

Book Review:

D.G. Janelle & D.C. Hodge (eds.)

Information, Place and Cyberspace. Issues in Accessibility¹

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Since 1995, Springer Verlag has published the series 'Advances in Spatial Science', in which studies have appeared about 'Sustainable Cities and Energy Policies' (R. Capello, P. Nijkamp & G. Pepping), Geographical Information and Planning (J. Stillwell, S. Geertman & S. Openshaw, eds.) and 'Spatial Dynamics of European Integration' (H.M. Fischer & P. Nijkamp, eds.) and so forth. In 2000, the book 'Information, Place and Cyberspace. Issues in Accessibility' appeared, published by Don Janelle and David Hodge. The book was a consequence of a workshop in the context of the Varenus project and funded by the National Science Foundation, held in November 1998 in Pacific Grove (California). The theme of the conference was 'Measuring and Representing Accessibility in the Information Age'. It was sponsored by the National Center for Geographic Information and Analysis (NCGIA).

The objectives of the book are to broaden understanding of conceptual and analytical approaches to accessibility research appropriate to the information age, and to demonstrate possible contributions for geographic information science in representing the geographies of the information society. In seeking to meet these objectives, the editors and authors highlight significant linkages among information resources, traditional places, and cyberspace, and focus on expanding models of space (and time) that encompass both the physical and virtual worlds.

¹ Janelle, D.G. and D.C. Hodge (eds.)
Information, Place and Cyberspace. Issues in Accessibility
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376 p.

The book is structured in four parts. Part I explores the conceptualization and measurement of accessibility. Part II focuses on the visualization and representation of information space within Geographic Information Systems (GIS) and other computerized display systems. Part III considers the social issues that should inform the measurement and representation of accessibility. Part IV consists of a concluding chapter, written by Helen Couclelis. In total, the book consists of 20 chapters, in general of a high quality.

Two types of accessibility

Several authors point out that in the information age two sorts of accessibility are found together: accessibility of *place* and accessibility of *people*. Forer & Huisman (p. 75): "... two geographies of access emerge within any individual's schedule. One is a geography based on the (internally aspatial) activity sequences of web-based contacts (within which time is the significant dimension to juggle), and the other is based on the needs of the physical presence activities. Of course, these two geographies intermesh, and over time the nature and interaction of both is changing as technology changes access to, and capabilities of the Web".

Couclelis describes *accessibility* as *the geographic definition of opportunity* (p. 341). Batty & Miller argue that the worlds of atoms and bits have to be combined and that place and non-place together form (hybrid) space. This nexus of hybrid space represents the appropriate focus for a new geography in the information age.

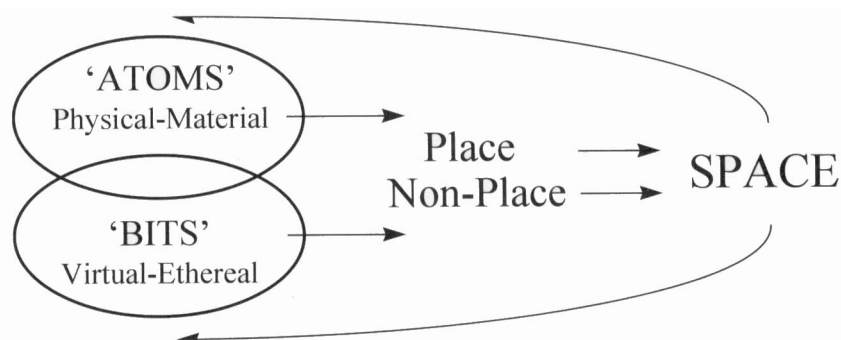


Figure 1. *Geographic abstraction of physical, virtual and hybrid worlds*

Distributed throughout the book, various authors present relevant empirical information about the geographical distribution of ICT applications, the Internet user, and use of the Internet. The pace at which Internet and ICT applications now penetrate society and the behaviour of citizens and companies is in any case apparent.

