

Gaming Media and Social Effects

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Anton Nijholt
Editor

Making Smart Cities More Playable

Exploring Playable Cities

 Springer

Editor

Anton Nijholt
Faculty of Electrical Engineering,
Mathematics and Computer Science
University of Twente
Enschede, The Netherlands

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Preface

The primary objective of a city's digital smartness is to make it more efficient. Efficiency issues include city governance, traffic and public transport management, energy consumption, and waste management. More general objectives address sustainability and safety. Another general objective, which is not yet a consideration of civic management and urban development authorities, is the use of smart technology to make cities more attractive to their inhabitants and to their visitors. Can we make the urban environment more attractive by using smart technology? Can we introduce technology that invites city dwellers to interact with the environment in playful ways and to enjoy recreational and artistic installations that are embedded in the urban environment? Moreover, can we provide citizens and communities with access to digital technology that is embedded in the urban environment to introduce useful and playful applications that are of interest to them or their community? It is also interesting to consider whether individuals (hackers, tinkerers, and makers) and communities have the opportunity to introduce their own networks of sensors and actuators into their local environment to serve their interests in creating safe and playful environments for their community and in allowing as much unsupervised play and independent mobility as possible for their children.

In this book, our objective is to explore the ways in which the broad gamut of technologies that make up the smart city infrastructure can be harnessed to incorporate more playfulness into the daily activities that take place within the city to make the city not only more efficient but also more enjoyable to the people who live and work within its confines. Sensors and actuators and the digital communication networks that unite them offer new opportunities for playful interaction by bringing to life inert objects such as park benches and garbage cans, preserving and visualizing previously lost bits of the urban experience and enabling a host of new interactions and experiences, in addition to posing new challenges and concerns. Sensors, actuators, and communication networks also enable the introduction of location-based games, interactive playgrounds, and playable street art. When inviting researchers to contribute to this book, we discussed the following topics: embedding playfulness in outdoor daily life activities, digital art and entertainment

in urban environments, playful interactions with large digital displays, playfulness and smart city infrastructure, outdoor play for children and adults, child-friendly cities, enabling the disabled through playful interactions, playful interactions for urban animals, community building, maker cultures, playfulness, and robust sensor and actuator technologies for urban environments. Most of these topics are covered by the chapters in this book.

Although most of these topics are covered by the chapters in this book, several shortcomings have been identified: Digital interactive art, community building, maker cultures, and virtual, augmented, and diminished reality in urban environments are insufficiently addressed here. These topics will be discussed in the introductory and concluding chapters, together with various meta-views on smart cities: How do we experience a city? Can we experience smartness, playfulness, playability, affect, and empathy? Can a city become too smart? Games that are designed to provide city dwellers with the possibility of becoming familiar with planned changes in their urban environment and comment them are also not this book. Remarks on such games will appear in the first chapter of this book.

This is not the first edited book on playable cities. In 2016, the first book on Playable Cities appeared in the Springer's Gaming Media and Social Effects series. Starting in 2016, three workshops on Playable Cities were organized. The first workshop (2016) took place in Utrecht and was conjoined with the 8th International Conference on Intelligent Technologies for Interactive Entertainment (INTETAIN). The second workshop took place in Funchal (Madeira), which was again conjoined with the 2017 INTETAIN conference. The ArtsIT, Interactivity, and Game Creation conference in Braga (Portugal) hosted the third workshop on Playable Cities. All the papers that were presented at these workshops are available from the Springer Link Web sites.

The chapters in this book make clear that, more than in the past, research on playable cities now addresses fundamental research issues on urban development, sustainability, digital technology, and user-centered design, rather than "just" introducing an entertaining game in an urban environment. Nevertheless, the introduction of games, interactive art installations, and playful additions to urban environments that make use of already available sensors and actuators in a smart city's infrastructure or that are realized by (also) making use of community- and maker-added sensors and actuators in the urban environment remains highly challenging for designers of playful and playable urban environments.

