

Commenced Publication in 1973

Founding and Former Series Editors:

Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

Editorial Board

David Hutchison

Lancaster University, UK

Takeo Kanade

Carnegie Mellon University, Pittsburgh, PA, USA

Josef Kittler

University of Surrey, Guildford, UK

Jon M. Kleinberg

Cornell University, Ithaca, NY, USA

Alfred Kobsa

University of California, Irvine, CA, USA

Friedemann Mattern

ETH Zurich, Switzerland

John C. Mitchell

Stanford University, CA, USA

Moni Naor

Weizmann Institute of Science, Rehovot, Israel

Oscar Nierstrasz

University of Bern, Switzerland

C. Pandu Rangan

Indian Institute of Technology, Madras, India

Bernhard Steffen

University of Dortmund, Germany

Madhu Sudan

Massachusetts Institute of Technology, MA, USA

Demetri Terzopoulos

University of California, Los Angeles, CA, USA

Doug Tygar

University of California, Berkeley, CA, USA

Gerhard Weikum

Max-Planck Institute of Computer Science, Saarbruecken, Germany

Michael J. Smith Gavriel Salvendy (Eds.)

Human Interface and the Management of Information

Designing Information Environments

Symposium on Human Interface 2009

Held as Part of HCI International 2009

San Diego, CA, USA, July 19-24, 2009

Proceedings, Part I



Springer

Volume Editors

Michael J. Smith
University of Wisconsin
Department of Industrial and Systems Engineering
1513 University Avenue, Madison, WI 53706, USA
E-mail: mjsmith@engr.wisc.edu

Gavriel Salvendy
Purdue University, Grissom Hall, Room 263
315 North Grant Street, West Lafayette, IN, 47907-2023, USA
E-mail: salvendy@purdue.edu
and Tsinghua University, Department of Industrial Engineering
Beijing 10084, P.R. China

Library of Congress Control Number: 2009928850

CR Subject Classification (1998): H.5, H.3, H.4, K.4.3, D.2

LNCS Sublibrary: SL 3 – Information Systems and Application, incl. Internet/Web and HCI

ISSN 0302-9743
ISBN-10 3-642-02555-2 Springer Berlin Heidelberg New York
ISBN-13 978-3-642-02555-6 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

springer.com

© Springer-Verlag Berlin Heidelberg 2009
Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper SPIN: 12704187 06/3180 5 4 3 2 1 0

Foreword

The 13th International Conference on Human–Computer Interaction, HCI International 2009, was held in San Diego, California, USA, July 19–24, 2009, jointly with the Symposium on Human Interface (Japan) 2009, the 8th International Conference on Engineering Psychology and Cognitive Ergonomics, the 5th International Conference on Universal Access in Human–Computer Interaction, the Third International Conference on Virtual and Mixed Reality, the Third International Conference on Internationalization, Design and Global Development, the Third International Conference on Online Communities and Social Computing, the 5th International Conference on Augmented Cognition, the Second International Conference on Digital Human Modeling, and the First International Conference on Human Centered Design.

A total of 4,348 individuals from academia, research institutes, industry and governmental agencies from 73 countries submitted contributions, and 1,425 papers that were judged to be of high scientific quality were included in the program. These papers address the latest research and development efforts and highlight the human aspects of the design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human–computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas.

This volume, edited by Michael J. Smith and Gavriel Salvendy, contains papers in the thematic area of Human Interface and the Management of Information, addressing the following major topics:

- Supporting Work, Collaboration and Business
- Product Design and Development
- Interacting with Information, Documents and Knowledge
- Novel Devices, Interfaces and Interaction Environments
- User-Centered Design and User Experience in Information Systems

The remaining volumes of the HCI International 2009 proceedings are:

