products; obtaining a fair price for their labour; meeting product quality control as well as health-related issues. The homepreneurs confronted difficulties related to the basics of how to carry out the investment, quality production and marketing.

Homepreneurs usually struggle for five years in handling the multiple aspects they are confronted with and in establishing their business. This, even if they receive support from various agencies including SME training programmes, SME bank loans, and the Export Promotion Department.

They deem formal and informal networks (i.e. customers, employers, group members, and marketing networks) as essential. Both groups search for solutions to build their capacity and access resources beneficial to their development.

II. Empowering Women Homeworkers through ICTs

E-commerce aims to lessen the digital gap between the “haves”, and the “have nots”, the urban and rural people. In the context of small business enterprises, these could increase sales volume and produce more income-generating activities among all the relevant stakeholders in the urban and rural areas.

However, most homeworkers interviewed have not received training on how to use ICTs in pursuit of e-commerce. Government agencies claim that homeworkers lacked the interest in getting the training.

The reason for this lack of interest was probably due to insufficient awareness among homeworkers with regard to the benefits of such tools beyond their present usage. This was in addition to the perception that the process of learning ICT would add to the burden the work and responsibilities at home. Furthermore, the extension staff members who assisted the homeworkers did not possess enough exposure with regard to

the wider use of ICTs for work. These organizations and their staff focused primarily on providing economic, income-generating assistance.

Interactive Communications Media

Those interviewed either used telephones or mobile phones for work and personal purposes. According to all the groups of key informants, using the telephone was better than travelling.

Homeworkers were keenly aware of the advantages of using the phone. The cost of using the telephone was much lower than the price of gasoline. Thus, using the telephone allowed them to save on transportation costs and time. Compared to travelling by public bus one way at 6 baht (US$0.15), round trip (US$0.30), using a local telephone is cheaper at 3 baht (US$0.075) per call. The flat rate for mobile phone calls was on average 3 baht (US$ 0.075) per minute all over the country.

Nearly all interviewers had their own mobile phone units that they used for their personal and home-based business contacts. The majority of those possessing their own units shared them with other members of the family.

They purchased their mobile phone units for 300 to 500 baht (about US$10), and generally spent around 150 to 250 baht (about US$7) per month for their pre-paid card phone. Pre-paid cards were available everywhere at neighbourhood shops and stalls.

Homeworkers seldom used short messaging services (SMS). During the introduction of mobile phones, SMS and phone calls were promoted at the same cost (3 baht per call or SMS). Being a less literate group, the homeworkers preferred to call rather than use SMS even athis (0.5 baht per SMS) was much cheaper than calls (3 baht per minute call). In addition, older homeworkers complained of the difficulties in using the small keys to send messages. Others found spelling out their intended message laborious. Consequently, voice calls seemed quicker and easier.

Using the computer and surfing the Internet, in particular, were also perceived to be complicated, both in their functions and language requirements.

The cost of purchasing a computer might also be discouraging for the lower-end homeworkers. A computer unit could be purchased for more than US$500, or more than ten times the average home worker's monthly income. Still, despite the cost, there were some homeworkers who purchased computer units for Internet access. This helped them source information,

market products and receive overseas orders from <www.thaitambon.com>, the city's website, or even their own websites.

Static Communications Media

Community radio and broadcasting towers also supplied the information needs of those who could not afford the Internet service or the basic knowledge and skills for its use.

Although radio and television were primarily used for entertainment in most households, most homeworkers hardly watched the programmes because of their busy schedule. Both, however, provided good sources of information regarding trends for entrepreneurs in the creative industries.

In a Chiangmai community, for instance, a disc jockey announced fairs, product development and access to business assistance through the airwaves. Homeworker groups could also advertise their own need for workers or subcontractors, and put out orders through radio.

On other development issues, a community radio station near a "Pottery Village" in Bangkok served homeworkers in the community by helping them access general information about health problems and advice, reproductive health, and job opportunities.

If the recipient of the information was not well-versed with the Internet, the disc jockeys would obtain facts from the World Wide Web to share with the homeworkers.

Cable television had also been gaining an increasingly wide subscriber base in the urban areas because of the relatively low fee of about 300 baht/US$7 per month. The fee, however, was still unaffordable for most of the urban poor.

Overcoming Marginalization

Most homeworkers interviewed conveyed their past feelings of "low self-confidence". Because they had little education, they saw themselves as "not respected and not recognized for their contribution" by their own families or the communities. They were normally regarded as "just housewives" whose main role was to serve the family, and be dependent on their husbands.

These images of the "lowly" woman, born to suffer and be a "martyr" for the happiness and wellbeing of her husband and children, were often reinforced by the television programmes popular among the housewives and homeworkers.

Women homeworkers, however, gained much self confidence and self esteem from their ability to earn a living and provide primary or supplementary income for their families.

