

## **BOOK REVIEWS**

### **A TALE OF TWO GLOBAL CITIES: COMPARING THE TERRITORIALITIES OF TELECOMMUNICATIONS DEVELOPMENTS IN PARIS AND LONDON**

Rutherford, J., Ashgate Publishing, Aldershot, 2004. ISBN 0 7546 3474 4, Hardcover, 356 pages, RRP £57.50.

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The focus of the book is on global-local perspectives on telecommunications development in the global cities of London and Paris. Very little research has been undertaken on telecommunications in cities. Rutherford's book comprehensively examines telecommunications at an urban scale and provides useful insights into the policy process.

He outlines the U.K. and French telecommunications policy developments in the context of global shifts in deregulation and competition in Chapter Two. In particular, he points to the contrasts between the free market U.K. situation and the state-directed French approach. In addition, contrasts at a national, regional and local administrative structure are considered.

Chapter Three considers the relationships between telecommunications networks and global cities. He reviews research by geographers and urban planners (e.g., Sassen) on global cities. In addition, attention is given to the space of flows and places concept outlined by Manuel Castells. Rutherford correctly points out that too much attention in the global cities literature has been given to the global connections of these cities, effectively divorcing the global city from its national and local context. He gives particular attention to territorial telecommunications planning in Paris and London.

The relationships between global economic restructuring, the rescaling of political and economic governance and territorial fragmentation in global cities, as well as urban telecommunications developments are examined in Chapter Four. The focus here shifts to understanding the local scale.

Part Two of the book builds on the earlier theoretical foundation to consider telecommunications planning and governance, as well as cultures of territoriality in Paris and London. He picks up the differing historical contexts of telecommunications territorialities in Paris and London in Chapter Five. In particular, the contrasting approaches to deregulation of telecommunications in the two countries is considered in detail.

Contemporary telecommunications developments in London and Paris are examined in Chapter Six. He considers the way in which both cities adopted and adapted to broader national shifts in telecommunications regulation. For example, France Telecom is still over 50 percent state owned and is considered

as a “national champion”, even though some competition in telecommunications services has been introduced in Paris. In contrast, competition in the U.K. is well developed and British Telecom is tightly regulated by Oftel. He considers in some detail the contrasting French and U.K. systems of governance of local areas and how these systems have shaped telecommunications development. In particular, both cities have agencies aiming to enhance the adoption of innovative telecommunications (e.g., broadband services and electronic government).

Chapter Seven is a key chapter in the book and explores how telecommunications developments in London and Paris are bound up with the dynamics of urban competitiveness and economic development, as well as in the partnerships between different groups in the global cities. It is fundamental for competitive global cities to have innovative telecommunications services, particularly in such areas as banking, finance and business services.

Interestingly, he focuses in this chapter on the role of different corporate strategies of telecommunications carriers in shaping the territoriality of telecommunications infrastructure and services in Paris and London. He considers Colt Telecommunications and MCI WorldCom as case studies. Unfortunately, since research for the book was finished the latter company has run into financial difficulties, as have numerous other “new” European carriers. It would be interesting to have had the author update the impact of the technology stockmarket “crash” on telecommunications developments in the early-2000s. The gap between the end of the data collection process and the publishing date is wide.

The various urban planning authorities in both cities have recognised the importance of telecommunications for urban competitiveness, but the planning effort is negatively affected by conflicting goals (e.g. universal services versus promotion of competition) and by a poor understanding of the particular role of telecommunications and more broadly of ICTs in society and the economy.

Overall, I found the book to be interesting, but marred by a number of problems. One is that it is hard to read. The standard of writing was poor. One example will suffice:

“In this way, the form, function and meaning of a territory are intertwined with contexts, processes, mechanisms and specificities from multiple parallel scalar levels. However, the recursive interaction between territoriality and multiscale contexts, processes, mechanisms and specificities means that the latter are continually territorialised, deterritorialised and reterritorialised in different ways.” p.12

He acknowledges that the vast majority of the book is based on his PhD thesis and it is clear that a thorough re-write was needed to make the material intelligible for the general and even the specialist reader. Furthermore, considerable repetition exists in the book.

A second criticism is that little attention is given to the nature of demand for telecommunications in the two cities. Admittedly, this criticism is unfair since it wasn't the purpose of the book. However, it is difficult to evaluate telecommunications planning efforts in both cities when so little is known about

demand. For example, Rutherford (and others writing on cities) discuss the role of new broadband services for residential and business subscribers. He contrasts the geographical divide between highly connected, core strategic 'premium network spaces' for multinational corporations, with the disconnected, peripheral 'local spaces'. Implicit in his argument is that all parts of the city should be equally connected to high-speed broadband networks. However, we know little about the demand for these services. How many people will pay to have broadband services connected to the home? Do they really want these services? This is more a criticism of the telecommunications policy literature which has consistently avoided serious questions about the nature of social and business demand for telecommunications. As a result, urban planning authorities have little idea what sorts of services should be provided to their citizens and firms.

Thirdly, for a book that argues that we need to understand the local geographical scale in examining telecommunications in global cities, it is surprising that there is not a single map in the book. I would have liked to see much more local detail on where telecommunications services are concentrated in both cities.