- Volume 1, LNCS 5610, Human–Computer Interaction—New Trends (Part I), edited by Julie A. Jacko
- Volume 2, LNCS 5611, Human–Computer Interaction—Novel Interaction Methods and Techniques (Part II), edited by Julie A. Jacko
- Volume 3, LNCS 5612, Human–Computer Interaction—Ambient, Ubiquitous and Intelligent Interaction (Part III), edited by Julie A. Jacko
- Volume 4, LNCS 5613, Human–Computer Interaction—Interacting in Various Application Domains (Part IV), edited by Julie A. Jacko
- Volume 5, LNCS 5614, Universal Access in Human–Computer Interaction—Addressing Diversity (Part I), edited by Constantine Stephanidis

- Volume 6, LNCS 5615, Universal Access in Human–Computer Interaction—Intelligent and Ubiquitous Interaction Environments (Part II), edited by Constantine Stephanidis
- Volume 7, LNCS 5616, Universal Access in Human–Computer Interaction—Applications and Services (Part III), edited by Constantine Stephanidis
- Volume 9, LNCS 5618, Human Interface and the Management of Information—Information and Interaction (Part II), edited by Gavriel Salvendy and Michael J. Smith
- Volume 10, LNCS 5619, Human–Centered Design, edited by Masaaki Kurosu
- Volume 11, LNCS 5620, Digital Human Modeling, edited by Vincent G. Duffy
- Volume 12, LNCS 5621, Online Communities and Social Computing, edited by A. Ant Ozok and Panayiotis Zaphiris
- Volume 13, LNCS 5622, Virtual and Mixed Reality, edited by Randall Shumaker
- Volume 14, LNCS 5623, Internationalization, Design and Global Development, edited by Nuray Aykin
- Volume 15, LNCS 5624, Ergonomics and Health Aspects of Work with Computers, edited by Ben-Tzion Karsh
- Volume 16, LNAI 5638, The Foundations of Augmented Cognition: Neuroergonomics and Operational Neuroscience, edited by Dylan Schmorrow, Ivy Estabrooke and Marc Grootjen
- Volume 17, LNAI 5639, Engineering Psychology and Cognitive Ergonomics, edited by Don Harris

I would like to thank the Program Chairs and the members of the Program Boards of all thematic areas, listed below, for their contribution to the highest scientific quality and the overall success of HCI International 2009.

Ergonomics and Health Aspects of Work with Computers

Program Chair: Ben-Tzion Karsh

Arne Aarås, Norway
Pascale Carayon, USA
Barbara G.F. Cohen, USA
Wolfgang Friesdorf, Germany
John Gosbee, USA
Martin Helander, Singapore
Ed Israelski, USA
Waldemar Karwowski, USA
Peter Kern, Germany
Danuta Koradecka, Poland
Kari Lindström, Finland

Holger Luczak, Germany
Aura C. Matias, Philippines
Kyung (Ken) Park, Korea
Michelle M. Robertson, USA
Michelle L. Rogers, USA
Steven L. Sauter, USA
Dominique L. Scapin, France
Naomi Swanson, USA
Peter Vink, The Netherlands
John Wilson, UK
Teresa Zayas-Cabán, USA

Human Interface and the Management of Information

Program Chair: Michael J. Smith

Gunilla Bradley, Sweden
Hans-Jörg Bullinger, Germany
Alan Chan, Hong Kong
Klaus-Peter Fähnrich, Germany
Michitaka Hirose, Japan
Jhilmil Jain, USA
Yasufumi Kume, Japan
Mark Lehto, USA
Fiona Fui-Hoon Nah, USA
Shogo Nishida, Japan
Robert Proctor, USA
Youngho Rhee, Korea

Anxo Cereijo Roibás, UK
Katsunori Shimohara, Japan
Dieter Spath, Germany
Tsutomu Tabe, Japan
Alvaro D. Taveira, USA
Kim-Phuong L. Vu, USA
Tomio Watanabe, Japan
Sakae Yamamoto, Japan
Hidekazu Yoshikawa, Japan
Li Zheng, P.R. China
Bernhard Zimolong, Germany

