

THE LENS OF POSTCOLONIAL THEORY  
IN LIS RESEARCH AND PRACTICE

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in Library & Information Science  
in the Graduate College of the  
University of Illinois at Urbana-Champaign, 2012

Urbana, Illinois

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**ABSTRACT**

This study explores a framework for critical analysis in research and practice within LIS to better understand questions, circumstances, location, and positioning of researchers. Its focus is the area of Information and Communication Technology (ICT) use for development in underserved, rural and remote communities. For a body of sustained critical thought, the study turns to postcolonial theory (PCT). Guided by postcolonial discourses of representation, identity, and agency, the study analyzes literature in the field to identify problematic issues and discusses their implications.

*Para Pepe*

## ACKNOWLEDGMENTS

As it takes a village to raise a child, any dissertation project requires the support and encouragement of many people. Over the years I have enjoyed both from many friends, colleagues, well-wishers and members of the GSLIS community, too many to name, all fellow travelers in our individual and collective journeys. I would like to thank them all.

Many thanks to my adviser, Ann Bishop, whose guidance, patience, encouragement and detailed revisions helped me bring the project to a successful end. Also many thanks to my committee members Christine Jenkins, who has been a constant source of support over the years and who served in many of my committees; Jon Gant, whose enthusiasm and interest in the applicability of this research in ongoing projects gave me the assurance I was headed in the right direction; and Lynette Kvasny, who brought valuable insights to this project through her questions, comments and papers. I would also like to thank Dan Schiller who guided me in the earlier part of my doctoral studies and served in the committee during the proposal stage, and Linda Smith for her constant support and guidance over the years.

Thanks to GSLIS for the dissertation research fellowship that included *The Herbert R. Hearsey and Laura Beth Hearsey Scholarship Fund* and the *Lucille Huntington Wilkinson Memorial Endowment*, which provided financial support to complete this project. Thanks also to Ann Bishop for giving me the opportunity to benefit from a fellowship through the IMLS CIC grant that allowed me to get this project started.

Thanks to my parents, Rabindra and Jyoti Khanal, whose encouragement, support and love have helped me get to where I am; María Mercedes, my mother-in-law, for her unwavering faith in me, and finally my wife, Mar, who is my source of direction, joy and strength and who has patiently walked beside me through this long process encouraging me in every step.

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## CHAPTER 1: INTRODUCTION

This study explores a framework for critical analysis in research and practice within LIS to better understand questions, circumstances, location, and positioning of researchers. Its focus is Information and Communication Technology (ICT) use for development in underserved, rural and remote communities. For a body of sustained critical thought, the study turns to postcolonial theory (PCT). Guided by postcolonial discourses of representation, identity, and agency, the study analyzes literature in the field to identify problematic issues and discusses their implications.

The aim of the study is to understand the positioning of LIS discourse related to ICT in marginalized settings, and to expand postcolonial theoretical application into the dynamic field of LIS.

Postcolonialism is a body of academic study that draws on critical theory to understand the loss of power, identity, and culture when a group of people is dominated by a conquering force. It is rooted in the history of the West's colonization, imperialism and decolonization in, for example, India, Africa, Asia, and Latin America, though it has been broadened to include a more metaphorical bent as well as a diversity of geographical, racial, and cultural contexts and histories. Classic works of postcolonial theory include Frantz Fanon's *Black Skin, White Masks* (1952) and Edward Said's *Orientalism* (1978). The primary contribution of postcolonial theory is to challenge the traditional value system and epistemology that fuels western philosophy, politics, education, and social-economic theory. Such traditional thought is embedded in the sense of superiority demonstrated historically by Europe and the United States in encountering the people of other countries. It also tends to portray other cultures as an undifferentiated mass of "other" people; setting forth an "us-them" dichotomy that arises from the interaction of the

colonizer and the colonized—the generalized “other”. While yet to make much of an appearance in LIS, post-colonial theory is applied today across a range of fields in the humanities and social sciences—such as anthropology, political science, linguistics, literature, history, film studies—often to illuminate issues of race, poverty, and the loss of cultural heritage and indigenous knowledge.

This study applies postcolonial theory in the examination of assumptions and contexts in which ICTs are understood and deployed. The background encompassing these contexts includes globally interdependent economies and financial markets; multinational corporations, foreign aid, and international development; and cultural exchanges including education, entertainment, consumer goods and services. Although the background where these contexts reside often stresses the ‘post’ in postcolonial and assume the end of the conditions of colonization and imperialism, the reality evidenced by postcolonial theory is to the contrary. Postcolonial theory stresses not the passage of time since the liberation of former colonies around the globe, but reinforces the need to examine the changes that resulted from colonization and de-colonization. Such examination reveals changes in the identity of the colonizers and the colonized, as effects of the appropriation and concentration of wealth, destruction and re-centering of knowledges and systems of knowing, and the concentration of power and epitomization of cultural values and norms. These effects are detrimental to the cultural values and norms, knowledges and systems of knowing of the ‘other’. Consequently, such concentration undermines the power of the individuals in the collective ‘others’ to imagine themselves on their own terms.

With this background in mind, the study analyzes the discourse of research and practice in the field of LIS that studies ICT use in rural and remote communities for information access and development. The LIS discourse analyzed in this study is drawn from academic articles located

in one of the primary international bibliographic databases in the field of LIS. Analysis of the articles includes the language used, research methods, the reporting of results. Various representations of issues, people and communities provide the means to understand the positioning of LIS discourse related to ICT in marginalized settings; in other words, to understand questions, circumstances, location and positioning of researchers and expand postcolonial theoretical application into the dynamic field of LIS.

Ultimately, asking questions and analyzing LIS discourse through the lens of postcolonial theory informs the questions themselves that need to be asked for research and practice in LIS, reveals the level and kinds of engagement in the field, and the intersection of LIS with the postcolonial context discussed earlier. This is of growing importance as LIS is increasingly involved in projects that aim to bring digital connectivity to chronically underserved regions and populations in both the U.S. and abroad, as well as to incentivize ICT use and understand both its immediate consequences and long-term impacts.

### **PROBLEM STATEMENT**

Social theorists of information technology, notably Castells (2000/1996), point out that human society at present is marked by the dominance of information technology with its inevitable power to propagate change in any aspect of human life. In the age where access to information is increasingly discussed as a human right (Birdsall, 2005; Bishop, 2008; Blanton, 2010; Caras, 2004; Cramer, 2009; Hamelink, 2004; Metzl, 1996; Padovani, 2010), ICTs seem to have emerged as the dominant toolset for providing easy access to information. The logic often applied is that the World Wide Web along with the associated technological toolset yields the capability to carry information instantly through seemingly nonexistent distances. Thus, ICTs have been attributed with a somewhat mythical power to bridge all kinds of divides, including



the digital divide, that separates the ‘haves’ and the ‘have-nots’.

At the same time, the speed at which technologies emerge, driven by market forces, and the unintended and innovative ways they are put to use, often with unpredictable results, confounds researchers as they try to keep up (Wajcman, 2008). These market forces resemble what Krishna (2009) points to as the “logic of the economy” within the discourses of free trade or contemporary globalization which tries to separate from political interference and “[presents itself] as something natural, scientific, and, if allowed to work on its own, redounding to the collective benefit of everyone.” Krishna traces the “excision of overt discussion of the politics of economic inequality, of the history of the unequal distribution of property and wealth between classes and nations, and the growing fascination with the quantitative idiom in contemporary neoclassical economics can be traced back to this original separation” (p. 28).

In such an environment, Warschauer’s (2003) observation that “the worst failures occur when people attempt to address complex social problems with a narrow focus on provision of equipment” (p. 44), becomes especially resonant. Warschauer explains that such technocentric approaches, i.e. neglecting social, political, and economic aspects, reflect gross naivety and often yield social research that ends at the distribution of ICT equipment, while alleging social benefits.

The question is not generally about the motives of researchers who undertake time-consuming studies and projects with the best of motives and intentions. The question is, however, about critical self-examination of even our best intentions and our assumptions as researchers. This is not a case against the researcher’s objective role but a caution against a pre-assumed claim of ‘objectivity’ in understanding problems, conducting research, finding solutions, and in understanding the perspective and needs of others. Assumed objectivity can

mean the appropriation of vision of the ‘other’, as Haraway (1991, p. 183-201) points out, which brings with it the “transcendence of all limits and responsibility” and “infinite mobility and interchangeability” (p. 190). Such qualities give the researcher, Haraway explains, the *flawed* ability to see everything from nowhere.

In doing research with and about people, it is imperative to critically examine one’s own identity, location and positioning in interactions; methods being contemplated and questions being explored; the representation of others who are inevitably being spoken for; and conclusions being reached. Uncritical actions limit what we can learn and skew research outcomes and our conclusions. More importantly, they can be harmful to the very people we work with, not only because our interaction plays a role in shaping their identities and our own, but also because research outcomes have the potential to perpetuate ‘truths’ that result in policy formulation.

A critical view of one’s own actions and situation among others does not come easily as Kapoor (2008) points out:

[Spivak] underlines how our discursive constructions are intimately linked to our positioning (socioeconomic, gendered, cultural, geographic, historical, institutional), and therefore demands a heightened self reflexivity that mainstream development analysts (e.g. Robert Chambers), and sometimes even those ‘critical’ development analysts among us (e.g. Escobar, Shiva), fail to live up to (p. 42).

A critical understanding cannot be sufficiently arrived at solely out of individuals’ best judgments and good intentions. A body of sustained critical thought and discussion is required. To that effect, I examine Postcolonial Theory (PCT) while focusing on three of its discursive areas: *representation, identity and agency*.

It is important to point out that while PCT can be used to guide a methodological framework, it cannot be pinned down as a theory proving cause and effect, or as a theory that can predict social outcomes based on identifiable social contexts. Rather, PCT “comprises instead a related set of perspectives, which are juxtaposed against one another, on occasion contradictorily” (Young, 2003, p. 6-7).

[Postcolonialism] is a contested field, with porous boundaries and no single or coherent position. Nonetheless, it is a field haunted by the complex connections between domination and subjection/resistance, connections rooted in colonial history but which continue in various guises until today (Moore–Gilbert 1997:12). A key postcolonial theme, in other words, concerns the process of decolonization currently taking place globally, which throws new light on the relationships between hegemon and subaltern, colonizer and colonized, West and Third World. (Kapoor, 2008, p. xiv)

The porous boundaries and multidisciplinary engagement in postcolonial theory pointed out by Young and Kapoor highlight the down-to-earth reality of the variety of situations that may come to the fore. Suffice to say, a single perspective is not only an impossibility, it is not desirable in the least.

... postcolonialism articulates a politics of resistance to the inequalities, exploitation of humans and the environment, and the diminution of political and ethical choices that come in the wake of globalization. If neoliberal globalization is the attempt at naturalizing and depoliticizing the logic of the market, or the logic of the economy, postcolonialism is the effort to politicize and denaturalize that logic and demonstrate the choices and agency inherent in our own lives. (Krishna, 2009, p. 2)

... postcolonial theory represents a complex field of study, encompassing an array of matters that include issues such as identity, gender, race, racism, and ethnicity ... focuses on exploding knowledge systems underpinning colonialism, neocolonialism, and various forms of oppression and exploitation present today ... challenges epistemic violence; that is, it questions the undervaluing, destruction, and appropriation of colonized people's knowledge and ways of knowing, including the colonizer's use of that knowledge against them to serve the colonizer's interests. Postcolonial theory therefore offers a critique of imperial knowledge systems and languages and how they are circulated and legitimated and how they serve imperial interests. (Lunga, 2008, p. 193)

The discourses associated with PCT can therefore be used as a very powerful tool to analyze, interpret and understand social interactions from the individual to global scales.

Postcolonial theory deals with perspectives and power relations among people and in communities that have suffered oppression of various forms and degrees, as well as the neglect of the larger society around them, and continue to do so. Postcolonial theory is however not an analytic tool relegated for historical analysis as 'post' in the term may seem to allude to, especially since the continuity of oppression rooted in colonial history is by no means at an end.

While attaching the prefix, "post," to colonial can indicate significant breaks in consciousness and subjectivities, for me the term lacks the political and historical referents to the powerful social movements of the anti-colonial and masks the significant continuities in the history of violence and capitalist exploitation in the modern, modernising and late modern worlds. While it is absolutely necessary that the culture and politics of late modern and neo-liberal racial and gender formations be understood in all

their contemporary specificity, I would argue for the need to simultaneously name, locate and analyze these formations as the historical legacies of colonialism and imperialism. (Carby, 2007, p. 215)

Yet, as I use postcolonial theory in this research, I do not seek to delve into the colonial histories. I will instead focus on the theoretical discourses that result from postcolonial critique and seek to apply them in this study of ICT research. Solely using postcolonial theory in the context of the “post” colonial is not a requirement by any means.

[Postcolonial discourse] involves issues that are often the preoccupation of other disciplines and activities, particularly to do with the position of women, of development, of ecology, of social justice, of socialism in its broadest sense. Above all, post-colonialism seeks to intervene, to force its alternative knowledges into the power structures of the West as well as the non-West. It seeks to change the way people think, the way they behave, to produce a more just and equitable relation between the different peoples of the world. [...] Post colonialism is about a changing world, a world that has been changed by struggle and which its practitioners intend to change further. (Young, 2003, p. 6-7)

*Representation* deals with the interplays of power, knowledge, vision, and identity. The purpose for examining representation issues will be to explore the concepts through the critical lens of postcolonial theory, making an effort to tease out the relation and interaction of the concepts and text, and between the ‘representer’ and the ‘represented other’. In dealing with representation and modes of perception, an effort will be made to explore major concepts such as development, developed, underdeveloped, backward and marginal communities, digital divide and inclusion, the third world and various discussions of technology itself and discussions of

purported benefits.

My intention for examining *identity* stems from the PCT discussions of ambivalence, mimicry, and hybridity. Its use in this study is not to claim its rigidity or fixity based on any history or culture. Instead I explore the nature of identity as being flexible and, therefore, a quality that cannot be understood at any fixed or singular level. At the same time, I also propose taking a look at the identity of the researcher, its dynamics and interplays in the research process, and ask about consequences of not seeing these shifts and interplays, or to resisting or rejecting their occurrence altogether.

In dealing with the many facets of representation and identity, *agency* becomes an interesting issue to look at particularly in examining ICT in the context of community development and issues of divides. Understanding agency among various actors can provide valuable insights into the effectiveness and course of research and development projects and flaws in representation. I posit that understanding agency, by examining its presence or absence among various agents, or by identifying resistance as an act of exhibiting agency or the lack of it can provide valuable insights into the effectiveness and course of research and development projects.

Grounding research and practice within such a critical framework ultimately helps us forge strong and mutually beneficial partnerships with communities and people who are the real subject matter at the heart of the field. In exploring postcolonial theory as an analytical framework in LIS, the study also helps to expand its theoretical application beyond the post-colonial context with which it is generally identified, and into a dynamic field such as LIS.

This study is in part a response to the concern of a number of scholars, and my own observation as a graduate student, that more critical interpretation is needed when research in LIS looks at technology as a tool for rapid and positive social change. My focus in this direction

is as much the result of my admiration of the humanity and dedication prevalent in the field of LIS to do what is good and just, as it is a result of my belief that if we stop being constantly vigilant and constructively critical of our actions and thought processes, we run the risk of believing that anything we do should result in positive outcomes, as long as our intentions are good. These inclinations and the resulting interactions are not always immediately visible since they are subtle and evolving, but I argue that PCT has a unique advantage for illustrating complex relations, interactions, and the drawn-out results.

## CHAPTER 2: LITERATURE REVIEW

### THEORETICAL AND METHODOLOGICAL DISCUSSION IN LIS

Theoretical and methodological discussion in LIS is neither new nor scarce. As a simple exercise to tease out this point, a basic search performed for the term *theory* in the *Library and Information Science and Technology (LISTA)* database returned 15,837 hits between the years between the years 1934-2011 of which over half, 8,865, were articles in scholarly journals. Filtering this result between 1990-2011, i.e. roughly the last 21 years, resulted in 11,890 hits of which 8,153 were articles in scholarly journals. This is to say that of all the *scholarly* journals returned for the search term *theory* in the general field of LIS during the last 77 years, close to 92% in the last 21 years included the term *theory*, at an average of around 388 articles per year.

A similar search for the term *methodology* (in title, abstract, subject terms and keywords) returned 12,196 hits between the years 1955-2011 of which 8,368 were articles in scholarly journals. Of the total, 9,742 hits represented the last 21 years (1990-2011), of which 7,899 were in scholarly journals, or an average of 376 articles per year in the last 21 years. While this exercise is not an in depth analysis of any sort, it does illustrate that methodological and theoretical issues and content are not new to the field of LIS. The majority of all the articles published in the scholarly journals in LISTA have something or other to say about (or they include) theory or methodology.

Research analyzing the development and use of theory in LIS also point to a similar fact (Pettigrew & McKechnie, 2001; Kim & Jeong, 2006; Nolin & Åström, 2010). For example, Kim & Jeong's (2006) evaluation of 1,661 LIS research articles between 1984 and 2003 found 41.4% of the articles contributing to the development or use of theory across eleven sub-fields. They



listed previous studies with similar results: Feehan et al. (1987) found 13% of the articles published in 1984; Julien & Duggan (2000) found 18.3% of the articles published in both 1984–1989 and 1995–1998; Julien (1996) found 28% of the articles published in 1990–1994, and 34.1% of the articles published in 1993–1998.

Kim & Jeong's breakdown of the results by five-year period and by theory use and theory development, however, showed that while 35.82% of the articles published between 1999-2003 included use of theory, only 17.57% contributed to the development of theory. Examining the quality level of the majority of both theory use and development incidents, they found that theory incidents fell in the "middle stage" of a five-stage model. At this stage, articles included theoretical discussion but did not reach the higher stages of *Theory application* and *Analytic evaluation* respectively.

Jaeger (2010) too points out this problem of the shortcomings in the use and development of theories in the field. Jaeger also points to, amidst other scholars' work, research in the 80's by Michael Harris alluding to this issue, and in the 90's by John Budd, who did not find that Harris' paper had stirred up much change in the field. Jaeger particularly highlights shortcomings in the use of critical social theory in the field. Similarly Dalrymple (2001) follows up on Douglas Zweizig's call to improve research methodologies and incorporate social science methodologies in LIS by examining citations of Zweizig and Dervin in LIS literature. Myers & Klein (2011) also point to the lack of critical research in methodology in information studies and discuss multiple approaches for grounding critical research methodology. While Myers & Klein's approaches do not specifically deal with postcolonial theory, they suggest the usefulness of its future exploration.

The common set of reasons by the authors mentioned above for the shortcomings in the use

and development of theory point to the divergent and multidisciplinary nature of LIS, with its blurred boundaries and history of borrowed theories from other disciplines; the rootedness of LIS scholarship in a tradition of practice and practical problem solving; the situation of and generally small size of LIS departments within the larger institution and the hiring of few full-time faculty with LIS backgrounds; the lack of exposure to theory in graduate education with only some institutions offering courses on information or social theory. Jaeger (ibid.) in particular explains that while adopting external theory is not wrong and can provide valuable insight to LIS issues, it often leads to neglect in the creation of native theory that is specific to LIS. Jaeger instead calls for integration of external theory and methodology with native theory and methods in order to develop new concepts in LIS.

While the need for new theory and methodology signifies the maturity of a field, critical theory use and formulation not only strengthens that maturity but is also a necessity when considering the broad engagement of the field of LIS in the day-to-day world. Critical perspective in theory and methodology also adds to greater insight on issues in LIS. The lack of critical perspective can lead to steady irrelevance and make professional and research practice detrimental to those who are subject to it.

The need for critical engagement in the field on a theoretical basis, i.e., not only as an individual thought exercise, becomes paramount as LIS matures and occupies practices in a multitude of sub-fields. As it becomes more relevant in defining power structures, LIS increases engagement with diverse cultures, races, histories and economic realities. This is occurring both inwardly (the field being open to people with different backgrounds mentioned above) and outwardly (with populations it seeks to engage with). LIS also comes under increased scrutiny from both inside the field as well as outside as its engagement increases, calling for responsible

and ethical interaction. For example, Olson (1997) examines feminist deconstruction as methodology to guide the examination and questioning of underlying assumptions in LIS. She examines an assumption in information retrieval that finds necessary the imposition of a universal language on information and seeks to show that the boundaries between uniformity and diversity of language is constructed and can be considered exclusionary.

Critical engagement becomes even more relevant when LIS reaches out to communities of people with research and services employing ICT tools because the power of information technology for positive social change has often been taken for granted, without considering socio-economic and political issues and differences. ICTs have been ascribed the ability to bridge information divides and, with it, social and political divides. Gurstein (2003) warns that an uncritical view of ICTs increases their potential for use as tools of control and centralization by governments and profiteering by businesses. Similar to Warschauer's (2003) caution about seeking techno-centric solutions to complex social problems discussed earlier, Pieterse (2005) cautions that looking uncritically at ICT could end up contributing to the strategy of recycling old computers in rich countries by donating them to poor countries. Zembylas & Vrasidas (2005) point out that the concept of the 'global village' could have an identity-blurring effect, due to the dichotomy it presents of inclusion on the one hand, and electronic colonization on the other.

Thus, they call for critical education involving ICT in the context of globalization.

We know that mere access to technology does not bridge any sort of divide and that there are many issues that complicate its use and impact. Some of these issues include:

- the need for active participation to help communities overcome the challenges presented by the new technologies themselves (Blau, 2002);
- involving local people in decision making and control of ICTs (Olatokun, 2007);

- understanding potential new user behavior (Rowe-Whyte, et. al., 2003);
- looking at the quality of access itself and proper training to make use of that access (Blanchard et. al., 2008);
- the importance of social capital and inclusion, especially of marginalized groups within the community (Simpson, 2005);
- examining broader socio-economic conditions (Corbett & Willms, 2002) (Hohlfeld et. al., 2008);
- examining ownership issues (Pieterse, 2005);
- paying attention to strategic investment at the national level (Opesade, 2011);
- re-orienting ICT policy specific to women and in their specific cultural context (Elnaggar, 2008);
- the importance of local context, which includes use in a familiar language (Gudmundsdottir, 2010);
- and examining existing legislation, regulation, policy, and programs with specific attention to people with disabilities (D'Aubin, 2007).

While we can list many individual issues that need to be considered, and are relevant in their own right, examining critical theoretical perspectives can shed light on these issues on a larger level.

Pointing to Bourdieu's ideas on culture and the structures of socioeconomic class and power, Kvasny (2006) explains the potential of ICT to simply perpetuate divides and social exclusion. Kvasny also warns that unchecked, ICTs may force upon the community the external values of the dominant class, which can represent the resulting change in modes of behavior brought about by technology use. In particular, a lack of local cultural and informational content and instead,

the overwhelming presence of locally incongruent foreign cultural and economical content, can lead to locally irrelevant information. Kvasny (2009, p. 38) also discusses Freire and Bourdieu's explanation of the oppressed as being "submerg[ed] in the reality of being oppressed." Thus, the "status quo is preserved because it is essentially unquestioned and naturalized," making it difficult to break out of the cycle. At the same time, "Agents go about their business and they tend not to pose the theoretical questions of legitimacy because the social world is embodied in both their practice and in their thoughts. They reproduce it without active reflection."

Wajcman (2008) challenges the assumption in social theory that ICT are the main drivers of time compression in modern life by examining empirical research, and suggests a reciprocal relationship between technology and time, calling for more dialog between social theory and detailed empirical studies. Poore & Chrisman (2006) propose a social theory of geographic information systems in the process of examining conflicting metaphors of information as both invariant and transformed into higher forms of knowledge. They highlight social and ethical concerns in the relationship between GIS technology and society. Halford and Savage (2010) discuss the issue of the digital divide with a focus on digital inequality concurrently through the lens of feminist theory, sociological field analysis of Pierre Bourdieu, and Actor Network Theory. They conclude that there are shared commonalities between the three perspectives. Highlighting the importance of social theory and critical approaches to IS research, Richardson (2009) reflects on "the importance of hearing the silent or silenced voices and letting stories be told," advocating for the social theory of Pierre Bourdieu combined with a feminist approach.

Providing guidance for research in systems development and the organizational consequences of IT, Orlikowski & Robey (1991) examine the relationship between information technology and organizations using Giddens' theory of structuration. They argue that social

phenomena can be understood as comprising both subjective and objective elements, and that information technologies are both material and social phenomena. Berente, Gal & Hansen (2011) examine the research trend of user stratification into communities of practice. They claim that such stratification focuses researchers' attention on some issues, while neglecting others, thus inadvertently marginalizing some users and raising ethical concerns. They propose the use of Weber's theory of stratification and the dimensions of class, status and party and examine how the different theoretical lenses favor or neglect various issues. Adriaanse & Voordijk (2005) turn to Habermas' critical social theory to analyze barriers in the use of ICT in the construction industry.

As guest editors in *Social Science Computer Review*, Richardson, Tapia & Kvasny (2006) explain that though the field of Information Systems (IS) is dominated by positivism, partly owing to its historical origins, critical perspectives in research and inquiry are on the rise. Drawing from several authors they point to the aims of critical research in ICT: “to bring restrictive and alienating conditions to light and to be emancipatory [... and] to expose, through critique, the illusions and contradictions of social existence with a view to enabling and encouraging social change” (p. 269). In their editorial capacity, they provide an overview of the application of critical theory in the study of ICT in the articles in the issue. These include, among others, discussions of Foucault's concepts of knowledge and power, body politics, the Panopticon, the gaze, and popular illegalities; the observation of the politics and non-rationality in enterprise-wide system selection; and the examination of socioideological control through the concept of professionalism among call center agents in India and their compliance and complicity in their domination. Similarly, as guest editors in an issue of *Information Technology & People*, Kvasny & Richardson (2006) reflect on the interest and development of critical

research in information systems. Articles in the issue include examination of power issues in the workforce and individual differences theory of gender and IT in a study of the women in the IT labor force; understanding rhetorical enclosure using Habermas' theory of communicative action; and the examination of the concept of inner panopticon through internalization of durable social habits and self-imposed surveillance among knowledge workers.

In the initial part of this section I pointed out a handful of studies that engaged in critical analysis of issues as a way of highlighting authors' individual efforts at critical thinking. Then I moved on to list some critical theoretical perspectives in LIS that go beyond a single author's critical thought process and engage with a larger body of critical thought. While I do not discount individual critical thought processes I have argued previously that a body of sustained critical thought and discussion is required for a critical analytic project and have proposed to explore postcolonial theory as a framework in this study.

In the following two sections I will first look at other studies in LIS that directly deal with postcolonial theory, and second, explore discourse analysis as an analytical method of text and speech. I will do both while trying to refrain from methodological discussion until I get to the methodology section. There I will engage with further exploration of postcolonial theory as critical theoretical lens and critical discourse analysis primarily as a structural tool to employ postcolonial theoretical analysis in this study.

### **USE OF POSTCOLONIAL VIEWPOINT IN LIS**

Use of the postcolonial viewpoint is not a common framework for analysis in LIS but it has been used in different facets of the field. I will explore such literature in LIS in the following section and examine PCT in depth in the methodology section that follows.

A search for the terms *postcolonial* and *post-colonial*, without date limiters in 2011, returned

227 results in the online *Library, Information Science & Technology Abstracts (LISTA)* database and 64 results in *Library, Information Science Abstracts (LISA)* at the . Upon closer examination, a majority of the results were book reviews of postcolonial theory mostly meant as companion reading to postcolonial literature or literary analysis thereof, valuable no doubt in collection development. However, only a handful of academic articles containing a postcolonial critical lens, to a greater or lesser degree, emerged. These I present below.

In documentation and classification, Lindh & Haider (2010) in *Libri: International Journal of Libraries & Information Services* analyze the development and documentation of indigenous knowledge from a Foucauldian and post-development and postcolonial perspective. They illustrate how documentation practices can be understood as an extension of power and how indigenous knowledge is kept marginalized in the discourse of development while, at the same time, that knowledge given the label of *Indigenous Knowledge* legitimizes international aid organizations, development discourse and the intellectual property rights system. Olson (2000) in *Cataloging and Classification Quarterly* discusses a postcolonial theory of third space, an in-between space that can construct meaning, viewed through which, the Library of Congress Subject Headings (LCSH) has the potential to instigate positive cultural change by taking on an ethical stance rather than the presentation of reality from a supposed neutral position rife with a dominant patriarchal Euro-settler culture. In so doing, the meaning of documents can be constructed outside the dominant culture for library users. Olson's idea of in-between space can be compared to Homi Bhabha's in-betweenness, Emily Apter's *translation zone*, and Mary Louise Pratt's *contact zone*, which refer to spaces for new meaning formation and discursive transformations (Bassnett, 2010).

