## Index

accessibility
  in complex networks 22–9
  components 38–9, 229
definitions 22, 264–6
impact on house prices 154–71
impact of ICT 41–50
  and walking behaviour 73–93
accessibility measurement 39–41, 120–22, 251–3, 265–6, 281–5
  and equality approaches 204–8
  incorporating ICT accessibility 48–50
  infrastructure-based 39, 205–6, 265
  location-based 39–40, 118–19, 265
  person-based 40, 118–19, 265
  utility-based 40, 207, 265
accessibility planning
  and social inclusion 228–40
  UK 245–59
accountability for accessibility 258
age, and distance perception 111–12
agent-based assessment of infrastructure investment 54–68
Aguilera, A. 37
Albert, R. 24
Allenby, B. 31
Almere 135–7, 141–52, 154–5, 160–71
  accessibility and house prices 166–70
  accessibility impact of land-use and transport policy 146–71
  growth scenarios 142–4, 160–61, 166–70
  train stations, RSQI 164–5
Arentze, T.A. 41
Argioli, R. 43
Axelrod, R. 57
Axhausen, K.W. 3
Bae, C. 213
Bagley, M.N. 75
Bakker, P. 135
Barabási, A.-L. 20, 24
Batty, M. 1
Ben-Akiva, M.E. 23, 40, 55, 56, 58, 265
Bennett, S. 101
Bertolini, L. 67
Bhat, C.R. 78
‘black box’ mapping techniques 232, 234–5
Boarnet, M.G. 78, 177
Boer, R. 78
Bok, M. de 5
Bømlo, Norway 174–5
  impact of new bridge on accessibility 182–90
  as submarket 179–80
  bridge, Trekantsambandet project 173–90
Briggs, R. 97, 98, 104–5
Bruinsma, F.R. 27
Burnett, K.P. 97, 98, 104–5
California, neighborhood characteristics and walking behaviour 79–90
Canter, D. 98
Cao, X. 48, 74, 75, 77, 78
Casti, J. 17
centre–periphery connectivity divergence, EU 285–6
Chalermpong, S. 177
Chatman, D.G. 77
choice spaces 63–4
Chorus, C. 46, 48
Christidis, P. 8
Cohen, G.A. 197, 198, 199, 202–3
comfort of travelling, impact of ICT 46
complex networks 16–21
  and accessibility 22–9
  and resilience 29–30
complexity, definitions 17
congestion
EU 286
impact of ICT 46
connectivity measure of accessibility 283, 286
conscious state theories of welfare 197
cost–benefit analyses
land-use options and rail investment, Almere 149–51
public transport, Netherlands 135
use of house prices 155–7
Cox, A. 30
Crompton, A. 97, 99
Crozet, Y. 277
cumulative opportunities measure 206, 214
De Jong, G. 41, 56, 139
Debrezion Andom, G. 156, 157–60
decay functions 23–4
Denier, Y. 200
destination type and distance perception 109–11
distance
distance measures of accessibility 206
distance perception 96–115
see also spatial proximity
Domenich, T.A. 58
Dong, X. 41, 49, 207
double potential approach 284, 286
doubly constrained accessibility measure 206
Dworkin, R. 197, 200–201
dynamic complexity 17
ecological resilience 29
El-Geneidy, A.M. 73, 214
Eluru, N. 78
employment
effects of Almere land-use plans 144–6
see also labour market accessibility
engineering resilience 29
envy test 200–201
equality of midfare 202–4, 206–7
equality of resources 200–202, 205–6
equality of welfare 197–200, 207
Ettema, D. 41, 47, 58
EU transport policy, accessibility impacts 280–93
expected maximum utility 56, 64–7
expensive tastes argument and equality of welfare 198–9
feature accumulation and distance perception 108–9
Fink, J. 31
fixed effects model, walking behaviour 86–90
Fotheringham, A.S. 23
France, urban transport policies 263, 270–71
Lyons 272–7
Frank, L.D. 77
Franklin, J.P. 177
Freeman, A.M. 179
Fruin, J. 101
funding for public transport, UK 236–7
gender and distance perception 112
