

Tutorial 11

**Coping with Diversity in HCI:
Techniques for Adaptable and Adaptive Interaction**

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Tutorial Abstract

This tutorial will present the main challenges for interaction design resulting from diverse user requirements, contexts of use, interaction platforms and devices, and will demonstrate how user interface adaptations can be designed and implemented so as to address these challenges.

The tutorial critically reviews prevailing HCI approaches for coping with diversity, focusing on methods and techniques for adaptable and adaptive interactive behaviours. Then, it presents a generic methodology for building interactive software accessible for the broadest possible end user population. Specifically, the unified user interface design method and the unified user interface architecture are introduced as building blocks of an engineering approach that values, respects and accommodates diversity in HCI design.

The tutorial provides practical examples, from the experience of the presenters in selected application domains and demonstrates the practicalities of unified user interface development in the case of a substantial development effort, namely the AVANTI Web Browser.

Short Biographies of Presenters

Constantine Stephanidis, Ph.D, leads the Assistive Technology and Human-Computer Interaction Laboratory at the Institute of Computer Science, Foundation for Research and Technology - Hellas (ICS-FORTH), Heraklion, Crete, Greece. He is also Associate Professor of Human-Computer Interaction at the Department of Computer Science, University of Crete. He is the Founder and Chairman of the Working Group "User Interfaces for All" of the European Research Consortium on Informatics and Mathematics (ERCIM), and the Founder and Chairman of the International Scientific Forum "Towards an Information Society for All".

URL: <http://www.ics.forth.gr/proj/rti/cs.html>

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Agenda

Time	Topic
14:00 - 14:30	Part I Dimensions of diversity
14:30 - 15:30	Part II Adaptation in HCI - The challenges
15:30 - 16:00	Coffee Break
16:00 - 17:00	Part III Towards meeting the challenges
17:00 - 17:15	Part IV Example case study
17:15 - 17:30	Part V Summary, Conclusions & Discussion

Table of Contents

Topic	Slides
Part I: Dimensions of diversity	3 - 12
Part II: Adaptation in HCI - The challenges HCI Design Traditions User Interface Architecture	13 - 47
Coffee Break	
Part III: Towards meeting the challenges The Unified User Interface Design Method The Unified User Interface Architecture	49 - 100
Part IV: Example case study The AVANTI Browser	101 - 114
Part V: Summary, Conclusions & Discussion	115 - 121
ANNEX	
<p>Savidis, A., Akoumianakis, D., & Stephanidis, C. (1999, in-press). The Unified User Interface Design method. In C. Stephanidis (Ed.), <i>User Interfaces for All</i>. Hillsdale, NJ: Lawrence Erlbaum Associates.</p> <p>Stephanidis, C. (Ed.), (1999, in-press), Table of Contents. <i>User Interfaces for All</i>. Hillsdale, NJ: Lawrence Erlbaum Associates.</p> <p>Stephanidis, C., Akoumianakis, D., Sfyarakis, M., & Paramythis, A. (1998). Universal Accessibility in HCI: Process-oriented design guidelines and tool requirements. In C. Stephanidis & A. Waern (Eds.), <i>Proceedings of the 4th ERCIM Workshop on User Interfaces for All</i>, Stockholm, Sweden, 19-21 October.</p> <p>Stephanidis, C., Paramythis, A., Sfyarakis, M., Stergiou, A., Maou, N., Leventis, A., Pappoulis, G., & Karagiannidis, C. (1998). Adaptable and Adaptive User Interfaces for Disabled Users in the AVANTI Project. In S. Trigila, A. Mullery, M. Campolargo, H. Vanderstraeten & M. Mampaey (Eds.), <i>Intelligence in Services and Networks: Technology for Ubiquitous Telecommunications Services - Proceedings of the 5th International Conference on Intelligence in Services and Networks (IS&N '98)</i>, Antwerp, Belgium, 25-28 May (pp. 153-166). Berlin: Springer, Lecture Notes in Computer Science, 1430 (ISBN: 3-540-64598-5).</p>	
References & Bibliography	