In archival studies, Caswell (2011) in *American Archivist* discusses the legal, political and



moral issues of the seizure and digitization of the Iraqi Baath party records, even under the rhetoric of protection of the records as well as their accessibility to international researchers. Caswell enters the debate of the implications of considering the records as a cultural property firstly, with the expression of the national rights to possess the records, and secondly as a universal right to access regardless of national affiliation. Caswell concludes by suggesting a third, postcolonial approach to considering cultural property, which sees the seizure and transfer of custody of the records to an American Archive as an act of exertion of power over a colonial subject and the production of knowledge about the “Oriental other.” Simultaneously, it denies the Iraqi citizens themselves the ability to write their own history and determine their own future. Caswell proposes that the seized records should be returned immediately to the Iraq National Library and Archives (INLA) who should with the mandate of the Iraqi people make decisions about preservation, access, and digitization. In the same vein and in the same issue of *American Archivist*, Christen (2011) discusses the repatriation of indigenous cultural heritage materials of the Plateau tribes in the Pacific Northwest. Kurtz (2006) explores the contradictions that can be inherent in postcolonialism, using the example of the institutional practice of creating an oral history archive in northwest Alaska. Kurtz argues that although postcolonialism generally works to decenter the power of the colonizer--and while the oral history project generally is thought to center the historical material by creating space for the historical subject--the institutional and professional practice for creating the archive, unchecked, can in essence reestablish various powers of colonialism. Bastian (2009) examines Carnival in the US Virgin Islands as a cultural archive, a counternarrative to the colonial culture. Unlike traditional cultural records in document form, the weeklong event itself is both a form and collection of nontraditional records.

In the area of LIS training and education, reviewing the pre and postcolonial history of

Philippines, Punzalan (2005) calls for the consideration of the realities of that history in the contemporary archival training program in the country. Punzalan argues for the relevance of such consideration to help the country confront and unravel its post-colonial identity. For example, in historical studies of LIS and libraries in postcolonial contexts: Lim (2010) *Malaysian Journal of Library & Information Science* studies the emerging multilingual public library system and services against the backdrop of its postcolonial history, comparing how the idea of such a library was conceived when Singapore was first founded to the more recent history between 1956-1991 when the library actually began to take shape. While the study itself is not necessarily a postcolonial analysis, it does throw light on the postcolonial history and the colonial instance of its birth.

In areas of youth, media, culture and technology, Grixti (2006) examines the influence of global cultures among Maltese youth through media and argues that rather than their culture being simply replaced or hybridized, the youth instead appropriate and play with the media, retaining a uniquely Maltese characteristic. Eijkman (2009) discusses the challenge of higher education in a transcultural setting, in the midst of neo-colonial disprivileging of non-mainstream knowledge based on traditional academic discourse. Eijkman proposes addressing the role of epistemology in web 2.0, in order to create learning zones where different knowledge systems and discourses can be privileged, thus creating a postcolonial architecture of learning.

Singh (2008) discusses Paulo Freire's ideas of social activism, development, and social action in the context of representational technologies and the Internet. While pointing out some shortcomings in Freire's ideas in that context, Singh discusses their possibilities within a market-driven information age and presents a caution not to dismiss the potential of the markets.

Fredricksson (2010) in the *Journal of Information Ethics* analyses the work of filmmaker and

theorist Trinh T Minh-ha in line with postcolonial theoretical analysis to explore the representation of the *other* in ethnographic documentaries. Fredrickson postulates that representation is not only an esthetic question but also a moral one. By looking into Minh-ha's pioneering experimental documentary filming process and her theory of the location of the author in representation of the other, Fredrickson discusses the problematic--hidden yet mediating--identity of the author, as well as the problematic search for the elusive authentic identity of the other.

While postcolonial analysis is not entirely absent in LIS literature, its usage is fairly sparse. While researchers in the articles presented above explicitly used the term *postcolonial*, it is possible other researchers use postcolonial analysis or aspects of it in small part without explicitly naming the theory in their text, keywords and title, or even without conscious realization that the theoretical underpinnings of the arguments or writers they use is in postcolonial theory.

### **DISCOURSE ANALYSIS**

This study analyzes the discourse of the field of LIS through the lens of postcolonial theory. To do so, it is informed by research methods of discourse analysis particularly as they have been used in LIS. Researchers have used and continue to see the importance of discourse analysis in LIS. Budd (2006, a) examines discourses in LIS using rhetorical and argumentative strategies, particularly in analyzing discourses concerning science and scientific method, objectivity and neutrality, alternative approaches, and theory. Frohmann (1994) highlights the usefulness of discourse analysis as a research method in LIS, particularly in the analysis of the theoretical discourses within the field. Budd (2006, b) advocates for discourse analysis as a research method

in LIS, highlighting a linguistic-based analysis and a culturally/socially-based analysis.

Discourse analysis in its various forms is currently being used in LIS to study automated content analysis of text and discourse for information retrieval and concept-based text matching (Foltz, 2005); to research automatic information extraction from ever increasing volumes of legal texts (Moens, Uyttendaele & Dumortier 2000); to compare the effectiveness of face-to-face and online learning teams (Liu & Burn, 2007); people's discussion of their information practices (Nahl, 2007).

It is also used to study how researchers' formal and informal information behaviors are the product of discursive power/knowledge relations (Olsson, 2007); to study the overlap of research and advocacy of researchers (Lindeman, 2007); the impact of information technology on social scientists (Jacobs, 2001); the construction of female gender identity in personal weblog writing (García-Gómez, 2009) and gender inequality in political blog writing (Harp & Tremayne, 2006); to analyze perceptions, expectations and attitudes of stakeholders about the rapidly evolving ICT industry and in the usage of ICTs in Nigeria (Akpan-Obong, 2008); and to analyze the discourse and practice of 'development' in an ICT-related World Bank initiative while excluding alternative views of technology (Thompson, 2004), or to examine policy regarding information technology in the health sector (Balka, Rodje, & Bush, 2007).

I focus on the next three articles on Critical Discourse Analysis (CDA) in a little more detail as I will be modeling/adapting my analytical method from them. I discuss the particulars in the methodology section. The length of my attention of those articles in this section depends on the level of detail and discussion of the methodology in those papers. For example, the entirety of Carvalho's (2008) paper is primarily a discussion of CDA as a framework for analysis of "media(ted) discourse" and a proposal of a method. While the background of her discussions is

journalism, I am attracted to the detail of the discussion and the simplicity and adaptability of the proposed method for this study.

Cukier, Ngwenyama, Bauer & Middleton (2009) focus on Critical Discourse Analysis based on Habermas' theory of communication. They favor CDA as it "interrogates texts in order to expose deep structures, systematic communicative distortions and power relations that underlie discourse [...] to effect change – the emancipation of participants in the discourse and the improvement of social affairs and relations" (p. 117). They analyze media discourse surrounding the adoption of computer technologies using proprietary hardware and software for education at a Canadian university.

Similarly, Carvalho (2008) proposes a CDA framework that combines the textual and contextual dimensions in the analysis of journalistic discourse. Carvalho explains "CDA often involves a search for aspects or dimensions of reality that are obscured by an apparently natural and transparent use of language. The researcher then tends to be alert to power relations being exercised through discourse and aims to overcome the normal opacity of social practices" (p. 162). Carvalho sets out to explore what she claims are the under-researched aspects of CDA: the time plane in discourse analysis, the discursive strategies of social actors, and the extra and supra-textual effects of mediated discourse.

Carvalho maintains that discourse is a reconstruction of reality, and since Carvalho's exploration is based on journalistic text, she sees the importance of looking at the discursive intervention of the journalist as well as the "source" or the other social actors involved, over the issue or "object." Extra and supra-textual effects of mediated discourse looks at the effect of the discourse on the future development of the discourse and on the 'object' of the discourse itself.

As the analytical method, Carvalho proposes a framework with a two-level approach in the

analysis: the textual and the contextual. The textual analysis looks at layout and structural organization, the construction of objects, presentation of actors, language and rhetoric, discursive strategies, and ideological standpoints. The contextual analysis involves paying attention to the *comparative-synchronic analysis* which involves looking at the various representations of an issue at the time of the writing where one text is compared with other representations of the issue in an attempt to reconstitute the original events, and *historical-diachronic analysis* which on one level, involves examining the course of social matters and their wider political, social and economic context while remaining open in theoretical and methodological terms, and in another level involves examining the development of the discourse and the issue over time, the discursive effects and significance to subsequent representations, looking at alternative arguments, and exclusions.

Tapia, Kvasny & Ortiz (2011) provide a Critical Discourse Analysis of the digital inclusion policies and rhetoric used by city officials of three major cities in the US for the promotion of their municipal wireless broadband. The authors examine a subset of the data for the analysis and use Fairclough's multi-level framework for CDA which "postulates that macro-level social structures (e.g., power relations) are linked in a dialectical relationship to micro-level social practices, such as speaking or writing. Though connections between language use and the exercise of power are generally invisible ... close examination can bring to light concealed mechanisms of domination" (p. 219). The authors use four discursive types: legitimacy, corporatism, technological optimism and pragmatism adapted from Thompson<sup>1</sup> to frame analysis of discourse. The paper highlights the importance of the digital inclusion rhetoric to bring to

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<sup>1</sup> Thompson, M.P.A., 2004. ICT, power, and developmental discourse: a critical analysis. The Electronic Journal on Information Systems in Developing Countries 20 (4), 1–25.  
<<http://www.ejisd.org/ojs2/index.php/ejisd/article/viewFile/122/122>>

prominence issues of social inclusion in the face of political and financial challenges faced by the municipal bodies in their municipal wireless broadband programs. The authors explain that “CDA can be useful for examining how power is enacted, reproduced or legitimized by the text and talk of dominant groups or institutions; power is often subtly exercised by way of cognitive manipulation via text and speech” (p. 217).

### CHAPTER 3: METHODOLOGY

I have stated earlier that the key objective of this study is to provide a theoretical framework for analysis that can lead us to critical self-examination. In essence, the study explores the role of critical questioning in LIS. I argue that critical understanding cannot be sufficiently arrived at solely out of individuals' best judgments and good intentions. Rather, a body of sustained critical thought and discussion is required. For such a body of sustained critical thought, discussion, and methodological framework, this study turns to postcolonial theory.

In this section, I discuss the theoretical framework of PCT that will guide the asking of questions, the setting up of the operating method, and the analysis in this study.

Postcolonial theory is built on an amalgamation of a sustained body of discourses, critical exchanges and recorded thought processes of a number of thinkers and scholars. Common among those who contribute to the discourses within postcolonial theory is an attention to issues of oppression in its various forms, and particularly in the liberation and forging of new political geographies and national and political identities based on a recent historical past<sup>2</sup>.

"When exactly ... does the 'post-colonial' begin?" Dirlik (1994) tries to answer in parsing out whether postcolonialism is to be understood as "a literal description of conditions in formerly colonial societies; a description of a global condition after the period of colonialism; or, a description of a discourse on the above-named conditions" (p. 332). "I will supply here an

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<sup>2</sup> Colburn (2006) points out: We often forget just how "new" most poor countries are. For example, Jordan and Syria— as independent nation-states—were created in 1946. Libya was established in 1951, Tunisia in 1956. India became independent in 1947, Indonesia in 1949. Malaysia was established in 1963. The "birth" of Ghana came in 1957. Senegal and Nigeria were established in 1960. Kenya gained independence in 1963—it took until 1980 for Zimbabwe. Most of Latin America became independent in the first half of the nineteenth century, but the Cuban Revolution in 1959 prompted a questioning of national identity and direction throughout the region. Similarly, the Chinese Revolution in 1949 gave that mammoth country the sense that it was beginning anew. Between the end of the Second World War and the end of the twentieth century, membership in the United Nations more than tripled. And these new members were overwhelmingly poor. Colburn, Forrest D. (2006). "Good-bye to the 'Third World'" *DISSENT* / Spring.



answer that is only partially facetious: When Third World intellectuals have arrived in First World academe” (p. 328–329).

While this answer is partially facetious, it is partially true since postcolonial theory as an academic endeavor began to gain establishment in the late 1970s in the US through the work of academics like Edward Said: *Orientalism* (1978); Gayatri Chakravorty Spivak’s article *Can the Subaltern speak?* (1988), Homi K. Bhabha’s *Nation and Narration* (1990); and *The Location of Culture* (1994) among a host of many others some of whom I use in this work. Some of postcolonial theory’s academic roots lie in Marxism (Young, 2001, p. 58); its political flowering can be seen in the “non-aligned movement initiated at the Bandung Conference of 1955 by Nasser, Nehru, Sukarno and Tito” (ibid, p. 59). However, postcolonialism’s origin is rooted in the anti-colonial movements that began in the late 19<sup>th</sup> that continued as National Liberation movements into the latter part of the 20<sup>th</sup> century and can be seen in the intellectual and revolutionary works of people like Aimé Césaire: *Discourse on Colonialism* (1950); Frantz Fanon: *Black Skin, White Masks* (1952) and *The Wretched of the Earth* (1961); Kwame Nkrumah: *Consciencism* (1970), Ngũgĩ wa Thiong’o’s, *Decolonising the Mind: The Politics of Language in African Literature* (1986). Novels like *Things Fall Apart* (1958) by Nigerian author and poet Chinua Achebe, *Weep Not, Child* (1964) by Kenyan author Ngũgĩ wa Thiong’o, again, among many others seminal works provide a platform for the rise of postcolonial consciousness through literature and open the floodgates for literary criticism, more of which, can be explored in some detail in Ashcroft, Griffiths, & Tiffin’s *The Empire Writes Back* (2001).

This is admittedly a dense and minutely fractional summary of parts and pieces of what constitute the beginnings of postcolonial theory, but I will contend that to do more falls outside the scope herein. At the same time, some more of the exploration will resurface as I use the

postcolonial critical lens in the analytical process.

Returning back to Dirlik's question to go in a slightly different direction, as to the beginnings of postcolonialism: "A less facetious answer ... is, with the emergence of global capitalism, (Dirlik, 1994, p. 352). However, Dirlik's voices concern "that a consideration of the relationship between postcolonialism and global capitalism should be absent from the writings of postcolonial intellectuals ... which pertains not only to cultural and epistemological but also to social and political formations..." (ibid.) Dirlik's criticism that "postcolonial critics have been silent on the relationship of the idea of postcolonialism to its context in contemporary capitalism (p. 331) has since been answered, and continues to play an important role in contemporary criticism particularly in the role of global capitalist actors such as multinational companies and in the study of the rising of new geopolitical and economic powers such as India and China.

Krishna (2009) illustrates the point linking colonial actions to present power in the form of capital:

...the influx of wealth from plunder in the New World and the profits from the triangular global trade under European dominance that linked Latin America, Africa, and Asia, for the first time in human history, were not frittered away in an orgy of conspicuous consumption by the state and elites or in military adventurism. Rather, the interaction of this wealth with the profound social changes in northwest Europe—that is, its conversion into capital—is crucial. (p. 25)

Postcolonial theory hints to the body of discourses rooted in the history of European colonization around the world and spans the decolonization process and the re-vision of that colonial history and its aftermath to the present day. The discourses are not aimed so much at rewriting history but rather revealing history that is hidden, and signifying history that is taken

for granted. The focus is on perspectives suppressed in the processes of colonizations and decolonizations, whose trailing effects will be present for some time to come, albeit in various forms, as Schiller (1996) points out in his discussion of the critique of cultural imperialism. He notes that the decline of colonialism after the Second World War brought with it a different kind of domination that was based on spheres of influence, which either continued--or led to--cultural dependence and cultural imperialism within the "changing forms and processes of an emerging global capitalism" (p. 89). Which is also why as Dirlik (1994) points out that, "even as Europe and the United States lose their domination of the capitalist world economy, European and American cultural values retain their domination" (p. 351).

PCT's discourses and analysis in the literary field and particularly in the context of post-colonial literature is invaluable. But PCT can also offer an appropriate lens to examine our assumptions and the contexts in which information technologies are understood and deployed. PCT's focus on a diversity of geographical, racial, and cultural contexts and histories also makes it an appropriate lens to look at ICT in the context of development, inequality, and rights and access to appropriate information. This is especially important as the field of LIS increasingly engages with communities and people of various historical and cultural backgrounds.

Particularly in working with communities, the imbalance in the power relationship between the researcher/practitioner and all that they represent, and members of the community, is inevitably in favor of the former, and usually difficult to negotiate. This is due to the perceived fact, by one or all parties in the equation, that the researchers/practitioners possess irrefutable expertise that they will use not only towards identifying the problem, but in many cases identifying the solution and the course of action. Unresolved imbalance in the power relation can severely derail the identification of the real problem and a reasonable solution.

Resolving power relationship issues can be impossible if they are invisible and hidden in the first place. Kapoor (2005) claims that researchers need to “confront the Real”, which in our case is about recognizing and coming to terms with our complicities and desires. [...] to make them open to scrutiny and discussion. Unilaterally moralizing about the correct behavior of the facilitator (a` la Chambers) is, as we have seen, a recipe for self-promotion and benevolent paternalism” (p. 1216). Kapoor argues that this need for self-reflexivity is not just at the individual level but also at the institutional level that researchers and practitioners are part of and represent.

The question of situation of self needs to be examined to be able to reveal not only issues of power relations, but also a plethora of other issues regarding vision, translation and interpretation, dominance and representation. Kapoor (2008) argues that “[c]hanging this relationship is not a question of mere good intentions or semantics: for instance, development organizations or researchers may now call their subjects ‘beneficiaries’, ‘target groups’, ‘partners’, ‘clients’, instead of ‘poor’, ‘underdeveloped’, or ‘disadvantaged’, but this does not by itself change the discourse or dismantle the us/them power relationship” (p. 42–43). What may be required is an examination of perspective in context.

Kapoor (2005) provides strong reasoning for the need for critical positioning and self-examination in the field of development. He points to Participatory Development (PD) where “participatory” puts the field of development on a seemingly critical stage. He argues that nevertheless, PD is used unquestioned by development workers, researchers, and donor and funding agencies where ‘participatory’ is often a prerequisite in project and research funding. The assumption of PD’s inherent critical positioning puts it on a path to becoming an ideology where it becomes unquestionable and it remains unquestioned. As an ideology it becomes a

*reality* distinct from the *real*. Kapoor explains how PD runs the risk of taking on the persona of wholeness and harmony while hiding the impossibility of the wholeness of reality. This wholeness it prescribes in various forms in order to “develop” the under/undeveloped; it seeks to avoid coming to terms with the incompleteness of reality and instead proposes a fantasy world. Haraway (1991) agrees that there is no simple and final explanation in rational knowledge and the goal is not to find fixed explanations, but to seek a “better account of the world” and engage in “ongoing critical interpretation among [...] interpreters and decoders” (p. 196).

Perspective is a key theme in Edward Said’s 1978 book *Orientalism* – a key contribution to postcolonial theory. Said writes about the Orientalist who looked eastward through a lens crafted by European history and understanding. Thus, their gaze is not directed at the real places and peoples who to them collectively and generally signified the ‘Orient’ but at the ‘dehumanized and romanticized Orient’ in their minds. Disappointed at how the ‘real’ Orient failed to measure up to the ‘idealized’, the Orientalist then sought to interpret, translate, preserve, and transform the ‘real’ Orient, based on the ‘idealized’ in their minds without regard to the eyes and minds of the ‘real Orientals’. This ‘imagined and idealized Orient’ was acted upon by westerners, which validated western efforts to save the Orientals from themselves, and despite themselves.

In discussing *Orientalism*, Childs and Williams, (1997) state

[A]rguably the greatest significance of the book is the manner in which Said traces the discourse's discriminatory strategies across centuries and continents and into the contemporary period. [...] Said prefers to concentrate on the ways in which certain ideas, and the practices to which they give rise, continue to have an impact in the contemporary world. At least from the beginning of *Orientalism*, with its epigraph from Marx’s ‘The 18th Brumaire of Louis Napoleon,’ ‘they cannot represent

themselves; they must be represented', the power relations which inhere in or derived from practices and forms of representation are of vital importance to Said's work (p. 101, 103).

Explaining Said's critique of the orientalist in its modern relevance, Young (2003) writes, "It means realizing that when western people look at the non-western world what they see is often more a mirror image of themselves and their own assumptions than the reality of what is really there, or of how people outside the west actually feel and perceive themselves" (p. 2).

With the discussion so far as the methodological background, I will go on to focus on three key issues for understanding perspective: representation, identity, and agency. In looking closer at these three theoretical positions in understanding the overarching issue of perspective, I will examine the role their discussion can play in the analysis of work and research related to ICTs in development.

Keeping the three discursive areas in mind,--representation, identity, and agency--analysis in this study will make an effort to map the modes of agency through reinterpretation and appropriation of technology and the rhetoric surrounding it.

### **ANALYTICAL TOOL**

Relying on the theoretical guidance of postcolonial theory (PCT) as the interpretative critical lens to set up the study and analyze discourse, the analytical is loosely based on critical discourse analysis (CDA) drawn from its use by several researchers. The underlying reason I choose to draw from several authors in their use of CDA, is because my intention is less so to focus on or highlight the use of CDA and more so to adapt the various applications of CDA to the specific needs of this study so as to allow for the effective use and exploration of PCT as an interpretative critical lens. To do so, I incorporate some very specific aspects of CDA methods

implemented by Cukier, et al. (2009) and Carvalho (2008) in their analysis of media discourse.

The context and setting of the discourses in Cukier et al.'s analysis rely heavily on a journalistic tradition and field. I instead take some relevant pointers and look specifically at their proposal to “apply Habermas’ four validity claims” namely: *truthfulness* which involves checking for factual representation of the ‘objective’ world; *legitimacy* which looks for correlation between the communication and to the social context for distortion in the representation of different sides of the argument; *comprehensibility* which checks for clarity in the communication, whether it is technically and linguistically clear or intelligible, audible/legible; and *sincerity* which looks at the intention of the speaker/writer, whether there differences between speech/writing and action, whether there is a discrepancy between what is explicit and what is implied. In this aspect too, the validity claims cannot be applied verbatim but offer an important set of reminders to draw on. My intention is not to evaluate researchers and authors at the individual level. I have to assume by default, that at the individual level and within the current trends and perspectives in the field, individual researchers and authors are not in violation of the above validity claims.

Instead, my intention is to analyze the trends and perspectives in the LIS field, guided by the discourses within PCT. These trends and perspectives as represented by a set of published articles, which may not draw a complete picture of perspectives of the field. Moreover, I will not examine the unarticulated reasoning and unpublished discussions and processes behind the scene, but provide the public view as representative of that process. Tapia, Kvasny & Ortiz (2011) explain the rationale behind their similar dataset:

While the documents analyzed do not form a complete picture of the intents of the cities or their representatives, they represent the publicly articulated plans and objectives. Most

importantly, these textual data can be thought of as the archeological remains of a city's public discussion around technology and social inclusion (p. 219)

I also look at Carvalho (2008) who explores three aspects in discourse analysis which she claims are under-researched aspects of CDA: the time plane in discourse analysis, the discursive strategies of social actors, and the extra and supra-textual effects of mediated discourse. As the analytical method, Carvalho proposes a framework with a two-level approach in the analysis: the textual and the contextual.

Carvalho's *textual analysis* involves looking at:

- the *layout and structural organization*;
- the construction of *objects* in the discourse (she equates 'objects' to 'topics' and 'themes' and contends that the term 'object' is more than a reference to the realities at stake but that the reality itself is constituted by the discourse);
- the *actors*, quoted or referred to, as both the subjects who do things and the objects who are talked about;
- the *language, grammar and rhetoric* looking at vocabulary used for representing a certain reality, nominalizations and active/passive sentences, metaphors, rhetorical figures and persuasive devices such as emotionally charged discourse;
- *discursive strategies* (Carvalho claims that while these are discursive manipulation by social actors, they are not illegitimate alteration of reality. They can involve a selecting a particular angle of reality, the strategy of a particular framing and arranging of a reality, positioning actors, politicization, legitimization, constructing responsibility, etc.);



- and *Ideological standpoints*.

Here again, my intent is to heed the layout provided by Carvalho without adhering to it unilaterally, partly because some of the strategies and methods are strictly applicable only in the analysis of journalistic reporting in the media and also because trying to do so would make this a different kind of study. However, the insights from Carvalho's exploration of some under-researched aspects of CDA are valuable to guide some features of the examination I attempt.

### **METHOD**

This study explores a framework for applying critical theory within a practical field. To do so, I look at research and discussion within LIS that focuses on ICTs, development, and rural and remote communities.

It is important to keep in mind that the object is not to evaluate the researchers and/or other actors as may be more relevant in journalism and in political discourse analysis. Rather, I identify and discuss the field's engagement in the discourse by analyzing perspectives from which statements are made or events are interpreted, and issues are omitted, avoided or undetected altogether. In the latter case, it may be difficult, if not impossible, to ascertain motives, but the possibility of such omission, avoidance, or lack of detection can at least be pointed out and questioned. A single research article or actor does not represent all angles of any discourse and may instead contain a single or even a partial representation of the discourse. Therefore, the goal is to analyze the documents in the corpus as participants in the overarching discourse rather than as individuals representing single, separate, and complete views. Doing so also allows us to accept contradictions that may be present in different parts of the documents in relation to the different aspects of the overarching discourse.

Extrapolating from Carvalho (2008) and Cukier et al. (2009), I conducted the following steps:

***1. Define the corpus of data, and identify and select documents.***

As the way to get access to appropriate discussion, the approach in this study involved searching within a major abstracting and indexing database, *Library, Information Science & Technology Abstracts (LISTA)*, which includes LIS's leading journals where research articles and papers are meant to report, communicate and discuss findings, experiences, viewpoints, and theories.

The content in such leading journals serves not only to communicate to members but is also normative in publishing and content guidelines and in educating young researchers to write and think in certain ways.

Searching the database also has value in that students in the social sciences are trained to search for research articles in databases related to their field rather than look only at specific journals. This reflects my own experience as a graduate student, although I was also cognizant of other methods for finding relevant articles, such as citation search and tracking. Research articles and papers included in the databases identified with a field effectively make such databases normative and representational, bringing together viewpoints of authors directly related to the field of interest. Also included are those in the various subfields or peripheral fields that influence and are influenced by discussion in any given field. Therefore, I saw it as vital to conduct a database search for relevant concepts in the field of LIS in order to identify articles that can be used in the analysis of discussions about ICTs, development, and rural and remote communities.

A Boolean search was conducted in *LISTA* using the phrase (*ict AND development AND*

*community AND access*) with source type: *Academic Journals* as a limiter and date range 2001-2011.

This search was based on the pilot study that had been conducted during the dissertation proposal phase in order to test the workability and soundness of the methods. In the pilot study the search had been carried out for the date range 2004-2010 in *LISTA* and *The Journal of Community Informatics*. However, the date range in the pilot 2004-2010 along with a varied list of search terms had not produced sufficient results in the *LISTA* database, therefore, the date limiters were expanded to date range 2001- 2011 and the search terms refined to include more articles while at the same time be more accurate, informed by a text analysis<sup>3</sup> exercise in the pilot study.

Preliminary filtering was carried out on the initial database results by examining the set of returned documents for those that either were not relevant to the topic, represented news and book reviews, were in an unusable format (image only), or a language other than English. I also eliminated editorial introductions to articles in a particular issue. I then downloaded the resulting articles to my computer.

The final step in this process involved reading through the titles and abstract, as well as skimming through the downloaded documents to make sure that they did in fact meet the search criteria for documents in the set, for example, making sure that document was not selected based on a misleading title, or that it is usable in terms of language beyond the translated abstract, and that the article was indeed about or related to ICTs, development, and rural or remote communities.

***2. Analyze the documents to identify statements and/or events implicit, explicit, or omitted, regarding representation, identity and agency.***

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<sup>3</sup> See Appendix 2

- (i) Identify the major ‘objects’ that make up the overarching discourse (relevant to this study).
- (ii) Identify the major actors in the individual study being analyzed.
- (iii) Interpret the empirical observations guided by the methodology based on PCT’s discourses on representation, identity, and agency.

Objects that are present in a set of documents can be identified using empirical observation of the articles. The kinds of objects that could be expected to be identified includes ‘digital divide’ as well as ‘development’, ‘digital inclusion’, ‘underdevelopment’, among others, in the process of exploring perspective, analysis, motive, choice, and background in the research projects.