generalized costs 57
geographical information system (GIS)-based mapping tools 232, 234–5
Germany, accessibility 24–6
Geurs, K.T. 2, 3, 6, 18, 23, 37–41, 45, 55, 137, 139–41, 157, 205–7, 229, 230, 257, 263, 265, 282
Ghent, accessibility to public service delivery 122–31
Gilbert, N. 57, 59
Gitlesen, J.P. 174
Giuliano, G. 213
Gjestland, A. 5
Golledge, R.G. 104
Golub, A. 6
Goodman, A.C. 179
government offices, Ghent 124
accessibility 125–31
Graaf, T. de 5
gravity-based measures 206, 265–6
Greene, W.H. 90
Gutierrez, J. 286
Halden, D. 245, 248, 249, 250, 251, 254–6
Handy, S.L.  9, 78, 80, 83, 96, 113, 205, 212
Hansen, W.G.  (Hansen-based potential accessibility measures) 1, 8, 9, 22, 40, 177, 178, 256, 263, 264, 265, 277
Hedel, R.  78
hedonic pricing model of house prices  157–8, 177–8
Netherlands  161–4
Norway  185–9
Horgan, P.  17
Horner, M.W.  18
Horning, J.  4
house prices and cost–benefit analysis  155–7
hedonic price analysis  157–8, 161–4, 177–8, 185–9
impact of accessibility  160–70, 185–9
housing, Stord and Bømlo  180–82
Huang, W.S.  177
Iacono, M.  125
Ibanez Rivas, N.  8
ICT, impact on accessibility  41–50
income and public transport use  212–13
individual component of accessibility  39
impact of ICT  44–5, 47–8
infrastructure-based perspective  39, 205–6, 265
integrated transport and accessibility planning  245–59
isochronal-based measures  265
jobs  see employment; labour market accessibility
Jones, C.  179
Jones, P.  6
justice-theoretic approach  195–209
Kang, Y.-S.  44, 99, 112
Khattak, A.J.  78
Kockelman, K.M.  78, 177
Koenig, J.G.  67
Krishna, A.  113
Krizek, K.  2, 27, 73, 74, 78, 125
Kwan, M.P.  37, 41, 119, 121, 125, 264
Laakso, S.  180
labour market accessibility impact of new bridge, Norway  182–9
low-skill jobs, Montreal  217–23
Lyon  273–5
modelling  178–9
Laird, J.  198, 230
land-use component of accessibility  38–9
impact of ICT  43–4
land-use scenarios, Almere  142–4, 160–61
accessibility and house prices  166–70
public transport accessibility benefits  146–51
land-use-transport interaction model Tigris XL  137–8
Lee, T.  103
Lerman, S.R.  55, 56, 58
Levinson, D.M.  2, 19, 27, 73, 214
Litman, T.  22
location-based perspective  39–40, 118–19, 265
logsum accessibility measure  137, 139–41
Lopez, E.  282
Lucas, K.  6, 195, 196, 212, 228, 232, 233, 237
Lyons, G.  37
Lyon, urban transport policy  272–7
McArthur, D.P.  5, 174, 178, 179, 180
MacEachren, A.M.  100
McFadden, D.  58
 Manaugh, K.  6
market segmentation and hedonic price functions  179
Martens, K.M.  196, 197, 199, 201, 209
Mathur, S.  177
Mayeres, I.  213
measuring accessibility  see accessibility measurement
Mercier, A.  8
Merseytravel WorkWise initiative  237–8
midfare equality  202–4, 206–7
Mikelbank, B.A.  177
Mokhtarian, P.L.  37, 44, 74–8
Montreal 215–23
social equity impact of public transport 217–23
MOSART modelling platform 266–70
motorway development, impact on city centre 276–7
Muhammad, S. 37, 49

Næss, P. 75
Nasar, J.L. 108, 113
National Transport Model (LMS) 138
Netherlands
accessibility and house prices 154–71
integrated land use and public transport policy 135–52
network connectivity 19–21
and accessibility 22–8
and vulnerability 21
networks
complex see complex networks and distance perception 107–8
Neutens, T. 2, 41, 118, 120
Niemeier, D.A. 9, 38, 205
Nijkamp, P. 16, 19, 20, 21
non-adults, impact of ICT on accessibility 48
