Foreword

Access to online information is now a pervasive part of many of our lives, whether at work or at play. Indeed, the Internet has become such an important influence that it hardly seems possible to remember a time before the World-Wide Web, even though the first browsers only arrived on the scene less than 15 years ago. Today, billions of users access the Internet on a daily basis, with the leading search engines handling tens of billions of queries per month, and the volume of online information continues to grow at near exponential rates.

Unfortunately, for many, finding the right information quickly and easily continues to be a challenge and the one-size-fits-all nature of most information services does little to acknowledge the distinctive information needs that we all invariably have. In this context the idea that information services can adapt to the needs and preferences of individuals, or groups of users, has attracted considerable attention and so-called personalized user interfaces represent an important step forward in the development of online services that are capable of proactively responding to the needs of the individual.

The prospect of personalized information services and interfaces, which can intelligently adapt to our changing circumstances and contexts, has the potential to dramatically change the way that we interact with a wide range of online services. Already, a number of organizations have made great strides when it comes to offering their customers more personalized online experiences. For example, Amazon’s now famous recommendation engine drives significant additional sales by promoting products that are relevant to individual customers, given their past purchases. Set-top-boxes such as Tivo have changed the way that people watch television, by recommending and proactively recording TV shows based on their learned viewing preferences. And, more recently, mobile telephone operators such as Vodafone and O2 provide their subscribers with access to mobile portals that automatically adapt their structure, so that relevant content and services are promoted to individual subscribers, based on their access patterns. These are just a few of the examples of large-scale personalization deployments within the different consumer markets. In each case the benefits of personalized and adaptive information services have been enjoyed by consumers (through more efficient access to relevant information) and operating companies, through increased sales or growth in user activity.

What is especially exciting about this book is that it brings together, in a single volume, a diverse collection of research on a variety of topics that drives developments in the area of personalized and intelligent user interfaces. These chapters have been written by leading researchers and cover a wide range of applications areas, from e-government to e-commerce, as well as providing a comprehensive account of the component technologies that underpin intelligent user interface technology. Indeed the reader will also benefit from an understanding of the various human factors associated with adaptivity and personalization, from user perceptions of adaptive systems to the privacy and security issues that are associated with user profiling and personalization.
This book is accessible to a wide range of individuals and should be read by academics, students, and professionals with an interest in the design and development of intelligent user interfaces and the applications of personalization technology. For the reader it provides a comprehensive account of the core challenges facing the development of the next generation of personalized and adaptive information services. And whether researcher or practitioner, the reader will come away with an appreciation and understanding of the major strands of work that make up this exciting area of research.

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