### **STILL STUCK IN TRAFFIC**

Downs, A., Brookings Institution Press, Washington DC, 2004. ISBN 0 8157 1929 9, Paperback, 455 pages, RRP \$US28.95.

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Anthony Downs has updated and expanded his influential 1992 book *Stuck in Traffic*. The update retains the virtues of the earlier work – Downs' clear writing style, sharp logic and ability to integrate a range of policy issues – but is a better book.

The improvement is most evident in two new opening chapters, provocatively titled 'The benefits of peak-hour traffic congestion' and 'How bad is traffic congestion?' The idea that congestion might have benefits would strike many policy makers as revolutionary or heretical, but Downs calmly points out that congestion is one way of dealing with the fact that more people wish to use roads in peak periods than can be accommodated. Compared with alternative responses, such as building enough roads to cater for everyone wanting to travel (impossible) or comprehensively pricing roads (unpopular and inequitable), congestion has much to recommend it as a rationing device.

Similarly, Downs dissects the assumptions underpinning the gargantuan estimates of the 'cost' of congestion that receive widespread publicity, by observing that comparing existing conditions with a 'fantasy' scenario in which

everyone can travel at the speed limit is meaningless. And a review of the evidence on economic competitiveness reveals that congested regions are more prosperous than those with free-flowing traffic, suggesting that congestion is better explained as a consequence of growth, rather than an inhibitor of it.

Downs does not argue that nothing can, or should, be done about congestion, but he does offer a convincing case for realism. The central basis of his case is four 'principles of traffic'. The first, and best-known, is 'triple convergence', a concept Downs himself popularised some four decades ago. Improved roads will draw travellers who formerly used other routes, travelled at less busy times, or used other modes (such as public transport or walking), and the overall result may be no reduction in congestion.

Downs points out that this principle applies equally to new rail lines. While there are valid arguments for investment in public transport, reducing congestion is probably not one of them. The policies Downs does favour include selective use of road pricing, increases in petrol taxes to reduce the overall demand for motoring, parking taxes and policies to restrict very low-density urban sprawl.

My main criticisms of *Still Stuck in Traffic* are related. The first is that Downs has under-emphasised the environmental consequences of automobile travel, particularly the contribution to global problems like the greenhouse effect, in his consideration of the benefits of congestion. The second is a tendency to dismiss the experiences of developed countries outside the United States, which are presented as 'catching up' to inevitable urban trends pioneered by the US. As a result, American cities have little to learn from the different transport and urban policies implemented in places as diverse as Switzerland and Singapore.

The lack of curiosity about non-American cities weakens the book's value to US readers, as well as underlining the fact that Australian cities are not the same as US cities. For example, the difficulties in attracting middle-class people to live in inner city areas Downs discusses are considerably less acute here. Despite these limitations, *Still Stuck in Traffic* provides a readable, well-argued, comprehensive survey of the issues raised by urban traffic congestion.

## **INNOVATION AND THE GROWTH OF CITIES**

Acqs, Z.J., Edward Elgar Publishing Ltd., Cheltenham UK, 2002. ISBN 0 84064 936 4, Hardback, 264 pages, RRP £55.00.

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Zoltan J. Acs argues in this book that innovation holds the key to economic growth. He discusses the thesis of Regional Innovation Systems (RIS) as a more useful perspective than National Innovation Systems (NIS). Acs presents the

case in a very convincing way with an exhaustive empirical analysis of industry innovations and regional analysis in 43 US states. His empirical work is framed in robust theoretical theses connecting innovation and geography from authors such as Schumpeter, Marshall, Jacobs, Audretsch and Feldman. The purpose of the book is to explore the relationship between industrial innovation and economic growth at the regional level; why some regions grow and others decline. Acs set himself important research questions such as; *how important is technical knowledge to innovation and regional growth?*, and *how important are universities to economic growth?* His analysis to answer these questions draws on industrial organisation, labor economics, regional science, geography, entrepreneurship and specially endogenous growth theory (Aghion and Howitt 1998)<sup>1</sup>.

Acs argues that at the core of the 'new' growth theory is the concept of technological knowledge as a non-rival, partially excludable good, as opposed to the neoclassical view of knowledge as an entirely public good. Acs differentiates between 'knowledge' and 'technology'. Knowledge is a non-rival good because it can be used by one agent without limiting its use by others. Technology in many cases is partially excludable because it is possible to prevent its use by others with legal methods such as patents and commercial secrecy. However, no method can put boundaries to such a things as information so it can be suggested that industrial R&D may generate technical spillovers via mobility of highly skilled personnel between firms, and by interactions among actors in an innovation system bounded by geographic proximity. The implications of knowledge spillovers being positively impacted by 'proximity' might mean that new producing inputs are not evenly distributed across space and so regions might not grow at the same rate. Theoretically this implies that geography might be a relevant unit of observation of knowledge spillovers. In addition there are important implications for entrepreneurship as available information and knowledge is the basis for recognising 'opportunities' that can be profitably exploited. Thus, those regions with more 'available knowledge' might present more opportunities to be pursued by entrepreneurs than regions where 'knowledge' is not produced or available.