All the articles in the set were read thoroughly and empirical observation carried out to identify actors along with statements and/or events implicit, explicit, omitted, or undetected regarding representation, identity and resistance. This step includes a combination of the use of insights from the discourses in PCT, as well as insights from discourse analysis discussed above.

The task for and the result of this step is the interpretation of the empirical observations guided by the relevant discourse in PCT and, where applicable, the exploration of the discursive strategies in these statements or events, and the checking against the relevant validity claims. This step is performed keeping in mind that the object is not to evaluate the actors or the single article per se, but to identify and discuss the perspective by which statements are made or events are interpreted, omitted, or undetected and their contribution to the overall discourse being analyzed.

The overarching questions asked in the process of the analysis were:

1. How are various actors, events, and situations being *represented*?

2. Are there indications of the role or effect of *identity* on the various actors?
3. Is there evidence of positive or adverse action on *agency* of various actors in the articles? If so, are how are agents empowered or their power undermined?

For the empirical observation in the pilot study, I had picked four random articles from the entire set that included articles from *LISTA* as well as the *Journal of Community Informatics* and carried out empirical observation and interpretation and the abovementioned overarching questions.

I had looked for any of the PCT issues identified in the methodology, as I read through these articles line by line. I came to realize that I had to read through each line and evaluate any significant sentence based on the theoretical and methodological positions rather than search the document for a preset list of questions and terms. This strategy not only proved more thorough, it also proved to be more flexible in catering to different writing styles and the focus of each article.

For the empirical observation in this study as well, I looked for any of the PCT issues identified in the methodology, as I read through these articles line by line. I had been informed by the investigation in the pilot study that I had to read through each line and evaluate any significant statement based on the background of theoretical and methodological positions rather than search the document for a preset list of questions and terms. Such critical close reading made statements, arguments, line of reasoning and suppositions stand out if they seemed at odds with the theoretical and methodological positions. This strategy had not only proved more thorough, it had also proved to be more flexible in catering to different writing styles and the focus of each article.

The following kinds of questions were the result of close reading, informed by the pilot

study, when looking at the articles line by line during initial examination of the article that helped later with the closer analysis and discussion.

Do the author(s) identify themselves other than by their name and in most cases institutional affiliations? For example, are they referred to as an ambiguous collective with phrases such as “the researcher/s”, “the research team”? Or, are they excluded from mention and view altogether by an “objective” writing style, with phrases like “research was conducted”, “the next step involved” (not looking at the occurrence of the phrases on their own but only in context when they implicitly indicate the action of the author/researcher(s)).

Are authors aware of their potential shortcomings or biases? Does language suggest consideration of how their identities can interact with those of other actors and in interpreting, and working with, different objects in the study? Similarly, how explicit are the authors of the identity and agency, or the lack thereof, of various other actors?

When I came across sentences that seemed to represent a point of view or affirmations, was it clear whose point of view it was? When ideas and steps in the development of projects were being described, was there an indication of how and why they came about and who was involved in those decisions? Was there anything implicit, explicit, or left out about the effect of the ideas, decisions, and steps on the various actors?

Were the subjects/participants/collaborators/community/groups identified and acknowledged as actors with agency in various aspects of the research and in their interaction with the authors and various objects? When sentences seemed to represent views of various actors, was it discernable whose views they were?

Were there explicit acknowledgement of actors’ views/acts of self-determination and appropriation where applicable, or are they implicit. Are such views/acts rejected or denied? If

so, what are the authors' qualifications of those rejections and denials, or are they simply undetected or possibly misinterpreted?

A point that came through in close reading was that any particular observation in any article does not necessarily mean that such observation dominates or even represents the major thrust of the article, though the potential is high.

The kinds of questions I present above were the result of my examination of some of the articles upon close reading. They are not the standard by which I analyzed articles used in the study nor do they represent the criteria for looking at all other articles. Each article has the potential to raise more and slightly different questions that will be discussed in the next three chapters that follow.

The analysis of the observation will be presented in three chapters that deal with each of the discursive areas: representation, identity and agency, respectively with the chapter headings of the same name.

Research articles from the set that present issues for discussion about one of these discursive areas will be analyzed under the chapter representing that discursive area. Often times, research articles present issues that could be used as examples, positive or negative, of multiple discursive areas. In those cases the articles will be analyzed under the chapter that is more strongly representative of issues found in the article, so as not to separate the analysis from the contextualizing discussion about the article in a different chapter aside from a brief mentions of issues representing other discursive areas where appropriate.

### **LIMITATIONS**

The limitation of the study is primarily that it is not a survey of the entire field of LIS, or even the entire subfield in LIS that deals with ICT, the primary object being the exploration of a

framework for analysis rather than the analysis of the field itself. The document selection process utilized a Boolean search for articles in Library, Information Science & Technology Abstracts (LISTA) database using the phrase (ict AND development AND community AND access) with source type: Academic Journals and Publication Date: 2001-01-01 to 2011-12-31. Selecting only relevant articles after eliminating articles that were either not relevant to the topic, represented news and book reviews, were in an unusable format (image or table only), or a language other than English, and/or editorial introductions to articles in a particular issue, and others that although they met some of the criteria, did not particularly engage in discussion about a community or research resulted in nineteen (19) articles that were the basis of analysis and discussion in this research.

In the same vein, the list of countries that make up the research settings for the articles examined in this study does not include the United States of America. This is not by design, and after further examination, the exclusion can be attributed in part to the term ‘development’ without which the intent of the search is not complete. Its inclusion, however, results in articles that largely represent research settings considered to be in the ‘developing world’ where I can only conjecture that ‘development’ has more significance than in a country deemed to be located in the ‘developed world’, where ‘development’ does not carry the same meaning as is the intent of the search. The exploration of the discussion surrounding the term ‘development’ could be a subject of a different study and analytic exercise.

Another limitation is that this study does not, nor was it aim to, exhaustively explore or use all the discourse areas of postcolonial theory. I have instead used what I found to be the most relevant discourse areas that are compatible with the context of ICT and development in rural and remote areas. The effort has been to engage with these discourse areas in depth in order to



better understand their relevance and importance in LIS.

I acknowledge that every observation can be interpreted from a slightly different perspective that could be used to make or in the least shift the focus of interpretation. This acknowledgement, while evincing a postcolonial interpretation, itself also points out some of the limitations of postcolonial theory. Postcolonial theory is not the only critical perspective that could be employed in an analysis of this sort. Feminist theory, for example, has a particular focus suitable for analysis in its respective context. That is to say, PCT offers a unique, though not exclusive, perspective, and while it does not prescribe methods, it provides for their conception and application a discursive framework rooted in a unique history of oppression, struggle, and knowledge gained from many perspectives, explorations and experiences. Postcolonial theory offers an analytical framework with provenance in colonial history. In this study, I have tried to illustrate that its analytical prowess is not limited to post-colonial contexts.

## CHAPTER 4: RESULTS

A Boolean search for articles in *Library, Information Science & Technology Abstracts (LISTA)* database using the phrase (*ict AND development AND community AND access*) with source type: *Academic Journals* and Publication Date: 2001-01-01 to 2011-12-31 resulted in thirty-five (35) results. Selecting only relevant articles after eliminating articles that were either not relevant to the topic, represented news and book reviews, were in an unusable format (image or table only), or a language other than English, and/or editorial introductions to articles in a particular issue, resulted in twenty-one (21) research articles for analysis. Out of the twenty-one, nineteen (19)<sup>4</sup> are presented in the discussion section. Two of the twenty-one were general surveys of literature and although they met some of the criteria, did not particularly engage in discussion about a community or research and are not presented here.

Table 1. Research setting for the articles

| <b>Research setting</b>  | <b>No. of articles</b> |
|--------------------------|------------------------|
| Bangladesh               | 1                      |
| Ethiopia                 | 1                      |
| Ghana                    | 1                      |
| India                    | 4                      |
| Kenya and Uganda         | 1                      |
| Mongolia                 | 1                      |
| Romania                  | 1                      |
| Scotland                 | 1                      |
| South Africa             | 5                      |
| Sri Lanka                | 1                      |
| not geographically based | 2                      |

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<sup>4</sup> See Appendix 1

A look at the institutional affiliation of the authors (Table 2) revealed that a majority of the authors were from regional institutions where the articles were based. The institutional affiliation of authors is intended as points of reference to examine whether the articles originated from institutions in the same regions the studies took place or not, but is not used as a point of analysis. Much more personal detail and data about the authors than can be gathered from the articles would be needed to use institutional analysis as a point of analysis.

Table 2. Authors' institutional affiliation

| <b>Authors' institutional affiliation</b>          | <b>No. of articles</b> |
|--|------------------------|
| Regional institutions where the article were based | 11                     |
| Institutions in the US                             | 5                      |
| Regional and institutions in the US or UK          | 2                      |
| Institution in the UK                              | 1                      |

Table 3. Years of publication of articles

| <b>Year of Publication</b> | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|------|------|------|------|------|------|------|------|------|
| <b>No. of Articles</b>     | 1    | 1    | 2    | 4    | 3    | 1    | 2    | 4    | 1    |

Finally, I found that twelve (12) out of the nineteen articles had problematic areas where at least one of the discourse areas (representation, identity, or agency) was concerned. Seven (7) have been used as positive examples in at least one of the areas. This does *not* mean that this result is somehow reflective of any representative percentage of literature in the field nor the field's report card of some sort. Efforts and intentions were generally positive in most of the articles regardless of the problematic issues I identified and discuss. Some were less critical overall than others and I examine where and how issues might have been overlooked,

misrepresented, missed and where authors could have paid more attention.

I list the breakdown of the articles in the set below along with a general summary of the major problematic issue for which I provide detailed discussion in the following chapters.

***Articles illustrating issues of Representation (Chapter 5)***

1. Research Article R10 provides an example of the disconnect between authors and study populations where subtle hints of blame seem to be placed on “marginalized and unaware community” themselves for not taking on the benefits of technology.
2. Research Article R3 advocates for a technological solution as it problematizes the ‘smallholder farmers’ and the extension agents while ignoring other socio-economic conditions that may be the root cause for the problems that need to be solved.
3. Research Article R1 provides an example where the representing voice of the authors is elusive and the represented ‘other’ is the elusive but singular ‘poor’.
4. Research Article R8 is an example of being aware of the act of ‘representing’ and mitigating its affects through clarity in presentation of finding while arguing for proper need identification of rural communities and sustainable solutions so that investment in bridging the digital divide does not go to waste.
5. Research Article R15 presents a good example of the importance of understanding the background of a community and integrating it into a research project while taking time to account for various needs, wants and visions of the community prior to setting out to propose any kind of solution.
6. Research Article R16 discusses issues about research and policy on broadband ICTs in rural and remote communities taking into account stakeholder engagement, alternative paradigms and unexpected outcomes.

*Articles illustrating issues of Identity (Chapter 6)*

1. Research Article R4 provides an opportunity to ask about the identity and roles of different actors in a system model presented. Does information reside in the periphery or the center?
2. Research Article R7 seeks to “introduce the field of information and communication technologies and development (ICTD) to the public library community,” which while it has merit, also serves as an example of where the identity of the author in the writing seems to court ideology primarily because of the lack of sufficient critical examination of points being made.
3. Research Article R11 provides a concise review of ICT development in Mongolia in the last decade. But it also serves as an example of implicit ideology in the identity of the authors. Some questions that arise are: Whose paradigm? What about social-historical realities; whose perspective and goals, and whose knowledge society?
4. Research Article R18 is an example of an article whose analysis calls to question the motivations of the authors and their interpretation of the identity of the community and the people they seek to study.
5. Research Article R13 studies the feasibility of ICT diffusion in rural areas with the focus on women using a survey method. The article is an example where the motivations of the authors, their interpretation and use of data and the identity of the people they seek to study raise some questions.
6. Research Article R12 asks whether ‘universal access mean equitable access’ with the larger aim to inform ICT development policy in a remote village in Romania, as well as overarching EU policies.

7. Research Article R14 is an example of the exploration of how insights can be gained by paying attention to identity within broadly defined categories, such as rural, or jobseekers. Critical exploration and openness to learn from the results keeps the author's identity being questioned as being ideologically biased.

*Articles illustrating issues about Agency (Chapter 7)*

1. Research Article R5 seems to champion the needs and agency of rural communities but, its own methods stand out as an example of the lack of understanding of community networking, and of the gross appropriation of a community's agency.
2. Research Article R6 includes examples of the lack of the appreciation of agency of communities, which can be seen in the framing of the problem and in the method used to investigate the problem.
3. Research Article R17 includes examples of a dislocated outsider's view of the problems and the solutions, which completely disregarded the points of views of the community, the service providers, and the vast number of issues that needed to be addressed.
4. Research Article R2 is an example of how talking about enhancing agency and empowerment does not necessarily do so. The writing has many unexpected twists and turns and the evidence of input from the community being studied is not present throughout the article.
5. Research Article R19 is a positive example of discussion of agency. It seeks to expand Freire's models of development and education in the arena of ICT for Development and seeks to reconcile community voice with information access.
6. Research Article R9 makes a case for public libraries in Africa taking a leading role

in encouraging local content creation, ownership, collection and dissemination.

## CHAPTER 5: REPRESENTATION

Engaging as a researcher in understanding the ‘other’—particularly the other connection to colonized histories, displaced by force, or in diasporic communities—means engaging in interpretation and inevitably literary representation of points of views, positions, expectations, goals and outcomes, and the culture of the other at varying degrees.

Representation is particularly problematic. Spivak (1988) for example strongly argues that “[t]he subaltern cannot speak” (p. 308) because they are spoken for, interpreted, translated, and their actions prescribed, using as one of her examples the practice of Sati—widow self sacrifice in the funeral pyre—which the British outlawed as crime in India. While Spivak’s stance puts the problem of representation in the spotlight, there is no doubt that there are multiple voices—some of which often get ignored or which in turn get interpreted, represented and translated. Haraway (1991) gives credence to these voices—the standpoint of the subjugated—because “in principle, they are least likely to allow denial of the critical and interpretative core of all knowledge” (p. 191). As Bassnett (2010) explains, these subjugated voices are least likely to benefit from the existing power structure that is taken for granted and therefore, more likely to seek to change it.

“Vision,” Haraway (1991) points out, “is always a question of the power to see [...] With whose blood were my eyes crafted?” (p. 192). Haraway finds the appropriation of vision problematic and rooted in a chauvinist and colonizing tradition of positivist arrogance.

The so-called objective view also claims to be able to differentiate viewpoints in an impartial and disinterested manner. This view of claiming the ability to be unbiased, with ‘passionate detachment’ (she quotes Kuhn), and seeing from all different standpoints without ‘being’ in the experience is to appropriate the vision of the less powerful. Instead, Haraway explains that the knowing self is always partial, and “constructed and stitched together imperfectly, and therefore



able to join with another, to see together without claiming to be another” (p. 193).

Young (1990) concurs:

The ideal of impartiality expresses in fact an impossibility, a fiction. No one can adopt a point of view that is completely impersonal and dispassionate, completely separated from any particular context and commitments. In seeking such a notion of moral reason philosophy is utopian; as Nagel expresses it, the impartial view is a view from nowhere. (p. 103)

A stark image of the ‘gazer’ emerges as the focus shifts from ‘knowing and interpreting the world’ from a limited perspective, to using that knowledge to control and extract benefits. Said (1978) draws an illustration by examining Napoleon’s use of the interpreted and collected knowledge of the ‘Orient’ by Orientalist scholars in his expedition in Egypt. Similarly, letters and other writings and records of the British Empire (Childs & Williams, 1997) point to the willful manipulation of knowledge about the ‘other’ as a means to morally justify an oppressive colonial enterprise. Childs & Williams (ibid.) refer to “Foucault's model of power/knowledge [where] one does not occur without the other; knowledge gives rise to power, but it is also produced by the operation of power” (p. 98).

Young (1990) points out that “[s]ome groups have exclusive or primary access to ... means of interpretation and communication in society.” This power to interpret and represent is consequential not only to cultural and economic domination, but also in the definition of the less powerful ‘other’.

Often without noticing they do so, the dominant groups project their own experience as representative of humanity as such. Cultural products also express the dominant group's perspective on and the interpretation of events and elements in this society [...] their cultural expressions become the norm, or the universal, and

thereby the unremarkable. Given the normality of its own cultural expressions and identity, the dominant group constructs the differences which some groups exhibit as lack and negation. These groups become marked as other. (p. 59)

Whether well intentioned or arrogant, unchecked, the practices of representation can be destructive and oppressive. Oppression in general is based on the appropriation and production of knowledge, and the exercise of power/knowledge in Foucault's model, but is also based on the identity politics, both of the oppressor and the oppressed.

In a similar fashion that the 'Orient' was constructed, and colonial empires justified their occupation, oppression and violence by claiming to govern to save the uncivilized world from itself, is 'ICT' and 'development' being 'acted upon' the 'developing countries' and particularly in rural areas, and 'development' being prescribed? Whose idea of development? Whose idea of ICT for development? Why ICT and what are its benefits and to whom? Is development the 'idealized orient' of the developmentalist, detached academics and policy makers, their idea of development defining underdevelopment and their idea to transform underdevelopment acted upon in forceful violence the developments in their minds?

#### **RESEARCH ARTICLE R10**

Research Article R10, *Community Internet Access in Rural Areas: A Study on Community Information Centres in Bangladesh* (2010), states in its summary: "the purpose of this article is to highlight Community Information Centres (CICs) established in the rural areas of Bangladesh and describe how these centres are playing a vital role for providing specific Internet based information services to the rural communities" (p. 109).

The article seems to make very valid points throughout on the face of it. The problems it

identifies and recommendations that flow out as a result seem to fit the expectations of a reader used to reading the kind of literature in the field of ICT and development related to rural and remote communities. But R10 is an example that illustrates disconnect between authors and study populations, and between study conducted and outcome in the form of analysis and recommendations. It illustrates the example of vision that seems to be from a distance yet able to interpret and represent the varied lived experiences of groups of individuals without reasonable engagement or verification.

The authors begin by stating that information is only valuable when it is accessible. They go on to situate ICTs as major facilitators in the “flow of information and knowledge offering the socially marginalized and unaware community unprecedented opportunities to attain their own entitlements” (p. 109). They state that the “20th century, as well as the first part of the 21st century, has seen many initiatives all over the world to make sure that underprivileged communities get their fair share of information and critical knowledge with the help of ICTs” (p. 110).

While the first part of the statement about the role ICTs can and do play in information dissemination stands true, the latter part comes across not only as a vast generalization of the efforts and credibility of pro-poor and marginalized community oriented development efforts and ICT initiatives, but also puts the burden and the blame on the “marginalized and unaware communit[ies]”. After all, it seems, they were given “unprecedented opportunities to attain their own entitlements” through “many initiatives all over the world...”. And what have done with those opportunities? – they seem to be asking. What does “their fair share” mean in the context of representing the underprivileged communities; that to give more would be to give too much?

The identity of the authors can be observed through their analysis which places them in the

section of the population who have had ample opportunities constantly provided and who have know what to do with those opportunities.

The authors then go on to explore the concept of the digital divide and stop short of questioning the issue of access beyond the penetration rates citing International Telecommunications Union data “in Terms of Telephone Ownership, Cellular Mobile Subscribers, Internet Users and Computer Ownership”, the annual growth rate of this penetration, and familiarity with technology and computers (p. 111).

Citing low penetration rates in rural areas vs. urban areas, the authors go on to propose the establishment of rural Community Information Centers (CIC). Their exploration leads them in part to focus on factors preventing communities from reaping benefits from ICTs and other factors that play key roles in the successful implementation of information centers.

A survey of 1030 CIC users across five districts was used as a basis for the study identifying issues and providing recommendations in the “role of CICs and their impact on the user communities in rural Bangladesh” (p. 119-120). However, the link between the survey data and the kind of issue identified and recommendations provided by the article is very weak. For example, the survey asked about:

1. Reasons for Using the Community Information Centres (with the options as: curiosity; needed information; someone suggested; staff encouraged visit; wanted to learn),
2. Types of Information Sought by the Rural Community” (with the options as: market prices; agriculture; health; job information; news entertainment)
3. Suggestions for Improving the Services of the Community Information Centres” (with options as more Internet training for user; more knowledgeable staff; provide

more services; website need easy interface; more speed for Internet browsing).

In fact, it is difficult to see how the survey questions could have informed the outcome of the research, as highlighted by some of the problematic issues, among eleven, identified (p. 122):

- High illiteracy rate [the reference cited for this source is the CIA country data 2010]
- Lack of regulatory framework
- Lack of national ICT policy
- Lack of fund for project sustainability
- Lack of coordinated government initiatives

Similarly, it is difficult to see the connection between the survey in the paper and some of the eight recommendations by the authors:

- The need to use modern network technology
- Government patronization
- Co-operation between government and NGOs
- Village CICs and information literacy

While the issues identified and the recommendations provided seem very reasonable; look very relevant, and seem thoughtful, how the authors arrived at those is anyone's guess. In the end, the user survey and literature review almost seem like a front for providing a list of problematic issues and recommendations based on some other criteria and data source that is not found in the article. The big questions the jump out in conclusion: Who do the authors speak for, and who are they talking about?

### **RESEARCH ARTICLE R3**

Research Article R3, *Bridging the Information and Knowledge Gap between Urban and Rural Communities through Rural Knowledge Centres: Case Studies from Kenya and Uganda*

(2006), discusses agricultural research, technology dissemination and adoption through improved delivery systems, agribusiness, rural knowledge centers and user knowledge clubs in Kenya and Uganda.

Stating that “[r]ural knowledge centers (RCI) are becoming popular as information delivery channels for farming communities” the article discusses strategies to disseminate agricultural information for communities through such centers. The article also examines factors that determine the sustainability of such centers pointing out that “[m]ajor among them is the ability to engage the communities through building partnerships and capacity for problem solving and establishing 'user knowledge clubs' to promote access to information” (p. 143).

The article starts out by laying a background where the prominence of the agriculture sector in Africa is highlighted where “over 70% of the people in Africa live in rural areas and most depend on agriculture for their livelihoods.” The discourse goes on to paint a bleak picture where “[b]etween 1997 and 99 ... 28% of Africa's population suffered chronic hunger ... despite high levels of food imports, which amounted to US dollars 18.7 billion in 2000 alone” (p. 144).

The background portrayed by the authors most likely does reflect the reality from some datasets, but the portrayal is set up as a rhetorical launch pad for what they are going to present next: that the reader accepts their selection of the problems and solutions, unquestioned. The article goes on to problematize the ‘smallholder farmers’ and their information sources, the extension agents, who use “... the traditional approach to providing agricultural information through extension services has had several shortcomings, mainly because the extension service is overstretched and under-resourced. (p. 144).”

The authors posit that the traditional extension services do not work effectively, because “[s]urveys show that farmers require more information on a range of issues, particularly crop

production, credit, agro-inputs and markets.”

Referring to a study<sup>5</sup> where the World Bank acknowledged that money invested in the “training-and-visit (T&V) system of extension has had little impact” and that “there is demand for information in agricultural communities, and even some willingness to pay” the article jumps to a conclusion that delivering “demand-driven private-sector-led extension services, [is] thus enabling subsistence farmers to access agricultural knowledge, information and improved technology” (p. 144).

The article turns to Rural Knowledge Centers (RKC) that deliver communication services such as telephone, fax, library, Internet, email, community radio and video shows in rural areas, some RKCs also offering outreach programs, computer training, and other training resources; and to Market Information Centers (MIC) that are designed to “help smallholder farmers access current market information services such as fair prices and commodity stocks” (p. 145) as the solution.

While the general message itself conveyed in the article is positive – that farmers need more agricultural information in order to improve food security in the continent as well as improve their livelihoods – the basis on which the article problematizes smallholder farmers and extension agents, who use “traditional approaches” to providing agricultural information, in favor of demand-driven private-sector-led extension services is not clear.

While there may be nothing wrong with demand-driven private-sector-led services as a model, or use of ICTs to fulfill information needs, the problematization of an existing system termed as ‘traditional’, which itself remained largely undefined, and advocacy of another system as a replacement, is not only lacking in adequate analysis, but also dismissive of factors that may

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<sup>5</sup> Gautam M, Anderson JR. (1999). "Reconsidering the evidence on returns to T&V extension in Kenya." Policy Research Working Papers. The World Bank, Washington, DC.

be variables in the lack of success of an existing system.

Such problematization further unravels itself when the findings about the use of the proposed newer system hinted at some of the common variables that may have been present also in the existing system and new variables introduced in the proposed new system of demand-driven private-sector-led services. For example, some of the problems identified in the effectiveness of the centers were: basic literacy, language barriers, technical nature of the information, preference of print format and in local and national languages, distance from centers and lack of time to visit the centers, need for users to build ICT skills, awareness of services, establishing services, forming partnerships with relevant service providers, etc. (p. 147).

While not to discount the importance of the provision of timely market information and ICT services to find information and fulfill communication needs, the nature of the problems identified within the new system are generally not specific to it. For example, if a shortcoming such as lack of basic literacy and education is a problem in this system, it most likely was a barrier in the more traditional system as well. What about issues such as lack of awareness of services provided, lack of time to access information, or lacking partnerships with relevant service providers? If these basic underlying factors were not explored in the first place what was the reasoning behind discounting the 'traditional' system, and not the new system? The argumentation is not clarified.

While one of the explorations looked at users' willingness to pay for services with positive findings for information such as weather, prices, commodity, bids & offers, and production as a way to gauge the sustainability of providing services for a price, such an analysis has more validity if the aim is market research than if the goal of providing services is the overall improvement of the agricultural sector and the improvement of the livelihoods of over 70% of



the population in the African continent who live in rural areas and depend mostly on small scale agriculture for their livelihoods as was the premise in the beginning of the article.

### **RESEARCH ARTICLE R1**

Research Article R1, *Critical Issues in Information and Communication Technologies for Rural Development in Ghana* (2006), looks at the case of rural development in Ghana. Major objects in the discussion include: ICT, development programs, regulatory policies for the ICT sector, mobile telephony, liberalization and privatization, and indigenous knowledge. The article discusses the potential of ICTs in the development of the country, the real and potential challenges along the way, and recommendations and considerations for rural and remote implementation.

The overall discussion is positive, forward looking and relevant, however the direct voice of the two authors was hidden. This is one of the major points that jumps out of the article: speaking from behind the veil of anonymity. While the names below the article title and the short bio at the end of the article reveal who the authors are, i.e., their job title, institutional affiliation and contact information, their lack of direct voice made it hard to decipher who they really were. The argument can fairly accurately be made that any article consists of the point of view of its author/s and the absence of subjective voice is a matter of writing style. However, it was difficult to see within the details what constituted the authors' opinions or projections as knowledgeable authors and where they stood on a particular issue, as opposed to the presentation of collections of facts. What could be appreciated as valuable opinions from the authors were presented through quotes from other research papers. Such quotes were not used to support what the authors were conveying but as a substitution of their own voice.

It was difficult to establish whether discussion presented was the authors' opinions or

statement of facts. Sometimes seeming facts were presented without substantive qualification or citation of sources. Other times, seeming opinions were presented as facts not requiring further qualification and discussion. For example, the statement “rural dwellers also require economic (industries; services; marketing, etc.), social (education; religion; culture, etc.) and environmental (natural resources; ownership rights, etc.) information” (p. 237) occurs after a list of information seeking behavior of rural dwellers from a different study. The statement is a valid form of an opinion. It could also be based on factual data from the cited study or the authors’ firsthand knowledge. However, the authors do not provide validating statements if it was their opinion, or cite sources if these were information seeking behaviors among rural dwellers found by another study or their own knowledge.

When looked at in isolation, the example above could understandably be a fairly banal omission in the course of writing an article, but as a recurrent trend it is problematic in a PCT analytic framework. The hidden voice, and with it a hidden identity, is reflective of having a view of everything from nowhere, of knowing without needing to verify the source knowledge, of statement of truth that cannot be challenged because it simply is. There are enough examples throughout the article to rule out that the authors simply erred.

The authors used a list of information seeking behavior of rural dwellers from a different study to illustrate another point. The study in question was of a different country, Nigeria. True, the article was analyzing information needs in rural areas but the authors seemed to have simply assumed that the information needs in rural areas across the two countries were the same. They did not provide any qualifications as to why they thought the rural population of two countries that do not even share a common border were similar enough that information seeking behavior among rural dwellers in one country would be the same as in the other.

