

Preface

This is the second book on playful user interfaces. The first book, “Playful User Interfaces: Interfaces that Invite Social and Physical Interaction,” also published by Springer, introduced playful interfaces and focused on an already-existing culture of designing and implementing playful user interfaces. The book also contained many examples of users creating interfaces and interaction tools, following the assumption that creating a game or an interactive installation can be play, and creating them can be just as satisfying as using the result. This is especially true for children, enabling them to create their own games, using tabletops and tools such as Arduino, Makey Makey and, for example, Scratch programming. Making games or entertainment applications also introduces users to the wonders of digital technologies and how to use them to design other applications.

In this book, we continue this exploration of playful user interfaces, whether they are for educational purposes, for example, introducing children to digital technology, for creating awareness, for changing behavior, for artistic expression, or for entertainment. But, we will extend the application domains of playful user interfaces. Among the many new topics are the playful use of the Internet of Things, organizing participatory design workshops, for the design of connected toys, physical games, and storytelling. How to use smart materials in order to realize interactive artistic installations has been explored in workshops with young artists. Organizing workshops for kids to make game controllers and involving young children and children with special needs in the design process of tabletop games are other topics that are investigated in the chapters of this book. It is not possible to play digital games or enjoy digital entertainment in some countries without daily electric power interruptions. Can we design games with power and no-power conditions, where a hybrid game, that is, a game with digital and physical elements, can be continued using physical elements only in the no-power condition and change again to the hybrid form in its power condition?

Learning about new domains, improving awareness of sustainability issues, and persuading behavior change through playful user interfaces are the other new issues that also appear in this book. There are chapters about having interactions with ecosystems, plants, and pets. Hence, computer-mediated human–nature interaction,

experiencing the biosphere through digital technology, and having wearables that allows us to experience forests are the topics that are investigated. How can we design interfaces that allow playful interaction with our dogs, cats, or other pets and animals? What kinds of digital tools or smart environments can be offered to them? Playful remote interaction with pets staying at home while we are away at work has become a research issue in computer-mediated human–animal interaction. Well-being and safety need to be addressed in this kind of research.

In this book, there are also reports of research on shared experiences and on facilitating and creating shared experiences. Obviously, this already happens and is an important aspect of workshops where children, artists, or other creators of digital technology are involved in designing, making, and evaluating playful products and interfaces. Sharing experiences can also be done during public events such as sport events, political meetings, school meetings, demonstrations, open air or theater performances, or traffic and public transport disturbances. For example, an issue addressed in this book, can we contribute to enhancing the experiences of sports spectators, whether they are attending the live event or whether they are remote spectators? Can we, as a remote spectator, enjoy a sport event more by receiving multimedia information from fans in a stadium about their enthusiasm at certain moments and can we use mobile devices to share our experience with them and other remote spectators? Similar aims, with completely different technology can be recognized in research, also reported in this book, on playful music installations that take as input EEG-measured changing brain activity of two or more participants using the interface and turning it into a joint performance.

In the first chapter of this book, we discuss some views on leisure and developments in leisure activities and technologies in the twentieth-century literature and in movies. In particular, we look at viewpoints on passive and active leisure consumption and activity. After that, the book consists of three parts in which the chapters of this book are categorized. These parts are (I) Designing Interactions for and by Children, (II) Designing Interactions with Nature, Animals, and Things, and (III) Designing Interactions for Arts, Performances, and Sports.

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More Playful User Interfaces

Interfaces that Invite Social and Physical Interaction

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