Forum

The Lost Sheep of ICT4D Research

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Abstract

Information communication technologies for development (ICT4D) is a new field of study that contains few grand theories compared to other areas of social science. This article analyzes some shortcomings of ICT4D research. First, there is juxtaposition between ICT4D's being a multidisciplinary field while its authors are predominantly not multidisciplinary. Second, ICT4D is not a panacea; it is only a piece of the development puzzle. ICTs alone cannot lead to social elevation. Third, who is responsible for the structure of ICT4D literature? Fourth, Habermas's public sphere is applied to mobile telephony in sub-Saharan Africa to demonstrate how ICT4D could expand upon the theoretical tradition within media studies. The conclusion recommends the creation of a global summit on ICT4D and more grand theories.

Introduction

There are several epistemological shortcomings within information communication technologies for development (ICT4D) literature. The literature is overly optimistic, highly Western, multidisciplinary, and atheoretical. It fails to draw extensively on a breadth of research in other fields such as media and communications studies. I get the sense that ICT4D literature lacks direction, which causes me to question the efficacy of the research. *Why* something is being researched is as important as *what* one is researching. Imagine if researchers applied theories from other fields of study to research on African telecenters and mobile telephony. New perspectives surely would emerge. New models should exist beyond qualitative and quantitative analysis in order to understand the impact, benefits, limitations, risks, and goals of implementing ICTs in developing nations.

Current ICT4D research investigates areas including telecenters, technological infrastructure, telephone incumbents, VoIP, mobile telephony, digital education, and the digital divide. Social science research methods often involve questionnaires, ethnography, face-to-face interviews, focus groups, or administrative research (Bauer and Gaskell 2000). These tools are proven to be successful, but are they the best methods for research on developing nations? What are the goals of ICT4D research? Does it try to lead toward policy change? Does it seek to inform other academics? Will it affect work by NGOs, the UNDP, or the World Bank? In short, a section of Handel's *Messiah* comes to mind: "All we like sheep have gone astray!" ICT4D literature feels like a flock of lost sheep.

A Multidisciplinary Field Should Have Multidiscipline Authors

ICT4D represents a multidisciplinary field of study (Warschauer 2003) whose authorship comes from across the social sciences.[1] One problem is

Special thanks to Dr. Raul Roman.

1. For example, Mansell (2002) comes from the Toronto School tradition of political economy of media, similar to Katz

that many authors have more knowledge of development literature than of ICT literature. Fundamental questions abound over the consequences and hindrances of deploying ICTs, which is in stark contrast to studying *why* people use new media (Haddon 2004). After surveying much literature on mobile telephony in sub-Saharan Africa, it is safe to say that much research has little influence from media studies. This should not be the case. There is a wealth of literature on ICTs in everyday life that is often absent in most ICT4D literature. Combining the literature of everyday life is an example of how ICT4D literature could share ideas with its multidisciplinary partners.

If changes are to be made, perhaps an approach like that of Peter Golding and Graham Murdock (1978) could work. Their seminal essay trumpeted a change within communication research. They decreed that new research models be employed, that there was an overemphasis on quantitative effects-driven research, and that they were tired of reading the same research article using the same research methods yielding the same results. Their Political Economy of Communication and Culture (PECC) led to more active audience studies and ethnographic research. Annabelle Sreberny (2005) and Colin Sparks (2005) have posed a similar call to arms for global media research asking for authors to increase self-reflexivity in their writings. I, too, am weary of reading ICT4D literature. If one reads a dozen articles, on a cursory level it is the same as reading fifty or a hundred. The structure of hypotheses, data, and conclusions creates redundancies. The research indicates some consistent commonalities. People in developing nations who are given access to technologies in developing nations use them (Hudson 1984; Butcher 1998; Warschauer 2003; Castells et al. 2004; Wilson 2004). The proliferation of mobile telephony exemplifies this (Kibati and Krairit 1999; Mbarika 2002; Hamilton 2003; Donner 2005a, 2005b; Goodman 2005). Over the past decade, the increases in both mobile telephone density and penetration are astounding. This phenomenon is not exclusive to developing countries but is also a global one (Katz 2003; Ling 2004). The mobile phone in sub-Saharan Africa has succeeded where traditional PSTN landline phones failed (Banerjee and Ros 2004; Rouvinen 2004; Panos Institute 2004). Above all though, there is a consumer desire for instant communication (Dholakia and Kshetri 2001; Gamos 2003; King 2004; Donner 2005c).