Norway, accessibility impacts of bridge 173–90
O’Kelly, M.E. 23
offensive tastes argument and equality of welfare 198
Oltvai, Z.N. 20
option values 230
Ortuzar, J.D. 58
Osland, L. 5, 174, 177–9
Ovtracht, N. 8

perception of accessibility to
neighbourhood services 96–115
Perrings, C. 29
person-based perspective 40, 119–20, 265
personal safety and public transport 230–31
Pickup, L. 213
Pimm, S.L. 29
Pinjari, A. 77
place-based perspective 39–40, 118–19, 265
Popp, M.M. 104
population
effects of Almere land-use plans 144–6
effects of new bridge, Norway 175
potential accessibility measures 9, 265
potential approach 283–4, 286
potential path area (PPA) 120
Preston, J. 235
public transport
impact on house prices 160–70
and land-use plans, Almere 135–52
railway accessibility 158–60, 164–5
and social equity 211–25, 228–40
RAAM project (Rijksbesluiten Amsterdam – Almere – Markermeer) 135–52, 154–71
Raghbir, P. 113
rail service quality index (RSQI) 158–60
Almere train stations 164–5
Rajé, F. 235
random networks 19–20
Randstad Urgent 135
Rawls, J. 197, 198–9, 200, 202
realized utility 64–6
Reggiani, A. 2–3, 16, 17, 19, 20, 21, 22, 23, 24, 38
residential self-selection and travel decisions 82–6
resilience 29–31
resource equality 200–202, 205–6
Richardson, H.W. 23
Rietveld, P. 5, 27, 46, 282, 292
Rijksbesluiten Amsterdam – Almere – Markermeer (RAAM) project 135–52, 154–71
Ritsema van Eck, J.R. 18, 39, 157, 205, 206, 207
road development, impact on city centre 276–7
road pricing and ICT 46–7
Roadmap to a Single European Transport Area – Towards a Competitive and Resource efficient Transport System 280
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rodriguez, D.</td>
<td>78, 91</td>
</tr>
<tr>
<td>Rose, A.</td>
<td>29, 31</td>
</tr>
<tr>
<td>Rosen, F.</td>
<td>197</td>
</tr>
<tr>
<td>Rosen, H.S.</td>
<td>55, 56</td>
</tr>
<tr>
<td>Rosen, S.</td>
<td>177</td>
</tr>
<tr>
<td>Rothenburg, J.</td>
<td>179</td>
</tr>
<tr>
<td>RSQI see rail service quality index</td>
<td>158–60</td>
</tr>
<tr>
<td>rule-of-half measure of accessibility benefits</td>
<td>139</td>
</tr>
<tr>
<td>Ryan, S.</td>
<td>177</td>
</tr>
<tr>
<td>Sarmiento, S.</td>
<td>78</td>
</tr>
<tr>
<td>scale-free networks</td>
<td>20, 28–9</td>
</tr>
<tr>
<td>scheduling flexibility</td>
<td>government office accessibility, Ghent 129, measurement 122</td>
</tr>
<tr>
<td>Schürmann, C.</td>
<td>282</td>
</tr>
<tr>
<td>Schwaben, T.</td>
<td>2, 41, 76–8, 123, 125</td>
</tr>
<tr>
<td>Scotland, transport appraisal measures</td>
<td>256</td>
</tr>
<tr>
<td>self-selection</td>
<td></td>
</tr>
<tr>
<td>and ICT use</td>
<td>47–8</td>
</tr>
<tr>
<td>residential, and travel decisions</td>
<td>82–6</td>
</tr>
<tr>
<td>Sen, A.K.</td>
<td>199, 201–2, 203, 208</td>
</tr>
<tr>
<td>Shaw, S.L.</td>
<td>37, 49</td>
</tr>
<tr>
<td>Simon, H.A.</td>
<td>17</td>
</tr>
<tr>
<td>Small, K.A.</td>
<td>55, 56, 61</td>
</tr>
<tr>
<td>social equity in public transport provision</td>
<td>211–25</td>
</tr>
<tr>
<td>social exclusion</td>
<td>229</td>
</tr>
<tr>
<td>and public transport policies, Montreal</td>
<td>217–25</td>
</tr>
<tr>
<td>UK policy and accessibility planning</td>
<td>228–40</td>
</tr>
<tr>
<td>space-time measures</td>
<td>207</td>
</tr>
<tr>
<td>space-time prism (STP)</td>
<td>119–20</td>
</tr>
<tr>
<td>spatial choice</td>
<td></td>
</tr>
<tr>
<td>and government office accessibility, Ghent</td>
<td>126–9</td>
</tr>
<tr>