Human-Computer Interaction

Program Chair: Julie A. Jacko

Sebastiano Bagnara, Italy
Sherry Y. Chen, UK
Marvin J. Dainoff, USA
Jianming Dong, USA
John Eklund, Australia
Xiaowen Fang, USA
Ayse Gurses, USA
Vicki L. Hanson, UK
Sheue-Ling Hwang, Taiwan
Wonil Hwang, Korea
Yong Gu Ji, Korea
Steven Landry, USA

Gitte Lindgaard, Canada
Chen Ling, USA
Yan Liu, USA
Chang S. Nam, USA
Celestine A. Ntuen, USA
Philippe Palanque, France
P.L. Patrick Rau, P.R. China
Ling Rothrock, USA
Guangfeng Song, USA
Steffen Staab, Germany
Wan Chul Yoon, Korea
Wenli Zhu, P.R. China

Engineering Psychology and Cognitive Ergonomics

Program Chair: Don Harris

Guy A. Boy, USA
John Huddleston, UK
Kenji Itoh, Japan
Hung-Sying Jing, Taiwan
Ron Laughery, USA
Wen-Chin Li, Taiwan
James T. Luxhøj, USA

Nicolas Marmaras, Greece
Sundaram Narayanan, USA
Mark A. Neerincx, The Netherlands
Jan M. Noyes, UK
Kjell Ohlsson, Sweden
Axel Schulte, Germany
Sarah C. Sharples, UK

Neville A. Stanton, UK
Xianghong Sun, P.R. China
Andrew Thatcher, South Africa

Matthew J.W. Thomas, Australia
Mark Young, UK

Universal Access in Human–Computer Interaction

Program Chair: Constantine Stephanidis

Julio Abascal, Spain
Ray Adams, UK
Elisabeth André, Germany
Margherita Antona, Greece
Chieko Asakawa, Japan
Christian Bühler, Germany
Noelle Carbonell, France
Jerzy Charytonowicz, Poland
Pier Luigi Emiliani, Italy
Michael Fairhurst, UK
Dimitris Grammenos, Greece
Andreas Holzinger, Austria
Arthur I. Karshmer, USA
Simeon Keates, Denmark
Georgios Kouroupetroglou, Greece
Sri Kurniawan, USA

Patrick M. Langdon, UK
Seongil Lee, Korea
Zhengjie Liu, P.R. China
Klaus Miesenberger, Austria
Helen Petrie, UK
Michael Pieper, Germany
Anthony Savidis, Greece
Andrew Sears, USA
Christian Stary, Austria
Hirotada Ueda, Japan
Jean Vanderdonckt, Belgium
Gregg C. Vanderheiden, USA
Gerhard Weber, Germany
Harald Weber, Germany
Toshiki Yamaoka, Japan
Panayiotis Zaphiris, UK

Virtual and Mixed Reality

Program Chair: Randall Shumaker

Pat Banerjee, USA
Mark Billinghurst, New Zealand
Charles E. Hughes, USA
David Kaber, USA
Hirokazu Kato, Japan
Robert S. Kennedy, USA
Young J. Kim, Korea
Ben Lawson, USA

Gordon M. Mair, UK
Miguel A. Otaduy, Switzerland
David Pratt, UK
Albert “Skip” Rizzo, USA
Lawrence Rosenblum, USA
Dieter Schmalstieg, Austria
Dylan Schmorrow, USA
Mark Wiederhold, USA

Internationalization, Design and Global Development

Program Chair: Nuray Aykin

Michael L. Best, USA
Ram Bishu, USA
Alan Chan, Hong Kong
Andy M. Dearden, UK

Susan M. Dray, USA
Vanessa Evers, The Netherlands
Paul Fu, USA
Emilie Gould, USA

Sung H. Han, Korea
 Veikko Ikonen, Finland
 Esin Kiris, USA
 Masaaki Kurosu, Japan
 Apala Lahiri Chavan, USA
 James R. Lewis, USA
 Ann Light, UK
 James J.W. Lin, USA
 Rungtai Lin, Taiwan
 Zhengjie Liu, P.R. China
 Aaron Marcus, USA
 Allen E. Milewski, USA

