

Disconnected: Haves and Have-Nots in the Information Age

by William Wresch
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As we rush headlong into the presumed technological future that promises instant access to information, global connectivity, and seamless integration of electronic media, it's important to realize that, just like any other technology, these new gadgets are just "tools." And tools can only be used for certain things and under certain circumstances. So, for example, if someone does not have the know-how or land or materials or permit to build a house, all the hammers in the world will be of no use. Likewise, there are much deeper and more difficult problems to solve as we usher in the Information Age than installing enough satellite dishes and stringing enough fiber-optic cable. The impediments tethering the Information Age are not technological, but rather the same old economic, political, social, and cultural issues that humanity has been wrestling with for thousands of years. We are still dealing with tyranny, inequality, and illiteracy, among other things. In the words of William Wresch in his book *Disconnected: Haves and Have-Nets in the Information Age*, "We have met the enemy, and they are us."

Readers that are fascinated by technology and expect to be pick up this book and read about it may be somewhat disappointed initially. As noted above, this book deals with much more difficult and persistent world problems than moving bits at blazing speeds. However, initial reader disappointment

should give way to keen interest as the author provides an eloquent and sobering depiction of what the disenfranchised or "disconnected" members of the world's population can expect from the Information Age. Unfortunately, the short answer is that they can expect "more of the same"—or "more of less than the same" might be more accurate.

Many of Wresch's insights for this book surfaced during the year 1993-1994 which he spent teaching computer science at Namibia University. Many of his stories are taken from the things he saw in Africa, or read about while there. The implications of the Information Age for the illiterate and poor of Africa will be played out in similar places elsewhere around the globe, and we would be wise to listen to what Wresch's experiences and observations tell us.

Wresch's book logically addresses Information Age problems by separately examining the three aspects of information when viewed as "communication," i.e., source, transmission, and reception. Each of these three areas has impediments to information flow that have little to do with technology.

The first several chapters define what information is, how much of it there is, and just where it comes from. As we all know, information can take many forms—a trip to the local library will verify that. While many people view information as a "thing," Wresch prefers to treat it as an expression

of the source. That is, the creators of information decide what information will exist, what form it will take, how much there will be, and, in some cases, how it can be transmitted and who will have access to it.

Five general sources of information are examined in this book: public (library type), personal/cultural, organizational, professional, and commercial. In the public arena, information sources are constrained, one-sided, and meager. Most information flows one-way from America to the rest of the world, and even outside of the U.S. a few voices do all of the talking. Those who are blessed with access to adequate personal information sources don't even think about them as much of an asset, but those without contacts are left disconnected and they can't just go down to the personal information library and get them. Information flowing from organizations (public and private) is constrained by image, market share, and privilege, where the amounts of information and its truthfulness vary widely. Professional information, particularly scientific, depends upon where professionals look for information, where they don't look, and who funds the search. Finally, there's no doubt that information has important commercial value, but at what price will information be available? To whom? And for what purposes (e.g., libraries as free public access)?

Assuming that all these information sources are available to us, there may still be problems accessing the information. This is the information transmission component of communication. Wresch cites three fundamental problems here: (1) information exiles, (2) tyranny, and (3) information criminals. Geographic isolation, illiteracy, language barriers, and subsistence economics keep much of the world's population exiled from the information mainland. The gaps that exist between the haves and have-nots in every other aspect of human existence are wide and will continue to widen; it will be the same for the Information Age, except that global dependence on information and the technological pace will exacerbate and widen the gap at a much higher rate.

Second, regardless of how smooth and fast our information highway might be, there are many places around the world where citizens are not licensed to operate on it. For a variety of reasons, governments, societies, and cultures limit what information their

people can gain access to. It's the Information Age version of book burning.

Third, information fraud, privacy, and theft in the Information Age make us much more vulnerable because of the tremendous amounts of information about us that are now readily accessible. As more commercial activities are conducted electronically, the temptations and rewards for criminal behavior will increase.

In the final section of the book, Wresch considers what we do with all this information when it reaches us. We are information processors, but how good are we? Amounts and quality of education vary dramatically around the globe. In fact, most of the world's populace would be hard pressed to communicate with the rest of their country--much less the rest of the world--even if they had the technology to do so. Because literacy is just that scarce, widely broadcast information would fall on effectively deaf ears. But each information recipient is also a human being, and therefore possesses psychological limitations even in the presence of high literacy. We filter out information that we are culturally ignorant of and we think in patterns that are consistent with group affinities. In other cases, we act just plain stupidly by ignoring important information. Finally, information reaching the recipient contains noise. Much of the information can be incorrect, important information is often difficult to sift from the chaff, and the bandwidth seems to be filled with the trivial and inane, or just plain noise. A great deal of information processing work needs to be done at this level just to make sense of it all.

There is little to find wrong with this book. Nevertheless, there are three aspects of the presentation of the material that I experienced some problems with. First, toward the later third of the book especially, frequent and lengthy digressions into Africa's political history were difficult to follow at times, owing to their complexity and my general level of ignorance in this area. Second, I also had occasional difficulty understanding the author's sarcasm regarding various political events, probably for the above reasons and also because sarcasm does not always come across well in the printed medium. Third, the last

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chapter of the book contains “Solutions: Reasons for Hope,” but is only 17 pages long. As a concerned technologist, I wistfully anticipated a little more. I personally wish that the author could have found more examples of and reasons for there to be hope and for solutions to the problems encountered in the rest of the book.

I recommend this book to anyone with an interest in social and political influences on technology, or with technology’s impact on social/political systems. The author brings a multidisciplinary breadth of knowledge to bear on the issues of humanity and the Information Age. A large number of stories and statistics support Wresch’s statements on every topic.

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The book follows a logical taxonomy of topic, subtopic, and sub-subtopics (unfortunately, this is not displayed in depth in the scant table of contents). In particular, I found the chapter summaries to be very effective at tying together all the sundry points introduced in the previous pages.

There is one simple example appearing in this book that succinctly summarizes the extensive problems facing the Information Age, and that will remain with me for a long time. It is this: Just think about how many phone conversations you’ve already been engaged in just *today*. Then recall that the telephone is an early 20th century technology and compare our current level of technology familiarity to the fact the more than half of the people in the world today have yet to make their first phone call *ever*. Yes, there’s a tremendous technology gap between the haves and have-nets, but it’s technology that survival and subsistence economics won’t support, that governments won’t permit, that illiterate cultures can’t embrace, and that isolated peoples can’t access. The following book excerpt encapsulates this plight.

If we are in a new age, this is an age that is still connected to the old age and still has many of its flaws. Yes, technology is producing some benefits and some freedoms. We know that the threat of satellite dishes was enough to scare South Africa into

creating a television network. Unfortunately, we also know the threat of satellite dishes has been enough to cause governments across the Middle East to ban their use. We know libraries across the world are now accessible electronically. We also know books around the world are still being burned. We know that at this moment hundreds of gigabytes of information are being bounced from satellite to satellite across the sky. We also know that many of those gigabytes are lies. We know that some children can learn about the world by linking their classroom to thousands across the world. Other children wait for their classrooms to get a roof, a light bulb, a qualified teacher.

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