I advocate that a biannual global summit on ICT4D be established in a developing nation to debate the purpose of the literature. The field should be divided into subsections in the way that media studies has subsets that include media effects research, audience studies, everyday life studies, media power, media democracy, symbolic power, policy, and public opinion. Subdividing ICT4D authorship coupled with substantial multidisciplinary background research and theories would help solidify the purpose in writing academic ICT4D literature.

ICT4D Is Part of a Larger Puzzle of Development

ICT4D faces a sizeable limitation in that it acknowledges that it is a piece of a larger puzzle regarding development. Research has discussed how ICT4D can increase education, which is a main goal for development. Hawkins (2002) writes of this for the World Bank in terms of "Ten Lessons for ICT and Education in the Developing World." The problem with his article is that his recommendations are easier said than done. This is in part because of the aforementioned section on fatalistic optimism. More than that, however, policy changes are necessary to fuse public and private sectors together for ICT4D deployment (Wallsten 2001). The literature typically acknowledges that it is difficult to measure and quantify the influences of ICT4D because few data existed before the conducted research (Hudson 2001). The points of comparison are therefore small. Moreover, there is no "magic bullet" or "hypodermic needle" of ICT4D impact. It is not a panacea. ICT4D will not provide food, clean water, affordable health care, civil rights, or peace. This is in no way to downplay what I believe to be the significance of media power. Nevertheless, technologies that facilitate communications increase people's ability to learn and interact. Communication allows information to spread across time and space at faster and faster rates. It is this very principle that ignited

(2003); Hamelink (1999), Mann (2004), Lush and Rushwaya (2000), Pigato (2001), and Rist (1997) come from development studies; Castells (1999) specializes in urban development and sociology; and Galperin (2005), Heeks (1999), and Best (2003) have technology backgrounds.

Marshall McLuhan's (1994 [1964]) interest in the potential for electronics to lead toward a "global village." Although ICT4D may not be a cure-all for the needs of developing countries, the literature has well documented its many successes from aiding rural farmers to increasing literacy and facilitating communal communication. But do we want people in developing nations to be connected to this digital grid because it is in their interests to facilitate social uplift, or is the reason so that a global information network can truly be global? In other words, is the ICT4D literature itself benefiting Western scholars?

Who Is to Blame?

The blame does not rest entirely on ICT4D scholarship. Media studies authors are also to blame. Amid recent arguments to "de-Westernize" media studies (Curran and Park 2000), the primarily Anglo-American cavalcade of media authors have delved into research on Asia (Lull 1991; Moran and Keane 2004) as well as continuing the tradition of research in South America. Africa, the second-largest continent, is relatively absent from de-Westernizing literature. This may be why ICT4D literature draws more upon development studies than upon media studies (Lardner 1993; Wiseman 1995, 1996; Dibie and Agiri 2001; Harrison 2002; Neto, Niang and Ampah 2005; Ukaga 2005). Tertiary education comes from a Western tradition. The social sciences are relatively new compared to other academic areas. We are taught that prior research lays a foundation for future research. Canons of literature arise. Lydia Goehr (1992) put forth these now seminal notions in relation to musicology, but the implications for academic canon formation cut across disciplines. In short, Goehr argues aesthetic judgments based primarily on nineteenth-century rationales define academic canons. ICT4D is in the process of establishing a canon, but the influences of Western research in many ways colonizes African studies by imposing Western academic aesthetics on African research. It is for similar reasons that Raul Roman (2004) has questioned the atheoretical nature of ICT4D literature while considering the tradition of grand theories (Peet and Hartwick 1999). The lack of theory in the literature bodes a question: what is the point of the literature? If it is to present scientific inquiry into phenomena in order to build upon a body of literature, then surely the citation and implementation of theories would abound in the literature. If the goal, instead, is to demonstrate how technologies could "leapfrog" past societal limitations (Davidson et al. 2000; Steinmueller 2001), theories are not necessarily required.