Elizabeth D. Mynatt, USA
 Oguzhan Ozcan, Turkey
 Girish Prabhu, India
 Kerstin Röse, Germany
 Eunice Ratna Sari, Indonesia
 Supriya Singh, Australia
 Christian Sturm, Spain
 Adi Tedjasaputra, Singapore
 Kentaro Toyama, India
 Alvin W. Yeo, Malaysia
 Chen Zhao, P.R. China
 Wei Zhou, P.R. China

Online Communities and Social Computing

Program Chairs: A. Ant Ozok, Panayiotis Zaphiris

Chadia N. Abras, USA
 Chee Siang Ang, UK
 Amy Bruckman, USA
 Peter Day, UK
 Fiorella De Cindio, Italy
 Michael Gurstein, Canada
 Tom Horan, USA
 Anita Komlodi, USA
 Piet A.M. Kommers, The Netherlands
 Jonathan Lazar, USA
 Stefanie Lindstaedt, Austria

Gabriele Meiselwitz, USA
 Hideyuki Nakanishi, Japan
 Anthony F. Norcio, USA
 Jennifer Preece, USA
 Elaine M. Raybourn, USA
 Douglas Schuler, USA
 Gilson Schwartz, Brazil
 Sergei Stafeev, Russia
 Charalambos Vrasidas, Cyprus
 Cheng-Yen Wang, Taiwan

Augmented Cognition

Program Chair: Dylan D. Schmorrow

Andy Bellenkes, USA
 Andrew Belyavin, UK
 Joseph Cohn, USA
 Martha E. Crosby, USA
 Tjerk de Greef, The Netherlands
 Blair Dickson, UK
 Traci Downs, USA
 Julie Drexler, USA
 Ivy Estabrooke, USA
 Cali Fidopiastis, USA
 Chris Forsythe, USA
 Wai Tat Fu, USA
 Henry Girolamo, USA

Marc Grootjen, The Netherlands
 Taro Kanno, Japan
 Wilhelm E. Kincses, Germany
 David Kobus, USA
 Santosh Mathan, USA
 Rob Matthews, Australia
 Dennis McBride, USA
 Robert McCann, USA
 Jeff Morrison, USA
 Eric Muth, USA
 Mark A. Neerincx, The Netherlands
 Denise Nicholson, USA
 Glenn Osga, USA

Dennis Proffitt, USA
Leah Reeves, USA
Mike Russo, USA
Kay Stanney, USA
Roy Stripling, USA
Mike Swetnam, USA
Rob Taylor, UK

Maria L. Thomas, USA
Peter-Paul van Maanen, The Netherlands
Karl van Orden, USA
Roman Vilimek, Germany
Glenn Wilson, USA
Thorsten Zander, Germany

Digital Human Modeling

Program Chair: Vincent G. Duffy

Karim Abdel-Malek, USA
Thomas J. Armstrong, USA
Norm Badler, USA
Kathryn Cormican, Ireland
Afzal Godil, USA
Ravindra Goonetilleke, Hong Kong
Anand Gramopadhye, USA
Sung H. Han, Korea
Lars Hanson, Sweden
Pheng Ann Heng, Hong Kong
Tianzi Jiang, P.R. China

Kang Li, USA
Zhizhong Li, P.R. China
Timo J. Määttä, Finland
Woojin Park, USA
Matthew Parkinson, USA
Jim Potvin, Canada
Rajesh Subramanian, USA
Xuguang Wang, France
John F. Wiechel, USA
Jingzhou (James) Yang, USA
Xiu-gan Yuan, P.R. China

Human-Centered Design

Program Chair: Masaaki Kurosu

Gerhard Fischer, USA
Tom Gross, Germany
Naotake Hirasawa, Japan
Yasuhiro Horibe, Japan
Minna Isomursu, Finland
Mitsuhiko Karashima, Japan
Tadashi Kobayashi, Japan