Traditionally and culturally, they have been regarded as dependents of their husbands. Even in the husband's absence, they are not regarded as the head of the household so long as there is a male adult member, such as their son. When the husband fails to provide adequately, the wife is forced to seek employment, sometimes away from their home, leaving their children in the care of their parents or siblings.

Before the Asian Financial Crisis, the rate of internal migration of women was more than men. During the crisis, women were also the first to lose their jobs.

Recognition and Redefinition of Work through ICT

ICT accessibility facilitated the introduction of women's Benjarong products to the global market and helped the women to be proactive in business planning. In terms of logistical contributions, enhanced women's use of public relations tools such business cards, brochures, including e-brochures, and a website that is also linked to other famous websites such as <www. Thaitambon.com> Benjarong pottery helped move into the global arena, which included the high-end and niche markets.

Many of the home workers later earned more than their husbands. In the case of the decorative ornamental items of a woman homepreneur in Chiangmai, her husband recognized the value of her output and contributions to the family income. As a consequence, he resigned from his job to support her in running the enterprise. He used his knowledge and experience from his previous sales job to market her products and do the "manly jobs" of carrying heavy materials, driving and arranging the stocks. She has her own stall in the night market and controls the cash flow of her business.

Similar information gained from the focus group discovering and the oral history in Khonkaen province showed that the women homeworkers saw themselves as family income earners like their husbands. They were satisfied with the home-based job and felt a sense of empowerment after seeing their potential to earn. They realized that in developing other skills, particularly in production and marketing, they would be able to earn even more.

Aware that they were slowly being recognized, they developed the sense of initiative to participate in activities that would open doors

for other opportunities. These included exhibitions, conferences, and workshops.

Confronting the Challenges

Homeworkers had a positive attitude toward ICTs. However, they were not sufficiently educated to handle these tools. Their children, and sometimes their husbands, used ICTs more frequently.

A significant problem in using ICTs was the technical difficulty and language barrier, particularly the need for the command of English language.

Even more challenging was how homeworkers can use or apply ICTs in their home-based work. At present, around 50 per cent of homeworkers had no idea about ICT features that might be appropriate for their home-based work. Their use of ICTs would depend largely on simplicity of application, affordability and benefits to their home-based work.

CONCLUSIONS AND RECOMMENDATIONS

The study of seventy-five homeworkers in Bangkok, Chiangmai and Khonkaen provided insights about the work and lives of single homeworkers working alone as subcontractors or waged homeworkers and homepreneurs who worked with others in a group or employed other homeworkers.

With the recognition and development efforts by the Thai government in support of homeworkers, recipients of the assistance were able to combine work experience, local knowledge, and traditional skills with innovative and creative designs.

To prevent the marginalization of those who were unable to organize and work in groups or those with poor quality products, the government must implement relevant policies and plans which cater to homeworkers who operate as individuals, such as piece-rate, subcontractors and waged workers of homepreneurs, but lack bargaining power. The policies should protect them and give them due benefits, as well as access to the required resources.

The relevant agencies can also help the individual homeworkers and the homepreneurs in tapping each other's strengths and forming networks. Relevant agencies should promote networking among homeworkers, drawing on simple and affordable ICT tools and applications. This would be helpful in expanding their network and sourcing the relevant information

on training and study trips; identifying the different levels of marketing outlets; and receiving orders, especially from overseas. Such access will expose both groups to more opportunities, different perspectives, and ideas about networks for their future development. Consideration should be given to ensure that the recommendations become applicable, appropriate to the homeworkers' lifestyle and work, user-friendly, adaptable in their own language, affordable and cost-effective.

Perhaps, the relevant agencies or stakeholders could also work together by starting to train a few homeworkers to be the next line of trainers, and then let these trainers train their own people and successive generations. ICTs would probably widen accessibility and enhance role in contributing to the success of the homeworkers' business endeavours.

Because the Thai government promoted the use of ICT and facilitated its penetration into the world of the homeworkers, all the individuals interviewed were able to communicate through fixed or mobile phones, radio, and television. New policies were continuously introduced to increase the affordability of these ICT tools and promote their use for community and business development. The community radio and broadcasting towers serve as examples of efforts to decentralize and promote the use of ICT for local development.

However, this research points to the need for gender sensitization and training in community education and local development programmes. With some training, including gender awareness and sensitization, together with exposure to ICT possibilities, the local managers of these facilities can better serve the homeworkers' needs and enhance their knowledge and capabilities. This will be particularly beneficial in improving gender relations, gender equality and removing the feeling of inadequacy related to technology.

Phones, mobile ones in particular, are being used extensively for communicating business transactions. These include processing orders from overseas. Although mobile phones have been widely used, their greater potential has yet to be tapped. Thai homeworkers use them mainly for verbal communications. It is likely that the benefits in using mobile phones might increase further if simple applicable software is designed and made available for homeworkers. This can help overcome language differences, relay design specifications to customers and access orders sent to them.

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