Maybe there are similarities that the authors know about but they do not share that with the readers. In the PCT analytic framework, this is a reflection of the view of the other, a categorical and generalized other, who in this case are the rural dwellers. To the authors who by their job titles are urban intellectual elites, rural dwellers seems to be a category of people who are the same across physical and political boundaries and whose information needs can be summarized in a common list.

Because the 'other' has been generalized, contradictions in the identity of the rural dwellers emerge. While *identity* is the topic of the next chapter, I will briefly present the example of the contradictions found in this article in trying to create and define a rigid identity of a group or groups of people. Electricity is pointed out as critical to the use of ICT for rural development. At one point in the article the authors praise the rural people for their "ingenious way" of using car batteries to power ICTs for their entertainment like watching television or listening to the radio in the absence of electricity. Yet, elsewhere in the article rural people are held responsible for a failed solar power project because they did not provide proper maintenance. If rural people employ ingenious means to harness electricity and to reap the benefits of ICTs, what led them to neglect a solar power project?--it has to be asked--which one could assume would have been as beneficial, if not more so, than car batteries. The authors do not explain.

The authors also assume that the access to such entertainment improved the local population's quality of life and "reduced their isolation and cultural distance from urban areas." No evidence is provided for this assertion. The reduced isolation and cultural distance from urban areas could be seen as an expression of the hidden identity of the authors being projected onto their subjects. The authors might imagine how isolated and far from their urban culture they would feel if they were in a rural area without electricity or entertainment through television and

radio. On the other hand, the authors might imagine that their urban culture would be beneficial to the rural poor whose culture they imagine as distant and vacant, full of want and need for development. After all, they as urbanites do not feel isolated and far from rural culture.

On a broader scale, the authors are cognizant of the traditional and cultural diversity and multiplicity of tribal languages in the country, in that they mention them towards the end and recommend that information should be relevant to the people in rural areas and accessible in local languages, including local language input formats. Yet problems with the use and misuse of representations and assumptions present throughout the article makes its intended use for policy guidance problematic.

Their conclusion that ICT is beneficial for rural areas, that community ICT centers should be promoted, and that individual communities should be assisted to build their own knowledge centers, because the centers would see increased usage, maintenance, security of service and equipment, and easier collection of charges, though potentially valid, does not have support throughout the article and seems to be an assertion largely of the authors' own assumptions and desires, an issue that reflects their identity that bares a belief of why they want things to be, if not an ideology.

### **RESEARCH ARTICLE R8**

Research Article R8, *E-Sri Lanka: Bridging the Digital Divide* (2007), examines the impact of Sri Lanka's e-Government initiative and Telecentre Development Programme launched in 2004 with the "long-term plan to connect every village in Sri Lanka to the internet" (p. 698) in bridging the digital divide defined as "gap between those who are able to benefit from the new information and communications technology (ICT) and those who are not" (p. 694). It uses a survey research method to collect qualitative and quantitative data from Telecentre users

comprising a sample size of 338 users and potential users. The study found that only a small percentage of the total population used the Telecentres chiefly due to lack of awareness and language barriers among other issues.

The study provides an example of having taken into account objective representation through clarity in presentation of the article. It is easy to see the connection between what the authors set out to find, the methods utilized, and the ultimate findings. It is also easy to see the connection between the findings and the recommendations and the claims, and conclusions are supported by evidence which also takes into account various perspectives of the user population it studies. The conclusions are not larger than the study and its findings; in other words, they are supported by evidence and not the desires of the authors.

The expectations of the Information and Communication Technology Agency (ICTA) to “benefit [...] residents of small rural communities, who are the predominant target group” (p.698) are laid out and a survey of e-government and development initiatives to date are provided as a background for the study. The background is provided in a clear and objective manner from the perspective that is presented within the plan itself.

The objectives of the study to examine the impact of telecenters in bridging the digital divide, to identify the nature of services provided, to identify the problems encounter in operating the telecenters, and to evaluate their sustainability in the long term are laid out and discussed clearly. The methods too are discussed clearly and include focus group discussions, naturalistic or realistic observations, key-informant interviews, user interviews, and document analysis with interviews conducted on site supported by observations.

While the survey and interview questions themselves are not provided, the overarching questions about access, relevance and sustainability of the telecenters are discussed in the article,

including the nature of access to ICTs within the telecenters; relevance of services, content and applications offered or available to community members; and sustainability of telecenters under the ownership of the managers after phasing out of subsidies. (p. 702)

The conclusion of the study that the aim of the program is not being met, and the recommendations that are provided are supported by survey findings and by explicit evidence, often includes anecdotal accounts. (p. 703)

During the survey it was observed that many e-Libraries that are situated in extremely remote places, especially those located at temples, were not functioning properly. The explanation for this appears to be that when the person in charge – generally a priest – is not there, nobody has access to the centre.

Maintenance of multi-functional equipment is very especially high; ... Some operators called this equipment a “white elephant”.

What may be lacking however is any critical evaluation of the government’s planned program. While the needs of rural and semi-urban communities are given prominence, primary focus is still on access without more critical exploration.

“...the vast majority of rural communities in Sri Lanka, which comprises over 70 per cent of the total population, do not presently have access to ICT and for that same reason do not reap the benefits of ICT.” (p. 697)

The need for pro-poor content is acknowledged, but it is not discussed further. The article concludes that “If the needs of the rural communities are not correctly identified and solutions are not found immediately to ensure sustainability, then the huge amount of money invested on bridging the digital divide will definitely be a waste” (p. 708).

### **RESEARCH ARTICLE R15**

Research Article R15, *A Baseline Study of a Dwesa Rural Community for the Siyakhula Information and Communication Technology for Development Project: Understanding the Reality on the Ground* (2010), involves a rural community in the Dwesa-Cwebe area of the Wild Coast in Eastern Cape Province in South Africa. While the proposed project is based on an ICT for development model, it is also based on a living lab model.

The baseline study presents a good example of the importance of understanding the background of a community and integrating it into a research project. By studying and presenting various perspectives of the background to the reader, the authors avoid falling into the trap of giving prominence to a certain perspective without providing the reader with a fuller picture, in addition to what they hope to highlight.

Care is taken to understand and explore the socioeconomic and political reality on the ground in concert with multiple stakeholders over time and taking into account various needs, wants and visions of the community prior to setting out to propose any kind of solution.

A Baseline Study is a knowledge-oriented evaluation, which is centered on the generation and contribution of knowledge through describing the nature of a project's environment, to inform external and local stakeholders. The evaluation does not focus on factors associated with the new ICT project's technology, but aims to understand the existing status of a community without any influence from the potential technology that will be implemented.  
(p. 266)

The baseline study used questionnaire survey data of 80 households complemented by interviews, focus groups, and observation with a select representative group for socio-economic assessment, and a questionnaire survey to assess technology use among people who were already

technology users to gain “a general understanding of local information needs that ICTs can support through new and existing development programmes” (p. 265).

Background provided by the article is very helpful. Without it, the contested nature of the problem would be hidden, making the appreciation of the problem partial and unclear. It reveals that the community occupied land contested between the local communities and conservation efforts of the government along the coastline of the Dwesa-Cwebe Nature and Marine Reserve. Strict conservation measures restricted the local villagers’ use of the natural resources that the local subsistence economy was dependent on while development efforts from the government were minimal due to this contestation so that “[o]nly really essential infrastructure such as reticulated water and a few stopgap poverty relief projects have emerged in the interim” (p. 268).

Further background reveals another set of issues resulting from the former:

The middle-generation is absent, either employed or work-seeking in town, ... With a severely depleted local labour force, field cultivation has long since given way to enlarged gardens next to the homestead that can be more easily managed by women and children. (p. 268)

In this contested landscape, the authors are clearly sympathetic towards the difficulties of faced by the community (it would be hard not to) while also aware of the socio-political and ecological reality. Within this reality, they try to explore information needs and priorities of the villagers by being on the ground asking and finding out what the villagers want to do and exploring ways that ICT could be of help to them. Below are some examples of what they found presented along with voices from the community, in second person, anecdotes, and are supplemented by photographs:

If tourism grows in the area, some residents plan to promote heritage tourism ... learn from arts and crafts around South Africa,



as well as find out where they could sell their products for a reasonable price ... to market and advertise their products effectively. (p. 273)

... teachers ... specifically mentioned that they wish to learn from other teachers and educational institutions nationally and globally, and would be interested in adapting methodologies to suit their own teaching. (p. 275)

Each village has trained health workers who deal with common ailments, but there are only a few of them and their skills are limited. They need to be able to consult with senior practitioners in the case of medical complications including outbreaks of disease. ... For instance, the nurse mentioned there is a new treatment available in South Africa for diarrhoea, which the local clinics are still waiting to receive. (p. 276)

Thus, the study presents a vastly different method from setting up information centers and trying to get people to use these centers to fulfill their needs, whatever they may be. Even though this research article is about ICT for development and contains some bias for exploring technological solutions, its exploration and concerns are not limited to technology issues. Furthermore, its approach for this exploration is not limited to the perspective of the researchers and is one of its strong points. “A collaboration of diverse local interest groups helped to frame the study so that it would not only advise external stakeholders of the current status of the community but also raise a general awareness in the Mpume community of ongoing challenges and involve the villagers in identifying possible solutions to alleviate local poverty” (p. 285).

#### **RESEARCH ARTICLE R16**

Research Article R16, *Appreciating the Contribution of Broadband ICT With Rural and*

*Remote Communities: Stepping Stones Toward an Alternative Paradigm* (2007), is not based on a research project, but discusses research and policy issues related to broadband ICTs in rural and remote communities. Some of the major objects in the study were: policy; broadband ICT; sociotechnical systems; stakeholder engagement, alternative paradigm; unpredictability of ICTs; rural and remote; unexpected outcome; user-oriented; social-change initiative; contribution; theory of change.

Unlike the other articles, which talk about empirical research dealing with people and communities, direct representation of others was minimal in the article and direct interaction could not be examined. But the author's caution about the points of views of others in conceptualization of a new paradigm or discussing various problematic issues could be observed.

The author recognizes the wide acceptance of national broadband initiatives, but points out some of the challenges facing research conceptualization based on current academic, political and funding cultures for understanding and appreciating the contribution of ICTs. For example, there is a gap between "conventional planning and evaluation approaches ... that seek to demonstrate a direct link between investments and results" and "evidence that the contribution of ICTs to rural economic, social and cultural well-being is increasingly difficult to demonstrate beyond short-term measurable indicators" (p. 86). The author points out that despite difficulty, if not impossibility, of attributing long-term social, economic or cultural change to ICT initiatives, the current structures in place encourage drawing such conclusions. Due to such a gap the author questioned "the extent to which [...] policies are derived from hard evidence" (p. 85).

The author proposes steps towards an alternative paradigm for appreciating the contribution of ICTs in research and policy. It includes "a theory of change based on "contribution," not attribution; a policymaking approach that is both adaptive and inclusive of multiple perspectives;

methodological testing of evaluation methodologies such as outcome mapping and most significant change; and an emphasis on policymakers becoming part of projects that are approached as learning experiments” (p. 90). The proposed paradigm, the author argues “may help design projects with a more coherent set of assumptions and an explicit strategy for community engagement in planning their own future.”

The author’s voice in the article is fairly clear. The author’s opinions and discussions are clearly presented as such and not as irrefutable truths that need no support or clarification, nor as general truisms that the reader ought know better than to question. This is stressed at some points with the use of the first-person pronoun “I,” giving space to the reader to interpret statements as opinions, discussions, motives, and objectives of the author. Ample evidence is provided using citations and quotations from other research in those cases where the author makes statements that seem to state facts or require qualification. The author’s voice is not ambiguous or convoluted in the voices and representations of others. It can be clearly seen that the author is building on the work of others. Because of the identifiable voice and situatedness of the author (and clarity of argument), contradictions, if any, are undetectable.

The purposeful selection of terminology shows critical evaluation of the effect of words. While on the surface words seem to have only subtle differences, the author demonstrates that these subtle differences have larger implications. The author explains the choice of word appreciate opposed to measure or evaluate to indicate the “short-term measurable dimension” (p. 85) and unpredictable nature of the contribution of ICTs. Similarly the author uses contribution to signify that social, economic, cultural change cannot be attributed solely or directly to an ICT tool or project, although ICT may contribute to such change. “The term suggests an assumption that the intervention has good odds of contributing to the goals but that efforts to prove causality

will not be a priority” (p. 90). The author also “refer[s] to appreciating with communities, rather than on communities, to underline the necessary engagement with local actors that is required for an appreciation effort” (p. 85). All these choices make essential points about how ICT inform policy and focus on the problems the author is trying to explain and, in a way, gain distance from.

The author’s concern about the need to pay attention to the perspectives of local people and communities also highlights critical understanding not only of the value of doing so, but also reflects the awareness that neglect of those perspectives is not uncommon. To that effect, the author’s proposed framework “challenge[s] the status quo” and raises a difficult set of questions: “What it is that is sought, for whom, and how we will ascertain that it has been achieved?” (p. 87).

The author’s intention in the article is to work to address issues in the prevalent and dominant model while highlighting issues of stakeholder engagement in an effort to enlighten and engage “urban-based policymakers” and researchers.

Rural and remote communities tend to be complex, dynamic, and subject to multiple policies and influences, often beyond the comprehension of urban-based policymakers. Conventional policy development follows a rationalistic linear direction, with simple objectives and top-down decision making, but it is unable to respond to ill-structured or messy problems. It is characterized as focusing on “hard systems thinking.” In contrast, “soft systems thinking” takes into account uncertainty, and conflict, and emphasizes consultation with different sources of knowledge and perspectives (p. 89).

The author explains that in terms of ICTs, stakeholders base their viewpoints on their intentionalities and expectations, which can seem chaotic. The author argues that the logical

framework of hard systems thinking “by being linear, these frameworks are also unable to embrace unpredictability” (p. 88). The call to embrace unpredictability is evidence of the author’s attention to the relevance to the weaker voices. It is also a call to make these voices audible. In highlighting the negligible attention given to unexpected outcomes in evaluation reports, often in the form of anecdotes, the author explains that while they are present, their presence as evidence of appropriation and socially-constructed innovations is given little importance. The author’s criticism highlights the awareness of voices being cast aside and effectively being silenced. At the same time, the valuable opportunity to make use of the knowledge is minimized.

The author also gives importance to the unique and divergent viewpoints of different stakeholders who represent a situation. The author exhibits awareness of the notion of alternate worldviews, and divergent lived realities that exist between researchers and policymakers and the people and groups they study. To account for this fact, the author suggests that the proposed model allows for a “mechanism to acknowledge unpredictability” (p. 89) through stakeholder engagement and an ongoing process of interaction and flexibility, allowing space for negotiation, learning and adaptation.

### **SUMMING UP REPRESENTATION**

Examination of the articles in this chapter saw examples of distance and disconnect between authors and study populations and hints of frustration and blame on communities for not getting on with the program, so to say; disconnect of the authors from the lived realities and failure to explore along with the communities who in fact faced the problems that were being explored; the difficulty of locating the author and the represented other; but also a number of examples where attention was paid to different voices and visions situated in various backgrounds; and where

possibilities were raised for exploring alternative paradigms and unexpected outcomes.

The problem of representation is tricky particularly when objectivity is assumed, and our assumptions of what we know and our worldviews are not constantly challenged. This is especially relevant when our work has deep and long-lasting implications on the lived realities of others. As Young (1990) reminds us “[t]he idea of impartiality is an idealist fiction. It is impossible to adopt an unsituated moral point of view, and if a point of view is situated, then it cannot be universal, it cannot stand apart from and understand all points of view” (p. 104).

Our best defense against falling into that trap seems to be to be very cautious before speaking for someone else, about their world, goals and visions for the future, by checking our expert voices. Lunga (2008) also points out that “practices of representation are implicated in knowledge construction and power. That a group of people can speak expertly about others and for others raises problems of representation and highlights concerns of speaking for others and the problems of representing across differences of race, sexuality, gender, and cultures” (p. 195).

Being cognizant of different voices allow researchers not only to understand what is going on, it can open multiple conversations that are conducive to the learning experience which is hopefully the aim of any research, especially where power relations can get in the way:

... there is an expectation that there exists a simple process of addition of a variety of knowledges to produce a better way of knowing. This may be a valuable end in itself, particularly when marginalised peoples can adopt and adapt those knowledges which fit their situation, but this approach can be naive of political power relations which ensure that never can all knowledges sit equally together. The exigencies of each situation mean that certain views and voices will be heard much more clearly. Liberal desires for the inclusion of a range of voices in the development process is a case in point. This offers an unproblematic call for the meeting of

voices, ignoring the power politics of how this might actually occur in practice. (Briggs & Sharp, 2004, p. 666)

Yet, it is precisely because of such a challenge that we need even more caution. As the examples in the articles examined show, trying to understand the background of the community is as important--if not more so--than trying to implement a project. The experiences and context in which local communities live and interact determine the success and outcomes of any community-based project.

## CHAPTER 6: IDENTITY

Identity is not fixed and certainly cannot be understood at any singular level. The examination discusses the problem of singular identities that researchers have to overcome in order to understand the ‘other’ and ‘their’ understanding of the ‘outsider’.

When identity is viewed as singular, incongruent dichotomies plague its definition. Building from Bhabha and Said, among others, the concepts of inbetweenness, ambivalence and mimicry, the idea of the ‘other’ as both outsider and insider try to extrapolate the problematic in creating a unified identity. Young (1990) parses the problematic in denying or repressing that difference, while the unification of identity may be based on the logic to “expresses one construction of the meaning and operations of reason: an urge to think things together [...] to generate stable categories” and simplify signification” (p. 98):

The irony of the logic of identity is that by seeking to reduce the differently similar to the same, it turns the merely different into the absolute other. It inevitably generates dichotomy instead of unity, because the move to bring particulars under a universal category creates a distinction between inside and outside. Since each particular entity or situation has both similarities and differences with other particular entities or situations, and they are neither completely identical nor absolutely other, the urge to bring them into unity under a category or principal necessarily entails expelling some of the properties of the entities or situations. (p. 99)

Yet, the ‘other’ evokes a continued ambivalence that confounds any attempt to universalize or unify upon closer examination. Trying to do so results in incongruent dichotomies and contradictions as the ‘other’ seems to be both harmless and dangerous, feminine and masculine, cunning and clever (but not clever enough). Kapoor (2002) explains that “[t]he object of



postcolonial concern here is orientalist binary categorisation (e.g., master–slave, coloniser–colonised, civilised–uncivilised, white–black), into which the ‘other’ is invariably incorporated. Postcolonialism seeks to preserve heterogeneity and to criticise its disparagement or transcendence by any master discourse.”

The idea of mimicry underscores the attribute of the ‘other’ as being almost, but not quite the same as the dominant viewer (Childs, Peter & Williams, 1997; McLeod, 2000; Young, 2003). The concept of mimicry crops up particularly in the way ICTs are conceived of, used by, and perceived as beneficial for, the ‘other’.

Mimicry is on the one hand an act of assuming and upholding the vision of the dominant actor, to take up their cause and at times to act on their behalf as Childs and Williams, (1997, p.131) clarify through “... Bhabha's example from Thomas Macaulay's famous 1835 ‘minute on Indian education’:

‘We must at present do our best to form a class who may be interpreters between us and the millions whom we govern; a class of persons, Indian in blood and color, but English in taste, and opinions, in morals, in intellect.’ The mimic is created by the colonizing presence and as yet has no kind of intentional agency in Bhabha's theory.’”

“[C]olonial mimicry”, Bhabha (1984) argues, “is the desire for a reformed, recognizable Other, *as a subject of a difference that is almost the same, but not quite*” (p. 126). The troubling side is the subservience of living through and becoming the subject of the vision of the dominant other. The act of assuming external values in succumbing to the perceived might—military, monetary, technological or otherwise—comes at the cost of one’s own identity. The ambiguity of identity resulting in the slippage of it but also as a result of the slippage, not just in the eyes of others but in one’s own, puts the individuals and their outlook outside of their own historical and

lived context. To mimic somebody is to take the guise of someone outside one's historical context, lived present and foreseeable future. This is quite different from the ideas of self-improvement and bettering oneself under the guidance of a mentor, a model or, for that matter, an enlightened sage.

The act of mimicry is the act of becoming the person in the eyes of the gazer and losing sight of one's identity in the futile effort to become the gazer and to see oneself and others through the eyes of the oppressor. A case in point that I am aware of as an act of self-loathing through the internalized eyes of the superior, is a bleaching beauty cream sold in the Indian subcontinent as Fair & Lovely. Harris (1992) points to Fanon's "The Wretched of the Earth":

“because of systematic negation of the other person and furious determination to deny the other person all attributes of humanity, colonialism forces the people it dominates to ask themselves the question constantly: ‘In reality, who am I?’” (p. 92)

Nah (2003) points at the complication of the postcolonial “new-Self, with the necessary (re)negotiation and (re)constitution that arises as part-and-parcel of shifts in power relations...” and highlights the power of “representations to take on their own life — to have their own ‘agency’ — thus binding and reshaping those who fall within their boundaries to be more like the representation” (p. 529). But alluding to Bhabha, Nah also reminds us that “discourses subjectify both the ‘dominant’ and ‘dominated’” (ibid.).

Thus, if we turn the tables and look at the other actor, the researchers, it becomes important to ask about their identity. Do they not go through some of the same motions, exhibiting ambivalence and mimicry in the course of their work? Couldn't researchers be unaware of the shifts in their identity, momentary or more drawn out or aware and intentional for a multitude of reasons, such as: out of empathy for a human condition they find themselves in the midst of; to

fit in and make people around them comfortable; to be accepted so they can conduct their research; or to quell the pressures of the socio-economic and political contexts and differences that would otherwise make their work impossible? Are there consequences to not seeing these shifts, assuming them intentionally, or to resisting or rejecting their occurrence altogether?

Only in accepting the ‘imperfection’, ‘fluidity’ and the many layers of identity—the interaction of how we perceive ourselves through our own eyes, how we perceive ourselves through others’ eyes, how we desire to be perceived by others and ourselves, and how others desire to perceive us—can we begin to come to terms with identity’s ambivalence so as not to fall into an illusory trap of the fixed identities of others and ourselves and of whom we consider insiders and outsiders.

#### **RESEARCH ARTICLE R4**

Research Article R4, *Accessing, Sharing and Communicating Agricultural Information for Development: Emerging Trends and Issues* (2009), presents a discussion about agricultural information creation and sharing dealing with agricultural information for development and explores the roles of different actors in the systems model presented.

The article is optimistic regarding knowledge sharing and maybe too much so when examining the center-periphery relationship between farmers, portrayed as the periphery, and policy makers who occupy the center. Farmers are portrayed as creators of knowledge with the potential to occupy the role of innovators and information managers. The center-periphery discussion is made fairly lightly raising some problematic issues of identity of us/them (developed vs. underdeveloped farmers; as well as farmers on one side and scientists, educators, advisors and policy makers on the other). In loosely framing the discussion in a center-periphery model, the article loses some critical outlook of global and economic issues and weakens an

otherwise forward looking discussion.

The author proposes that at a time of food and livelihood insecurities due to economic, political and climate factors, the developing world needs reliable on agricultural issues.

It needs this knowledge to be accessible and well communicated. On its own, more information is not enough: access is needed to additional, different knowledge, from different people across the full spectrum of producers, scientists, educators, advisors and policy makers. (p. 260)

The author's statement that "[n]ew and innovative ways are needed to mobilize and communicate the evidence and insights that decision makers require to take difficult decisions" (p. 260) seem to suggest a model with a feedback loop were, the third-world farmers are framed as needing information direly, while suggesting that "the full spectrum of producers, scientists, educators, advisors and policy makers" (along with first-world farmers who seem to have it right) constitute the spectrum of innovators and knowledge creators.

While true that reliable information and knowledge is useful, this is an external gaze at the developing world. What about the insecurities and lack of information and loss of traditional knowledge among farmers in the 'developed world'? What about the reduction in the percentage of the population who are farmers? Loss of farm lands due to unsustainable costs of modern farming, and loss of agricultural lands due to unsustainable modern farming practice in the developed world. Here is an assumption that farmers in the developed world have gotten it right.

At the same time, what is the operational definition for "reliable information" and "knowledge" on agricultural issues? 'Reliable' information from whose perspective? From the perspective of research funded by multinational corporations whose interest and business is to make a profit on sale of one-time-use GM seeds, fertilizers and pesticides? From the perspective

of policies that are swayed by lobbying from such corporations? The definitions of the terms are not clear, and the author's own meanings and perspectives are not clarified.

The author suggests that agricultural experimentation in documentation, databases, information sharing, participatory knowledge creation, etc., is taking place all over the world, but that a lot of the information is poorly documented and rarely shared even when successful.

Similarly, the author argues that a multifaceted research focus in scientific disciplines that include "social and natural sciences as well as policy research" is required along with the sharing of knowledge through ICT between a network of "national, regional and global research actors"(p. 261).

However, the author suggests that "people and institutions in agriculture seek more and better opportunities to interact [...] from the peripheries to the centers. [...] and communicate the evidence and insights that decision makers require to take difficult decisions" (p. 260). Such a statement seems to suggest firstly, that the peripheries are behind in transmitting information to the centers where the policy makers reside, and secondly that the 'developing world' occupies the place of the periphery since the transmission of information from the developing world seems to be wanting. The problem of identity arises. Does information reside in the periphery or the center? Are third-world farmers creators or mere consumers of agricultural knowledge? Their roles along with their identity seem to shift.

In this front, the author points out that the World Bank Report (2007)<sup>6</sup> suggests that the transmission of such knowledge reflects "wider changes [that] include: markets increasingly drive agricultural development" and that "knowledge, information, and technology are increasingly generated, diffused, and applied through the private sector" (p. 261). Here, the author seems to suggest, or at least does not seem to question the implication that the markets are

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<sup>6</sup> 'World Bank. 2007. *Enhancing agricultural innovation: How to go beyond the strengthening of research systems,*'

to be regarded as the major innovators in agricultural development, occupy the space in the center and are privy to the transmission of information. Yet, the fact that markets encourage vast uni-crops such as corn and soy in the American mid-west that are destructive to traditional and environmental practices, along with the knowledge that resides in the ‘periphery’, is not taken into account by this supposition.

However, it is evident in the article that the author’s intent is not to disregard multifaceted research and perspectives, and priorities in knowledge generation, while ICT is given priority in knowledge sharing. The author points to a paradigm shift in knowledge creation “that saw research institutes as the creators of knowledge and technology, extension as the diffusers of advice, and farmers (hopefully) as the adopters of new practices, and where the different knowledge and information systems were often quite separate,” and instead discusses innovation systems thinking where “innovation and change can originate and be catalyzed anywhere in a network of actors, [and...] relations among the actors are the key to knowledge sharing and application” highlighting the “collective process” of innovation (p. 261).

The author’s insistence that research institutes need to do more than share their information but that “they need to tap into many other information flows, including from farmers themselves, and find ways to document and provide access to this” (p. 262) is at the same time inclusive and a little worrying because the onus is not only on research institutes to provide information but also on farmers who have shared traditional practices and technologies only to be disadvantaged in the long run when having to do business with the producers of farming, seed, fertilizer, and other related technologies.

The author correctly brings up the issue of intellectual property, yet the earlier reference to markets as movers of innovation, places intellectual property in a problematic domain. If markets

as innovators are the movers of innovation, and the profit margins of major corporations in the area are restricted by knowledge being in the public domain, what happens to their drive to innovate, or conversely, to such knowledge? If farmers take the onus of documenting and sharing technology, and the same cannot be said of the ‘market’ how will the system work for the farmers who are at the bottom of this value chain?

The steps discussed to address the ‘public good’ nature of research, intellectual property licenses, concerns about privatization of information, and restricted access of research output by its publication in research journals in proprietary formats are commendable (p. 265-266). While the discussion of open and public access to system-actor generated information and knowledge, as well as, the numerous examples of such efforts around the world, are positive contributions of the article, they stand in contrast to the underlying assumptions of the ‘wisdom’ of market forces, the positive interests and influences of market actors, and the ability of policy makers to remain unbiased by such market actors who together, occupy the center space.

### **RESEARCH ARTICLE R7**

Research Article R7, *Bringing the Benefits of Information Technology to Underserved Populations: An Introduction to ICTD for The Library Community* (2010), seeks to “introduce the public library community to the field of information and communication technologies and development (ICTD), and to suggest that there is significant value for libraries to partner with ICTD organizations and incorporate ICTD innovations into their activities” (p. 215).

The author explains that improving the lives of the poor and marginalized is the intended goal of international development, and ICTD inherits this goal. The author acknowledges that such low income, low resource communities can benefit fully from new technologies if local conditions are understood and solutions are appropriate to those conditions, and by not assuming

that what has worked in the West will also work elsewhere.

