

Bridging the Global Digital Divide by Jeffrey James. Cheltenham: Edward Elgar, 2003. Pp. xvi + 135.

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There are three conditions that need to be met when reading Jeffrey James' *Bridging the Global Digital Divide*:

1. You accept that the greatest problem facing developing countries is *access* to information and communications technologies (ICTs), and do not need this proven to you;
2. You believe that improving access to ICTs will unproblematically improve their (Pareto-efficient) welfare, and do not need the pros and cons of this debated;
3. You read the chapters of this book months apart, or suffer from amnesia.

If you meet all three conditions, then James' book is a good read on the condition of modernity in developing countries. If not, you will likely have issues with it.

The objective of the book is to highlight the ways in which the wide, and possibly increasing, divide between the technological endowments and capabilities of the developed and developing worlds can be overcome. James does not spend much time documenting the actual extent of this divide: it is the constitution of the bridge that matters, not its length. He approaches this with three main pillars: innovations in telecommunications, cheaper or re-used hardware, and free software.

James profiles interesting examples of interconnections between the developed and less developed worlds, including efforts to redistribute obsolete computers from the former to the latter (through Computer Aid International of the UK, and Per Scholas and Freecom, Digital Partnership and the World Computer Exchange of the US); and a project run by the US NGO Volunteers in Technical Assistance (VITA), using a satellite for email and other communications in developing countries. Moreover, he reproduces a charming story of the difficulties faced by Indian developers of CorDECT (a wireless local loop (digital telephone exchange) product that was significantly cheaper and more suitable than imported competing products), in getting the product accepted as competitive within India. This interest in institutional responses and systems of innovation is unfortunately short-lived. James' discussion of the 'path dependency' created by cycles of software-hardware-software upgrades is also useful, though in this case it is a 'problem' for the West and an 'opportunity' for developing countries, if the obsolete-but-functional machines can be redistributed.

James firmly believes that open-source software holds the key to bridging the global digital divide, since this free software not only saves the prohibitive costs of proprietary software such as Microsoft's Windows and Office (which in many countries leads to very high piracy rates), but also can extend the life of equipment rendered obsolete by upgrades to Microsoft's products. In James' view, these software and hardware initiatives can be partnered with innovations in telecommunications (such as the CorDECT project and VITA's satellite system) that better match the needs of developing countries, and possibly provide a source of export income for them. James does not seem to recognise that providing a reliable supply of electricity is a vital and problematic first step, let alone other infrastructural requirements such as technicians to install and maintain software and hardware. The focus here is on technology pieces, not technological systems.

Bridging the Global Digital Divide packages together eight previously (and recently) published papers in a variety of journals: *Third World Quarterly*, *Regional Studies*, *International Journal of Development Issues*, *Journal of Information Science*, *International Journal of Technology Management*, *Habitat International*, and *Futures*, mostly in 2001 and 2002. James adds a very short introduction (Chapter 0), a theoretical chapter on technological convergence and “catchup theory”, which draws heavily on Abramovitz (1989) (Ch. 1) and a review of the United Nations Development Programme 2001 Human Development Report (Ch. 10). Treated separately, and with the required level of amnesia or time-distance, these are interesting, if not authoritative, pieces of work. It is the packaging of these pieces into a monograph that causes the problem in my view.

There *could* be definite value in drawing together disparate writings on this theme, particularly given the range of journals in which chapters 2 to 9 inclusive were published. Could, that is, if the writer or editor had made greater effort in producing some form of synthesis: making links between chapters where obvious overlaps exist; or making judicious cuts to tighten the discussion. There is little evidence of this here, unfortunately, and in many places the editing standard is poor (including one heading spelled “International Tecnological Dualism”, itself a repeated heading from the previous opposing page, which contained the correct spelling). Furthermore, despite its recent publication date (2003), much of the material feels quite dated, in particular the academic references and context setting. James begins his introduction with the claim that ‘few subjects currently attract more attention in international policy-making circles than the global digital divide’ (p. ix); and in the beginning of chapter 5, quotes Keegan (2000, from *The Guardian*) as declaring: ‘The single pervasive theme of the 21st century has already been decided. It is the Digital Divide and whether it can be bridged’ (p. 58). This may turn out to be the case in the longer term, but it is a little surprising that these bald statements are not at least a little tempered by the focus on security and terrorism that followed the events of September 11, 2001 (c.f. Yu, 2002). Presumably this reflects the earlier publication dates of the book’s constituent parts.