Metropolitan bias of Internet use

Moss & Townsend find that a limited number of cities and metropolitan areas dominate the rapidly emerging telecommunications landscape of the USA. Their findings are in direct contrast with the predictions of Toffler (1980) and Negroponte (1995), who foresaw a radical decentralization of population and economic activity as a result of ICT applications. What is also striking is that to some extent the geography determines the course of the ICT infrastructure. So, in the ICT infrastructure we encounter an unmistakable hub function in

Atlanta, Chicago and Dallas. Moss & Townsend conclude: “Just as the Interstate Highway System transformed urban development in 20th century America, the Internet will help shape urban activity patterns in the 21st century”.

Internet and the home

The impression given is that in the information age the function of the home will change markedly. None of the authors takes up the issue explicitly. Sui (p. 116) does however report that several national surveys have confirmed that for the first time there are more people (36 million) accessing the Net from home than from work (26 million). These data are in accordance with the data on Canada presented by Harvey and Macnab.

Internet user and Internet use

The Internet user profile shifted in the USA between 1994 and 1997 towards older age categories, towards women, towards households with a somewhat lower income, and towards the less highly educated. Nevertheless, Internet use is still a selective activity where young, rich, well educated men dominate the scene.

Fragmentation of activities

The theme of the book is fairly obvious and we may expect more publications, dealing with the changing meaning of space as a result of the large-scale access to new information and communication technologies. Certainly, a strategic research and policy issue is at stake here. Janelle & Hodge announce (p. 9): “A hybrid blend of physical and virtual space may now constitute the new geography of the information age”. The editors and authors are searching for a new meaning for space and access through which a new paradigm for spatial sciences could be created.

Couclelis states that a profound reorganization of activity patterns is taking place on all scale levels, so that the net number of interactions that involve physical movement rather than electronic contact appears to be increasing rather than decreasing. She explains a large part of this phenomenon, arguing that a *fragmentation of activity* is taking place, by describing how activities that used to be associated with a single location (the workplace, for example), are now increasingly scattered among geographically distant locations (the office, home, associate's home, hotel room, car, train, or plane). The contact set of individuals, the number of places with which they interact, explodes per activity from one location to a potentially indefinite number of locations.

Adaptability instead of accessibility

The authors are certainly not all looking in the same direction. Sui provides a wayward contribution in which he advocates that *adaptability*, not *accessibility* should be chosen as the central theme for research in the geography of the information society.

Sui (p. 108): “It would be disastrous if we continued to let accessibility dictate our research and policy agenda in the information age. Many studies have indicated that having access to unlimited amounts of information is not necessarily beneficial to an individual or an organization. In fact, information overload (having access to too much information) may be equally or more harmful than having too little information.”

Societal issues

Part III deals with Societal Issues; this part is certainly not the strongest of the book. Onsrud presents a contribution on the 'Legal Access to Geographic Information: Measuring Losses or Developing Responses?' He argues that the foundations of citizens' legal rights to access information are being undermined as we move into networked digital data environments. As a result, widespread loss of access information and works of knowledge in US society is occurring. This is something to be elaborated further; indeed, it is important to find responses before it is too late.

Hanson and Occelli each provide a new conceptualization of accessibility, without really touching on the societal issues. And Mugerauer, presenting an interesting contribution on qualitative GIS, does not really deal with societal issues either. Perhaps it is too early to take societal issues fully on board.

Power of the book

The power of the book certainly does not lie in the specification and explanation of the impact of ICTs on human behaviour, global economies, the home, the workplace, the neighbourhood, the city or the whole society. There is a clear focus on the impact of ICTs on cities, but in this respect too. the new questions are more important than the final answers. The book succeeds in persuading the reader that spatial developments and spatial planning will really change as a result of the adoption of ICTs. There will be changes in spatial sciences in general and geography in particular, as Graham & Marvin (1996) have argued earlier. The book provides the data, the questions, and the inspiration for a new research agenda for spatial sciences. There are very many books with less to offer!

References

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Negroponte, N. (1995) *Being Digital*, New York, A.A. Knopf.

Toffler, A. (1980) *The Third Wave*, New York, William Morrow & Co.