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
Aguiléra, 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
Dommencich, 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
Lyon 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
gavity-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 Bomlo 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
Raghubir, 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
Index

Rodriguez, D. 78, 91
Rose, A. 29, 31
Rosen, F. 197
Rosen, H.S. 55, 56
Rosen, S. 177
Rothenburg, J. 179
RSQI see rail service quality index 158–60
rule-of-half measure of accessibility benefits 139
Ryan, S. 177
Sarmiento, S. 78
scale-free networks 20, 28–9
scheduling flexibility government office accessibility, Ghent 129
measurement 122
Schürmann, C. 282
Schwanen, T. 2, 41, 76–8, 123, 125
Scotland, transport appraisal measures 256
self-selection
and ICT use 47–8
residential, and travel decisions 82–6
Sen, A.K. 199, 201–2, 203, 208
Shaw, S.L. 37, 49
Simon, H.A. 17
Small, K.A. 55, 56, 61
social equity in public transport provision 211–25
social exclusion
definition 229
and public transport policies, Montreal 217–25
UK policy and accessibility planning 228–40
space-time measures 207
space-time prism (STP) 119–20
spatial choice
and government office accessibility, Ghent 126–9
measurement 121–2
spatial economics 17–19
spatial interaction models (SIMs) 17–19
spatial mismatch theory 213
spatial proximity
measurement 121
of public service facilities, Ghent 126
see also distance
spatial-temporal stability, house prices 179–80
static complexity 17
stimulus-centred factors and distance perception 97–8
Stord, Norway 174–5
impact of new bridge on accessibility 182–9
Straatemeier, T. 67
subject-centred factors and distance perception 97–8
subject/stimulus factors and distance perception 98
submarkets and hedonic price functions 179–80
success theories of welfare 197
Tagg, S.K. 98
Talaat, A. 282
temporal component of accessibility 39
impact of ICT 44
and social inclusion 230
Terna, P. 59
Thibodeau, T.G. 179
Thorsen, I. 5, 174, 175, 177, 178, 179
Thulin, E. 48
Tigris XL model 137–8
Timmermans, H.J.P. 47
Train, K.E. 58
Tranos, E. 48
transport component of accessibility 39
impact of ICT 42–3, 46–7
transport planning
accessibility planning, UK 245–59
and equity 195–209, 211–25
and social inclusion 228–40
transport policy
EU 280–93
France 263, 270–77
UK 245–59
transportation model, MOSART 268–9
transportation system, Ghent 124–5
TRANSTOOLS model  280, 285
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