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# Living the Information Society in Asia

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# Living the Information Society in Asia

EDITED BY  
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**INTERNATIONAL DEVELOPMENT RESEARCH CENTRE**  
*Ottawa • Cairo • Dakar • Montevideo • Nairobi • New Delhi • Singapore*



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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 led 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	<i>Assalamu' alaikum warrahmatulahi, wabbarakatu</i> — 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

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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	<i>Nada Sambung Pribadi</i> — Personalized Connecting Tones
ODA	Overseas Development Aid
OTOP	<i>One Tambon (Town), One Product</i>
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

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**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.

**Kamolrat Intaratat** is Associate Professor in the Faculty of Communication, Sukhothai Thammathirat Open University, Bangkok, Thailand. Her research interests are in development communication particularly community-based communication, agriculture communication, and rural communication.

**Rich Ling** is a sociologist and Senior Research Scientist at the Telenor Research Institute in Norway. He is also Visiting Professor at the IT University of Copenhagen. He has been the Pohs Visiting Professor of Communication Studies at the University of Michigan in Ann Arbor, Michigan and now he holds an adjunct position in that department. He is the author of *New Tech, New Ties: How Mobile Communication is Reshaping Social Cohesion* (MIT). He is the co-editor of *The Mobile Communication Research Series* and is an associate editor for *The Information Society*.

**Piyachat Lomchavakarn** is Associate Professor of Communication Arts at the Sukhothai Thammathirat Open University, Bangkok, Thailand. Her primary research is on new media for social development.

**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 Ethnographic 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.





# 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 occurred 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 disciplinary 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.

## References

- Cerny, P. "Globalization and the Changing Logic of Collective Action". *International Organization* 49, no. 4 (1995): 595–625.
- Heeks, R. *Impact Assessment of ICT4D Projects: A Partial Review of Frameworks*. Development Informatics Group, Institute for Development Policy and Management, 2007.
- Heeks, R. and S. Bailur. "Analyzing e-Government Research". *Government Information Quarterly* 24 (2007): 243–65.

- 
- Lugo, J. and T. Sampson. "E-informality in Venezuela: The 'Other Path' of Technology". *Bulletin of Latin American Research* 27, no. 1 (2008): 102–18.
- Mansell, R. and U. when, eds. *Knowledge Societies: Information Technology for Sustainable Development*. Oxford: Oxford University Press, 1998.
- Pertierra, R., E. Ugarte, A. Pingol, J. Hernandez and N. Dacanay. *Txt-ing Selves: Cellphones and Philippine Modernity*. Manila De la Salle University Press, 2002.
- Postman, N. *Technopoly, the Surrender of Culture to Technology*. New York: Vintage Books, 1992.

