Hans-Joachim Braczyk, Gerhard Fuchs and Hans-Georg Wolf (1999) *Multimedia and Regional Economic Restructuring*, London, Routledge, 416pp., ISBN 0 415 19857 7.

I began writing this review in the same week that the UK's *Guardian* newspaper published an article on Hull and the Humber region (Wainwright, 2000) informing me that Hull will be the world's first 'digital city' with every household online through the local telecommunications provider's interactive TV system. Apparently these developments have "people murmuring 'Seattle'" as they roam the streets of Hull. While I am pleased that I will shortly be able to enjoy the delights of the US West Coast without actually having to move there, I think this article is a prime example of the kinds of hype and promise that is often held out for new technologies to transform old and declining industrial regions. This article is symptomatic of a recent explosion of concern with the implications of new technologies, both for business and the general public. From on-line shopping and banking to the rise (and fall) of dot.com companies, interest in the consequences of such technological developments has increased dramatically. There is a growing recognition that the increased utilisation of computer chips within products, computers within business and the increasingly networked nature of these developments is having, and will have, major impacts upon developed and developing economies. While this *is* a field much open to hype and overstatement, it is clear that the application of information and communication technologies will have continued impacts upon the organisation and viability of business, potentially major impacts upon the ways that goods are sold and distributed, lead to changed methods of the delivery of services by the public sector and have a dramatic impact on teaching and learning strategies. These developments have variously been described as the rise of the 'information economy', the 'networked economy' and the 'information society'.

The importance of the new technologies has also been a major concern for policymakers. In the UK, Tony Blair has expressed the government's vision for what is termed '*Our Information Age*': "information is the key to the modern age. The new age of information offers possibilities for the future…[It] offers new opportunities for greater prosperity, and a better quality of life."[1]. Similarly, the UK White Paper (DTI, 1998), *'Our Competitive Future: building the knowledge driven economy'*, has an accompanying report on the 'digital economy' which states "the Government believes that success in the digital economy - and, in particular, winning a share of the world's rapidly growing e-commerce markets - will be critical to the competitiveness of UK business in the next century"[2]. The aim in the White Paper is for one million businesses in the UK to be connected to the digital marketplace by 2002 - compared to current figures of 350,000 businesses, or 12% of the total. However, national government policy in the UK has done little of any real substance to encourage this, relying instead upon encouragement and exhortation. By comparison, non-governmental advocacy for developing the UK digital media industry has emphasised the need for more interventionist strategies (Henning, 1998). This has stressed not just the need for a national strategy to encourage the digital media sectors, but also the creation of Regional Development Advisers, Regional Creative Units and the establishment of investment funds as part of the Regional Development Agencies, with the aim of promoting the development of digital media as a prosperous economic sector. Such developments and initiatives are not confined to the UK - the European

[1] Taken from http://www.number-10.gov.uk/public/info/releases/publications/infoagefeat.html.
[2] See http://www.dti.gov.uk/comp/competitive for the text of the report and the White Paper.

Union has made an extensive series of policy statements and initiatives designed to encourage the development of a European Information Society (see for example CEC, 1994; 2000) and even the USA, widely acknowledged as the leading edge economy in these matters, has developed strategies to encourage wider use and take-up (see for example, Margherio, 1998).

Policy developments at the national scale have been replicated at the local and regional scales. Despite involving complex and contradictory debates, the emerging information society has had a substantial appeal for policymakers, particularly those in peripheral and less favoured regions. For example, amongst other things, the emerging information society is thought to offer such regions the potential to:

- enable local businesses and individuals to overcome the constraints of peripherality by gaining access to distant information sources and markets;
- provide access to specialist business services through electronic means from providers external to the region;
- improve remote access to services such as education and health care;
- improve the local democratic process by providing remote access to political decision makers;
- facilitate wider media choices and cultural pluralism;
- reduce social isolation in remote areas through electronic connections to a wider world of contacts and information.