Kun-Pyo Lee, Korea
Loïc Martínez-Normand, Spain
Dominique L. Scapin, France
Haruhiko Urokohara, Japan
Gerrit C. van der Veer, The Netherlands
Kazuhiko Yamazaki, Japan

In addition to the members of the Program Boards above, I also wish to thank the following volunteer external reviewers: Gavin Lew from the USA, Daniel Su from the UK, and Ilia Adami, Ioannis Basdekis, Yannis Georgalis, Panagiotis Karampelas, Iosif Klironomos, Alexandros Mourouzis, and Stavroula Ntoa from Greece.

This conference could not have been possible without the continuous support and advice of the Conference Scientific Advisor, Gavriel Salvendy, as well as the dedicated work and outstanding efforts of the Communications Chair and Editor of HCI International News, Abbas Moallem.

I would also like to thank for their contribution toward the organization of the HCI International 2009 conference the members of the Human–Computer Interaction Laboratory of ICS-FORTH, and in particular Margherita Antona, George Paparoulis, Maria Pitsoulaki, Stavroula Ntoa, and Maria Bouhli.

Constantine Stephanidis

HCI International 2011

The 14th International Conference on Human–Computer Interaction, HCI International 2011, will be held jointly with the affiliated conferences in the summer of 2011. It will cover a broad spectrum of themes related to human–computer interaction, including theoretical issues, methods, tools, processes and case studies in HCI design, as well as novel interaction techniques, interfaces and applications. The proceedings will be published by Springer. More information about the topics, as well as the venue and dates of the conference, will be announced through the HCI International Conference series website: <http://www.hci-international.org/>

General Chair
Professor Constantine Stephanidis
University of Crete and ICS-FORTH
Heraklion, Crete, Greece
Email: cs@ics.forth.gr

Table of Contents

Part I: Supporting Work, Collaboration and Business

Crafting Contemporary Enterprise Application User Experiences <i>Jeremy Ashley and Misha W. Vaughan</i>	3
A Management System for Visual Communication Design at Film Studio <i>Hong-Sheng Chen</i>	13
A Mobile User Interface for Business Knowledge Management (BKM) <i>Danco DAVECEV, Marjan ARSIC, and Dalibor ILIEVSKI</i>	22
Designing a Peer Reviewing Tool on Lecture Video with Handwritten Annotation <i>Hironori Egi, Shotaro Houri, Yukari Kato, Tatsuya Terada, Wataru Tsukahara, and Masaki Nakagawa</i>	31
Usability Analyses of CRM Systems in Call Centers: The Data Mining Approach <i>Ádám Horváth, László Laufer, and András Kangyal</i>	40
Urgent Collaboration Service for Inclusive Use <i>Naotsune Hosono, Hiroyuki Miki, Michio Suzuki, and Yukata Tomita</i>	49
Improvement of Member's Concentration during Discussion <i>Junko Ichino, Kazuhiro Takeuchi, and Hitoshi Isahara</i>	59
Representation Method for Engineering Perspective <i>Gaku Ishii and Masatake Sakuma</i>	69
A Skill Transfer Method for Manual Machine Tool Operation Utilizing Cutting Sound <i>Takashi Kawashimo, Noriaki Sato, Daisuke Doyo, Michiko Anse, and Tsutomu Tabe</i>	77
A Business Performance Measurement Model for Mobile User Interface <i>Min-Jeong Kim and Jonghun Park</i>	87
Web Service Systems for Cooperative Work Support in Knowledge Creation Processes <i>Hiroyuki Kojima, Kentaro Funaki, and Tsuyoshi Inoue</i>	94