Acs also challenges the conventional view that knowledge and innovation are driven by large enterprises. Acs argues that small firms have the advantage of small management structures free of bureaucratic constrains that ultimately allow innovative activity flourish. Innovation in small firms does not occur in a dedicated R&D department (as in large firms) but it is often placed at the heart of their competitive advantage. Acs uses a large innovation database to test whether university research labs were important for firm innovation. He found evidence that small firms take greater advantage of knowledge spillovers from universities than large firms, for whom corporate R&D is a more important source of generating and commercialising innovation. Acs found that geographic proximity between universities and corporate laboratories within a state clearly

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<sup>1</sup> Aghion, P. and P.Howitt (1998), *Endogeneous Growth Theory*. Cambridge, Mass: MIT Press.

serve as a catalyst to innovative activity for firms of all sizes but especially for small firms. There is also evidence to support the idea that the greater the extent to which an industry is composed of large firms the greater will be the innovative activity but the increased innovative activity will tend to emanate more often from the small firms. Acs also found that innovation is an important determinant of capital structure choice. For small firms, innovation coincides with greater levels of debt financing, while for large firms asset specificity is associated with a more flexible governance structure.

Specifically regarding the role of universities as engines of growth, Acs uses data for 43 US states and for 125 metropolitan statistical areas (MSAs) to look at the local geographic effects that university research may have on the innovative capacity in a region. The results of his statistical analysis suggest that the spatial range of interaction between private R&D and university research reaches beyond the county (or MSA) where the R&D is carried out. There is no evidence that private R&D in the MSA or its surrounding counties is endogenous to the university research equation. By contrast, there is a strong indication that university research in an MSA is endogenous in the private R&D equation. In fact, local university spillovers are specific to certain industries. In the database examined by Acs, there were not spillovers in the drugs and chemicals and in the machinery sectors but very strong and significant spillovers are evidenced in the electronics and the instruments industries. These spillovers extend the boundary of the MSA within 75-mile range from the central city. Acs argues that his findings suggest that regional institutions -universities, research laboratories, specialised business services, related industries and entrepreneurship - are key ingredients in promoting regional growth.

In one of the chapters Acs discusses the existence of spillovers from university R&D to local high-technology employment. Theoretically there have been two explanations: (1) that universities research is a source of significant innovation-generating knowledge which diffuses initially through personal contact to adjacent firms, and that this knowledge flows more efficiently locally than over greater distance; (2) that universities provide a pool of trained and highly qualified science and engineering graduates that may provide a supply of labor to local firms or else a supply of entrepreneurs for new start-ups in the high technology sector. Acs tested several US cities dominated by high-technologies industries for spillovers. He found evidence of robust spillover to employment in four high-technology sectors (defence and aerospace, information and technology, high-technology research, and biology and biomedical). These results are clearly relevant for regional policy as they provide support for the importance of high-technology clusters in the US.

Perhaps Acs arguments are excessively tied to a rigorous statistical analysis that sometimes lacks analytical weight to explain why the data show such differences. However, the final chapter offers what has been lacking elsewhere in the book. In the final chapter Acs discusses the meaning of 'local' systems of innovation as an alternative hypothesis to NIS. The position between local and national systems of innovation is rooted in the contrast between two dynamics: the bottom-up dynamics of networks and the top-down dynamics built on the

centralised mindset. Networks are associated with voluntary adherence to norms and building of consensus. Networks generate wealth and social capital but also a higher degree of innovativeness and capacity to transform because networks cross boundaries. The centralised 'national system of innovation' continues to dominate the policy scene, and the view of fragmented and localised sets of systems of innovation is yet to gain currency.

Some empirical evidence from the book supporting 'local systems of innovation' is that R&D spillovers are greatly influenced by geographical coincidence of the several partners. Acs found evidence that innovative activity increases as a result of research undertaken by universities within the area. Many case studies have also provided evidence of the local systems approach, pointing out the importance of proximity and the centrality of community. The systems of innovation approach can be characterised as holistic in the sense that they have the ambition to encompass a wide array of the determinants of innovation that are important. This approach also allows for the inclusion not only of economic factors influencing innovation but also of institutional, organisational, social and political factors. Another important factor is their emphasis on the role of institutions as crucial for innovation processes. These different evidences challenge the traditional role of national systems of innovation and the long held and widespread value, in terms of policy, placed on NIS.

Acs concludes that local systems of innovation rely more on the knowledge economy as knowledge has increased the importance of geographic proximity, and empirical evidence suggests that location and proximity clearly matter in exploiting knowledge spillovers. Local proximity becomes critical when the relationship between the firm and the scientist involves the transfer of new economic knowledge. The increased importance of innovative regional clusters as an engine of economic growth has led policy-makers to focus on cluster solutions instead of old solutions based on the regulation of the industry.

As a final comment, a little bit more emphasis and elaboration on the role of entrepreneurship in regional innovation is required from the book, although it is hinted at in several chapters. The book will certainly be of interest for all concerned with regional innovation and regional development.