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Book review

Accessibility Analysis and Transport Planning: Challenges for Europe and North America (part of the Nectar Series on Transportation and Communications Networks Research), K.T. Geurs, K.J. Krizek, A. Reggiani. Edward Elgar, Cheltenham, UK, Northampton, MA, USA (2012). £80 (hardback). ISBN: 978 1 78100 010 6

Accessibility is core to transport geography, drawing as it does on the relationship between people and place in understanding the ability of people to access destinations and the attractiveness of destinations to populations. A volume dedicated to accessibility with contributions from some of the leading researchers in the field is a welcome contribution.

The book encapsulates the broad spectrum of work which may come under the umbrella of accessibility. From theoretical to applied, from people focussed to place focussed, individual to aggregate and from economic progress to promoting well-being, the long, varied history of accessibility as a concept in transport planning is borne out in the chapters in this volume. While such a broad approach is important given the breadth of the concept, care needs to be taken in interpreting exactly what is meant by 'accessibility'. It is clear within the chapters of this volume that there is not an consensus regarding what accessibility means. This is not in itself problematic, but does highlight to need for those studying the subject to be clear what they mean by accessibility.

The book is structured in five parts, focussing on concepts, local accessibility, economic valuation, social equity and exclusion and transport planning and measurement. The first section 'Accessibility Concepts: new approaches' presents three examples of measuring or understanding accessibility in light of new technologies or emerging methodological approaches. Following Reggiani's discussion of complex networks and spatial interaction models, Van Wee, Chorus and Geurs provide a comprehensive overview of how emerging information technologies might impact both our measurement of and individuals' experiences of accessibility. Given the pace of change, presenting an up to date overview is no small task and the authors acknowledge that they do not attempt to propose solutions for adapting to technological change but instead present a research synthesis and provide a platform for future research. Zöllig's agent based modelling approach attempts to incorporate more behavioural aspects into modelling accessibility changes as a result of changes to transport infrastructure rather than focussing just on travel time measures. It seems unusual to begin the book with emerging approaches rather than introducing basic concepts and the first chapter in particular is not a welcoming introduction given the complexity involved. That said, it makes for interesting reading to understand where the subject is heading and presents exciting new areas for research at the outset.

The chapters in the second section, 'Dimensions of Local Accessibility' take a more people focussed approach to measuring accessibility. Cao and Mokhtarian use social survey data to explore the relationships between accessibility, attitudes and walking behaviour. They find an independent effect of accessibility suggesting environmental design can improve walking accessibility. Krizek, Hornig and El-Geneidy's chapter disappointingly fails to discuss some of the reasons why perceptions, or indeed the actual journey experience, might differ from a modelled average, instead concluding that '*Individuals' perceptions are fraught with error.*' Moving towards a more practical application of accessibility measurement Neutens presents an approach to measuring accessibility using a combination of aggregate place based and individualised person based measures, drawing on the approaches of both Hansen (1959) and Hägerstrand (1970). In general the section presents a series of refreshing approaches to focussing on people in accessibility measurement.

The third section focuses on spatial accessibility in transport economic appraisal. Geurs, de Bok and Zondag use a log sum approach to compare different growth scenarios, accounting for changes in the public transport and forecast job growth in Almere, Netherlands. Remaining in Almere, de Graaf, Debrezion and Rietveld study changes in house prices using a hedonic modelling approach. House prices are also used in the final chapter of this section in a post-hoc assessment of the accessibility effects of a large new infrastructure project: a new bridge designed to increase labour market accessibility to prevent depopulation of remote islands.

Section four, 'Accessibility, social equity and exclusion', returns to focus on individuals. Martens and Golub take a step back highlighting that measures chosen should depend on the philosophical and theoretical understanding of what 'accessibility' is and what policies aimed at influencing accessibility are trying to achieve. Manaugh and El-Geneidy return to assessment of major infrastructure projects but through a distributive lens, focussing not on total benefits but on who benefits or disbenefits. Similar to other chapters the focus remains on journey time as the supposed benefits, without considering what else might constitute accessibility benefits. Following this, Lucas takes a critical approach to the implementation of accessibility planning in the UK as a tool to address social exclusion, drawing attention to issues of importance for accessibility which have hitherto been missing from this volume such as issues of confidence and travel horizons; perceived difficulties which have a real impact on accessibility and therefore might explain some of the 'inaccuracies' reported by Krizek, Hornig and El-Geneidy in Chapter 6. This chapter provides a good link into the following section which gives practical examples of accessibility applied in transport planning, although Lucas' critique may have been better placed after Halden's more descriptive chapter on how accessibility planning is used in transport planning in the UK.

Following Halden's account of the ways in which accessibility measures have been used in transport planning in the UK the final

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section, 'Transport Planning and Accessibility Measurements' continues with Crozet, Mercier and Ovtracht's practical example using GIS measures to show the disparity between accessibility by car and public transport over time in Lyon, France. In the final chapter Christidis and Rivas extend the scale to focus on EU level accessibility using freight transport costs as an indicator of accessibility, demonstrating different results depending on the indicator chosen. This is a good reminder at the end of the volume that any use of accessibility measures must be carefully considered and conceptually grounded as the conclusions drawn will depend on the measures chosen.

The book presents a range of theoretical and empirical contributions to the understanding of accessibility. As the editors note there is much to be done to draw together practical and theoretical approaches to accessibility measurement. Aggregate approaches fail to consider the individual perspective or experience and individuals approaches are difficult to generalise and inform policy. I the contributions in this volume represent the state of the art then clearly much more work is needed to bring individual, people focused measures of accessibility into accessibility assessments and economic appraisal.

The chapters in this volume demonstrate that there is a vibrant research agenda, which will continue to develop measurement of accessibility particularly given the new forms of data which will improve modelling abilities. Although there are some examples of people based measures in this volume the focus remains on aggregate, economic and journey time indicators of accessibility. The overarching message from all the chapters in this volume is the need for future research to consider what is meant by accessibility in different contexts and to ensure that there are theoretically robust measures which can be applied in practice.

The volume would have benefitted from more synergies between chapters. There was some repetition across chapters, particularly regarding the history of measurement and categorisation of accessibility measures, with Geurs and Van Wee's (2004) categorisation being presented on more than one occasion.

The book will appeal to civil engineers and transport planners seeking to develop more in depth understanding of accessibility measurement, including recent developments. Some prior knowledge of the field would be needed prior to engaging with this text given the complexity of some of the chapters it is not a suitable introduction to accessibility measurement. The book would be a useful text to support transport planning courses.

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