The author seeks to define and distinguish the field of ICTD from the library field saying that unlike the library field, “ICTD does not represent a distinct community like libraries and librarians [but rather] is an approach, philosophy, or a way of doing” at the same time pointing to the World Summit on the Information Society (WSIS) (2003 & 2005) with 174 governments and 10,000 NGOs and corporations as a coming together of this multifarious field. The author goes on to list governments, development agencies and foundations, (p. 217) private sector, non-governmental organizations, and academia, as major actors in the field of ICTD. Finally the author describes the activities of the field as Research and development, (p. 218) Deployments, Policy and activism, and prescribes ways that libraries could partner with the field of ICTD.

In the end, the case is made that “Libraries, given the central role they play in communities around the world, are ideally situated to tap the ideas and energy of ICTD” (p. 219).

This goal to “introduce the public library community to the field of information and communication technologies and development (ICTD),” which is its merit, also serves as an example where the identity of the author in the writing seems to court ideology primarily because of the lack of sufficient critical examination of points being made. Presented in that manner, the seemingly uncritical advocacy (whether that is the case in the day-to-day life of the author or not is not within the scope of this research) paints the picture of ICTD as a field of study/practice out to save the world and needs to be embraced.

The author sets out to introduce the ICTD field to the Library field asking why these two worlds had not come across each other. Based on the set of evidence that in the ten years they were involved with ICTD “conducting research, attending conferences, reading journals, and working with donor organizations, government agencies and practitioners whose missions are to



bring the benefits of new technologies to underserved populations around the world ... I rarely encountered representatives of the library community or recalled mention of libraries” (p. 215). The evidence apparently was absent to the author where they looked, but did they look where the evidence was? The author contends that “A quick search for the term ‘libraries’ in *Information Technology & International Development*, one of the preeminent journals in the ICTD field, astonishingly produced zero hits” (p. 215). If the intent was to introduce the two fields to each other, no effort is made to introduce the library field to the ICTD field.

On the one hand, on the surface there seems to be nothing particularly amiss in the article. But if an author makes claims in a vacuum that lack critical contextualization, yet does not seem to particularly mis/represent, how is the writing to be analyzed? Can such writing be evaluated and to what level?

On the other hand when examining what is missing -- a look at what libraries are already doing; a discussion of why libraries should be engaged with ICTD and how; and discussion of the relevance of ICTD for the libraries’ audience -- the article falls short of its goals. The main actors missing in the picture are the people and communities that ICTs and the highlighted actors are supposed to uplift. However, the author does mention that “when considering how such populations can benefit more fully from new technologies, one must begin by understanding local conditions and building solutions appropriate to those conditions, not by applying what has worked in the West and assuming similar results” (p. 217). Nonetheless, governments, development agencies and foundations, private sector, non-governmental organizations, and academia are presented as the central actors with agency.

The main focus seems to be how ICTs can be used for development and little or no focus on the people who are supposed to gain from the use of ICTs. This could be due to the perception

that such critical engagement is out of the scope of the article... but in that case, I think that each major representation carries on itself the burden of explaining evidence and its contexts, especially when the author acts as an advocate for a field, who while not ill-informed about the general aspects of ICT4D is not critical in the way views are represented. This can be judged as an ideological stand when critical engagement is lacking. One interpretation is that the author does not see the need to engage in issues deemed of critical value in this context because 1) they lack critical depth, 2) they agree with the status quo, or 3) they assume the reader is aware of the issues and they do not need to reiterate what is obvious.

#### **RESEARCH ARTICLE R11**

Research Article R11, *Constructing the Pillars of a Knowledge Society: The Challenge of Providing Access to ICTs in Rural Mongolia* (2005), provides a comprehensive review of ICT development in Mongolia in the last decade. It reviews the existing ICT policies, initiatives and layout, and their backgrounds and talks about the challenges to extending ICT access. But it also serves as an example of implicit ideology in the identity of the authors. The idea of the cart leading the horse comes to mind – in terms of the belief that ICTs will deliver development, in place of trying to understand and needs of the population, and approaching development from their perspective.

Some questions that arise are: What about social-historical realities; whose perspective and goals, and whose knowledge society?

In terms of discussing the challenges of providing access to ICTs in rural Mongolia, the article does a good job. But the article falls short, in terms of asking “why”, “how”, “for whom”, and “under whose initiative and interest” in the context of rural Mongolia and the nomads who occupy that rural landscape. No effort is made to inquire or consider what the rural dwellers

envision for their own future, and what they consider development and a better future. This outward look into the vast rural Mongolia reflects more the identity and the desire of the authors and their worldview, especially in the absence of any attempt or interest to explore the identity of the rural Mongolians who may or may not share their worldview, and who may have varied ideas about how to get to a state and idea of ‘development’.

The authors argue that “Globalization has resulted in a shift away from the economics of things towards the economics of information” and countries that “have been left on the far side of an increasing digital divide ... have been at a disadvantage in adapting to this new paradigm.” They assert that “[b]efore poor countries can fully benefit from the positive effects of access to ICTs they must first develop a knowledge society. For a society to become a knowledge society and to be part of the economics of information, it must meet four interrelated criteria which we refer to as the four pillars of the knowledge society” which include: ICT and connectivity, usable content, infrastructure and deliverability, and human intellectual capability. (p. 216)

One obvious question is whose paradigm? Mongolia is described as underdeveloped due to its history and geography where one third of its 2.7 million people “still follow a traditional nomadic lifestyle herding sheep, goats, horses, camels and cattle” and one million live in the capital, Ulaanbaatar.

In the paradigm of the developed countries who have moved away from the “economy of things” and into an “economy of information” Mongolia is a failure. But when it comes down to it, information “is” about things and ultimately the very things that every human needs on a daily basis: the ability to secure food and sustenance. In the vast plains of Mongolia, the ability to “[herd] sheep, goats, horses, camels and other cattle” has been the sustaining and historical paradigm, I would argue, the paradigm for a particular context.

“The vast distances and sparse population in the rural areas have proven to be the greatest challenge to development, what the [UNDP]<sup>7</sup> calls the ‘tyranny of distance’” (p. 218). In this case the questions have to be asked, what does development mean in the geopolitical and historical context of Mongolia: to be better/efficient/healthier/etc. herders and nomads, or to give up the nomad and herder lifestyle in exchange for that someone living in a large city and working in an academic institution considers development and a better way to live? What would ‘development’ be to a herder? Working behind a desk, in a factory, or herding more effectively and efficiently, or all of the above options?

Depending on the answer to that question, the next question might then be, what tools might be needed to achieve that state of development? The article makes no attempt to ask that question. Instead, the latent and sometimes blatant assumption is that computers and the internet will make Mongolia a better society, one that is developed and on par with the rest of the industrialized world. But to do so, Mongolia first has to “become a knowledge society” and “part of the economics of information”, and to do so, “it must meet four interrelated criteria which we refer to as the four pillars of the knowledge society.” Accordingly, the ‘economics of information’ is the new paradigm... the question is whose? How does the new paradigm fit the historical and social reality of Mongolia?

The authors in a moment of reflection in conclusion ask at the end:

Some questions remain to be answered. For instance, should access to ICTs be a priority in a country where basic needs, such as housing, employment, and healthcare, are still not being met? What are the consequences of opening the country up to outside information and cultural influences? Although Mongolia has

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<sup>7</sup> United Nations Development Programme and Government of Mongolia 2003. Human Development Report, Mongolia, 2003: Urban-Rural Disparities in Mongolia. Ulaanbaatar: UNDP.

managed to retain its essential cultural identity despite the dominance of successive foreign powers, will it be able to withstand the cultural hegemony of the Western dominated media? In short, what moral considerations will shore up these pillars of the knowledge society? Future research needs to go beyond economic and technological factors and focus on the social and cultural implications of incorporating ICTs into traditional societies. (p. 223)

These questions probably are ones the article ought to begin with. From the PCT context, these questions are the horses that should lead the cart.

The article briefly examines the development history of Mongolia under the soviet era where “Soviet development policies transformed Mongolia from a feudal theocracy into a partially urbanized and industrialized economy” pointing out that in the post communist transition structures like local printing, newspapers, book delivery are falling apart. “Mongolian National TV reaches nearly 98% of Mongolian territory this does not mean that it is watched” (p. 218).

The article also points out that “Most nomads, however, have access to radio, which has proven to be an important source of market information.” Are supply and external market forces trying to create need?

In addition, RailCom, the Mongolian railway authority, operates a large part of the fiber optic cable network in Mongolia. This company has made an aggressive entry into the country’s telecommunications market, especially after signing agreements with TransTelecom (Russia) and China Unicom to connect the northern and southern terminals of its network to the networks operated by Russia and China. (p. 219)

What is the need/demand for various kinds of ICTs in the country?

“A barrier to extending service to the countryside is the policy of requiring the private operators to sub-lease lines from the [Mongolia Telecommunications Company] MTC. In order to reduce costs and extend services, the private companies have been compelled to build their own duplicate lines thus adding unnecessary costs to the provision of service” (p. 219).

Which is it? Is it cheaper to sublease lines or build their own lines? In addition, some evidence of the lack of demand and contradiction in the evidence emerge.

...when the centre opened many adults came out of curiosity to see what the new technology could do, but most did not come back. Only those adults with children abroad or in Ulaanbaatar used the centre to send emails. The majority of users were high school students who used the centre to send emails to one another or to chat.” (p. 220)

“Despite the availability of Internet in the aimag telecom centers, there appears to be little use made of it beyond email.” (p. 221)

“There is also little evidence that the Internet is used to sell products ... the market for these relatively expensive products was small and the lack of credit card payment systems in the countryside made it difficult to manage such a business.” (p. 221)

“Nevertheless,” the article is insistent that “the Internet promises to be the ideal technology to overcome the “tyranny of distance” in the Mongolian countryside.” Yet, “*Deliverability* via road, rail or air presents many challenges as only 3.5% of Mongolia’s total road network were paved as of 2002 (World Bank Group 2005) and most of the roads in the rural areas are over rough dirt tracks.” Similarly, “[*u*]sable and useful content on the Internet also remains low as

only 1300 domain names were registered as of mid-2004 and most of these were for international organizations in Mongolia.” (p. 222).

The insistence of the use and usefulness of the Internet continues. Why?:

“As other forms of ICT, such as radio, television, and cell phones, have expanded into the countryside, they have been widely adopted although the cost relative to incomes has been high. This suggests that when Internet is easy to use and contains useful content, it too will be accepted and used by rural residents. (p. 223)

This insistence is visible in the ICT policy of “the new Prime Minister, Ts. Elbegdorj, who received his Masters in Public Administration at the Kennedy School of Government at Harvard University in 2002. Elbegdorj credits his experience in the United States with giving him an appreciation of the importance of technology in creating open governments and greater government efficiency.” (p. 221).

In order to achieve the projected cost of \$250 per computer, the government will remove the 15% value added tax and has negotiated with Intel to decrease the cost of the processing unit by 10–20%. Consumers will also be granted low cost loans with low monthly payments to encourage purchase.

If there is not a high demand for internet use within the historical and lifestyle context of Mongolia, and where an investment in transportation infrastructure could help mitigate the “tyranny of distance”, why is there such an investment in cutting the cost of computers? – Is this a form of mimicry? -- I can only ask without finding sufficient answers in the article. Quoting from the article, “In 2004, the Gross National Income was \$480 which has increased at the rate of about 2% per year since the late 1990s” (p. 219).

The government plans to equip high schools and technical

colleges with modern information technology and to use ICT for the delivery of distance education. They will also promote the training of employees in IT by international companies.

While investment in technology may be wise, are similar policy initiatives being pursued in other areas of infrastructure, industry, and healthcare for example, or is ICT investment the one ‘egg in the basket’ that is supposed to hatch into a golden goose?

A major policy initiative affecting rural connectivity is the establishment of the Universal Service Obligation Fund, which will be funded through a tax on telephone service. In addition, the World Bank has agreed to provide a \$5 million soft loan to get the fund started. The fund will be used to expand telecommunication access by encouraging private firms to develop ICT-related services in the more rural parts of Mongolia.

If the communication infrastructure is already weak, and the rural population is poor, establishing rural connectivity based on funds depended on tax on telephone service while cutting the value added tax on buying computers seems counterintuitive. The article concludes, “Despite the positive policy environment for developing ICTs and limited success in extending Internet connectivity into the rural towns, rural residents are not yet using these technologies in meaningful ways that will improve their lives and livelihoods” (p. 222).

### **RESEARCH ARTICLE R18**

Research Article R18, *Preliminaries into Problems to Access Information -- The Digital Divide and Rural Communities* (2005), provides a discussion of the results of a survey that the authors conducted to understand the problems rural communities in parts of South Africa have to access information, and to effectively combat the gap in the digital divide. While on the whole



the article presents the survey findings, it is difficult to see a clear objective.

The overarching theme that proper infrastructure and technology provision can close the digital divide seems to bias the interpretation of data and serves as an example of a very uncritical and poorly written article. The bias calls to question the motivations of the authors and their interpretation of the identity of the community and the people they seek to study. The accusation that it is poorly written is not in its use of language, but rather in the narrative, organization, arguments it makes, evidence it uses, and how it seems unable to put them all together to make a coherent point.

The authors draw attention to the urban vs. the rural landscape where “[i]n urban communities, people have easier access to resources [i.e. libraries and multipurpose community centres (MPCCs)] that can be used to access information. However, in rural areas people have no access due to a scarcity of resources ... Houses are scattered and it is difficult to have a centre where people can access information” (p. 2). The authors draw the readers’ attention to the plights of the rural communities through more examples:

In Westernized countries people use mobile phones that allow them easier access to computers and the Internet but people in developing countries do not have similar freedom (Gennaio 2002).

Whelan (2004) reports that people in Africa are denied access to communication (1 in 100 has access to a telephone).

Families have to make a decision between buying a computer or having food on the table (Tognetti 2004).

People living in urban areas with higher incomes find it easier to access computing facilities and they generally have phones for communication. (p. 3)

The authors move unconsciously in contrasting Urban-Rural; developing-developed; and Western-Rural, where Urban could be interchanged with Western.

The authors' assertion that "to bridge the digital divide in developing countries, the infrastructure must be improved" rings very true. However, the authors' definition of the digital divide as the gap "between individuals who have reasonable opportunities to access technology tools and those who do not have such opportunities" (p. 2) hints at a narrower interpretation of the gap.

The prevalent view in the article seems to be that because there is a digital divide, technology has to be provided so that the divide can be bridged. And as a result, their use of the literature review lacks much critical engagement, while at the same time uncritical use of literature and *laisser-faire* use of information results in a listing of disjointed facts:

Computers for Africa refurbishes second-hand computers and ships them to Africa. These computers are given to disadvantaged groups and organizations that work for social development. (p. 2)

In Johannesburg, a group bridged the digital divide by creating an environment where people could become computer literate, learn about the benefits of technology and access information (Scott 2004). (p. 2)

... a Professor at the University of California with a high-speed connection in her office, a student in Seoul who occasionally uses a cyber café, and a rural activist in Indonesia who has no computer or phone line but whose colleagues in her group download and print the information for her. This illustrates the digital divide in three dimensions ... (p. 3)

Developed countries are advanced in technology but there is a big gap between them and Africa. The cost of supporting

computers and a connection to the Internet is billions of dollars and African countries do not have these funds available. (p. 3)

What happens to the wealth of the African nations that are rich in natural resources? What about problems of governance, corruption, and wealth inequality that is not being discussed?

... special attention needs to be given to provide least-developed countries (Africa) with financial resources, physical infrastructure and a knowledge base to achieve goals (p. 3)

Who is to provide these resources?

People are not concerned about information because they cannot use it and fall behind ... The Internet is supporting instruction with new models of e-learning, with students at the centre of the learning process. Institutions for learning are placing materials online, becoming agents for change and helping to reengineer the education system by stimulating lifelong learning. (p. 3)

How are these two factoids that appear together to be put together? If people are not concerned about information because they cannot use it, supposedly due to the digital divide, how will e-learning and online material help these people?

While the choice to run a survey so as to get information from a large group of people (200) “in Melmoth (Emkhindini Reserve, KwaZulu Natal Midlands, South Africa) with a population of about 500” (p. 4), was logical and uncovered some interesting facts, there were no follow-up on them. Often the interpretation of facts was casual and unsubstantiated. The authors casually switched from ICT meaning a host of technology tools like television, radio, phone to meaning computers and vice-versa.

Sixty-two per cent of the respondents were males,

demonstrating the fact that in rural areas females are not easily accessible. Males are assigned to perform physical work and they are reachable. (p. 5)

Some community members were illiterate and found it difficult to complete the questionnaire. (p. 5)

The investigation revealed that the availability of resources was related to policies of the past. White people were not affected by the lack of information access as they had access to computers and a better infrastructure. (p. 5)

The authors point to something based on in SA colonial history, but we get no more information, especially about how in a village with a population of 500, the white people who live there had access to better infrastructure.

Older people were not concerned about information because they did not know what to use the information for. (p. 5)

It is possible that they really do not care at this point in their lives and within their lived context and do not want to bother? But there is no more clarification.

Gennaio (2002) states that in third-world countries there are debts to be paid and people do not have funds available for training (e.g. schools write tests on the blackboard because they do not have the infrastructure or resources). (p. 5)

Is it better to write tests on computers? Are there adequately trained teachers who can teach the material well regardless of the computers? What are the problems students and teachers face with writing tests on the blackboard? Is this an argument about status quo and esthetics, or are there learning deficiencies that access to a computer can fix? These issues are not explored.

Some people in the community did not know what a

computer looks like and what it is used for. Another contributing factor to the poor infrastructure was that the geographical situation of the village is not conducive to good infrastructure. There are mountains, dense bushes and rocks and the houses are scattered. Only 30% of the community members had computer skills and about 29% of the respondents had no skills at all. (p. 5)

The above fact being presented in reporting survey responses leads one to ask why it is there. This being plopped in here looks like the authors aim is to exoticize the rural poor. Is there a political agenda somewhere, or is it a matter of lack of organization? And then is it “70% of the respondents did not have computer skills” as stated elsewhere on the same page, or is it “only 29% of the community members who had no computer skills”? Why the contradiction? (p. 5)

About 98% of the respondents had no computers. This is because their income was too small to worry about computers (or they did not have the infrastructure). ... Their income was too small to allow them to buy computers. (p. 5)

Is there any reason the authors looked at ownership, except out of curiosity? Do they consider computer ownership an important part of accessing and using the computer where infrastructure itself is not adequate? They do not discuss further, but their unclear statement later on that “the unemployed people in the community contributed to the lack of information access” (p. 6) may point to their belief that somehow ownership is an important part of access and therefore not being able to own a computer contributes to lack of access.

The authors’ attempt to try to look at gender differences leads to some unimpressive interpretations:

There were more males with computer skills than females (Table 2). The correlation between gender and computer skills is 0,087, which is close to 0. This indicates a weak correlation

between these variables (gender and computer skills are independent). Having computer skills does not depend on gender because any person can learn to use a computer regardless of gender. There is a weak negative correlation ( $-0,082$ ) between gender and level of education (Table 3). This is close to 0, meaning that these variables are independent. Gender has nothing to do with education because both males and females attend school. So there is no contribution of gender to education, meaning all should have equal access to information. (p. 7)

This interpretation is based on the data presented on tables 2 & 3 that out of 120 males who responded to the question whether they had computer skills, 42 responded affirmative and 75 responded that they did not juxtaposed to 73 females of whom 19 who did and 52 who did not, and everybody in this category had at least primary level of education. While this can be translated to 35% of male and 26% of female respondents who had computer skills, and 62% male and 71% female respondents who did not have computer skills, trying to seek statistical significance to explain the trend of a population on this basis is a simplistic and arguably a false use of statistical methods. This, specially when looking at the fact that of the total respondents, over 55% were below the age of 19, and over 95% were below the age of 29.

It is clear that too much emphasis is put on technology for solving social, economical and policy problems. The recommendations are fairly simple, and also contradictory. “How will the gap in the digital divide be closed in rural areas and by whom?”— the question is asked. “All members in the community and the government are responsible for combating the digital divide.”— is the answer. And this can be done by:

... equipping young people with the necessary technology literacy skills; ensuring that schools and communities equip individuals with the technology skills they will need; and ensuring

that adequate funding is provided for schools and communities that will allow them access to technology resources to address the needs of communities. (p. 9)

People in rural areas, affected by the lack of information, should develop a strategy that needs less attention from government and focuses more on what they can do themselves to combat the digital divide. They should manage their own resources properly. (p. 9)

The SA government should revisit the objective of empowerment for poor people who are lagging behind in the use of technological devices. Special attention should be paid to find solutions that will help neutralize problems associated with information poverty. (p. 9)

The recommendations reveal a light attempt at trying to solve a complicated problem. The study reveals a very difficult truth however: the level of unemployment in the area; “about 92% of the unemployed at Emkhadini (Melmoth Community) were young people from the local school” (p. 9). While the situation is dire as the study itself exposes, and so because of it, the issue requires a more critical exploration than what is presented in the study.

### **RESEARCH ARTICLE R13**

Research Article R13, *The Feasibility of ICT Diffusion and Use Amongst Rural Women in South Africa* (2006), studies the feasibility of ICT diffusion in rural areas in South Africa focusing on women between the ages of 16 and 60 as the sample group. The study uses a survey method with a sample size of 200. The article serves as an example where the motivations of the authors, their interpretation and use of data and the approach to the identity of the people they seek to study of raises some questions.

The study indicates that “[s]ampling data was obtained from Census household data of the magisterial districts of Umlalazi” (p. 108) but it is not clear in the study what this data is specially since the study indicates it uses a survey using a snowball sampling technique.

Their summary of results indicate that “access and exclusion are still predominant issues, as while a meager average of 11 (5.5%) respondents use modern technologies such as the computer/internet, more than half (115: 57.5%) of the respondents surveyed face problems ranging from affordability, to distance and time.” Overall the authors conclude that “singularly, ICTs are insufficient for significant benefits to emerge.” (p. 108).

Pointing to the dilemma of the difficulty of gauging the effectiveness of ICT in many African countries that experience pressing problems such as poverty, hunger and disease on one hand and on the other, cautions from the likes of The United Nations Commission on Science and Technology for Development (UNCSTD) of “further isolation, if priority is not given to ICT strategies” the authors raise the question of whether “ICTs can indeed alleviate poverty and improve human conditions, especially amongst rural African women.” (p. 108)

However, the authors’ literature review seem to lead them to conclude that it is nonetheless important for ICT’s to play an important role in development, particularly on the governmental level.

The authors conclusion that “All these efforts ... can and will provide a new window for Africa to accelerate sustainable human development, which would inherently benefit rural women” (p. 110) comes down a little on the side of trickle down theory even though the authors also point out elsewhere that “given the multiple roles in society as mothers, wives and workers, women's voices are insufficiently heard ... access to education and knowledge, particularly for girls and women, is still inadequate.” (p. 110)



Despite claiming that “careful attention was given to women who reside in the rural areas of KwaZulu-Natal” evidence in the article shows this is only on the surface. While they quote “The International Technology Development Group ... that women rarely contribute to the policy debate about ‘poverty’, as most of them are often illiterate, lack confidence and mobility” (p. 110), of the 200 women included in the survey a 100% of the women surveyed were employed. The fact that in a population where the female population is 53.5%, of which the 200 respondents made up a representative sample and a 100% were employed, seems to tell a different story. Of the 200, 23 (11.5%) respondents reportedly having no schooling at all, but the presentation of the data is fuzzy:

...majority of respondents (81; 40.5%) had acquired secondary education, while 62 (31.0%) had primary education. However, only 34 (17.0%) respondents had acquired tertiary-college/varsity education, with 23 (11.5%) respondents reportedly having no schooling at all. Therefore an average of 72 (35.8%) of the respondents have basic education. (p. 111)

Maybe the lacking definition of basic education is at fault. Presentation of data, including the breakup of age, education, and occupation was very complicated, verbose, and inconsistent in style. A table would have been clear and concise. It leads the reader to ask why? Is it just bad writing, or is there some motivation to keep the data murky? Convolved data and evidence can open ways for unclear arguments and varied interpretations.

The authors explain that they seek to explore which ICT resources are used by rural women and why; use of and availability of ICTs; how ICTs enhance rural women's social welfare and quality of life; the problems women experience in accessing and using ICTs; and which ICTs serve rural women's needs and in what areas? (p. 110)

While the authors generally used the term “ICTs” to refer to a host of technology tools: radio,

television, telephone, cellphone and fax in categories where their use and access seemed to be high among respondents, the authors seemed to use the term “ICTs” to mean computers and Internet where they wanted to make a case for low levels of access, point out issues of affordability, issues of trust, lack of skills among rural women, etc.

So for example, high ICT usage turns out to be the use of radio, while unaffordable and inaccessible ICT turns out to be computers and internet. Not only is this confusing to the reader, but it leads to the question, what did the survey responder respond to or think they were responding to? While it is clear that the authors are trying to parse out the different kinds of ICT that are used and for what purposes, the data seems to be going every-which-way and the conclusions that can be drawn out of the study depend on what the authors want to highlight.

So while most women felt that ICT enriched their lives and helped them to keep up with current affairs,

This was followed closely by the need to keep in touch with family and friends (81%). To most respondents, the mobile phone was particularly useful in this regard. Under entertainment, the respondents listed the ability to listen to music and other entertaining programs as important. With the help of ICTs, this service accounted for (71.5%). (p. 114)

the survey also found that ICTs were inaccessible and difficult to use and costly. At this point, it may be asked, does the term ‘ICT’ refer to radios, phones, televisions, or, computer w/ internet connection? What is the reader to make out of this conclusion the authors hope to draw?

The survey revealed that a large number (57; 28.5%) felt that ICTs were not only unavailable and inaccessible to them, but also difficult to use. Similarly, 25 (12.5%) respondents felt that ICTs are costly and unaffordable... while 18 (9.0%) felt that ICTs are affordable. (p. 113)

In the latter case, ICTs clearly seem to refer to computers.

While the focus population of the survey is women and the breakdown of ICT use and access issues seem to be from the result of looking at women's use of ICT, the conclusion and recommendations have little to do with women in particular. Aside from illustrating women's use of ICT, which is in itself valuable, I agree, what is the reason for the special focus on women and how does it inform the recommendations that follow? It is not clear.

... some of the aforementioned setbacks to the feasibility of ICTs in rural areas should not be seen as reasons for neglecting the prioritization of ICT projects in these areas. There are several meritorious ICT interventions being used today that could serve as learning platforms for African countries. (p. 115)

The fact that information is power and that women constitute more than half of the population in most African countries, necessitates the need to prioritize actions needed to help women have access to information ... As such, this study has portrayed that ICTs play an important role in accessing information in all spheres of life and that they clearly contribute to the enhancement of women's social lives. (p. 116)

Does this mean that the authors are proposing special programs for women, a fact they do not specify, or are they arguing that any effort to increase information access will trickle down to the female population? It is not clarified.

A host of other recommendations follow,

... According to the World Bank, competition between telecommunication companies can slash service costs and improve access to the technology in question ... privatization should be opened up to allow small entrepreneurs to supply telecomm services to rural areas. (p. 116)

Given the where-it-all, the application of ICTs to development should always begin with a development strategy, superseded by an information plan, and then a plan for the information technology that will be capable of delivering the information resources required for the achievement of the development strategy. (p. 116)

but they have little to do with special attention to women or to what could have been learned from the gathered data.

### **RESEARCH ARTICLE R12**

Research Article R12, *Does Universal Access Mean Equitable Access? What an Information Infrastructure Study of a Rural Romanian Community Can Tell Us* (2009), asks an overarching question: “Does universal access mean equitable access?” while investigating the use and development of ICT in a remote village in Romania with the larger aim to inform ICT development policy in the country and elsewhere.

The article examines a gap between policy and implementation, where as a EU member state since 2007, the desire to incorporate an e-Europe strategic plan and United Nations (UN) policies such as the Millennium Development Goals stands in contrast with the reality on the ground. “[The country] was required to adopt the IS policy established by the European Union” (p. 221). Yet, roughly “46 percent of the population lives in remote rural villages with a high rate of poverty” (p. 220) lacking some of basic infrastructure and facilities like “indoor plumbing, paved roads and access to basic medical care” (p. 220) and do not or cannot take advantage of the ICT policies. The article explores these constraints. One of the major problems it identifies is “outmigration” and the resulting brain-drain which “impacts both the quality of life and the economic base of villages” (p. 221).