Designing International Enterprise Software	104
<i>Janaki Kumar, Dan Rosenberg, Paul Hofmann, and Michael Arent</i>	
Proactive Fault Detection Schema for Enterprise Information System Using Statistical Process Control	113
<i>ChiHoon Lee, Doohyung Lee, Jahwan Koo, and Jinwook Chung</i>	
A Human Factors Model for Enterprise Resources Planning System Implementation	123
<i>Chiuhsiang Joe Lin, Chih-Wei Yang, Shi-Bin Lin, and Shiau-Feng Lin</i>	
A Study on Effective Methods of Visual Inspection for Reused-Parts by Inspectors	131
<i>Toshiyuki Matsumoto, Hideki Shirai, and Keisuke Shida</i>	
Practical Use of Task Models for Building and Modeling Operations Chart in the Industrial Production	140
<i>Tomasz Mistrzyk and Alexander Redenius</i>	
A Model for Measurement and Analysis of the Workflow Processes	149
<i>Pavel Ocenasek and Miroslav Sveda</i>	
Tactical Access to Complex Technology through Interactive Communication (TACTIC)	154
<i>Alexei Samoylov, Christopher Franklin, Susan Harkness Regli, Patrice Tremoulet, Kathleen Stibler, and Peter Gerken</i>	
A Method for Evaluating the Relationship among Four Perspectives of the Balanced Scorecard	163
<i>Yumiko Taguchi, Takumi Kaneko, and Tsutomu Tabé</i>	
Exploring Employee Perspectives on Information Privacy and Security in the Mobile Environment	171
<i>Peter Tarasewich, Benjamin Ngugi, and Mansi Sanghavi</i>	
Organization Diagnosis Tools Based on Social Network Analysis	181
<i>Takanori Ugai and Kouji Aoyama</i>	
Designing for the Next Generation: Generation-Y Expectations	190
<i>Patañjali Venkatacharya, Sean Rice, and Lulit Bezuaeyhu</i>	
A Study on a Method of Support for Improving the Motivation of Employees	197
<i>Daisuke Yatsuzuka, Yumiko Taguchi, and Tsutomu Tabé</i>	
Research on the Supplier Promise Management Based on the Lean Six Sigma	205
<i>Wang Ying-chun, Wang Shi-jie, Liu Yong-xian, and Zhang Xinmin</i>	

Part II: Product Design and Development

Supporting Scenario-Based Product Design and Its Adapters: An Informal Framework for Scenario Creation and Use	217
<i>Irene Anggreeni and Mascha van der Voort</i>	
How to Learn from Intelligent Products; The Structuring of Incoherent Field Feedback Data in Two Case Studies	227
<i>Renate de Bruin, Yuan Lu, and Aarnout Brombacher</i>	
Successful User Experience in an Agile Enterprise Environment	233
<i>Melissa Federoff and Catherine Courage</i>	
From Research to Product: Integrating Treemaps into Enterprise Software	243
<i>Joseph H. Goldberg, Jonathan I. Helfman, and John Beresniewicz</i>	
How Product Differentiation Affects Online Shopping	253
<i>A. Walkyria Goode</i>	
Design and Evaluation of the Customized Product Color Combination Interface Based on Scenario Experience	263
<i>Ying-Jye Lee, Cheih-Ying Chen, and Fong-Gong Wu</i>	
Distribution of Human-Machine Interfaces in System-of-Systems Engineering	271
<i>Sandro Leuchter and Dirk Mühlenberg</i>	
Determination of Inspection Threshold Using Perceptive Sensitivities of Experienced Panel	279
<i>Masao Nakagawa, Hidetoshi Nakayasu, and Tetsuya Miyoshi</i>	
Reversing the Simon Effect with Prior Practice of Noncorresponding Location Words	287
<i>Andrea Rottermann and Kim-Phuong L. Vu</i>	
Object-Oriented Interactive Processes in Decentralized Production Systems	296
<i>Thomas Schlegel</i>	
A Retrospective and Prospective View of Information Technology Professionals' Use of Tools: Maturing the User Experience	306
<i>Candace Soderston</i>	
Customer Boards as Vehicles of Change in Enterprise Software User Experience	316
<i>Anna M. Wichansky</i>	
Fashion Support from Clothes with Characteristics	323
<i>Yuri Yonezawa and Yoshio Nakatani</i>	

