

# Chapter 91

## Shifting Focus from Access to Impact: Can Computers Alleviate Poverty?

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### ABSTRACT

*This chapter contains two main messages: First, the concept of the 'digital divide' should be seen as part of the problem rather than as part of the solution. Therefore, the sooner this concept-and with it the binary categories and the 'one size fits all' simplified model of 'development'-is discarded the better. Second, the main recommendation for strategies to be adopted in ICT4D projects is that focus should be on the information and communication needs of poor people rather than on technologies; beneficiaries should be actively involved in identification of their needs, in decision making about ways and means to satisfy the identified needs, about purchase of equipment and inputs and about implementation of solutions. Only by actively pursuing participatory design and participatory 'development' can the goal of achieving a free, fair and equal 'information society,' benefitting poor and rich people alike, be reached.*

### INTRODUCTION

For more than fifteen years the discourse on information and communication technologies for 'development' has been ongoing. As part of this discourse the contested concept of the 'digital divide' and the associated binary categories of the 'information rich' versus the 'information

poor', and the 'knows' versus the 'know-nots' have been used to describe the difference in terms of availability of information and communication technologies between rich and poor countries. The discourse has been accompanied by a large number of development initiatives by multilateral, bilateral and non-governmental organisations alike. These initiatives have been focusing upon providing access to information and communica-

DOI: 10.4018/978-1-4666-1852-7.ch091

tion technologies, mainly in the form of computers and Internet connection, to poor people in poor countries. The question arising is to which extent these many initiatives have brought about 'development' in the form of a positive change of livelihood for the poor people involved.

Attempts to measure the 'digital divide' draw upon the concepts of 'universal service', used to measure availability in rich countries and 'universal access', a more realistically achievable goal in poor countries. These concepts have for many years been used by the telecommunications industry to measure the penetration level of telephone services and attempts have been made to adapt the concepts to also include other information and communication technology services. The indicators used for measuring service and access have mainly been per capita stock or penetration levels of different types of technologies, such as telephones, computers and Internet hosts and users. But after fifteen or more years of many initiatives and meager results it has become increasingly clear that there is a need to move beyond measuring availability and accessibility, to measuring usage and, more importantly, to measuring impact, a challenge which development researchers and practitioners alike have been struggling with for many years.

The two main questions discussed in this chapter are the following:

- To which extent is the concept of the 'digital divide' part of the solution or part of the problem?
- What strategies should be adopted to achieve the ultimate goal: A free, fair and equal global 'Information Society', benefiting poor and rich people alike?

The first section of the chapter is this overview, presenting the main questions and giving a chapter overview. The second section of the chapter sets out with a discussion of the concept of the 'digital divide' and a presentation of different methods of

calculating the divide, as well as a discussion of trends. The origins of the concept are explored, followed by a discussion of the 'power divide', i.e. the global power imbalance between rich and poor countries.

In the third section the two concepts of universal service and universal access are presented, together with the three main criteria underlying these concepts: availability, accessibility and affordability, and a model of telecommunication network development. The fourth section discusses the criteria of accessibility in more detail. From accessibility the discussion moves to the concept of usage, including a discussion of usage indicators and usage studies. Also, the concept of impact and of how to measure the socio-economic 'developmental' impact of initiatives within the area of information and communication technologies for 'development' in a meaningful way are discussed.

The fifth section describes the results of a small pilot study on access, usage and impact of information and communication technologies carried out in the small district town of Sengerema in the north western part of Tanzania, where a so called Multipurpose Community Telecentre with computers and Internet access was established in December 2000 and where mobile telephony is widespread. The study was carried out in an attempt to answer the question: Has the high rate of deployment of information and communication technologies in Sengerema town led to related 'development'?

Finally, the sixth and last section attempts to answer the two main questions: Firstly, the concept of the 'digital divide' should be seen as part of the problem rather than as part of the solution. Therefore, the sooner this concept - and with it the binary categories and the 'one size fits all' simplified model of 'development' - is discarded the better. Secondly, the main recommendation for strategies to be adopted is that focus should be on the information and communication needs of poor people; they should be actively involved

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