

Mobile Context Awareness

Tom Lovett • Eamonn O'Neill
Editors

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Foreword by David Pollington

 Springer

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Foreword

Over the 15 years+ I've spent in the mobile industry, I've seen the mobile phone evolve through a number of innovation cycles. In its humble beginnings the focus was understandably around communications (voice and SMS) but with the introduction of Multimedia Messaging (MMS) at the turn of the new Millennium the focus shifted to generating new revenues around content, the mobile phone evolving to become a music player and perhaps even a portable TV player.

As phones (and networks) evolved over the next 5 years to support multimedia (larger displays, faster processors, higher bandwidth) it was realised that the mobile phone could be more than just a communications device or a portable media player: it could become a multi-purpose portable computer. What followed was the exploration of open operating systems, application environments and enhanced browsing capabilities that delivered a new breed of mobile phone that could truly herald the start of a new post-PC era—the smart-phone. With the introduction of enhanced sensors, AI and machine learning we're now witnessing the next evolutionary step, one in which the mobile phone becomes much more contextually aware and able not only to personalise the services it provides but potentially anticipate the needs of its owner; truly exciting times.

Mobile phones have already evolved to enable us to navigate our surroundings but such insight will become more fine grained as technology evolves, opening up the ability to infer intent in addition to place and thereby unlocking elements of contextual awareness that will make future mobile services more intelligent and useful to the end-user. This book pulls together research that explores the art of the possible in contextual awareness via mobile phones, the opportunities it presents and the challenges that will need to be overcome to deliver on the vision.

Newbury, UK

David Pollington

Preface

This book originated from a workshop at *UbiComp 2010* in Copenhagen, Denmark, in which both academic and industrial researchers presented their work in the field of mobile context awareness. The work addressed common challenges and problems encountered when using mobile devices to enable context-aware computing; from low-level sensing to middleware and applications. It is this range that forms the scope of this edited volume.

The purpose of the book is to present this work to a wider audience, particularly researchers and practitioners in the field of context-aware computing. The authors have expanded considerably on their work from the workshop, and the chapters present an overview of the capabilities, challenges and applications of mobile context-aware systems. The book is a collection of research, so it is primarily aimed at an audience of human computer interaction (HCI) researchers in both industry and academia. However, those interested in designing and implementing mobile context aware applications may find the content useful to their work.

We are grateful to our authors for their hard work in contributing the book's chapters, and our thanks to Ben Bishop and Beverley Ford at Springer for their assistance.

Bath, UK

Tom Lovett
Eamonn O'Neill

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