The article serves as an example of taking time to study and parse out identity issues and clarify representation through relevant literature review, background study, extensive evaluation, consultation in the presentation of the study and by working with community partners. The article literature review concludes with the understanding that “the first step in bridging the digital divide may not involve technology at all. It may simply be making marginalized communities aware of the value their indigenous knowledge has which in turn allows them to understand and place themselves into the greater information society” (p. 224).

Local information needs and strategies for implementing ICTD projects are discussed including discussion of critical history that makes this village different from another. A historical review and background of the village in the context of the country and region allows the reader to have a sense of the context in which strategies and discussions are based. The research employed a qualitative study where data were collected over a period of two and half weeks. The data collection included 35 interviews including snowball sampling and informal conversations when possible, and where permitted, “significant aspects of village life were recorded by members of the team using still photos and video” (p. 225). Historical and cultural reading on the community and ongoing discussion among researchers based on new information and each day’s observation were a part of the methodology.

In discussing the findings a current situation of the village at the time of the study is provided. The presentation of findings are supported by direct quotes, reports in third person, or anecdotes from observations.

Villagers made it clear that job opportunities are scarce in Viscri ... One resident explained that his children “would never come back to Romania, not this village because they would have no work here” (blacksmith, interview, 12 May 2007). (p. 227)

Few of the village residents could afford cell phones, and only three families owned computers with internet access (the mayor, a shopkeeper and a German couple who had recently moved to Viscri). (p. 229)

The Orthodox priest and his wife also owned a computer, but they did not have internet access at home. They accessed the internet on their weekly visits to Sibiu, a city approximately 100 km from Viscri where they were attending graduate courses. (p. 229)

While the findings, analysis, and conclusions of the study are themselves an important part of the study, for our purposes here, how they were presented, as was the method, is the more crucial point. After having gathered evidence and historical background, the analysis and conclusions are finally provided. The analysis and conclusions are not a straightforward listing of the authors' points of views but include critical discussions and observations based on the ground, and within the stated context of the larger socioeconomic and historical background on the village.

#### **RESEARCH ARTICLE R14**

Research Article R14, *'Reconnecting' the Unemployed: Information and Communication Technology and Services for Jobseekers in Rural Areas* (2004), explores job seeking practices of unemployed people in peri-urban and remote rural communities in Scotland. The article compares the use and effectiveness of information delivery for unemployed people seeking jobs in peri-urban and remote rural areas. It examines the issues of the digital divide within and between these groups and examines factors for the likelihood of the use of ICTs for job search. A general conclusion about the use of ICTs for job search information in the study areas is that it is

dependent not so much on access to ICTs but the lack of more traditional employment assistance services in addition highlighting the importance of location and lack of access to traditional sources of information as being important causal variables.

Observing that ICTs can be useful addition to – but not a replacement for – local services (p. 368), the article concludes that “further investment is required in community resources, both online and on the ground in rural areas” (p. 385).

Analysis of the article provides examples of the exploration of the identity of its research subjects and how insights can be gained by paying attention to identity within broadly defined categories, such as rural, or jobseekers. Critical exploration and openness to learn from the results keeps the author’s identity free from questions of ideological bias.

The article begins with a fairly honest discussion of why ICT policy is often attractive. It provides a relevant and thorough literature review while providing an objective evaluation of various points. The use of focus group discussions and use of quotes from participants adds to an inclusive analysis while importance is given to context. In reviewing the results, multiple variables are evaluated and analyzed thoroughly; simple conclusions are not drawn based on loose facts.

The article lays out a critical discussion of the use and benefits of ICT, in the case of job search among the unemployed, and its limitations. The literature review helps to reflect the article’s hypotheses that “[t]he potential benefits accruing from the use of remote, ICT-based services are particularly apparent in isolated, rural communities, which are often characterized by weak physical service infrastructures, and where other forms of personal interaction can be infrequent and time-consuming” (p. 365) which the article claims reflects on policy makers’ decisions to include more ICT services for rural and remote areas. However, the authors also

point out that often policy makers make decisions based on “more general belief in the potential for new technologies to promote social inclusion” (p. 366).

The study illustrates the example of where a well formed method goes a long way to establish credibility to a study. The methods employed in the study were clear and well formed with iterative checks on results. A survey of 490 job seekers was conducted. The results were checked for consistency and correlation across variables (age, attitudes towards ICT, perceived and real gaps in technical skills and, educational attainment and income status) and checked for statistical significance. (p. 377)

In addition to the survey with a relatively large sample size, focus group interviews with 70 participants in 12 groups were carried out taking into account participant characteristics examining a number of variables closely in order to explore participants’ “attitudes towards job seeking and ICT” (p. 378) examining ICT access, skills and awareness (p. 379), attitudes towards new technology at jobcentres and Internet services (p. 380), attitudes towards telephone-based job seeking (p. 382), barriers to the expansion of ICT-based services for jobseekers (p. 383). A representative set of named participant responses, along with their age, are provided directly in the text of the article giving direct voice to the participants in the areas discussed.

Fairly detailed discussion of various contexts was an important part of presenting the study in that the reader got a fairly clear idea of the geographical locations, distances, population densities, economic and social backgrounds, general local practices of ICT use in the area of study, as well as the detailed discussion of the on-the-ground contexts, and clear points of view in the writing.

### **SUMMING UP IDENTITY**

The examination of articles in this chapter explored the role of actors in an information



system and asked about the boundaries of the center and periphery and who occupy those boundaries; explored identity and motivation of the author, the role ideology can play in interpreting or ignoring evidence; asked about points of view, the need to be aware of social and historical realities that may spell different paradigms; and the need for honest exploration while being open to unexpected results in the exploration of the use of ICTs.

One crucial point to come out of the examination in the chapter is the need to examine one's own identity in relation to others as much as the effort is made to understand and examine the identity of another person. A binary understanding of us and them is bound to get any exploration effort in trouble since the distance is more a continuum than opposite poles in most cases, as the experience of lived realities around the globe challenges us otherwise.

An example from postcolonial literature elaborates a point about the lack of appreciating identity in context. Morton (2010) points out in Bessie Head's 1971 novel *Maru* set in Botswana, where one of the characters Margaret receives missionary education through the charity of the missionary's wife who in Morton's reading "regards Margaret's education as an 'experiment', rather than appropriate training for life in a Botswana village community: 'Good sense and logical arguments would never be the sole solutions to the difficulties the child would later encounter, but they would create a dedicated scholar and enable the child to gain control over the only part of her life that would be hers, her mind and soul'." Morton goes on to explain that "While the missionary's wife's attitude towards Margaret's education may be benevolent, it is nonetheless a form of cultural imperialism. Such cultural imperialism is registered in Margaret's failure to see the relevance of W.B. Yeats's poetry to her life in rural Botswana."

Richards (2010) points out that "... the reconception of identity which postcolonial theory offers is neither neutral nor detached from its subject, but engaged and oppositional, since such a

reconception of others also requires a radical reconception of one's own identity as similarly 'fluid' and transforming. It involves an interrogation of such words as 'homeland', 'nation', 'border', 'people', the 'orient' in order to reimagine identity, not as exclusive, static, and pure, but as intercultural, plural, contingent, and constantly negotiated through contact with others" (p. 18-19).

Constant evaluation of identity is especially crucial as older binary understandings of north and south, east and west, developed and third-world seem to move back and forth along fluid boundaries and encapsulating one another as economies around the world depend on resources of one another.

Dirlik (1994) explains that "parts of the earlier Third World are today on the pathways of transnational capital and belong in the "developed" sector of the world economy. Likewise, parts of the First World marginalized in the new global economy are hardly distinguishable in way of life from what used to be viewed as the Third World. ... North connotes the pathways of transnational capital, and South, the marginalized populations of the world, regardless of their location..." (p. 350-351).

Constant evaluation of identity is also crucial as transnational movement and migration, globalization and the local and ethnic autonomous movements challenge the notion of national boundaries and the ideas of nations, and when old political regimes held over from the postcolonial era, either as a reaction to or consequence of, and preserved through the cold war period are challenged one by one, as in the recent Arab uprising.

Failure to rise to the challenge of reconceptualizing the notion of identity as individuals, groups, and nations leads to the lack of the appreciation of existing realities and falling back on age-old ideology that is of little relevance within the current global context, that lead major

political figures like the Republican contender for the 2012 US presidential election to claim that on the first day as president, he would label China “a currency manipulator”.

## **CHAPTER 7: AGENCY**

Agency in PCT is most visible in the concept of resistance that stems from the very literal and often very violent struggle to be free from colonization and the subjugation of body, mind and spirit, and the bid to regain dignity, self-respect, and control. Resistance becomes a voluntary act of an actor, who can then be identified as an agent.

Agency in the historical sense of the postcolonial lens is gained through resistance. Resisting colonial gaze and action, and redefinition of the self is an act of regaining agency. Physically removing the colonizing power and gaining independence was just a start. Fully regaining intellectual and cultural independence involves the ongoing act of removing the colonizer's gaze from within one's own eyes, in the face of ongoing waves of cultural onslaught and imperialism.

The colonial era--marked by the proliferation of armed and violent occupation and exploitation of people and countries around the world by a few powers--may have come to an end, but cultural imperialism has taken its place in the form of encroachment of cultural and political values and corporate interests of wealthy nations (Schiller, 2007). The potential of PCT today as Young (2003) pointed out to fight oppression at any level, extends its use not only where exploitation and 'imperial' oppression takes place in the level of nations along historical colonial boundaries but also in the level of socio-economic and racial boundaries within nations.

At this level, the values of the colonizers and historical colonial powers remain unchanged and proliferate in different guises. Traits in ethnicity, color, cultural, social and economic behavior, and educational and cultural values that resemble past colonial and imperial powers are still loathed and desired at the same time. In the Indian subcontinent where sentiments of nationalism are strong and shades of brown are the dominant color of the skin, 'Fair' is valued as 'Lovely' while the darker shades of browns are sought to be changed. Similarly, cultural

productions from the classic examples of Kipling in India, Cary in Nigeria, Elspeth Huxley in Kenya, and Alec Waugh in the West Indies (Harris, 1992, p. 180) still provide a sense of historical narrative to the people being represented as well as the intended audience in the form of high classic literature to adapted movies and new productions in the modern day with today's themes. Harris points out:

Thus Western audiences receive a view of the so-called Third World that is largely unchanged from that put forward by British writers during the colonial era; Edward Said has asserted that due to "television, films, and all the media's resources," there has been "a reinforcement of these stereotypes by which the Orient [as well as other areas of the so-called Third World] is viewed". Rather than critically appraising the good and the bad points of the British Empire, contemporary audiences seem more inclined to relive vicariously this seemingly simpler, romantic time. In this way, the popular reception of both fiction and films provides an ironic commentary on the wide cultural gap which remains between the "developed" and the "developing" world. Observing the recent proliferation of British fiction and film set in colonies and its popular reception, Salman Rushdie concludes that "the refurbishment of the Empire's tarnished image is underway", and he called such works "only the latest in a very long line of fake portraits inflicted by the West on the East" (p. 184).

Rushdie stated in an interview: "English fiction set in India—Kipling, Foster—has only been about what happened to the West when it went East. The language, contents and tone have never reflected how Indians experience India" (Harris, 1992, p. 33). Rushdie sets out in his novels to provide the reflection from the other side as do other postcolonial authors and from the Indian subcontinent, Africa, West Indies, etc.

Resistance in a literary and intellectual context, takes the form of *writing back to the center* (Ashcroft, Griffith & Tiffin, 2001) and representing the other side, the insider view (Harris, 1992), and the appropriating language itself creating new ‘englishes’ (McLeod, 2000, p. 25-27) (Ashcroft, Griffith & Tiffin) and appropriating writing itself and the meaning of text through use of *code switching* and *vernacular transcription, syntactic fusion, interlanguage, untranslated words*, and *glossing* (p. 39-77) and translations with appropriation of meaning (Bassnett, 2010).

Resistance signifies a reaction, a pushback upon being pushed. It signifies an assumption of agency by the colonized. When resistance takes place it is generally seen as positive. To be acknowledged though, is that even when positive outcomes result from resistance, the implied negative connotation is the preexisting condition that warranted resistance in the first place and the cost to human dignity prior to and until its successful conclusion.

However the focus on agency reveals an awakening, a moment and a state of empowerment, and regaining of self and one’s dignity, and the appropriation of outside values and tools. Resistance in this case signifies an awakening of an agent who is not an object of action performed by an outsider, but the subject performing a self-defining action.

The rejection of external values and the appropriation of artifacts intended to extend those values is presented by Bhabha (1984) in a somewhat comical illustration:

In May 1817 a missionary wrote from Bengal: ‘Still everyone would gladly receive a Bible. And why? – that he may lay it up as a curiosity for a few pice [smallest denomination of the Indian currency]; or use it for waste paper. Such it is well known has been the common fate of these copies of the Bible. ... Some have been bartered in the markets, others have been thrown in snuff shops and used as wrapping paper’ (p. 133).

On the negative side, lack of agency and the desperation to gain agency can lead to resistance

focusing on complete rejection, withdrawal and isolation. Resistance directed to change or action that could be positive and empowering, might lead to further disempowerment and disadvantage. This resistance is based on potential risks implied by taking on change, including material and monetary risks, security risks, the unknown, and above all risks to a way of life and ultimately identity, individual and/or cultural. Of course, on the reverse side, there may be a good reason for resistance from the outset. Individuals and communities value what they have and change takes away what they value and replaces it with what they don't necessarily want.

The other kind of negative resistance can be reactionary based on idealized pasts, described by Fanon as the second phase of the three-step process of an insurgent anti-colonial realization of the native intellectual (McLeod, 2010), often leading to extremism. This kind of resistance is defensive and results from a real sense of powerlessness, having tried to reason. The resulting act of resistance is a desperate act to hold on to whatever sense of identity and power an individual or group has, even if it means the act is destructive in nature or self-exclusionary (Kvasny, 2009, p. 37) in nature.

Richards (2010) points to Fanon, for whom "independence from empire was insufficient to remove the colonialists' distorting mirror", for whom while there is no going back to any prior state, "recuperation is only possible through violence. Only insurrection and civil war, matching the violence of imperial domination with the violence of resistance, will enable the colonial subject to achieve catharsis and be healed. Violence, for Fanon, was not only a political strategy to secure independence, it was a psychological necessity to liberate the minds of the colonized from the repressive effects of the empire." Richards points out that for Fanon, "the colonial subject achieves agency through the cleansing power of violence." (p. 13-14)

Kapoor (2002) however points out the flaw in the discourse that seeks to recuperate an

identity based on an idealized past and instead points to the understanding of agency as a negotiation between a historical past and the present.

According to both theorists [Bhabha and Spivak], colonial discourse has forever marked colonised and ex-colonised societies (and for that matter colonial and ex-colonial powers), so that it is impossible to recuperate any identity uncontaminated by it. They thus warn of the dangers of direct opposition to dominant power, arguing that the result is often reverse orientalism and racism or substitution of one power for another. Referring to Spivak, Bart Moore-Gilbert [... too] advocates the modes of “negotiation” and “critique”, which unsettle the dominant from within’ (p. 652-653)

The point is that resistance as a reaction to an undesirable action does not have to take place if undesirable and objectionable actions can be avoided. This is not just a fantastic or overly rosy picture: People can and do treat each other with mutual respect, collaborate and cooperate to reach mutually beneficial goals and with the recognition and appreciation of agency.

Where resistance is inevitable—where there are contesting views and expectations—its cost in terms of blood, sweat and tears, and overall human dignity can be mitigated if the various perspectives are acknowledged, analyzed and given legitimacy, the unknowns are explored, and consensus is built, in other words a space for negotiation is constructed. This is possible by examining and being aware of the agency of actors, and by examining actions and decisions that have the possibility of stripping agency or could be construed as doing so, through mutual exploration.

In this course of action, awakening and empowerment attributed to the act of resistance can take place without being disempowered in the first place. Where resistance in its negative form already exists, understanding its causes is the first step to help its actors regain a sense of dignity,



control and empowerment. Inherent in the rhetoric of empowering itself is the need for those in the process of being ‘empowered’ to feel disempowered first. What is its effect on the identity-interaction of the ‘empowered’ and ‘empowerer’, and what could be learned about resistance from analyzing such a situation?

Understanding agency of the most vulnerable actors focused on mismatched values in the representation of identity and appropriation of the power to represent, as well as the appropriation of goals, process and outcomes of research, along with ICT itself could make research more useful, cost-effective, and ultimately productive. Not understanding resistance and not paying attention of the effects of action to the agency of various actors could not only make research efforts wasteful and a nuisance, but ultimately harmful.

#### **RESEARCH ARTICLE R5**

Research Article R5, *Assessing the Need and Potential of Community Networking for Development in Rural India* (2003), seeks to present a “research strategy designed to assess the potential of community networking in rural Tamil Nadu, India [... and] demonstrate opportunities for socioeconomic development through ICT-enabled information access” (p. 349) by gathering and examining data on the socioeconomic status, agricultural marketing and price search, availability of information on agricultural problems, employment availability and search, media use, household spending, and use and satisfaction with government services.

It begins by acknowledging that researchers’ lag behind in understanding the need for effective community networking. While the article starts out poised to show that “[f]or successful community networking, the design and implementation of projects should be driven by the specific needs of communities” (p. 349), its own methods stand out as an example of the lack of understanding of community networking, and of the gross neglect of a community’s

agency. While community input is taken into consideration, this input only serves as a data-source from which the authors as experts can extrapolate meaning and recommend solutions. In the end, agency is stripped away rather than enhanced.

The setting and background of the study are presented in a short description. It is learnt that the research is part of a project that studies sustainable access “and has set out to demonstrate the existence of financially self-sustaining markets for ICT services even among the rural poor” (p. 350). With this aim the project set up computer and Internet kiosks in up to 100 villages with the assistance of local entrepreneurs, a local foundation and an NGO.

The study itself seeks to “to explore local information needs in depth and to establish a baseline of living standards, information access and media use; and to promote community participation in and awareness of the project” (p. 351).

Three research methods: field interviews, focus groups, and a household survey questionnaire, are described in three concise paragraphs without much discussion of how they were carried out and the authors move on to give a regional profile. Despite the authors having been on the ground supposedly conducting field interviews over a period of three months, the regional profile only includes socio-economic and demographic descriptions and broad presentation of data from the questionnaire.

While this method of profiling a broad group of villages gives the reader a quick understanding of the study population, which includes eight villages and 614 households, it does nothing to humanize the study population. Instead, any personalizing information is systematically left out on a broad range of issues:

Inequality is not limited to caste. For example, while average education in the sample is 4.3 years, Tables 3 and 4 illustrate that there are notable differences by gender and age.

The data show that low caste, education, or income constitute a substantial impediment in access, use, and affordability of media and communication. (p. 352)

The study quickly turns to present the ICT profile from the survey data.

Turning to the survey results, approximately two-thirds of the households in the sample have electricity, while almost 40% own a radio, 32% own a television set (about half of which have cable TV), and 4% have a telephone. ... Only two of the eight panchayat surveyed possessed a public phone, while public calling booths flourish in Melur town, which is 20 minutes by bus for most households. (p. 353)

Datasets are presented in seven (7) tables and are statistically analyzed and the regression analysis seeks to establish relations between variables in long lists. One of the notes on Table 6 and 7 suggests that field interviews were used to verify/supplement some of the survey data but the use and function of the field interviews and focus group discussions as research methods in the study are not discussed in the article.

The information provided in the article hints at the role of the interviews and focus groups to help create the survey instrument rather than interpret data, but the fact is not clarified as to how they were used and no results from them are discussed.

Some anecdotal evidence is provided in discussing some of the results, but not only is it not given prominence in elaborating findings.

The examination of a figure provided (figure 4) shows that it reported the results of a group of survey question that asked: For what reason(s) do you typically \_\_\_\_\_? (send mail, make telephone calls, read newspaper; watch TV; listen to the radio) with the options including: emergency, health information, other agricultural information, obtaining market prices, get news,

entertainment, talk to family and friends, request money. (p. 358)

What if people used other methods to communicate? What if people engaged in these activities for other reasons. And if these responses are anecdotal, what kind of information was gathered during interviews and focus group discussions. Do those responses hold any value to the researchers? And if the focus groups were conducted prior to creating the survey instrument, their use is very limited in trying to explore findings in the survey results.

The article reports findings of need assessment that is based on the researchers interpretation of survey data. In that case, were the interviews and focus groups simply tools to help the interpretation process retrospectively?

For example,

Our data suggest the opportunity to improve agricultural technical efficiency through ICT kiosks, but do not support investment of resources in methods to enhance allocative efficiency. (p. 359)

The analysis is followed by the supporting statement, which is evidently another interpretation of statistical data:

Presently farmers are significantly more likely to make use of information, and in general have higher levels of ICT ownership and expenditure, than other members of the sample. (p. 359)

Sure, there is tangible-looking data that can be statistically processed and used to extrapolate many kinds of interpretations from multiple points of analysis. But while, it is difficult to cite misrepresentation of people and on-the-ground realities, the living people being represented also have no way to verify or support the findings of the article. In comparison to and following the logic of other similar articles that I have examined, not only is there a missed opportunity to have

learned from the local people about their lives and their lived realities that the data represent, but those that are represented have no say, no agency.

The authors conclude that “[t]he most important next steps are translating such research results into realistic opportunities (locally relevant and financially and socially sustainable applications), and rigorously evaluating how those new opportunities facilitated through ICT affect social and economic community development” (p. 363) but fail to realize that they missed the ‘realistic opportunity’ to find out about ‘locally relevant and financially and socially sustainable applications’ that they will have to (if they choose to) explore those in the next step.

#### **RESEARCH ARTICLE R6**

Research Article R6, *Factors Influencing the Utilization of the Public Internet Terminal System in Two Rural Communities* (2008), investigates factors influencing use of public Internet terminal (PIT) kiosks placed in many post offices in two rural communities, Taung and Ganyesa, in South Africa. The authors point out that “according to South Africa’s ICT Charter, the provision of IT services to the rural communities will create a flourishing information society that will improve the quality of life of South Africans and contribute to the economic growth of the nation. However the rural communities of Taung and Gyanesa do not effectively make use of the PIT system.” Therefore the authors seek to “develop and recommend a solution for providing the rural communities of Taung and Gyanesa with a simple and effective way to access and utilize the PIT services and the information that are provided on the government Website on the PIT.” (p. 2).

A critical lack of the appreciation of agency can be seen in the framing of the problem and in the study method used to investigate the problem. The authors conclude that the service is not adequately used by these rural community members due to lack of awareness of PIT services,

lack of computer skills and confidence, and fear of technology. Other findings were the overloading of information on the PIT, use of language other than the mother tongue, and the slow response of the PIT system.

The authors begin with the premise that “[p]roviding information to rural communities in Africa for rural development can best be achieved through information technologies, especially those of electronic network and digital storage (CTA 1996). South Africa’s rural communities are no exception” (p. 2). Is there any other way to provide information to rural communities? This is not explored.

The onus of using the terminals effectively seems to be on the rural communities. This assertion is repeated in other places in the article.

“Despite the infrastructural investment of 700 PIT workstations ... the problem is that people in these rural areas do not effectively use the PIT services... As these rural communities do not use the services of ICT effectively, it can create a technological chasm.” (p. 3)

“African countries are therefore exploiting the advantages of information and Internet kiosk ... However, it is important that rural communities use these IT facilities adequately.” (p. 4)

Language that the communities “do not use” vs. “can not use” may suggest that the users in the rural communities are responsible somehow. Nevertheless, the authors’ intent in this use of language is not clear and can be attributed to writing style.

However, the authors’ identification of some of contributors to digital exclusion from literature search are ill-fitting considering the study population is a rural and poor community. For example, perceived or actual cost of personal computers; cultural issues - which are the lack of critical mass of PC users among community, friends and family; personal factors - which are

the lack of confidence, credit card or bank account, seem almost silly to list since the population being talked about is a rural and poor population.

The method of investigation applied in the study was unexpected. A task-based observation was used and supplemented by semi-structured interviews.

Each participant was given 20 minutes to use the PIT. A test was conducted whereby each participant was expected to perform a particular task on the PIT within that period of 20 minutes. The task stated below was given to the participants to perform: 'Find a government Website on AIDS and request for a support centre to be built in your community.'

While a follow-up interview found that the “lack of awareness of PIT services at their local post office [and] lack of computer skills and confidence of the people were also cited as hampering factors as well as the fear of technology” the study chose to focus on the test-based research method.

Focusing on the test-based research was a limitation of learning opportunities on the researcher’s part where the findings were based on the researchers observation of participants completing a task rather than researchers simply asking them. This top-down design of the study is where the researchers’ control of the power to represent and interpret is made clearly visible.

The resulting recommendations, listed here in brief, seem very sensible.

1. The use of human assistance for PIT users in Taung and Ganyesa
2. Use of the local Setswana language and information for the rural communities:
3. Create the awareness of PIT among the local community of Taung and Ganyesa
4. Voluntary training of community members of Taung and Ganyesa in the use of PIT
5. Promote local ownership of the PIT system for users of Taung and Ganyesa

Maybe the communities would have come to the same conclusion had they been asked, we

do not know, because they come directly from the researchers instead. The communities have no input on how the system could be improved so that they feel comfortable to use them.

The findings and recommendations though they seem valid are products of a wasted learning opportunity. Instead of exploring the problems and solutions in concert with the community, they are top-down and in a detailed prescription form from the all-knowing researchers.

The participants are being represented and translated by the researchers needlessly, e.g. the needless experiment and interpretation based on observation rather than basing the method on a simple and frank conversation. It goes to, potentially, reflect the authors' view that the rural community members are not legitimate agents able to understand or express their own needs, problems and situation.

#### **RESEARCH ARTICLE R17**

Research Article R17, *Using ICT to Help the Poor Access Public Services: An Action Research Programme* (2007), presented a group of case studies across three continents, in four countries: Croatia, India, Nigeria, and Pakistan, focusing particularly on one of the cases in Delhi, India. The authors were involved in the Delhi case study that was primarily discussed in the article. The Delhi case focused on a health service project involving a hospital providing maternity and childcare services and a nearby "slum" community that was underserved.

The major premise of the article was that access to services offered to the poor was not always known to them and were unable to make good use of the services available. Therefore, making these services transparent was going to help the poor gain access, while at the same time making the service providers accountable for providing the services. On its own, the premise seems to make a valid point: it is hard to make use of services that are unknown. However, as an action research and participatory project, the study had major flaws.



The overall design seems to suggest that the researchers envisioned that by providing information to the poor community about the services, the community would demand those services and as a result the service providers would be accountable to provide those services. This suggested a completely dislocated outsider's view of the problems and the solutions, which completely disregarded the points of views of the community, the service providers, and the vast number of social, political and economic issues that needed to be addressed.

What this envisioning came down to in practical terms, was that a telephone booth was set up somewhere in the community. The hospital, for their part in the “participatory project,” were asked to answer calls from the community. Community members were encouraged to ask health-related questions and voice grievances. As a response to community members' calls and grievances—the researchers expected, and eventually concluded—the service providers had been more accountable towards the end of the study and the ICT access had helped the members of the poor community access services. The project was deemed a success.

The voice of the authors is presented as the research team. The voice and perspectives throughout the article were dominantly of the research team, including the naming of the problems, envisioning the solutions and determining the successes or failures. The reader is expected to take for granted that the arguments, interpretation and representations made by the authors need not be questioned because it was the collective voice of a knowledgeable team. This is evident by the choice of wording in the article at key decision points such as “conclusion drawn [by the project team]” for a course of action or “cautious inference drawn by the project team.”

The authors make general statements and give a general description of the poor people who were subjects in the overall study. The poor are often the “passive object of struggles between

those who are content to oppress them and those who profess to seek to remove the burden of oppression” and while self-empowerment may be possible, it is not possible without action from the latter in the struggles. The poor are presented as powerless, uneducated and helpless which visibly and evidently sets the tone for how the project was envisioned and carried out.

The lack of voice of the "stakeholders" in the supposedly participatory design of the project was glaring. Their participation seems to be limited to focus groups, initially at least partly with a motive to familiarize researchers separately with the service-providers and with the community leaders. Another primary goal appears to be to push the project onto the community and the service providers. Later on, the objective of participation is to evaluate some of the issues the researchers were interested in, such as the usefulness, awareness, or existence of the ICT tool, rather than conduct an inquiry into community problems and their solutions. Initial problem selection was not done in consultation with community members, who might have voiced particular problems that differed from the ones selected.

