

## Chapter 5

# The Mirror Meta-Principle: Creating the Context for Culturally Sustainable Development Informatics

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### ABSTRACT

*Since the conclusion of World War II, efforts to develop the so-called Third World have taken a variety of paths. In light of the multiplicity of competing theoretical lenses – modernization, post-structuralism, and dependency, to name just a few theories – the field of development is in a state of confusion. Consequently, it has been difficult for development informatics specialists to understand how best to harness the power of Information Communications Technology (ICT), as there is no clear goal in sight which ICT is supposed to be supporting. The following chapter provides a brief historical overview of the field of development, with a special interest in the role technology has been understood to play in this context. A discussion of relevant scholarship points to the dual notions that the next wave of development informatics work will prize attention to cultural particularities, and as such, will necessitate a degree of participative technology design. By extension, a dynamic relationship between power and knowledge is affirmed, in line with scholars such as Schech (2002). Various strands of thought are ultimately synthesized into what is termed the mirror meta-principle, which stresses that culturally sustainable development informatics requires ICT to be participatively designed so as to support developing societies' economic and socio-cultural well-being and congruently "mirror" the economic and socio-cultural exigencies and traditions of developing societies. In this paradigm, the economic and socio-cultural patterns embedded into ICT need not be in line, or need to be moved into line, with the traditional Western ideology of modernization. With Heeks (1999), it is asserted that development informatics specialists' approach to the participatory process must remain grounded in real conditions.*

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## **INTRODUCTION: DEVELOPMENT AND INFORMATION COMMUNICATIONS TECHNOLOGY**

Deep socio-cultural contextualization of the theories and practices of development informatics has often proved elusive. One does not need to look far to understand the reason for this: the mother traditions of information science (IS) were computer science and management. In turn, the majority of IS research has been conducted in a positivist fashion and encouraged to adopt a myopically technological focus at times (Rose, 1998). While these practices have produced some very fine research, this does not negate the fact that more socio-culturally interpretive and historically grounded methodologies have frequently been ignored. The focus on pure technology “for technology’s sake” has led to a lack of understanding as to the practical and theoretical implications of Information Communication Technology (ICT) within broader society. This situation is problematic enough when one is simply attempting to study and work with ICTs within their socio-cultural – mainly Western – milieu of origin. As the field of development informatics can attest, it becomes vastly more complicated when one is dealing with a “technology transplant,” wherein someone or some group of persons is attempting to funnel ICTs into an impoverished society in which the use, and perhaps even the idea, of ICTs are decidedly foreign.

The core question is, therefore: What intellectual underpinnings can help us create the potential for culturally sustainable ICT use in the developing world? Conventional advice would lead us to believe that success in this endeavor is tied to the fulfillment of two common sense conditions. First, the ICT systems must be economically and technologically self-supporting. The presence of ICT should be a sovereign tool which encourages independent agency, and not engender greater dependence on the source of those ICTs. Second, the ICTs must be in synch with the cultural context of

the use community which is attempting to adopt them. This means that there is not a breakdown between technology design and actualization, in which the introduction of ICT creates dissonance between the developing society’s cultural norms and those of the environment in which the ICT was created (Heeks, 2002). Once these two conditions are satisfied, the potential exists for technology use to become a routine, embedded social practice. And such social practices may evolve into stable institutionalized features of life – in other words, they may become social norms – should they spread through space and time (Rose, 1998). It is this successful transformation of ICT from exotica to norm that intrigues many practitioners and academics in fields as disparate as information science, sociology, anthropology, and public policy, to name just a few.

The problem with the commonly accepted development informatics mantra – solve all the issues surrounding material logistics, culturally harmonize the innovation, and ‘off things should go’ – is not the advice per se, but the fact that it is often book-ended with assumptions of Westernization. The goal, more or less, has been to remake the entire world into the First World – which, like it or not, is basically the Western world. Problematically, this requires most developing territories to be either converted or coerced into behaving like the West, as opposed to adapting Western methodologies to their socio-cultural constraints. The exchange of explicit for implicit colonization is, unsurprisingly, often resisted strenuously, and comprises one of the factors contributing to the many failed decades of development. Even the greatest advocates of “development” have found it impossible to paper over the conflict. By 1990 the World Bank argued that,

*“The postindependence development efforts failed because the strategy was misconceived. Governments made a dash for ‘modernization,’ copying, but not adapting, Western models. The result was poorly designed public investments in industry;*

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