

Mirjam Augstein, Eelco Herder, Wolfgang Wörndl

# PERSONALIZED HUMAN-COMPUTER INTERACTION



Personalized and adaptive systems employ user models to adapt content, services, interaction or navigation to individual users' needs. User models can be inferred from implicitly observed information, such as the user's interaction history or current location, or from explicitly entered information, such as user profile data or ratings. Applications of personalization include item recommendation, location-based services, learning assistance and the tailored selection of interaction modalities.

With the transition from desktop computers to mobile devices and ubiquitous environments, the need for adapting to changing contexts is even more important. However, this also poses new challenges concerning privacy issues, user control, transparency, and explainability. In addition, user experience and other human factors are becoming increasingly important.

This book describes foundations of user modeling, discusses user interaction as a basis for adaptivity, and showcases several personalization approaches in a variety of domains, including music recommendation, tourism, and accessible user interfaces.

- ▶ Most topical issues of Human-Computer Interaction such as personalization, adaptive user interfaces, intelligent agents.
- ▶ Includes methods, tools, examples, and case studies.

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Human-Machine Interaction

**Of interest to:** Graduate students, researchers, practitioners

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