Some of the stakeholders, particularly the least powerful members among the service providers, may have been unwilling participants. For example, the decision was made to place the phone in the maternity ward so that calls from the community could be answered more frequently, simply because it was staffed 24 hours a day. The added burden to the staff in the ward was not considered, and there was no indication that the maternity ward staff was consulted, or that they agreed to participate. Similarly, the project team heavily advertised the ICT access within the community as a service. What wasn't clear from the article was whether the community members knew they were being positioned as agents of pressure and change when they used the advertised service. From the article, it seemed that making community members agents of pressure and change was an ulterior motive in the design of the overall

project—one the stakeholders were privy to. This point correlates to the perspective the authors present of the poor people who are described as powerless, uneducated and helpless.

On the other hand, the project staff decided to place the community phone in a place that was most readily available: in the local grocery shop run by an acknowledged community leader. In the midst of the slum, the grocer was a relatively powerful person. Basing the telephone in his store elevated his position in the community and gave him a stronger voice concerning the project. The research team viewed this elevation of position and subsequent empowerment as problematic because the grocer began to form his own opinions about the project and presented his own views with which the project team did not agree. As much as this incident represents an example of the lack of consideration or awareness by the project team about the politics of power in a local setting, it also demonstrates their brushing aside of a key voice and an important stakeholder in the project. From that point of view, the grocer represents a voice of agency that the project team was not keen to consider. We know from the authors that the project team resented the grocer's opinions and views but the details are not presented and the grocer's perspective is completely missing.

Similarly the authors were quick to point out the lack of willingness by the hospital to take up grievances voiced by community members about services or staff. Was the hospital in the position to take up the grievances, did it have adequate material resources and trained staff? Such considerations are not presented in the article. The hospital's (administration, doctors, staff) point of view is entirely missing.

One example is illustrative. The authors criticize the hospital's requirement that expectant mothers or their families bring a bucket of water for the delivery. This they present as an example of the lack of accountability of the hospital. In the absence of any detail or reasoning,

the reader might wonder: Did the hospital not have running water? Was the hospital in a dire financial situation or did it not have an adequate infrastructure? Were public services not available in the location where the hospital was based? None of these kinds of questions are addressed. Instead the hospital and its staff are condemned for their unwillingness to take up the grievance. Towards the end of the article, while drawing the conclusion that the ICT had been instrumental in bringing about a lot of improvements in helping the local poor access public services, it is learned that the project staff's involvement had led to the connection of water supply to the hospital.

A huge disconnect between the nature of the problem and successes attributed to the ICT implementation is visible and is yet completely overlooked. While success such as increase in the awareness of services, use of the hospital, resource and personnel problems in the hospital are attributed to the project, a clear link between ICT implementation and such successes is not visible. It can be argued that the awareness campaign in the form of advertisements, community plays, etc., as well as word of mouth among community members, had more to do with raised awareness about the services in the hospital.

However, the authors are inclined to attribute major successes to their object of study: "the role of ICT implementation in helping the poor" ignoring issues of willingness of local government to act, government's policies on infrastructure, healthcare, local economy, and other social and economic problems. By doing so, the study is blind to a host of other learning opportunities, where the deeper nature of problems are undetected or simply ignored.

Despite the fact that the authors seem aware of some of the political and economic problems the slum dwellers face, the authors conclusion that "ICT projects are at least a catalyst, and very probably a great deal more" is detached from the realities of the people who are presented as the

stakeholders.

As much as this article speaks about the neglect of agency of stakeholders, it also illustrates problems of representation and rigid identities visible in the ideological definition of “us” (as researchers with agency) and “them” (as poor people without agency to try to define their own problem and explore solutions) and in the proposed and implemented solution.

### **RESEARCH ARTICLE R2**

Research Article R2, *ICT and Life Long Learning Pedagogy for Development and Empowerment: An Illustration from Farmers in India* (2011), describes an intervention study in the livelihood of small and marginal farmers in India where 70% of the total population are farmers and 63% of the entire population are small and marginal farmers and face enormous socioeconomic and political pressures to make a living resulting in high suicide rates. The article’s premise is that by enhancing farmers’ Life Long Learning (L3) aided by ICTs, their bargaining power and minimum standards of living can be enhanced through improved negotiating skills and access to livelihood resources. By doing so, the article makes a direct claim of advancing agency of “small and marginal farmers.”

The article is an example of how talking about enhancing agency and empowerment does not necessarily do so. The rhetoric is poised as an agency booster. Pointing to Amartya Sen’s “unfreedom”<sup>8</sup> which includes the inability to access knowledge the authors describe the marginal farmers as “mute victims of this “clusters of disadvantage”” citing Chambers<sup>9</sup>, where “the marginal farmers in India are caught in the deprivation trap which robs them of their developmental space and leaves them powerless.” (p. 51)

Pointing to the growing shift from agriculture based economies to information age societies

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<sup>8</sup> Sen, A. (1999). *Development as freedom*. New York, NY: Oxford University Press.

<sup>9</sup> Chambers, R. (1983). *Rural development: Putting the last first*. London, UK: Longman.

which accompany mass migration to large cities as the basis for disruption to societies, communities and families, leading to social problems, the authors prescribe ICT based L3 models to empower farmers and enhance their capabilities which would ultimately ease the pressure on cities (p. 50).

Easing the population pressure on cities is presented as a happy byproduct, but should lead the reader to ask if this the ulterior motive or the hidden agenda of the authors, since the issue is not the stated focus of the article nor does it have a direct negative effect on farmers. The unmentioned beneficiaries of the act of empowering farmers are framed here not as the farmers themselves but the urban dwellers whose society is otherwise disrupted. What is more, the issue is not discussed further.

Pointing to the failure of earlier government intervention to mitigate the agrarian crisis that resulted in a call for a reinvention of appropriate strategies, the authors voice calls for innovative capacity building for agricultural communities (p. 52-53) in making a case for L3.

They propose bringing together four key partners: farmers; banks; learning institutions with expertise in agriculture, veterinary science, etc; and commercial ICT kiosks providing educational opportunities and information regarding health and weather. Another partner in this project is “Arul Anandar College (AAC)” which also is the setting for a project described as the model. (p. 54-55)

The location of the case study in a south Indian state of Tamil Nadu is describes as a mainly agriculture community in a semiarid region with frequent monsoon failures and consequent economic hardships. Female infanticide is portrayed as one of the major socio-cultural problems to the point that the government of Tamil Nadu declared it as a female infanticide area (p. 56). In this background, L3 with ICT is proposed as a new development approach.

The top-down nature of the author's perspective comes to fore when they describe the kiosk project as the illiterate being shown the light of development.

This process warranted the setting up of an interface mechanism so that the illiterate and semiliterate could be shown the light of development. Hence a user-friendly ICT integrated learning mechanism in the form of a voice-integrated touch screen kiosk was established. Because this kiosk brought light into the lives of the farmers, it came to be called "Light on the Wall." Light on the Wall as a learning center was formally inaugurated in the college premises on June 16, 2008. (p. 56)

Yet, as is apparent, the touch-screen laden kiosk with "a stock of scientifically validated information on locally relevant livelihood systems" is in the college premises. However, the user group is portrayed as 1623 farmers, 845 college students, and an additional 265 government officials (whose attention was attracted by the idea of the "Light in the Wall" and appreciated it), and 162 general public and foreign nationals got a glimpse of knowledge transformation through modern information technology. (p. 57)

What do these numbers of people mean, and what do the fuzzy concepts such as the farmers acquired information, students collected relevant information, officials' attentions were attracted and were appreciative of the idea, and general public and foreign national got a glimpse of knowledge transformation? (p. 57)

Without any prior introduction, the authors hint that the Light on the Wall kiosk is only one component of the Lifelong Learning Center and that other training programs were also initiated to organize "farmers into a network so that they become responsible for their own development". (p. 57).

The result was the formation of a Farmers' Welfare Society with 121 members. The article

then goes on to profile the farmers in the society and claim that the “socio-demographic status of the farmers in the network highlights that intervention is needed for gearing up the process of development.” (p. 57) Here agency is stripped because, the decision for intervention is made top-down based on the socio-demographic status rather than any visible sign of collaborative effort to understand need.

The authors conclude that 30.6 percent of the farmers are considered marginal farmers due to size and type of land holding, and 47.9 percent are considered small farmers. These two categories are translated as “as poor and unable to adopt capital-intensive technologies owing to economic backwardness” (p. 58)

As a result of the profiling, certain decisions are made about and for the farmers. The authors provide the illiteracy rate is 16.5% as a justification for the touch screen learning center as the choice for the study, and the subsequent choice of Mobile-based Learning where SMS are sent out to farmer’s phones. The partners in this part of the project is a joint venture of two mobile companies for the backbone and the SIM cards, and a “Farmers Fertilizer Cooperative Limited” (p. 60).

While the farmer’s welfare society gains strength in numbers bargaining the price of fertilizers, on the other hand, it is not clear what costs they bare in subscribing to the program which seems to tie them to the joint venture of cellphone/SIM card and fertilizer providers. Is this an arrangement of mutual benefit to the farmers and the providers or a monopoly opportunity for the providers illustrated by an unlikely business partnership: two telecommunications and a fertilizer company? This issue is not explored.

The formation of the Farmer’s Society as promoting agency by increasing their bargaining and negotiating power is highlighted not by illustrating such evidence from farmers’ perspectives



nor any direct representation from farmers, but seemingly from the perspectives of officials who listen to their grievances and solving problems by mentioning that “officials came down to negotiate with the Vaigai farmers who had reported a scandal to the higher officials” (p. 61).

The benefit of this effort to the farmers is not clearly drawn out and again the perspectives are not discussed. At this point, it seems that the program has its own agenda independent of the stakeholder views particularly the farmers’.

Arul Anandar College has introduced a certificate course on multimedia for lifelong learning. This course aims at producing knowledge capital which can be used by CBOs [Community Based Organization], educational institutions, and banks. (p. 61)

The formation of a course by Arul Anandar College “to systematize L3 by integrating the concept into the existing academic venture” is not a clear outcome and one that is not discussed further than mentioning it as a logical step.

Another unstated stakeholder group emerges, the facilitators who can help the farmers and comprising of extension workers, CBOs, and banks. There is nothing wrong in doing so, but the rhetoric is not straightforward as to this motive, the agenda being a creation of a degree program and job placement for degree recipients, despite the rhetoric of helping out farmers as a primary goal. It seems that this goal is the background objective that would legitimize a degree program. Was this also an ulterior motive for the study and framing it as building agency for the farmers was more appealing in terms of presenting the project to the readers and the academic world? – the question may be asked.

Is the claim to empower farmers actually hijacked by other unstated or not clearly stated ulterior motives of the research team? The writing has many unexpected twists and turns. The evidence of input from farmers themselves is not present throughout the article. Such efforts are

sustainable in as much as they can be institutionalized, since they are not borne out of the efforts of the primary stakeholders the small and marginal farmers whose livelihood are ultimately at stake.

### **RESEARCH ARTICLE R19**

Research Article R19, *Where Information Society and Community Voice Intersect* (2006), is a forward-looking article which seeks to expand Freire's models of development and education in the arena of ICT for Development and seeks to reconcile community voice with information access. The discussion questions the "banking model" of information transfer and seeks to develop methods supportive of truly 'community driven' effort that include authorship, categorization, classification, representation and sharing as well as need identification, vision and direction. It introduces the "Village incubator project" in its initial stages to that effect.

"The banking model is described as information transfer, and parallels international information development initiatives that presume that access to externally authored information is the only means by which the global progress of the "information society" may be achieved. (p. 356)

The author favors Freire's pedagogical process which "does not carry with it a historical model of power that suppresses the indigenous voice" but leads to liberating education which "consists [of] acts of cognition, not transfers of information."

This process is reflexive, as throughout all must reexamine their roles, motivations, and principles, and therefore authentically commit themselves to the people. This commitment is the essence of the moral and emotional fabric that Freire concludes is consistent with his approach, and treats "people" as "us" rather than "other." (p. 357)

Based on this background the author reviews cases that use research models that come closer to meeting that authentic commitment. The author reviews whether in the case of a project using a Participatory rural appraisal (PRA) model “the basic framework emerges from the community’s point of view” (p. 359); in the case of an indigenous Video and Television project, how and if it operates on “visions and goals from the community’s own voice and objectives” (p. 360); and in the case of a mediation project how an NGO mediates the “relationship between governmental initiatives and the realities faced by slum dwellers ...” (p. 360). Based on these models and complemented by them, the author proposes a Community-Modeled Ontology Project where the focus is not only on “indigenous authorship, but also on classification, categorization, description, and representation of these pieces and how they are shared” (p. 360).

While at the time of writing the article, the project is still in its conceptual stages, it is this initial stage that draws the project’s character. In this stage, the focus is on engagement with communities without hurrying into identifying and solving problems. The engagement is envisioned as a “collaborative effort between researchers and community members that will only proceed when community-derived goals and visions are expressed to researchers” (p. 362).

The drawn out nature of establishing the project becomes visible but also serves as proof of careful consideration on the part of a conscientious research effort.

Interns will be selected ... to live within these communities and build relationships with community members that in turn can over time facilitate the deployment of the project. (p. 363)

Video and other visual technologies (photograph focused, perhaps sound-focused) will be provided to community members if the project and relationships develop appropriately to make this step feasible. Little doctrinaire instruction will be given .... Only operational training will be provided. (p. 363)

The evaluation seeks to explore the overarching hypothesis that “ICT development initiatives driven by community-created content may allow community members themselves to identify and pursue information access indicators that serve collective community needs” (p. 361).

What may be in the interest of rural communities may not be easy for a research process and instead prove to be filled with uncertainty as to the processes and outcome, but focus on the ease of doing research comes at a cost of flawed assumptions and conclusions, as I have been trying to highlight. The uncertainty of process and outcome also signifies diverse learning opportunities outside expected findings. The article shows that the researcher has learning goals but these goals do not supersede the interests of the community whether those interests are stated or not at the outset.

#### **RESEARCH ARTICLE R9**

Research Article R9, *Content Development in an Indigenous Digital Library: A Case Study in Community Participation* (2010), makes a case for public libraries in Africa taking a leading role in encouraging local content creation, collection and dissemination. To this effect the article describes a case study of a pilot project in the greater Durban area in South Africa, that used the public library system in the online preservation of locally meaningful and indigenous knowledge through community participation using a wiki in English and Zulu to share ideas, content, images, oral histories and videos between members of the local community.

The authors observe that the “African local content on the Web is very low, cultural heritage remains undocumented due to a lack of capacity to record, transfer and disseminate information [resulting in Africa’s] major disadvantage in the current knowledge economy and are poorly equipped to make a meaningful contribution to the global information society” (p. 30).

Pointing out that “[l]ow local content on the Web retards buy-in from local communities into

digital resources and inhibits development of digital skills” the authors explain that “a library with content of local relevance will encourage communities to make use of library services, especially if they are empowered to participate in development of the content” (p. 30). As a result, the authors assert, “[a]ccess to useful knowledge of local relevance builds an informed society, while e-literacy and ICT skills are continuously transferred into the community through their own community networks” (p. 32).

The authors see public libraries well positioned to provide such public engagement in the collecting and disseminating of indigenous knowledge particularly due to the infrastructure and organizational structure that they already have or are in the position to deploy due to the “stability of its position both within the community and within the government structures through which it is established” (p. 31).

The attention paid to agency of local knowledge creators in the project being described is visible not only in the ideas discussed in the article but also in the conception and implementation of the project.

The idea that local communities author and organize their own information for their own use rather than using information either not relevant or authored by someone else, makes perfect sense. This not only leads to relevant and indigenous knowledge being recorded and preserved, but it also empowers the creators of that knowledge where ordinary people own and share their own information. The authors are critically aware of this: “Indigenous knowledge is indeed the cornerstone for building a unique identity and ensuring coherence of social structures within communities.” The authors are also aware the project ensures the appropriation of a communal resource and activity that is often outside the reach of ‘ordinary people’: “... circumstances are very different in African libraries, largely limiting community participation to small elitist

groups” (p. 31).

The rationale behind the selection of the wiki for the project, due to the ease of adding and editing content in comparison to other programs, allows for a low threshold of technology skills which encourages collaborative writing and sharing of content. While this may not seem to be such an important point, it is an important example of removing barriers where possible for the exercise of agency. The example serves to highlight the point that agency is never lost but its exercise is often restricted through barriers.

People submit information for publication on the web on a voluntary basis, and from a personal perspective ... and interpret the facts of an event from their own experience. (p. 35)

Ordinary people in the community are very keen to share their history and knowledge. The programme gives them a voice, bearing testimony to the need of ordinary people to be heard, to feel their contribution is meaningful; this way they become part of a bigger information society. (p. 37)

The role of the library is important in coordinating the project which makes sense as it offers existing public library infrastructure and network, and facilitates training and content management.

However, the role and the importance of the communities and content creators is taken into account. The authors acknowledge that the program model favors a bottom-up approach where “local leaders, programme fieldworkers and the community members themselves are the main participants” (p. 34).

The authors’ understanding of the importance of community at the level of ownership ensures that agency is not disregarded.

The community in all its complexity constitutes the natural

resource that forms the basis of the model. Ownership of the knowledge rests with the community and sustainability of the programme is ensured through community participation. (p. 35)

Volunteer fieldworkers are selected from the immediate community to drive the programme at ground level, with the support of branch librarians. They have intimate knowledge of the community and are in a position to build up trust relationships with members of the community. (p. 35)

The authors conclude with a vision of possibility that “[k]nowledge provision will enable behaviour changes and informed decision making, as well promote the creation of new knowledge within the community. It will stimulate innovative thinking, aid learning and promote indigenous technologies” (p. 37).

#### **SUMMING UP AGENCY**

The examination of articles in this chapter reveals the lack of appreciation of agency in some while others have paid remarkable attention to the very issue. Despite rhetoric and seemingly liberating goals in the first kind of articles the flaws become visible in the methods employed and the resulting interpretation of the results. Jackson & Haines (2007) point to practice of hijacking such rhetoric:

...in the commercial sector in South Africa, participation and empowerment are often used on a tactical basis at an operational level of the organisation, leaving strategic decision-making processes within the sphere of the organisation's (often foreign) elite, and without reference to a wider stakeholder base. (p. 88)

... Western approaches are being used uncritically in development NGOs driven by globalisation and the demand for

economic and structural reform, and there is an emerging body of work that conceptualises NGOs as agents of neo-dependency relationships. (p. 89)

At the same time, in the last two articles discussed, attention to agency legitimizes research and that attention can be seen in the framework, planning and implementation of the projects.

One question that may arise when taking agency of groups and communities into account is how does one interact so as not to undermine agency? A simple answer may be: by recognizing its presence and by removing barriers that seek to silence it.

Agency is not absent as Rea (2010) notes even in the face of colonial power pointing to “recent anthropological work [...] has demonstrated, local agency did not cease in the face of colonial hegemony, and colonialism was at once a part of people’s reality, an obstacle to that reality, and an opportunity within which a series of local issues are resolved or not as the case may be” (p. 195).

Similarly, Kapoor (2002) points to Bhabha’s writing about colonized Indian Hindus who in the face of religious conversion by Christian missionaries demand that they would only receive the word of God from the mouths of people who did not eat meat, in effect, Kapoor point out, ‘Indianized Gospel’ or a ‘vegetarian Bible’, producing a site of ‘resistance and negotiation’. (p. 651-652)

What this also signifies is that agency is never absent, only challenged with barriers set in place that make the exercise of cultural values and visions more or less difficult. “Asserting the value and specificity of the culture and attributes of oppressed groups, moreover, results in the relativising of the dominant culture” (Young, 1990, p. 166). So empowerment does not constitute ‘giving or providing agency’ as much as it calls for overcoming oppressive elements and other barriers for the exercise of agency.



Young (1990) defines empowerment as “participation of an agent in decision-making through an effective voice and vote ... to participate effectively in the decisions that affect her or his action and the conditions of that action ... a concept of publicity rather than privacy. Agents who are empowered with the voice to discuss ends and means of collective life, and who have institutionalized means of participating in those decisions, whether directly or through representatives, open together onto a set of publics where none has autonomy” (p. 251).

## CHAPTER 8: CONCLUSION

In the analysis above I have noted problematic issues as well as highlighted those instances where authors paid particular attention to issues of representation, identity and agency. Doing so puts the focus on the discourse areas rather than on the individual articles. It also brings the analysis up to the level of the entire field of LIS that relates to ICT and development.

This study has been in part a response to the concern of a number of scholars, and to my own inclination toward a critical interpretation when research in LIS looks at technology as a tool for rapid and positive social change. As stated in the introduction, my focus in this direction is as much the result of my admiration of the humanity and the dedication prevalent in the field of LIS research and practice to do what is good and just, as it is a result of my belief that if we stop being constantly vigilant and constructively critical of our actions and thought processes, we run the risk of believing that anything we do should result in positive outcomes as long as our intentions are good.

The goal of this study has been to explore a framework for such vigilance and critical analysis. I have used theoretical discussions from the discourse areas in postcolonial theory that I have found most relevant in this context. Examining literature of community-oriented research with the lens of postcolonial theory has its challenges, particularly in trying to discern the negligence in writing versus motivations of authors, or for that matter, the extent to which an article reflects the research or the project it is representing. However, it is possible to raise questions about what they present and how they go about doing so.

In the context of development, McEwan (2001) points out that “language is fundamental to the way we order, understand, intervene and justify those interventions ... texts of development are written in a representational language – metaphors, images, allusion, fantasy and rhetoric –

the imagined worlds bearing little resemblance to the real world. Development writing often produces and reproduces misrepresentation” (p. 96). I agree with McEwan. It is appropriate to demand, at the least, more critically evaluated writing since the language is meant to convey to the reader a reflection of a represented reality that the author has experienced.

But postcolonial theory discourses do more than demand cosmetic fixes that are particularly relevant in the ICT development efforts that more often target ‘rural’, ‘remote’, ‘marginalized’, ‘south’, ‘third-world’, etc., communities; they help to dig down to the depths of the underlying historical political and social issues that perpetuate deep-seated problems. That depth is reflected by Richards (2010) who describes the role of postcolonialism as “constantly challenging accepted notions of ‘being’, particularly when those notions arise out of the ‘fractured consciousness’, as Lamming has it, of colonialism” (p. 19).

Particularly in the context of international justice, Young (1990) points out distributive issues where “[t]he vast inequalities in living standards between nations, owing to unequal access to resources, the legacy of colonialism, and the current ravages of international trade, finance, and exploitative investment, represent a gross distributive injustice” (p. 258). In the context presented by Young, McEwan (*ibid.*) elaborates on the relevance of postcolonial discourse in challenging the status quo and bringing different paradigms of being to the table and envisioning possible futures.

It challenges the notion of a single path to development and demands acknowledgement of a diversity of perspectives and priorities. The politics of defining and satisfying needs is a crucial dimension of current development thought, to which the concept of agency is central. Who voices the development concern, what power relations are played out, how do participants’ identities and structural roles in local and global societies shape their priorities

and which voices are excluded as a result? One aim of postcolonial approaches is to attempt to overcome inequalities by opening up spaces for the agency of non-western peoples, and exploring how nations and cultures outside the west have developed their own autonomous knowledges about development (Sardar, 1999, p. 95).

Only such affirmation of positive self-identity can “confront the dominant culture with demands of recognition of their specificity” (Young, 1990, p. 155).

#### **OUTCOME OF RESEARCH: TOWARDS A FRAMEWORK FOR PCT ANALYSIS IN LIS LITERATURE**

In this study I have explored a framework for PCT and sought to raise awareness that we need to be clear about, and critical of, who we are and what we represent to people we reach out to or seek to learn from. The study also illustrates that our perception of others and ourselves plays a role in shaping both their identities and our own. These effects are often subtle and evolving, but using postcolonial theoretical discourse has a unique advantage of illustrating these complex relations and interactions and their results through history and the present.

The process of asking the overarching questions in reading each article analyzed, has informed the questions themselves.

1. How are various actors, events, and situations being *represented*?
  - i. What is the credibility of the representation?
  - ii. Is the evidence clear?
  - iii. How does the author identify with the people or communities being represented?
2. Examining the role of identity:
  - i. Can the voice and motivation of the author be identified?
  - ii. Is there a logical progression between evidence and conclusion reached – if not, is it because of poor research and writing skills or because of an identifiable

ideology of the author or based on the identity of the groups of people being studied

- iii. Is there evidence in support of claims being made? If not, could the lack of evidence be indicative of ideology or belief?

### 3. Dealing with agency:

- i. Is the author cognizant of the agency of various actors or the research subjects?
- ii. Does the research method enhance or hinder agency of research subjects?
- iii. Does the research reporting method and writing enhance or take away agency of research subjects?

The process that has informed these three questions as guidelines has relevance to research and practice, as well as education in LIS, not in that it delivers a specific method or a set of methods but in that it illustrates a process of forming such methods and guidelines. This exercise informs the processes of conceiving research projects, designing methods, interpreting and reporting results, forming conclusions, and charting the discourse in the field through interpretation and criticism. However, these guidelines, as any methods or applications that may result from them, are only useful as long as they are constantly challenged and coupled with an evolving theoretical interpretation and analysis. While the desire to extract a method, a set of questions, steps to follow, specific guidelines, etc., devoid of the theoretical coupling and critical engagement is tempting, such desire undermines the very aim of the study, which emphasizes not specific methods but the process of critical theoretical engagement. The desire for such short lists and concrete outcomes decoupled from theoretical and critical engagement is the very kind of quick fix that is challenged by this study. On the other hand, any project, method and plan can only gain from theory and analysis which, as I have discussed, consists of constant critical

engagement so that methods do not claim ideological ground and hence orthodoxy. The strength of postcolonial theory lies in its ever-evolving discourses and culmination of multiple analytical perspectives that keep it relevant, rather than concrete but temporal outcomes.

The illustration of the process of applying a critical theoretical discourse is, in other words, the final outcome of this study as each situation may call for different methods, steps, and interpretations.

The analysis of articles in this study in consideration of representation cautions us, for example, to check our expert voices when representing research subjects and their points of view so as not to 'speak for someone else' and by doing so, assume the power to know and purport to become; to be cognizant of different voices so as to understand what is going on, and open multiple conversations that are conducive to the learning experience; to appreciate local realities and historical backgrounds of communities without appropriating those realities, since the context in which local communities live and interact, as well as the consequences of those interactions, are different from and more pertinent than that of the researcher.

The analysis of articles in this study in consideration of identity point to the need to examine our own identity, as much as, if not more than, the identity of others so that we may uncover our biases in relation to the ideas behind our projects, to what we believe and want to achieve, so that our goals do not bias our view of the reality and overshadow the goals of other actors we encounter and the contexts where they occur; to check the problematic binary understanding of 'us and them' and instead examine the fluidity of identity of, and between, ourselves and others; to understand interactions and experiences in the context of a global world, all the while challenging older binary understandings of north and south, east and west, developed and third-world as they move along fluid boundaries; and to constantly challenge and update our

understanding of the current global contexts.

The examination of agency revealed overall that agency is never absent but our actions can dampen it by creating barriers that make the exercise of cultural values and visions difficult. At the same time, our effort to appreciate agency and take into consideration various voices can only make our learning experience and outcomes more fruitful, for if the vision of one voice is a particular outcome and learning opportunity, the vision of multiple voices offer multiple learning opportunities and possibilities. Conversely, silencing multiple voices is detrimental not just to the limitation of outcome, but also to the learning opportunities.

The examination of these three discourse areas also revealed that both the problems as well as the positive outcomes could be observed in various parts of the research process. For example, problems of representation cropped up in laying the background of the study just as easily as in relaying the result of the study to the reader. Similarly, problems of identity cropped up in the callous use of literature review just as much as in the interpretation of results and the final conclusions drawn. Problems about agency could be seen in the formulation of the research methods as in the reporting of the results. Therefore, theoretical analysis using PCT could be seen as an applicable critical lens in all phases of a research project.

In using PCT as the theoretical background, this study helps to expand on the use of critical analysis, usually reserved through practice in literary and historical studies, and extend its application to the field of LIS. In doing so, the study also expands the relevance of a theory reserved mostly for the interpretation of the “post-colonial” by bringing it beyond the context with which the theory is generally identified.