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Anton Nijholt

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Contributors

Fitri Arlinkasari Creative Industries Faculty, School of Design, Queensland University of Technology, Brisbane, Qld, Australia;
Faculty of Psychology, YARSI University, Jakarta, Indonesia

Jon Back Uppsala University, Uppsala, Sweden

Annika Olofsdotter Bergström Blekinge Institute of Technology, Karlsman, Sweden

Miriam Börjesson Rivera Media Technology and Interaction Design, KTH Royal Institute of Technology, Stockholm, Sweden

Frances Brazier Delft University of Technology, Delft, The Netherlands

Tania Cortés-Álvarez Cognos+, Centro, Colima, Mexico

Debra Flanders Cushing Creative Industries Faculty, School of Design, Queensland University of Technology, Brisbane, Qld, Australia

Nicolas Fischöder Rhine-Waal University of Applied Sciences, Kamp-Lintfort, Germany

Joel Fredericks Design Lab, Sydney School of Architecture, Design and Planning, The University of Sydney, Sydney, NSW, Australia

Eric Gordon Engagement Lab, Emerson College, Boston, MA, USA

John Harlow Engagement Lab, Emerson College, Boston, MA, USA

Lobna Hassan Gamification Group, Faculty of Humanities, University of Turku, Turku, Finland;
Gamification Group, Faculty of Information Technology and Communication Sciences, Tampere University, Tampere, Finland

Troy Innocent School of Design, RMIT University, Melbourne, Australia

Ido Iurgel Rhine-Waal University of Applied Sciences, Kamp-Lintfort, Germany

Luis Jáuregui-Flores Facultad de Telemática, Universidad de Colima, Las Víboras, Colima, Mexico

Erick Juárez-Cervantes Facultad de Telemática, Universidad de Colima, Las Víboras, Colima, Mexico

Karen Lancel Delft University of Technology, Delft, The Netherlands;
Artists duo Lancel/Maat, Amsterdam, The Netherlands

Dale Leorke Centre of Excellence in Game Culture Studies, Tampere University, Tampere, Finland

Francisco Lepe-Salazar Ludolab, Centro, Colima, Mexico;
Coordinación General de Tecnologías de Información, Universidad de Colima, Las Víboras, Colima, Mexico

Aale Luusua Oulu School of Architecture/INTERACT, University of Oulu, Oulu, Finland

Hermen Maat Artists duo Lancel/Maat, Amsterdam, The Netherlands

Evonne Miller Creative Industries Faculty, School of Design, Queensland University of Technology, Brisbane, Qld, Australia

Ramón Moreno-de la Madrid Facultad de Telemática, Universidad de Colima, Las Víboras, Colima, Mexico

Anton Nijholt Faculty EEMCS, Human Media Interaction, University of Twente, Enschede, The Netherlands

Valentina Nisi University of Madeira, ITI/LARSYS, Funchal, Portugal

Nuno Jardim Nunes IST - University of Lisbon, ITI/LARSYS, Lisbon, Portugal

Susan Paget Swedish University of Agricultural Sciences, Uppsala, Sweden

Daniel Pargman Media Technology and Interaction Design, KTH Royal Institute of Technology, Stockholm, Sweden

Sean Peacock Open Lab, Newcastle University, Newcastle upon Tyne, UK

Henrika Pihlajaniemi Oulu School of Architecture, University of Oulu, Oulu, Finland

Catia Prandi University of Bologna, ITI/LARSYS, Bologna, Italy

Demis Rincón-Martínez Facultad de Telemática, Universidad de Colima, Las Víboras, Colima, Mexico

Tina Ringenson Strategic Sustainability Studies, KTH Royal Institute of Technology, Stockholm, Sweden

Eva-Lotta Sallnäs Pysander Royal Institute of Technology, Stockholm, Sweden

Elia Serratos-Chávez Cognos+, Centro, Colima, Mexico

Digdem Sezen Faculty of Communications, Istanbul University, Beyazit Fatih/Istanbul, Turkey

Tonguc Sezen Rhine-Waal University of Applied Sciences, Kamp-Lintfort, Germany

Mattia Thibault Gamification Group, Faculty of Information Technology and Communication Sciences, Tampere University, Tampere, Finland

Rodolfo Valdovinos-López Facultad de Telemática, Universidad de Colima, Las Víboras, Colima, Mexico

Annika Waern Uppsala University, Uppsala, Sweden