Despite its 11 chapters the book is short, at 142 pages (including the index). I have nothing against short books: like over-long films, there are parts of many 300-page-plus volumes I wish had stayed on the editor’s floor. However, with *Bridging the Global Digital Divide* there are many places I looked for fuller explanations or connections between chapters. At the same time the book is far too long, as there is excessive duplication. Chapter 3, for example, is entirely reproduced from an article published in the *Third World Quarterly* in 2001, which was itself largely reproduced from a *Journal of Information Science* article also from 2001. Perhaps half of the material in Chapter 3 is repeated – much of it word for word, including whole quotes – in Chapter 4, and some of it again in Chapters 5, 7 and 10, without any acknowledgement of the repetition. Stories of low-cost computing projects in India (the “Simputer”) and Brazil (“Volkscomputer”), are interesting, but the “Simputer” is introduced, as if the reader is unaware of its existence, six times in six chapters spanning a mere 80 pages. I like recursive stories, where themes are developed gradually through interweaved story lines, as much as anyone – but little of this repetition develops the concepts any further.

The theoretical thrust of the book, such as there is, is outlined in Chapters 1 and 2. Here the argument goes that innovations from developed countries are generally not suitable for developing countries, as the emphasis is on ‘sophisticated products, large markets, sophisticated production methods requiring large inputs of capital and high levels of skill and management while saving labour and raw materials’ (p. 19). Furthermore, research and development initiatives in developing countries are often not suited for the countries in which they are based, as scientists pitch their efforts at the interests of the developed world (to gain a larger market, or to improve their opportunities for collaboration and career advancement

elsewhere). While developing countries may not converge on the technological capabilities of advanced countries as easily as trade theories in economics might postulate, and thus a “technological dualism” may exist between rich and poor countries, they are not bound to a fate of endless underdevelopment either (although James does not explore the examples of the ‘newly industrialised’ countries of Taiwan, South Korea, Malaysia and so on).

Throughout the following chapters are examples of low-cost, small-scale initiatives based in a limited (but frequently repeated) group of countries such as India, Brazil, Mexico and Tanzania. It is rather odd, then, that the last chapter, a “review” of the United Nations Development Programme’s *2001 Human Development Report*, states that the report ‘by focusing almost entirely on innovations originating in and for a small group of developing countries ... neglects the wide range of alternatives that emanate instead from the developed countries ... [which] provides policy-makers in the Third World with only a very partial set of options [... in] overcoming the digital divide’ (p. 120). That small group of countries James criticizes the report for concentrating on includes India and Brazil, and the innovations are the very ones James has given significant attention to, in triplicate, in most of his chapters. Furthermore James laments that the UNDP report did not pay attention to the ‘*internal digital divides*’ in ‘*developed countries*’ (his emphasis), although James’ book is notable for paying only scant attention to this issue itself. This final chapter is a rather odd conclusion to the book, since it reprises the argument and examples repeated throughout the book rather than provides some broader contextualisation (for example, a comparison with the International Labour Organization’s *World Employment Report 2001: Life at work in the information economy*, which came out at the same time and highlighted gender differences which James ignores; or the World Economic Forum’s *Global Digital Divide Initiative*).

James’ *Bridging the Global Digital Divide* tackles an important topic: he is to be commended for bringing the focus of discussion on information and communication technologies to the capabilities and trajectories of developing countries. For those who have not come across his work before it might provide an “easy reading” guide to one particular approach to the topic. However, I cannot help but feel the book has missed the opportunity to do the task justice: its contribution is tempered by its poor editing, inherent duplication and lack of internal development, with the sum appearing less than its parts. A “greatest hits” collection it is not, but by highlighting the efforts being made to connect regional worlds (New York’s The Bronx with South Africa via Per Scholas and Freecom, for example), it may help foster the bridging that it unabashedly encourages.

References

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World Economic Forum: Global Digital Divide Initiative (2000-2002)
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