

Contents

<i>List of Figures</i>	viii
<i>List of Tables</i>	x
<i>List of Maps</i>	x
1 INTRODUCTION	1
The Finnish Information Society in a Global Context	
2 THE MOBILE VALLEY	19
Nokia, Finland, and the Transformation of the Finnish Economy	
3 INNOVATION ABOUT INNOVATING	45
The Unlikely Innovation System: The State, Corporate Business, Universities, and Hackers	
4 THE WELFARE OF THE NATION	77
The Information Society and the Welfare State	
4 THE LOCAL INFORMATION SOCIETY	103
Spatial Dynamics, Information Technology, and Public Policy	
6 THE POWER OF IDENTITY	127
Identity Driving the Information Society and the Information Society Building Identity	
7 THE FINNISH MODEL OF THE INFORMATION SOCIETY	140
8 CONCLUSION I	151
The Challenges for Finland	
9 CONCLUSION II	166
Learning from Finland	
Appendices	171
Bibliography	180
<i>Index</i>	197

Index

Abbate, J. 64
 "advanced economies" 5
 Advanced Research Projects Agency
 (ARPA) 63
 aging populations
 loss of cultural identity 114
 Alapuro, R. 130
 Alcatel's digital exchange 60
 Ali-Yrkkö, J. 23
 Anttiroiko, A.-V. 112
 Arpanet 64
 Asplund, R. 50, 58
 Association of Local and Regional
 Authorities (Kuntaliitto) 97
 Benefon 30
 Bratt, C. 80, 85
 Brynjolfsson, E. 33
 Buderl, R. 35
 business entrepreneurialism 159
 business innovation 46, 58–61, 75
 capital accumulation 29
 Carnoy, M. 19
 Castells, M. 1, 19, 41, 77–9, 103–4,
 116, 127
 centrality of information 79
 Champy, J. 33
 citizen innovation 46, 63, 75
 citizen innovators 47
 communications security 27
 component production 35
 computer hackerism 99, 151
 consumer electronics 29
 content production 95, 153
 "creative destruction" 73
 cultural entrepreneurialism 159
 culture of innovation 46 *see also*
 hacker ethic

cryptography 68
 decentralized development 71
 decision-in-principle 49
 depopulation 149
 digital telecommunication
 exchanges 29, 60
 commercializing 60
 divided identity 137–9
 "dotcom economy" 20
 dynamic economies 8
 economic and social inequality 114
 educated labor
 internationalization of 37
 education for information
 professionals 95
 education for teachers
 (Net pedagogical skills) 95
 electronic banking 27–8
 electronic mail 64
 emerging Asian economies
 "new economy" 2
 emigration 147
 entrepreneurialism 158–9, 170
 expression of 159
 Ericsson 32
 Esping-Andersen, G. 81
 European technology program
 Eureka 58
 expanding by addition 29
 "experience economy" 32
 financial markets 162
 systemic volatility 147
 volatility of 20
 "Finland 2015" groups 54
 Finnish Academy 94
 Finnish Cable Works 58

Index

- Finnish economy 19, 43, 152
 - importance of Nokia in 43
 - transformation of 19
- Finnish information society 8, 54, 128, 138, 140
 - and identity 128, 134
- Finnish innovation system 41, 48, 50-1, 73-6, 96
 - genesis of 48
- Finnish IT cluster 22-8, 40, 42
- the Finnish Model
 - open, welfare information society 9
- Finnish pension funds 42
- Finnish spatial dynamics 112
 - challenges 112-15
- Finnish telecommunication
 - companies 57
- Finnish welfare-state model 81, 83, 135, 138
 - institutional 81
 - social democratic 81
- Finnish work ethic 138
 - protestant ethic 138
- flexible work 86, 157
- functional illiteracy 11-12
 - measure of exclusion threat 11
- future pensioners 93

- Ganivet, A. 133
- gerontechnology 93
- Gilmore, J. 32
- global economy
 - systemic volatility 161
- global information society 128, 134
 - multiculturalism 134
- global informational economy 141
- globalization 4, 162

- Haatanen, P. 135
- "hacker ethic" 46-7, 160
- hackerism 72, 168
 - idealist form of 72
 - source of technological innovation 168
- hackers 63, 65, 67, 71
 - in the Finnish innovation system 71-3
 - as innovators 63-5, 75
 - as internet pioneers 65
 - role of 65
- Häikiö, M. 29, 65
- Häkkinen, A. 129
- Hall, P. 41, 104, 116

- Hammer, A. 33
- Held, D. 19
- Helsinki Stock Exchange 43
- the Helsinki University of Technology (HUT) 52
- Himanen, P. 46, 67, 96, 98, 138
- Idea Factory 120-1
- Imai, K. 19
- immigration 147
- individual entrepreneurialism 167
- Information Age 105
- information society 1-4, 8, 12-16, 77, 81-2, 103, 115, 131, 140, 157
 - the Finnish model 14-18, 140-50
 - as a new survival project 131
 - regional development 115-17
 - rise of the 82
 - spatial dimension of 103-5
 - and the welfare state 77, 81-5
- information society skills (Net literacy) 95
- information technology 90, 101, 126, 155
 - micro-electronics based 3
 - social uses 90-2, 101, 126
 - welfare applications of 155-6
- "information turbulences" 161
- informational company 31
- informational development 124
- informational economy 16, 19-22, 28, 33, 36, 45, 74, 77-80, 83, 87-9, 127, 153-4
 - Finnish 23
 - global 74, 83, 85, 89, 127
- informational labor strikes 98
- informational work 85-6
- informationalism 1-4, 80, 83, 153
 - techno-organizational 3
- informationalization 154
- "information-technology cluster" 23
- innovation 170
 - innovation culture 47, 54
 - innovation in telecommunication
 - historical conditions of 56
- International Institute for Management Development (IMD) 4
- International Standardization Organization (ISO) 66
- internet content providers
 - spatial distribution 108