This edited volume is therefore a timely contribution to the debate around the information society and regional development. It is based upon papers presented at the International Conference on Multimedia and Regional Economic Restructuring held in Stuttgart in 1997 and focuses upon one segment of the information society - the development of the multimedia industry. A central concern of the book is with the types of policy questions outlined above - "based on what prerequisites and requirements will regional clusters in the multimedia industry emerge and how can the emergence of such clusters be supported?" (p. 8). Definitional problems are evident throughout the book. In an introductory chapter Braczyk, Fuchs and Wolf define multimedia both as a technical artefact involving "a combination of several digital media, which are partly time-sensitive (e.g. sound or moving pictures) and partly time-insensitive (e.g. graphics or text) and which can be used interactively and in an integrative manner" (p. 7) and as a term to describe the current state of development of information and communication technologies (ICT). Given that the latter usage appears to encompass virtually any actors connected with ICT development from network providers to hardware producers to content developers, this does not seem a particularly useful definition. They then focus upon the producers of multimedia content, but even here this can include sections of publishing, broadcasting and advertising, making it difficult to formulate clear policy recommendations. As Egan and Saxenian point out in their chapter "is multimedia really an industry? It has no single unifying technology and no single market. It is neither exclusively a service nor a product and, if it moves to a network distribution model, it could very well be neither" (p. 15). For regional development such definitions are crucial given that different parts of the production system may occur in different regions.

What the book shows is that few regions can, or are likely to, match the leaders in the field. Chapters by Egan and Saxenian on the San Francisco Bay Area, Scott on Southern California, and separate chapters by Heydebrand and Pavlik, both on Silicon Alley in New York, show that the multimedia industry displays high levels of agglomeration, frequently linked to existing expertise in related sectors, such as film, hardware and software and the existence of local creative talent. Thus prior economic development appears to be a key factor in explaining success. In the US context the creation of the multimedia industry has been little influenced directly by public policy initiatives, while Brail and Gertler's study of Toronto's multimedia cluster emphasises the indirect role of government initiatives to foster Canada's cultural industries more generally.

After these chapters drawing upon the North American experience the volume turns to examining the situation in those regions where elements of multimedia cluster formation and multimedia-related activities are said to be in evidence. Two chapters focus upon Germany. Hilbert, Nordhause-Janz and Rehfeld examine the regional embeddedness of new media sectors in North Rhine-Westphalia and its focus upon the two centres of Cologne and Düsseldorf, particularly the former. They also examine the influence of the Bertelsmann Corporation based in Gütersloh and the limited role this has had in stimulating the development of other media enterprises. In the next chapter Sträter examines multimedia development in Munich. Subsequent chapters are concerned with the Internet industry in the Netherlands (Naylor), multimedia development in Sussex (Tang), and Stockholm's multimedia cluster (Sandberg). The volume then turns to examining attempts to establish multimedia clusters, often with intensive support from public agencies, in Cardiff (Cooke and Hughes), Scotland (Kinder and Molina), Stuttgart (Fuchs and Wolf) and Tampere (Schienstock, Räsänen and Kautonen). The final two chapters by Sternberg and Yun respectively, discuss largely central government efforts to develop multimedia in Japan and Singapore. In a concluding chapter the editors attempt to draw out some of the findings from this (at times eclectic) group of studies. In policy terms the evidence is not particularly encouraging "in the most successful multimedia regions, the typical role of public policy might turn out to be that of a stabiliser rather than an incubator, at least in the short term…most case studies agree that specific measures to promote multimedia have been belated and merely follow the development of relevant activities rather than acting as a proactive element" (p. 403)

All of this leaves some difficult questions for policy makers. If information and communication technologies and the multimedia sector do represent the future for regional economies then how can the benefits be captured for those areas without a history of prior economic development to build upon? The evidence presented in this volume would suggest that potential is limited. Certainly the history of attempts at intervention have had mixed results. In the UK the Highlands and Islands Telecommunications Initiative introduced ISDN capability to most of the peripheral parts of Scotland at an early stage, but with limited subsequent impacts upon economic development. One problem is the rapid pace of change in the technology itself - ISDN has been rapidly superseded by Asymmetric Digital Subscriber Line (ADSL) which is twice as fast as ISDN but requires no rewiring but uses existing telephone lines. In the case of the Manchester HOST initiative, the rapid pace of technological change transformed what was seen as an innovative local authority-led attempt to create a 'digital Manchester' to being only one Internet Service Provider

(ISP) in an increasingly crowded market within the space of a few years. In the future Wireless Application Protocol (WAP), which requires no fixed line infrastructure, may succeed ADSL – will this be more beneficial to peripheral areas than fixed networks? Despite these problems, policy makers persist in seeing the future of their regions as being secured through some form of information economy or digital future. For example, the recently produced Regional Economic Strategies produced by the English Regional Development Agencies abound with such descriptions. I would concur with Brail and Gertler's scepticism about attempts to use high technology as the solution to the problems of mature industrial regions and that one part of a more realistic strategy would be to build upon the stronger components of the existing regional economy. In some cases this *may* involve technology - the evidence presented here shows that a region's past economic history is an important determinant of its specific path of multimedia development.

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