Both political and infrastructural limitations hinder sub-Saharan Africa from being part of the media studies canon of democratization. As Harrison (2002, 84–86) explains, the lack of privatization and liberalization of media and telecommunications has hindered countries from development. He explains that in countries such as Togo and Mozambique, the privatization of media in postcolonial nations is not leading toward democracy. Mass media alone cannot democratize a people if the threats of countering the status quo are so viable that fear controls the populace.

The Public Sphere and Democratization Through ICT4D

Habermas's public sphere (1989 [1962], 1992) seldom appears in the ICT4D literature, although the notion of democratization in Africa is nearly ubiquitous. It is surprising because technology has been considered a gateway toward a "global public sphere." Sonia Livingstone and Peter Lunt (1994) have discussed this in terms of talk shows, and Colin Sparks (1998) has theorized on this in regard to new ICTs. Although both Nancy Fraser (1992) and Craig Calhoun (1992) have gained notoriety for their respective critiques of Habermas, the public sphere reappears in academic rhetoric because it offers a means for citizens to contribute to their governments.[2] Whereas Habermas's original model of the rational public sphere fetishized the French salons of the early nineteenth century, one can draw similar conclusions about the efficacy of mobile telephony in sub-Saharan Africa. The end goal is that rational debate will lead to political deliberation (Calhoun 1992).

To make critical debate rational, Habermas presupposes both education and literacy (Fraser 1992). ICTs in developing nations are positioned as communications tools or education ones. The literature often overlooks *why* literacy and education are vital. The more educated one is, the better one's decision-

2. More global applications for the public sphere exist in an anthology edited by Crossley and Roberts (2004).

making skills should be. Education has been a hallmark of social uplift in modernity. ICT4D could allow a freer flow of information that could lead to better education. The possibility exists for African telecenters to become sub-Saharan versions of the French salons about which Habermas was nostalgic. Literacy and education become the nexus to social uplift.

Amid the hullabaloo over democratization in sub-Saharan Africa possibly through ICT4D, one must question whether this attempt is not merely an extension of academic and political imperialism. Is democracy an end goal? The majority of the scholarship on democratization is Western. Even the locally produced research like Berger (2002) is rooted in Western academia. "To develop" seems congruent with fostering capitalism and democracy (Wilson 2004). As altruistic as the benefits are for mobile telephony, the ancillary benefits for corporations and stakeholders to developing rural regions of sub-Saharan Africa are to place conduit devices in the hands of as many potential consumers as possible. Does this seem ethical?

A shortcoming to both leapfrogging technology and democratizing developing nations through new ICTs is that development strides are large and exclude the small steps necessary for adoption (Steinmueller 2001). In the case of diffusion theory (Roman 2003), although it can be difficult enough to garner early adopters to new technologies or products, in the case of ICT4D, skipping over many taken-for-granted aspects of Western industrialization from the West do not apply in developing nations. The majority of personal mass media people in sub-Saharan Africa own are radios and televisions. The lack of both landline telephone and Internet density has been documented. Adding new ICTs such as mobile phones potentially creates capitalistic tendencies. "Critical junctures" along the way involving literacy and growing education are skipped. The ICT in everyday life literature has documented some difficulties in solidifying the elderly to adopt mobile phones. If adoption of new ICTs is not uniform even in the West, are such lofty goals for developing nations a bit overzealous?

Conclusion

What should be done? First off, the aforementioned global ICT4D summit needs to be created to solidify the direction of ICT4D research. Someone needs to step to the forefront of the field. Someone needs to be bold and create some grand theories of ICT4D. I envision something like Anthony Giddens's *The Consequences of Modernity* (1990). There must be a personal motivation behind the research. The field needs a Beethoven, a Michael Jordan, or a Leonardo Da Vinci. Someone needs to become the shepherd for the lost sheep of ICT4D literature. Such a landmark work would give direction to the field. Coupled with an academic global consciousness that change is necessary and a truer multidisciplinary approach, steps may then move forward to improving ICT4D literature. ■

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