Part III: Interacting with Information, Documents and Knowledge

Exploring History with Narrative Timelines	333
<i>Robert B. Allen and Sumanth Nalluru</i>	
Facilitating Search through Visualized Results	339
<i>Takahisa Ando, Satoko Shiga, Tomoya Iwakura, and Seishi Okamoto</i>	
The 7 Basic Functions of a Digital Library - Analysis of Focus Groups about the Usefulness of a Thematic Digital Library on the History of European Integration	345
<i>Eric Brangier, Jérôme Dinet, and Laurent Eilrich</i>	
Exploiting Browsing History for Exploratory Search	355
<i>Wei-Lin Chen and Wei-Guang Teng</i>	
A Proposal of Awareness Services for the Construction of Quality Community Knowledge Supported by the Knowledge Management System KnowCat	365
<i>Ruth Cobos, Ivan Dario Claros Gómez, and Jaime Moreno-Llorena</i>	
Electronic Document Tracking System (EDTS): A Prototype	375
<i>Rochin Demong, Lailatul Faizah Abu Hassan, Tuan Badrol Hisham Tuan Besar, and Zulhaimi Zulkifli</i>	
Adaptive Visual Clustering for Mixed-Initiative Information Structuring	384
<i>Hakan Duman, Alex Healing, and Robert Ghanea-Hercock</i>	
An Empirical Analysis of Personal Digital Document Structures	394
<i>Sarah Henderson and Ananth Srinivasan</i>	
Search Mathematical Formulas by Mathematical Formulas	404
<i>Yoshinori Hijikata, Hideki Hashimoto, and Shogo Nishida</i>	
Metadata-Based Reminder Classification in Reminiscence Engineering	412
<i>Masashi Ishibashi and Yoshio Nakatani</i>	
InfoScape: A Browser for User Behavior-Based Information Retrieval System	419
<i>Masaaki Kawata and Katsuhiko Ogawa</i>	
The Roles of Profession and Gender in Some PIM Tasks	429
<i>Guangfeng Song and Chen Ling</i>	
Efficient Text Classification Using Best Feature Selection and Combination of Methods	437
<i>Mettu Srinivas, K. Pujari Supreethi, E.V. Prasad, and S. Anitha Kumari</i>	

Designing Sticky Knowledge-Network SNS for Japanese Science Teachers	447
<i>Yoshihisa Wada, Masayuki Sakoda, Hiroshi Tsuji, Yuuki Aoki, and Kazuhisa Seta</i>	
Part IV: Novel Devices, Interfaces and Interaction Environments	
A Proposal of EMG-Based Training Support System for Basketball Dribbling	459
<i>Seimei Abe, Takayuki Nozawa, and Toshiyuki Kondo</i>	
UbiSOA Dashboard: Integrating the Physical and Digital Domains through Mashups	466
<i>Edgardo Avilés-López and J. Antonio García-Macías</i>	
Internal Aspects of the Relationship between Pressing Force and Training Difficulty	475
<i>Daisuke Doyo</i>	
A Tangible Mixed Reality Interface for the AMI Automated Meeting Assistant	485
<i>Jochen Ehnes</i>	
Brain Activities Supporting Finger Operations, Analyzed by Neuro-NIRS	495
<i>Miki Fuchigami, Akira Okada, and Hiroshi Tamura</i>	
Effects of Practice with Foot- and Hand-Operated Secondary Input Devices on Performance of a Word-Processing Task	505
<i>Fredrick P. Garcia and Kim-Phuong L. Vu</i>	
Manipulation with Fingers in a 3-D Physical Space	515
<i>Yuki Kanai, Makoto Oka, and Hirohiko Mori</i>	
Design of Wearable Interface Considering Touch Communications	524
<i>Mariko Kato and Naoki Saiwaki</i>	
f-MRI Study of Brain Activation in Tactile Feeling	534
<i>Yuka Koda, Maki Taniguchi, Yukiyasu Kamitani, and Naoki Saiwaki</i>	
Using 3D Touch Interaction for a Multimodal Zoomable User Interface	543
<i>Florian Laquai, Markus Ablassmeier, Tony Poitschke, and Gerhard Rigoll</i>	
A Framework for Fairness Guaranteed Multi-streaming Transport Protocol	553
<i>Wonhyuk Lee, Hyuncheol Kim, Doowon Seo, and Jinwook Chung</i>	