- internet domains
 - spatial distribution of 177–9
- Internet Relay Chat (IRC) 68–9
- IT industry
 - spatial concentration of 111
- IT revolution 74
- Järvinen, H.-M. 65
- Jorma Olilla 30
- Jussila, O. 130
- Käpyaho, J. 65
- Kari Kairamo, 30
- labor force
 - collective protection of 85
 - informational 22
- Landweber, L. 66
- Levy, S. 67
- liberalization 55
- “Linux” 70
- local networking 118
 - for regional development 118–20
- local teledemocracy 120–1
- management
 - industrial-patron style 29–30
- market capitalization 32
- market mechanisms 167
- Michelsen, K.-E. 30
- Mitchell, W. J. 103
- mobile communications 16, 31
- mobile communication culture 72
- mobile communications technology 152
- mobile Internet services 27
- mobile telecommunications 73
- mobility 93
- Motorola 32
- multiculturalism 165
- multi-ethnic coexistence 170
- national “we” 136–7
- national health system 94
- national identity 4
- nationalism 128
- “network CEO” 38
- “network enterprise” 2
- network of rebels 47
- “network society” *see* information society
- new communication culture 63
- new inequalities
 - rise of 156–8
- NMT (Nordic Mobile Telephone group) 55
- Nokia 34–5, 37, 40, 61
 - efficient logistics 34
 - and Finland 40–4
 - management style 37–40
 - as a network enterprise 33–40
 - research and development activities 35–7
 - world leader in telecommunications 61
- Nokia Mobile Phones 28
- “Nokia model” 33
- Nokia Networks 28
- “Nokia Way” strategy process 38
- NSFNET (National Science Foundation Network) 66
- Oksa, J. 121
- openness to other cultures 163–5
- open-source innovation model 69–71
- open-source software 16
- organizational innovation 46
- Otala, M. 30
- Paavolainen, J. 138
- Paija, L. 23
- part-time workers 86
- peer recognition 99
- Pine, J. 32
- PISA (Program for International Student Assessment) 12
- post-Kairamo era 30
- post-survival life 135
 - ideologies of 135–6
- “post-survival” culture 132
- Prihti, A. 50
- privatization 55
- process innovation 46
- product innovation 46
- Project for Applying Regional Applications for Developing a Democratic Information Society (PARADDIS) 118–19
- protestant ethic 46, 160
- public entrepreneurialism 159
- Pulkkinen, M. 33, 55
- Quittner, J. 67
- religious fundamentalism 128

Index

- rural areas
 - growing marginality of 114
- Saarelainen, A. 121
- Saari, M. 30
- Salminen, H. 65
- Science and Technology Policy Council 50
- sharing learning
 - social hackerism 98–100
- sharing time 96
 - social hackerism 96–8
- the Silicon Valley Model
 - market-driven, open information society 9
- Siltala, J. 138
- Singapore Model
 - authoritarian information society 9
- Singleton, F. 130
- Sitra (The Finnish National Fund for Research and Development)
 - 49, 53–4, 94
 - public capitalist 53–4
 - public think-tank 54
- SMS, “short messaging service” 62
- social “by-product” 64
- social exclusion 10, 12, 78–9
- social hackerism 96–101, 120, 151
- social injustice 10–11, 13, 77–8, 82
- social justice 87
- social marginality 149
- spatial distribution
 - of population 106
- spatial proximity 105
- Stakes (Welfare Research and Development Agency) 92–3
- Stallman, R. 71
- Steinbock, D. 31, 55
- structures of the information society 95
- Suonoja, K. 135
- symbol processing (information technology) 21–2
- Tatu Ylönen 68
- Teacher’s Professional Association (OAJ) 97
- technology
 - positive attitude to 133
 - technology parks
 - as sources of regional development 116
 - technology-oriented universities 51–2
 - Tekes (The Research and Development Fund) 52–3, 94
 - telecommunications technology 61
 - Finnish expertise in 61
 - telephone
 - tool for social interaction 62
 - text messaging 72
 - “three-wheeled Harley Davidsons” 93
 - Toivola, K. 55
 - Torvalds, L. 70
 - Townsend, A. 63
 - Tuomi, I. 31
 - Turpeinen, O. 55
 - Turunen, J. 121
- UN Technology Achievement Index 4, 15
- the Upper Karelia Learning Project 121–3
- urban growth
 - deceleration 108
- urbanization
 - new pattern of 104
- virtual learning environments 95
- virtual school 95
- virtual university 95
- Weber, M. 138
- welfare society 8
 - generous 8
- welfare state 16, 80, 85, 87–9, 100
 - demise of 80
 - global demise of 85
 - informational 87–9
 - informational structures 100–2
 - informationalization of the 80
- the World Economic Forum (WEF) 16
- Ylikangas 138
- Zook, M. 105, 108