Contents

List of Figures vii
Acknowledgments ix

Part I
Smart thinking

1. Scaling the smart city

1.1 Introduction: The smart city as a scale-making process 3
1.2 The global, grand, and urban scales of the smart city 7
1.3 The technological scales of the smart city 10
1.4 The operational scales of the smart city 14
1.5 The actually existing scales of the smart city 15
1.6 (re)scaling the smart city 18
References 20

2. Ethics and the smart city

2.1 The smart city's ethical turn 27
2.2 Smart city ethics 30
2.3 Smart city harms 33
2.4 Ethics by design 39
2.5 Conclusion 44
References 44

3. Designing and prototyping smarter urban spaces

3.1 Defining urban technology 49
3.2 Designing urban technology 52
3.3 Interdisciplinary and integrated urban technology design 53
3.4 Physical computing 55
3.5 The *Ubiquitous Cities* design studio 58
3.6 Problem definition framework 61
3.7 Urban technology prototyping 62
3.8 Conclusion 69
References 70

Glossary 73
Index 75