While the three postcolonial discourse areas used in this study provided a wide analytical lens for the articles examined, their pronouncement here does not necessarily exclude other

discourses of race, gender, class, nationality, transnationality, and migration (among others). While representation, identity and agency provide an overarching coverage of analysis, other discourse areas such as race, gender, class and nationality, space, power, etc., within postcolonial theory can be used in the analysis of specific areas of a field's discourse, either in conjunction with the three explored here where the need and occasion arise, or on their own, if the focus of analysis and the selection of the corpus of data favors the use of those discourse areas.

The implications of this study to the field of LIS are in multiple levels. In graduate education, for example, the integration of social and critical theories and methodologies along with the teaching of technical or field-specific theories and methodologies only helps to contextualize the field and its knowledge among other branches of human knowledge and exploration. Of course, passing on the technical knowledge of the field to new professionals is of utmost importance, but to stop at that point leaves the profession in peril of seeing itself only as a source of technological solutions. To do so in today's world where technological innovations, solutions, and possibilities come with immense social, legal and ethical responsibilities and consequences—see the social media boom, privacy and access concerns, copyright issues and infringement of freedoms—is to distance the field from the challenges of the present and hope for the best results.

Of course, one way to feign relevance is to hide behind the rhetoric of scientific objectivity and purely technological consequences of the field so as not to 'trifle' with socio-cultural considerations, but as our knowledge tells us, and as I have argued earlier in the opening chapters, to do so is to court irrelevance as no human knowledge is detached from its social and cultural contexts.

If investment is made only in advancing and passing along technological skills and knowledge, aside from hoping that students with a socially responsible critical outlook will be



attracted to a program, what is the field's moral compass?—it has to be asked. While students may, on their own accord, seek out courses in other departments to enhance their theoretical knowledge and critical thinking skills, it is not a certainty that they will encounter such courses, and if they do, it is not a certainty first, that there is enough flexibility within those courses to explore their interests in relation to their field of inquiry, and second, that the entire course is relevant to their exploration. On the other hand seeking to actively integrate social and critical theories and methodologies helps to make their access and use more efficient. Such integration not only enhances the value of the field's knowledge and learning practices but also helps to keep it constantly in check, and thus robust and agile at the same time.

Consequently, research and practice benefit directly from a more robust education and identity of the field turning out professionals who will not shy away from confronting social and ethical challenges with critical awareness and knowledge, but will also lead the way in constantly reshaping the awareness of the field to meet those challenges. In this way, professional practice and education can move beyond being consequent within isolated local contexts and become relevant in larger and global settings.

In practical terms, this translates to studies that begin with critical social inquiry and critically informed methodology that can further technological learning but that is always mindful of socio-cultural and ethical consequences applicable just as much in research and education, as to practice in a library's collection building and reference services, or in computer lab and information centers or patron services.

The hope in the current exploration is to further the field's understanding of itself in its research, practice and contribution to policy making, from within a critical perspective that is closest to its subject matter: evolving communities and the people who live in those

communities, bound by their individual and collective histories of oppression, and continued marginalization. Grounding research and practice within such a critical framework is expected not only to help analyze hidden or unquestioned assumptions about ICT and its benefits to people who, potentially, could benefit the most, but also to help frame research questions and policy formulation with the best interest of the communities and people who are the real subject matter at the heart of the field.

## BIBLIOGRAPHY

- Adriaanse, Arjen & Voordijk, Hans (2005). Interorganizational communication and ICT in construction projects: a review using metatriangulation. *Construction Innovation Process, Management*, 5(3), 159-177.
- Akpan-Obong, Patience Idaraesit (2008) Discourse as practice in Nigeria's IT industry: A research in progress. *Information Technology for Development*, 14(4), 328-332.
- Ashcroft, Bill; Griffiths, Gareth & Tiffin, Helen (2001). *The Empire Writes Back*. New York: Routledge.
- Balka, Ellen; Rodje, Kjetil & Bush, Corlann G. (2007). Rose-coloured glasses: the discourse on information technology in the Romanow report. *Canadian Journal of Communication*, 32, 475-494.
- Bassnett, Susan (2010). Postcolonial Translations. In Shirley Chew & David Richards (Eds.), *A Concise Companion to Postcolonial Literature* (78-96). Malden, MA : Wiley-Blackwell.
- Bastian, Jeannette A. (2009). 'Play mas': carnival in the archives and the archives in carnival: records and community identity in the US Virgin Islands. *Archival Science*, 9(1/2), 113-125.
- Berente, Nicholas; Gal, Uri & Hansen, Sean (2011). Ethical implications of social stratification in information systems research. *Information Systems Journal*, 21(4) 357-382.
- Bhabha, Homi (1984). Of mimicry and man: the ambivalence of colonial discourse. *October*, 28, 125-133.
- Birdsall, William F. (2005). Libraries and the communicative citizen in the twenty-first century. *Libri: International Journal of Libraries & Information Services*, 55(2/3), 74-83.
- Bishop, Cheryl A. (2008). The United Nations and access to information as a human right. *Paper presented at the annual meeting of the International Communication Association*. Montreal, Quebec, Canada Online.
- Blanchard, M., Metcalf, A., Degney, J., Herrman, H. & Burns, J. (2008). Rethinking the digital divide. *Youth Studies Australia*, 27(4), 36-42.

- Blanton, Thomas S. (2010). The global openness movement in 2006: 240 years after the first freedom of information law, access to government information now seen as a human right. *Global Media Journal: Indian Edition*, 80-97.
- Blau, Andrew (2002). Access isn't enough. *American Libraries*, 33(6), 50-53.
- Bowler, Leanne & Large, Andrew (2008). Design-based research for LIS. *Library & Information Science Research*, 30(1), 39-46.
- Briggs, John & Sharp, Joanne (2004). Indigenous Knowledges And Development: A Postcolonial Caution. *Third World Quarterly*, (25) 4, 661–676.
- Budd, John M. (2006, a). Discourse analysis and the study of communication in LIS. *Library Trends*, 55(1), 65-82.
- Budd, John M. (2006, b). What we say about research: rhetoric and argument in Library and Information Science. *Library Quarterly*, 76(2), 220-240.
- Caras, Sylvia (2004). Thoughts after Geneva: universal design and communication rights. *Information Technologies & International Development*, 1(3/4), 78-79.
- Carby, Hazel V. (2007). Postcolonial translations. *Ethnic and Racial Studies*, 30(2), 213-234.
- Carvalho, Anabela (2008). Media(ted) discourse and society: rethinking the framework of critical discourse analysis. *Journalism Studies*, 9(2) 161-177.
- Castells, Manuel (1996, second edition, 2000). *The Rise of the Network Society: The Information Age: Economy, Society and Culture (Vol. 1)*. Cambridge, MA: Blackwell.
- Caswell, Michelle (2011). "Thank you very much, now give them back": cultural property and the fight over the Iraqi Baath Party records. *American Archivist*, 74(1), 211-240.
- Childs, Peter & Williams, R. J. Patrick (1997). *An Introduction to Post-Colonial Theory*. New York: Prentice Hall.
- Christen, Kimberly (2011). Opening archives: respectful repatriation. *American Archivist*, 74(1), 185-210.
- Corbett, Bradley A. & Willms, J. Douglas (2002). Information and communication technology: access and use. *Education Quarterly Review*, 8(4), 8-16.

- Cramer, Benjamin W. (2009). The human right to information, the environment and information about the environment: from the universal declaration to the Aarhus convention. *Communication Law & Policy*, 14(1), 73-103.
- Cukier, W., Ngwenyama, O., Bauer, R. & Middleton, C. (2009). A critical analysis of media discourse on information technology: preliminary results of a proposed method for critical discourse analysis. *Information Systems Journal*, 19, 175-196.
- D'Aubin, April (2007). Working for barrier removal in the ICT area: creating a more accessible and inclusive Canada. *Information Society*, 23(3), 193-201.
- Dalrymple, Prudence W. (2001). A quarter century of user-centered study: the impact of Zweizig and Dervin on LIS research. *Library & Information Science Research*, 23(2), 155-165.
- Dirlik, Arif (1994). The Postcolonial Aura: Third world Criticism in the Age of Global Capitalism. *Critical Inquiry*, 20(2), 328-356.
- Eijkman, Henk S. (2009). Using web 2.0 to decolonise transcultural learning zones in higher education. *Campus-Wide Information Systems*, 26(3), 240-255.
- Elnaggar, Ayman (2008). Towards gender equal access to ICT. *Information Technology for Development*, 14(4), 280-293.
- Foltz, Peter W. (2005). Automated content processing of spoken and written discourse: text coherence, essays, and team analyses. *Information Design Journal & Document Design*, 13(1), 5-13.
- Fredriksson, Antony (2010). Documentary film beyond intention and re-presentation. *Journal of Information Ethics*, 19(2), 67-81.
- Frohmann, B (1994). Discourse analysis as a research method in Library and Information Science. *Library & Information Science Research*, 16(2), 119-138.
- García-Gómez, Antonio (2009). Teenage girls' personal weblog writing. *Information, Communication & Society*, 12(5), 611-638.
- Grixti, Joe (2006). Symbiotic transformations: youth, global media and indigenous culture in Malta. *Media, Culture & Society*, 28(1), 105-122.

- Gudmundsdottir, G. B. (2010). When does ICT support education in South Africa? The importance of teachers' capabilities and the relevance of language. *Information Technology for Development*, 16(3), 174-190.
- Gurstein, M. (2003). Effective use: a community informatics strategy beyond the digital divide. *First Monday*, 8(12). Retrieved from [http://firstmonday.org/issues/issue8\\_12/gurstein/index.html](http://firstmonday.org/issues/issue8_12/gurstein/index.html)
- Hamelink, Cees J. (2004). The 2003 Graham Spry memorial lecture: toward a human right to communicate? *Canadian Journal of Communication*, 29(2), 205-212.
- Haraway, D. (1991). *Simians, Cyborgs and Women: The Reinvention of Nature*. New York: Routledge.
- Harp, Dustin & Tremayne, Mark (2006). The gendered blogosphere: examining inequality using network and feminist theory. *Journalism & Mass Communication Quarterly*, 83(2), 247-264.
- Harris, Michael (1992). *Outsiders & Insiders: Perspectives Of Third World Culture In British And Postcolonial Fiction*. New York: Peter Lang publishing, Inc.
- Hohlfeld, Tina N.; Ritzhaupt, Albert D.; Barron, Ann E.; Kemker, Kate (2008). Examining the digital divide in K-12 public schools: four-year trends for supporting ICT literacy in Florida. *Computers & Education*, 51(4), 1648-1663.
- Halford, Susan & Savage, Mike (2010). Reconceptualizing digital social inequality. *Information, Communication & Society*, 13(7), 937-55.
- Jackson, Terence & Haines, Richard (2007). Cross-cultural management in South African NGOs. *South African Review of Sociology*, 38(1), 85-98.
- Jaeger, Paul T. (2010). Education, adoption, and development: building a culture of social theory in LIS. *Library Quarterly*, 80(3), 203-209.
- Jacobs, Neil (2001). Information technology and interests in scholarly communication: a discourse analysis. *Journal of the American Society for Information Science & Technology*, 52(13), 1122-1133.
- Kapoor, Ilan (2002). Capitalism, culture, agency: dependency versus postcolonial theory. *Third World Quarterly*, 23(4), 647-664.

- Kapoor, Ilan (2005). Participatory development, complicity and desire. *Third World Quarterly*, 26(8), 1203-1220.
- Kapoor, Ilan (2008). *The Postcolonial Politics of Development*. New York: Routledge.
- Kim, Sung-Jin & Jeong, Dong Y. (2006). An analysis of the development and use of theory in Library and Information Science research articles. *Library & Information Science Research*, 28, 548-562.
- Krishna, Sankaran (2009). *Globalization and Postcolonialism: Hegemony and Resistance in the Twenty-First Century*. Lanham, Maryland: Rowman & Littlefield Publishers.
- Kurtz, Matthew (2006). A postcolonial archive? On the paradox of practice in a Northwest Alaska Project. *Archivaria*, 61, 63-90.
- Kvasny, Lynette (2006). Cultural (Re)production of digital inequality in a US community technology initiative. *Information, Communication & Society*, 9(2), 160-181.
- Kvasny, Lynette (2009). Social reproduction and its applicability for community informatics. In J. Carroll (Ed.), *Learning in Communities: Interdisciplinary Perspectives on Human Centered Information Technology*. London: Springer.
- Kvasny, Lynette & Richardson, Helen (2006). Critical research in information systems: looking forward, looking back. *Information Technology & People*, 19(3), 196-202.
- Lim, Peng H. (2010). The history of an emerging multilingual public library system and the role of mobile libraries in post colonial Singapore, 1956-1991. *Malaysian Journal of Library & Information Science*, 15(2), 85-108.
- Lindeman, Neil (2007). Creating knowledge for advocacy: the discourse of research at a conservation organization. *Technical Communication Quarterly*, 16(4), 431-451.
- Lindh, Karolina & Haider, Jutta (2010). Development and the documentation of indigenous knowledge: good intentions in bad company? *Libri: International Journal of Libraries & Information Services*, 60(1), 1-14.
- Liu, Ying C. & Burn, Janice M. (2007). Improving the performance of online learning teams a discourse analysis. *Journal of Information Systems Education*, 18(3), 369-379.

- Lunga, Violet Bridget (2008). Postcolonial Theory: A Language for a Critique of Globalization? *Perspectives on Global Development and Technology*, 7, 191-199.
- McEwan, Cheryl (2001). Postcolonialism, feminism and development: intersections and dilemmas. *Progress in Development Studies*, 1(2), 93–111.
- McLeod, John (2000). *Beginning Postcolonialism*. Manchester University Press.
- McLeod, John (2010) Nation and Nationalisms. In Chew, Shirley & Richards, David (Eds.), *A Concise Companion to Postcolonial Literature* (97-119). Malden, MA: Wiley-Blackwell.
- Metzl, Jamie F. (1996). Information technology and human rights. *Human Rights Quarterly*, 18(4), 705-746.
- Morton, Stephen (2010) Marginality: Subalternity, Aboriginality and Race. In Chew, Shirley & Richards, David (Eds.), *A Concise Companion to Postcolonial Literature*, (162-181). Malden, MA: Wiley-Blackwell.
- Myers, Michael D. & Klein, Heinz K. (2011) A set of principles for conducting critical research in information systems. *MIS Quarterly*, 35(1), 17-36.
- Moens, Marie-Francine; Uyttendaele, Caroline & Dumortier, Jos (2000). Intelligent information extraction from legal texts. *Information & Communications Technology Law*, 9(1), 17-26.
- Nah, Alice M. (2003). Negotiating Indigenous Identity in Postcolonial Malaysia: Beyond Being 'Not quite/Not Malay'. *Social Identities*, (9)4, 511-534.
- Nahl, Diane (2007). A discourse analysis technique for charting the flow of micro-information behavior. *Journal of Documentation*, 63(3), 323-339.
- Nolin, Jan & Åström, Fredrik (2010). Turning weakness into strength: strategies for future LIS. *Journal of Documentation*, 66(1), 7-27.
- Olatokun, Wole M. (2007). Availability, accessibility and use of ICTs by Nigerian women academics. *Malaysian Journal of Library & Information Science*, 12(2), 13-33.
- Olson, H A (1997). The feminist and the emperor's new clothes: feminist deconstruction as a critical methodology for library and information studies. *Library & Information Science Research*, 19(2), 181-198.



- Olson, H. A. (2000). Difference, culture and change: the untapped potential of LCSH. *Cataloging and Classification Quarterly*, 29(1/2), 53-71.
- Olsson, Michael (2007). Power/knowledge: the discursive construction of an author. *Library Quarterly*, 77(2), 219-240.
- Opesade, Adeola O. (2011). Strategic, value-based ICT investment as a key factor in bridging the digital divide. *Information Development*, 27(2), 100-108.
- Orlikowski, Wanda & Robey, Daniel (1991). Information technology and the structuring of organizations. *Information Systems Research*, 2(2), 143-169.
- Padovani, Claudia. (2010). Investigating evolving discourses on human rights in the digital age: emerging norms and policy challenges. *International Communication Gazette*, 72(4/5), 359-378.
- Pettigrew, Karen E. & McKechnie, Lynne E.F. (2001). The use of theory in Information Science research. *Journal Of The American Society For Information Science And Technology*, 52(1), 62-73.
- Pieterse, Jan Nederveen (2005). Information-for-development: business as usual or breakthrough? *Global Tider*, 2. Retrieved from <http://webzone.k3.mah.se/projects/gt2/viewarticle.aspx?articleID=33&issueID=4>
- Poore, Barbara S. & Chrisman, Nicholas R (2006). Order from noise: toward a social theory of geographic information. *Annals of the Association of American Geographers*, 96(3), 508-523.
- Punzalan, Ricardo L. (2005). Cultural diversity and post-colonial realities: challenges of archival training in the Philippines. *Archives & Manuscripts*, 33(1), 289-293.
- Richards, David (2010) Framing Identities. In Chew, Shirley & Richards, David (Eds.), *A Concise Companion to Postcolonial Literature* (9-28). Malden, MA: Wiley-Blackwell.
- Richardson, Helen (2009). Taking a feminist approach to information systems research and using the "thinking tools" provided by the sociologist Pierre Bourdieu. *Information Technology & People*, 22(1), 26-35.

- Rea, Will (2010) Anthropology and Postcolonialism. In Chew, Shirley & Richards, David (Eds.), *A Concise Companion to Postcolonial Literature*, (182-202). Malden, MA: Wiley-Blackwell.
- Richardson, Helen; Tapia, Andrea & Kvasny, Lynette (2006). Introduction: applying critical theory to the study of ICT. *Social Science Computer Review*, 24(3), 267-273.
- Rowe-Whyte, A. M., O'Sullivan, P. B., Hunt, S. K. (2003) Immediacy on the Web: Narrowing the Digital Divide. *Paper presented at the annual meeting of the International Communication Association* (pp. p1-45). San Diego, CA.
- Said, Edward (1978). *Orientalism*. New York: Pantheon Books.
- Schiller, Dan (1996). *Theorizing Communication: A History*. New York: Oxford University Press.
- Schiller, Dan (2007). *How to Think About Information*. Illinois: University of Illinois Press.
- Simpson, Lyn (2005). Community informatics and sustainability: why social capital matters. *The Journal of Community Informatics*, 1(2), 102-119.
- Singh, J. P. (2008). Paulo Freire: possibilities for dialogic communication in a market-driven information age. *Information, Communication & Society*, 11(5), 699-726.
- Spivak, Gayatri Chakravorty (1988) Can the Subaltern speak? In C. Nelson & L. Grossberg (Eds.), *Marxism and the Interpretation of Culture* (271-310). University of Illinois Press.
- Tapia, Andrea H., Kvasny, Lynette & Ortiz, Julio Angel (2011). A critical discourse analysis of three US municipal wireless network initiatives for enhancing social inclusion. *Telematics & Informatics*, 28(3), 215-226.
- The Journal of Community Informatics*. (n.d.). Retrieved, 11/09/2011, from <http://ci-journal.net/index.php>
- Thompson, Mark (2004). Discourse, 'development' & the 'digital divide': ICT & the World Bank. *Review of African Political Economy*, 31(99), 103-123.
- Todd, Malcolm (2006). Power, identity, integrity, authenticity, and the archives: a comparative study of the application of archival methodologies to contemporary privacy. *Archivaria*, 61, 181-214.

- Wajcman, Judy. (2008). Life in the fast lane? Towards a sociology of technology and time. *The British Journal of Sociology*, 59(1), 59-77.
- Warschauer, M. (2003). Demystifying the Digital Divide. *Scientific American*, 289(2), 42-48.
- Young, Iris Marion (1990). *Justice and the politics of difference*. New Jersey: Princeton University Press.
- Young, Robert J. C. (2001). *Postcolonialism: An Historical Introduction*. Malden, MA: Blackwell Publishing.
- Young, Robert J. C. (2003). *Postcolonialism: A Very Short Introduction*. New York: Oxford University Press.
- Zembylas, Michalinos & Vrasidas, Charalambos (2005). Globalization, information and communication technologies, and the prospect of a 'global village': promises of inclusion or electronic colonization? *Journal of Curriculum Studies*, 37(1), 65-83.

## APPENDIX 1

### Articles Analyzed in the Study

- R1: Alemna, A. A. & Sam, Joel. (2006). Critical Issues in Information and Communication Technologies for Rural Development in Ghana. *Information Development*, 22(4), 236-241.
- R2: Amirtham, Thomas & Joseph, M. John. (2011). ICT and Life Long Learning Pedagogy for Development and Empowerment: An Illustration from Farmers in India. *Journal of Technology in Human Services*, 29(1), 49-63.
- R3: Asaba, Jane Frances; Musebe, Richard; Kimani, Martin; Day, Roger; Nkonu, Michael; Mukhebi, Adrian; Wesonga, Albert; Mbula, Regina; Balaba, Peter & Nakagwa, Alyce. (2006). Bridging the Information and Knowledge Gap between Urban and Rural Communities through Rural Knowledge Centres: Case Studies from Kenya and Uganda. *Quarterly Bulletin of the International Association of Agricultural Information Specialists*, 51(3/4), 143-151.
- R4: Ballantyne, Peter. (2009). Accessing, Sharing and Communicating Agricultural Information for Development: Emerging Trends and Issues. *Information Development*, 25(4), 260-271.
- R5: Blattman, Christopher; Jensen, Robert & Roman, Raul. (2003). Assessing the Need and Potential of Community Networking for Development in Rural India. *Information Society*, 19(5), 349.
- R6: Coleman, A.; Herselman, M. E. & Jacobs, S. J. (2008). Factors Influencing the Utilization of the Public Internet Terminal System in Two Rural Communities. *South African Journal of Information Management*, 10(1).
- R7: Coward, Christopher T. (2010). Bringing The Benefits of Information Technology to Underserved Populations: An Introduction to ICTD for the Library Community. *IFLA Journal*, 36(3), 215-220.
- R8: Gamage, Premila & Halpin, Edward F. (2007). E-Sri Lanka: Bridging the Digital Divide. *Electronic Library*, 25(6), 693-710.
- R9: Greyling, Elizabeth & Zulu, Siphon. (2010). Content Development in an Indigenous Digital Library: A Case Study in Community Participation. *IFLA Journal*, 36(1), 30-39.

- R10: Islam, Md. Anwarul & Hoq, Kazi Mostak Gausul. (2010). Community Internet Access in Rural Areas: A Study on Community Information Centres in Bangladesh. *Malaysian Journal of Library & Information Science*, 15(2), 109-124.
- R11: Johnson, C. A.; Ariunaa, L. & Britz, J. J. (2005). Constructing the Pillars of a Knowledge Society: The Challenge of Providing Access to ICTs in Rural Mongolia. *Libri: International Journal of Libraries & Information Services*, 55(4), 216-224.
- R12: Klimaszewski, Cheryl & Nyce, James M. (2009). Does Universal Access Mean Equitable Access? What an Information Infrastructure Study of a Rural Romanian Community Can Tell Us. *New Library World*, 110(5/6), 219-236.
- R13: Kwake, Alice; Ocholla, Dennis N. & Adigun, Mathew O. (2006). The Feasibility of ICT Diffusion and Use Amongst Rural Women in South Africa. *South African Journal of Library & Information Science*, 72(2), 108-118.
- R14: McQuaid, Ronald W.; Lindsay, Colin & Greig, Malcolm. (2004). 'Reconnecting' the Unemployed: Information and Communication Technology and Services for Jobseekers in Rural Areas. *Information, Communication & Society*, 7(3), 364-388.
- R15: Pade-Khene, Caroline; Palmer, Robin & Kavhai, Mitchell. (2010). A Baseline Study of a Dwesa Rural Community for the Siyakhula Information and Communication Technology for Development Project: Understanding the Reality on the Ground. *Information Development*, 26(4), 265-288.
- R16: Ramirez, Ricardo. (2007). Appreciating the Contribution of Broadband ICT With Rural and Remote Communities: Stepping Stones Toward an Alternative Paradigm. *The Information Society*, 23(2), 85-94.
- R17: Sharma, Geeta & Sturges, Paul. (2007). Using ICT to Help the Poor Access Public Services: An Action Research Programme. *Information Development*, 23(1), 15-23.
- R18: Sikhakhane, B. & Lubbe, S. (2005). Preliminaries into Problems to Access Information -- the Digital Divide and Rural Communities. *South African Journal of Information Management*, 7(3).
- R19: Srinivasan, Ramesh. (2006). Where Information Society and Community Voice Intersect. *Information Society*, 22(5), 355-365.

## APPENDIX 2

### Pilot Study: Initial Database Search

I started by searching the date range 2004-2010 in *LISTA* and *The Journal of Community Informatics*. Selection of this date range was partly to set some time boundary, to look at the most recent trend in the past decade, and primarily because the journal queried began publishing from 2004.

I used a combination of the following terms in searching for articles: *ICT*, *information*, *digital divide*, *bridge*, *access*, *develop* (for develop, developed, and development), *margin* (for margins, marginal and marginality), *inclus* (for inclusive/ inclusion), *collabora* (for collaborate/ collaboration). I conducted the preliminary filtering on the initial database results by examining the set of returned documents for those that either were not relevant to the topic, represented news and book reviews, were in an unusable format (image only), or a language other than English. I also eliminated editorial introductions to articles in a particular issue. I then downloaded the resulting eighty-seven (87) articles to my computer.

### Text Analysis: An Exercise

At this particular point I am not sure whether it is necessary to go through with the text analysis described in this section because I am not sure whether it has any great merit for this study. I include it here to describe it as an exercise I engaged in as a possible method to select articles for further analysis. An alternative is to draw a random sample directly from the larger set.

For the sample set for text analysis, I looked for articles that contained not some but all of the terms (digital divide, develop(ment), margin(al/ality), inclus(ive/ion), collabora(te/tion), bridge and access) using a within-document search functions available in my computer at the folder level where the eighty-seven articles had been saved. Fifteen (15) articles were returned that contained all of the search terms.

Next, I ran the text of the body section of each article (from the introduction to the conclusion) through an online php-based text analysis tool<sup>10</sup>.

The text analysis tool provided word and phrase frequency and ranking of the top ten (10) most frequently used filtered terms (excluding common words, articles, etc.), among a slew of

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<sup>10</sup> <http://textalyser.net/>

results.

For comparison across the fifteen articles, I focused on the ten most frequently used words in each article. Comparing and averaging the ranked words in all 15 documents, I selected the terms from among the ten in each article that occurred most frequently across a majority of the documents. This was done after filtering out terms that were general use, i.e., not indicative of significant ‘objects’ such as ‘level’, ‘issues’, and other words that were very specific to a single article representing only the article’s focus. The table below shows the most frequently used terms that occurred across four (4) or more articles out of the total fifteen (15) and their average ranks (highest occurrence ranking ‘1’) in all the articles they appear in.

| Word        | No. of Articles containing terms in top 10 | % of Articles | Total term count across all articles | Avg. Occurrence /Article | Avg. Rank |
|-------------|--|---------------|--------------------------------------|--------------------------|-----------|
| communities | 10   | 66.7          | 1131                                 | 113                      | 2.8       |
| ict*        | 8  | 53.3          | 365 (1059*)                          | 46                       | 5.37      |
| social      | 6  | 40.0          | 353                                  | 59                       | 4.3       |
| information | 6  | 40.0          | 312                                  | 52                       | 3.7       |
| services    | 5  | 33.3          | 354                                  | 71                       | 4         |
| development | 5  | 33.3          | 258                                  | 52                       | 5.4       |
| access      | 5  | 33.3          | 155                                  | 31                       | 6.2       |
| women       | 4  | 26.7          | 344                                  | 86                       | 3.25      |
| local       | 4  | 26.7          | 173                                  | 43                       | 5.25      |

\* while the term ‘ict’ occurred as shown in the table, a collection of other terms among the top ten (10) that also represent ICTs (namely: ICT, internet, technology, telephone, videoconferencing) actually occurred across 11 articles, for a total of 1059 times and ranked at an average of 4.35 in those documents.

While the initial terms used to narrow the search (digital divide, develop(ment), margin(al/ality), inclus(ive/ion), collabora(te/tion), bridge and access) were present in most of the fifteen articles, only some of them occurred among the ten most frequent terms in a majority of the articles. This does not mean that the initial terms were not important issues to be looked at; instead, the terms listed in the table above shed light on more common ‘objects’ across a majority of the articles in the sample set.

Using the select terms provided a strategy to narrow down the number of articles for this initial test. However, when carrying out the full study beyond the proposal, the text analysis method of term frequency and ranking along with looking at the titles and abstracts of all the articles may be a useful strategy to narrow down the articles to a smaller set, since it also provides a sense of the major objects being discussed in the papers.