CIVIC ENGAGEMENT, INFORMATION TECHNOLOGY, & GLOBAL CONTEXTS

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Civic engagement is an important focus of professional communication—*Technical Communication Quarterly*, 2004 issue on civic engagement (Dubinsky & Carpenter, 2004). In academic contexts, civic engagement often occurs through local university-community partnerships (Barton & Evans, 2003; Blythe, 2004; Clark, 2004; Dubinsky, 2002; Henson & Sutliff, 1998; Huckin, 1997; Scott, 2004). However, professional work environments are increasingly globalized.

Professional communication occurs in ever-more international and intercultural contexts, and is often facilitated by information and communication technologies (ICT). Global partnerships offer real-world environments for professional communication students to

learn complex communication skills (Harrington, 2010; Goby, 2007; Starke-Meyerring, Duin, & Palvetzian, 2007). To prepare the next generation of professional communicators for the increasingly global, interconnected workplace, academics should seek civic engagement opportunities within not only local contexts, but global as well.

Information and communication technology for development (ICTD) offers civic engagement opportunities that incorporate traditional focuses of professional communication (e.g., analyzing audiences, conveying technical information) with recent issues affecting our field, such as virtual teams, distributed work, computer-mediated communication, and cross-organizational communication. ICTD involves using ICTs such as computers and mobile phones as central components of efforts to improve the wellbeing of people in resource-constrained communities, particularly within developing nations (Brewer et al., 2005). ICTD research involves disciplines such as computer science, information science, anthropology, human-computer interaction, geography, development studies, health informatics, and others. ICTD projects often involve using ICTs to communicate technical information (e.g., agricultural procedures or healthcare information) to local stakeholders.

Thus, ICTD involves challenges familiar to professional communicators—accurately identifying stakeholders' information needs, creating culturally and rhetorically effective information products, and selecting media and formats appropriate for the message, purpose, and audience—complicated by cross-cultural contexts. ICTD is a natural fit for professional communicators seeking global contexts for civic en-

gagement, but it has yet to be widely pursued by professional communication scholars. Therefore, this paper calls for professional communication scholars to contribute to multidisciplinary ICTD research and to facilitate student participation.

ICTD is a multidisciplinary, multicultural, often multilingual research area with inherently broad power disparities among stakeholders. Therefore, ICTD research abounds with complexity and controversy, particularly regarding the definition of development and the role of technology in development. In defining development, some scholars emphasize empowerment, others economic benefit (Gomez, Baron, & Fiore-Silfvast, 2012); some emphasize agency, others wellbeing (Ratan & Bailur, 2007). Debates regarding technology include open source versus commercial software (Sahraoui, 2009), customized versus standardized technologies (Gurumurthy, 2010; Ciaghi & Villafiorita, 2012), and, most importantly, technology's role in development impact (Toyama, 2011). These complexities inherent to ICTD make for rich learning environments for students, who must learn to balance conflicting, equally important viewpoints in the workplace (Davenport, 1997) and to design meaningful, appropriate messages across cultures.

But facilitating ICTD research opportunities for students can be challenging. For example, it can be difficult for faculty members to forge the range of necessary relationships with stakeholders such as intended beneficiaries, funding agencies, approval-granting bodies such as government organizations, and partner organizations such as nonprofit groups. In addition, IRB processes are incongru-

ent with generating locally envisioned, partnership-driven research (Bakardjieva, Feenber, & Goldie, 2004).

However, there are a few approaches to facilitating student research opportunities that can mitigate some of these challenges (e.g., partnering with a nonprofit organization that has already developed long-term relationships with local stakeholders and identified ICTD-relevant needs). Nonprofit organizations often welcome the affordable expertise of a technology-savvy graduate student seeking summer research, and, although paid internships with nonprofit organizations are rare, larger organizations can often offer free in-country housing and transportation. Another approach to mitigating the challenges of facilitating students in conducting ICTD research is to point students to formal internships with organizations such as Microsoft Research's Technology for Emerging Markets research group.

ICTD research offers a wealth of benefits to faculty members as well, enriching classroom teaching and facilitating cross-disciplinary publications. For example, when teaching about writing and designing for complex user groups, I describe the challenges of designing a health information system to be used by

- 1. a nonprofit organization in the US to raise funds for health-care,
- 2. healthcare workers in rural Sub-Saharan Africa to enter data, and
- 3. Ministry of Health officials to inform national budget decisions (Walton & DeRenzi, 2009).

These users spoke different languages, had different short-term goals, and had different cultural communication practices, but all had to share the same information system. Describing this research in the classroom not only facilitates useful discussions, but broadens students' picture of our field.

Beyond the classroom, ICTD offers researchers a growing range of publication opportunities. Academic journals, such as *Information Technologies and International Development*, and conferences provide venues for publishing ICTD work by researchers across disciplines. In a February 8, 2010, blog entry, leading ICTD scholar Richard Heeks reported a nearly 2,000% increase in ICTD research from 1999 to 2008 (2010). ICTD publications have increased significantly in the last decade, producing 33 journal articles in 1999 and 182 journal articles in 2009 (Heeks, 2010).

Professional communication increasingly occurs in global contexts facilitated by information technology, and professional communication scholars have argued that we have an obligation to use our skills for public good through civic engagement (Bowdon, 2004). ICTD offers professional communication scholars a meaningful, important, and relevant opportunity for civic engagement in a global context.

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