<td>measurement</td>
<td>121</td>
</tr>
<tr>
<td>spatial economics</td>
<td>17–19</td>
</tr>
<tr>
<td>spatial interaction models (SIMs)</td>
<td>17–19</td>
</tr>
<tr>
<td>spatial mismatch theory</td>
<td>213</td>
</tr>
<tr>
<td>spatial proximity</td>
<td></td>
</tr>
<tr>
<td>measurement</td>
<td>121</td>
</tr>
<tr>
<td>of public service facilities, Ghent</td>
<td>126</td>
</tr>
<tr>
<td>see also distance</td>
<td></td>
</tr>
<tr>
<td>spatial-temporal stability, house prices</td>
<td>179–80</td>
</tr>
<tr>
<td>static complexity</td>
<td>17</td>
</tr>
<tr>
<td>stimulus-centred factors and distance perception</td>
<td>97–8</td>
</tr>
<tr>
<td>Stord, Norway 174–5</td>
<td></td>
</tr>
<tr>
<td>impact of new bridge on accessibility</td>
<td>182–9</td>
</tr>
<tr>
<td>Straatemeier, T.</td>
<td>67</td>
</tr>
<tr>
<td>subject-centred factors and distance perception</td>
<td>97–8</td>
</tr>
<tr>
<td>subject/stimulus factors and distance perception</td>
<td>98</td>
</tr>
<tr>
<td>submarkets and hedonic price functions</td>
<td>179–80</td>
</tr>
<tr>
<td>success theories of welfare</td>
<td>197</td>
</tr>
<tr>
<td>Tagg, S.K.</td>
<td>98</td>
</tr>
<tr>
<td>Talaat, A.</td>
<td>282</td>
</tr>
<tr>
<td>temporal component of accessibility</td>
<td>39</td>
</tr>
<tr>
<td>impact of ICT</td>
<td>44</td>
</tr>
<tr>
<td>and social inclusion</td>
<td>230</td>
</tr>
<tr>
<td>Terna, P.</td>
<td>59</td>
</tr>
<tr>
<td>Thibodeau, T.G.</td>
<td>179</td>
</tr>
<tr>
<td>Thorsen, I.</td>
<td>5, 174, 175, 177, 178, 179</td>
</tr>
<tr>
<td>Thulin, E.</td>
<td>48</td>
</tr>
<tr>
<td>Tigris XL model</td>
<td>137–8</td>
</tr>
<tr>
<td>Timmermans, H.J.P.</td>
<td>47</td>
</tr>
<tr>
<td>Train, K.E.</td>
<td>58</td>
</tr>
<tr>
<td>Transo, E.</td>
<td>48</td>
</tr>
<tr>
<td>transport component of accessibility</td>
<td>39</td>
</tr>
<tr>
<td>impact of ICT</td>
<td>42–3, 46–7</td>
</tr>
<tr>
<td>transport planning</td>
<td></td>
</tr>
<tr>
<td>accessibility planning, UK</td>
<td>245–59</td>
</tr>
<tr>
<td>and equity</td>
<td>195–209, 211–25</td>
</tr>
<tr>
<td>and social inclusion</td>
<td>228–40</td>
</tr>
<tr>
<td>transport policy</td>
<td></td>
</tr>
<tr>
<td>EU 280–93</td>
<td></td>
</tr>
<tr>
<td>France 263, 270–77</td>
<td></td>
</tr>
<tr>
<td>UK 245–59</td>
<td></td>
</tr>
<tr>
<td>transportation model, MOSART</td>
<td>268–9</td>
</tr>
<tr>
<td>transportation system, Ghent</td>
<td>124–5</td>
</tr>
</tbody>
</table>
TRANSTOOLs model 280, 285
travel time
as accessibility indicator 253,
269–70
impact of public transport projects
221–3
as investment benefit indicator 54
Trekantsambandet (the Triangular
Connection) 173–90
Troitzsch, K.G. 57
Ubøe, J. 175
UK, accessibility planning 245–59
and social exclusion policy
228–40
utility-based perspective 40, 207,
265
Vadali, S. 177
van Wee, B. 3, 23, 37, 38–40, 45, 47,
48, 55, 205, 263, 265, 282
Vance, C. 78
Veldhuisen, J. 41
Vilhelmsen, B. 48
volume-based approach 284–5, 286,
291, 292
vulnerability and network connectivity
21
Waddell, P. 177
Walker, J. 213
walking behaviour 73–93
walking speed 101
Wallace, D. 31
Wallace, R. 31
Weber, J. 119, 121, 264
Weibull, J.W. 22
welfare equality 197–200, 207
Wilhelmsson, M. 179
Willumsen, L.G. 58
Wilson, A.G. 18, 23, 217
WorkWise initiative, Merseyside
237–8
Yu, H. 37, 49
Zhang, J. 47
Zhou, B. 78
Zöllig, C. 3
Zondag, B. 5, 138, 156
Zwaneveld, P. 135, 136, 147, 149, 150,
152, 155, 160, 170