A Study on Computing Resource Partition for Increasing Efficiency of Grid System	563
<i>Changsun Lim, Seongjin Ahn, and Jinwook Chung</i>	
Richbiff: E-Mail Message Notification with Richer Clues	570
<i>Mitsuru Minakuchi and Hisashi Miyamori</i>	
An Approach for the Design of Secure Communication in Embedded Systems	579
<i>Pavel Ocenasek</i>	
Towards Security Issues in ZigBee Architecture	587
<i>Pavel Ocenasek</i>	
A Study on Color Conversion for Color Deficient People to Identify Color	594
<i>Makoto Oka, Naoki Ozawa, Hirohiko Mori, and Akito Sakurai</i>	
Widgets for Faceted Browsing	601
<i>Jan Polowinski</i>	
Applications of Visible Light Path Laser Projector	611
<i>Nobuchika Sakata, Shu Okamoto, and Shogo Nishida</i>	
Virtual Convex Polygon Based Hole Boundary Detection and Time Delay Based Hole Detour Scheme in WSNs	619
<i>Inyoung Shin, Ngoc Duy Pham, and Hyunseung Choo</i>	
iFeel_IM! Emotion Enhancing Garment for Communication in Affect Sensitive Instant Messenger	628
<i>Dzmitry Tsetserukou, Alena Neviarouskaya, Helmut Prendinger, Naoki Kawakami, Mitsuru Ishizuka, and Susumu Tachi</i>	
An Interactive System Based on Semantic Graphs	638
<i>Johann Vandromme, Samuel Degrande, Patricia Plénacoste, and Christophe Chaillou</i>	
Evaluation for Adjustment Method of Vehicle's Location by Recognizing Crosswalks	648
<i>Yoshihisa Yamaguchi, Takashi Nakagawa, Hirokazu Kato, and Shogo Nishida</i>	
 Part V: User-Centered Design and User Experience in Information Systems	
Improving the User Experience of Our Own UX Ideas	659
<i>Joel Eden</i>	
Construction of the Data Save System of the Cusp Surface Analysis Using Web Application	665
<i>Yasufumi Kume and Jee Seob Seo</i>	

Data Pattern for Allocating User Experience Meta-Data to User Experience Research Data	675
<i>Li Li, Hong Ji, Xuejiao Chen, and Xiaowei Yuan</i>	
Transcending Human-Centered Design by Service Sciences	685
<i>Hiroyuki Miki, Naotsune Hosono, and Sakae Yamamoto</i>	
Effects of a Mnemonic Technique on Subsequent Recall of Assigned and Self-generated Passwords	693
<i>Deborah L. Nelson and Kim-Phuong L. Vu</i>	
Control of Personal Tempo to Support Individual Action and Cognition	702
<i>Naoya Nobutani and Yoshio Nakatani</i>	
The Effects of Practice and Speed Stress with Different Stimulus-Response Mappings	709
<i>Kim-Phuong L. Vu, Audrey Rabas, and Richard Roberson</i>	
Application of Population Stereotypes to Computerized Tasks	718
<i>Jeff Wiebe and Kim-Phuong L. Vu</i>	
Designing Transportation Services Based on HCD	726
<i>Kiko Yamada-Kawai, Naotake Hirasawa, Shinya Ogata, and Shou Ohtsu</i>	
Author Index	737