

## Chapter 7.1

# 500 Million Missing Web Sites: Amartya Sen's Capabilities Approach and Measures of Technological Deprivation in Developing Countries

**William Wresch**

*University of Wisconsin Oshkosh, USA*

### ABSTRACT

This chapter examines well-known technological shortages in developing countries in the context of Amartya Sen's capabilities approach. The significant consequences of these shortages include reduced access to necessary professional information, limited production of local cultural information, and the general invisibility of the developing world. The moral situation created by these shortages is reviewed using Sen's analyses. Three practical responses are also examined. By reviewing one vehicle for information transfer—the Web site—the author hopes to highlight the importance of this vehicle and to present reasonably simple responses to current shortcomings.

Amartya Sen's insights have directed much of the world's development efforts during the past two decades. He has greatly influenced the World Bank and the International Monetary Fund and

other international bodies. But the one place where his approaches may have the most lasting impact is in the annual reports of the United Nations Development Programme (UNDP). Their *Human Development Report* presents numeric indices for a variety of human conditions, such as life expectancy, adult literacy, school enrollment and gross domestic product per capita. Sen has had two continuing influences on these annual reports. The first was to help summarize a variety of factors into a Human Development Index (HDI). The second was to constantly question what factors should be included in the HDI and in the larger annual report.

Sen's initial influence, the HDI summary, was created even though he is quick to admit that no number could possibly represent all the economic, social, educational, and cultural activity in a nation. Yet the HDI represents a significant improvement over the traditional way of evaluating a country—gross domestic product. In comments

published in the 1999 *HDR*, Amartya Sen traces the history of the conflict between the HDI and the GDP numbers and explains how much more useful the HDI is in understanding the real capabilities of a nation. Describing GDP numbers as “overused and oversold”, he strongly advocates for the HDI as a means to “broaden substantially the empirical attention that assessment of development processes receives” (Sen, 1999, p. 23). His indices on longevity, education, and income provide a much more comprehensive view of the real lives of people and their opportunities, than does a simple statement of national income.

Sen’s second influence has been to never be completely comfortable with the measures of nations. While the HDI broadens our discussion of human development, Sen encourages continuing discussion of what factors should be included—and changed over time. He notes, “many disparate failings and shortcomings need attention. And, furthermore, the world itself is changing even as we look at it and report on it. It is this diverse and dynamic reality on which the enterprise of human development has to concentrate” (Sen, 2000, p. 23). He calls for the creation of and ready discussion of additional means of evaluating the status of people’s lives. There is humility in his work that readers must find refreshing. Having designed one of the first truly new measures of the human condition, he has barely presented it when he openly calls for critiques and additions.

The purpose of this chapter is to present an emerging measure of the human condition, and then to describe possible responses—responses at least partially informed by Sen’s writings. The emerging measure?—Access to and development of Web sites. This chapter will review Web sites from two perspectives: first, their general use in development efforts, and second, their existence as a cultural phenomenon. The chapter will show that while the development of the World Wide Web has had a mixture of successes and failures in assisting economic development, the Web has

been a significant failure as a cultural enabling technology. Yet these current shortcomings need not go unaddressed. Sen has written extensively on global cultural exchanges and has much to suggest as remedies for the current situation.

## GLOBAL TECHNOLOGY STATISTICS

First, a quick review of global technology statistics. The *Human Development Report* has been a consistent voice of encouragement in the use of information and communications technologies (ICTs) in development. In the same report that included Sen’s comments on the HDI, the 1999 *Human Development Report* also contained a chapter on the impact of technology on human development. Many comments from the chapter are now commonplaces such as “Bringing together computers and communications unleashed an unprecedented explosion of ways to communicate” (*HDR*, 1999, p. 57), and “the Internet is the fastest-growing tool of communication ever” (p. 58). The report then lists the usual hopes for connectivity—distance learning will bring information to poor hospitals, NGOs can supply information across borders and make links to supporters, small businesses will find new markets, countries can build businesses around telecommunications jobs, and censorship will become more difficult. Such lists are now familiar to those who work in development and technology.

Given the value they see for ICTs in development, it is no surprise that a count of Internet access rates is now included in each annual report. Unfortunately, these counts show that there is still much ground to be made up if ICTs are to fulfill their potential. For instance, Table 1 displays access rates for a variety of developing nations.

Clearly huge differences in Internet access rates exist between countries. Some developing countries are providing reasonable access rates. But for the poorest of the poor, the countries most

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