Thematic Areas:
- Human-Computer Interaction
- Human Interface and the Management of Information

Affiliated conferences:
- 10th International Conference on Engineering Psychology and Cognitive Ergonomics
- 7th International Conference on Universal Access in Human-Computer Interaction
- 5th International Conference on Virtual, Augmented and Mixed Reality
- 5th International Conference on Cross-Cultural Design
- 5th International Conference on Online Communities and Social Computing
- 7th International Conference on Augmented Cognition
- 4th International Conference on Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management
- 2nd International Conference on Design, User Experience and Usability
- 1st International Conference on Distributed, Ambient and Pervasive Interactions
- 1st International Conference on Human Aspects of Information Security, Privacy and Trust
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**Founder of the Conference Series and Scientific Advisor**
Gavriel Salvendy
Purdue University, USA
and Tsinghua University, P.R. China

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

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Email: administration@hcii2013.org

**Program Administration**
Email: program@hcii2013.org

**Registration Administration**
Email: registration@hcii2013.org

**Exhibition Administration**
Email: exhibition@hcii2013.org

**Student Volunteer Administration**
Email: sv@hcii2013.org

**Communications and Exhibition Chair and Editor of HCI International News**
Abbas Moallem
Email: news@hcii2013.org
Proceedings
The HCI International 2013 Conference Proceedings, will be published by Springer in a multi-volume set. Papers will appear in volumes of the Lecture Notes in Computer Science (LNCS) and Lecture Notes in Artificial Intelligence (LNAI) series. Extended Poster abstracts will be published in the Communications in Computer and Information Science (CCIS) series.

All volumes will be available on-line through the SpringerLink Digital Library, readily accessible by all subscribing libraries around the world.

Volumes published as part of the Lecture Notes in Computer Science (LNCS) series, incl. its subseries Lecture Notes in Artificial Intelligence (LNAI) are indexed by the following services:


Volumes published as part of the Communications in Computer and Information Science (CCIS) are indexed by the following services:

ISI Conference Proceedings Citation Index (http://apps.isiknowledge.com), EI Engineering Index (http://ei.org), Scopus (www.scopus.com)

Program

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<td><strong>Defy Gravity: The Art of Tangible Bits</strong></td>
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<tr>
<td></td>
<td></td>
<td>by: Hiroshi Ishii</td>
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<td></td>
<td></td>
<td>Jerome B. Wiesner Professor of Media Arts and Sciences</td>
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<td></td>
<td>Associate Director of MIT Media Laboratory</td>
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<td>Co-Director of Things That Think Consortium</td>
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<td>Head of Tangible Media Group</td>
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<td>Exhibition, Day 3</td>
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Conference Reception
The Conference Reception will take place at 19:30 (right after the Opening Plenary Session) on Tuesday, 23 July 2013.

All Conference participants and accompanying persons, who carry an HCI International 2013 badge, will be permitted entrance.

Extra Conference Reception Tickets will be available from the Conference Secretariat until Tuesday, 23 July 2013, 17:00 hrs.

Important note: You must be of legal drinking age to drink alcohol. Please be ready to provide you ID upon request.

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Internet Park
PCs with Internet connectivity will be provided in the Internet Park. Participants carrying their own portable equipment can connect their equipment through the available WiFi network.

Information about the Internet Park opening hours will become available in due course.

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<td>A wide range of options are available within the Mirage Hotel for Casual and Fine dining (<a href="http://www.mirage.com/restaurants">www.mirage.com/restaurants</a>). Participants are kindly asked to make their own arrangements for lunch, during the following lunch breaks:</td>
</tr>
<tr>
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<tr>
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Accommodation
As one of the world's busiest tourist destinations, the city of Las Vegas offers just about everything – spectacular shows, shops and restaurants, theme park attractions, and the natural beauty of the surrounding lakes, parks and canyons.

The Mirage, located on Las Vegas Strip, is recommended as the main hotel of the Conference. Many of the guest rooms offered are available with breathtaking views of the tropical pool, majestic mountains or the Las Vegas Strip. The Mirage, an AAA Four Diamond Award-winning resort, completed a fresh new makeover in August 2008 of all guest rooms. These smartly redesigned rooms feature stylish comfort complemented with ultra-modern amenities and chic upgrades.

A number of rooms have been reserved to be allocated on a first-come-first-served basis, while reduced rates have been agreed with the Hotel.

For more information, please visit the Conference Website.
[www.hcii2013.org/accommodation](http://www.hcii2013.org/accommodation)

Hotel contact details:
The Mirage
3400 Las Vegas Blvd South,
Las Vegas, NV 89109
USA
Tel: +1-702-791-7111

Sponsorship
Sponsorship in the context of HCI International 2013 is an ideal opportunity to expose your organization to an international audience of about 2,000 researchers, professionals and users in the field of HCI.

Sponsorship is not limited only to financial support, but can also take the form of provision of materials or services, such as:

- Conference reception, Coffee breaks
- (morning / afternoon), Registration bags, Printed Final Program, DVD Proceedings, Internet Park, T-Shirts and Polo-Shirts.

For more detailed information please see:

Sponsors will also have the opportunity to exhibit, free of charge, their products or services through the Conference Exhibition. In case you wish to do so, the Conference Exhibition Administration will contact you.

If you are interested to contribute to this truly international event as a sponsor or you wish to receive more information, please contact: sponsorship@hcii2013.org

We will be happy to assist you.
Abstract
Our vision of Tangible Bits is carried out through an artistic approach. Whereas today’s mainstream Human Computer Interaction (HCI) and Design research address functional concerns – the needs of users, practical applications, and usability evaluation – Tangible Bits is a vision driven by concepts. This is because today’s technologies will become obsolete in one year, and today’s applications will be replaced in 10 years, but true visions – we believe – can last longer than 100 years.

Tangible Bits seeks to realize seamless interfaces between humans, digital information, and the physical environment by giving physical form to digital information, making bits directly manipulable and perceptible. Our goal is to invent new design media for artistic expression as well as for scientific analysis, taking advantage of the richness of human senses and skills – as developed through our lifetime of interaction with the physical world – as well as the computational reflection enabled by real-time sensing and digital feedback.

I will present the trajectory of our vision-driven research and a variety of interaction design projects that were presented and exhibited in Media Arts, Design, and Science communities including: ICC, Ars Electronica, Centre Pompidou, Victoria and Albert Museum, Venice Biennale, ArtFutura, IDSA, ICSID, AIGA, ACM CHI, SIGGRAPH, UIST, CSCW.

1 http://www.media.mit.edu
2 http://ttt.media.mit.edu
3 http://tangible.media.mit.edu
4 http://www.mit.edu

Hiroshi Ishii is a Jerome B. Wiesner Professor of Media Arts and Sciences at the MIT Media Lab. He was named Associate Director at the Media Lab in May 2008. He is co-director of the Things That Think (TTT) consortium and director of the Tangible Media Group. He founded and currently directs the Tangible Media Group pursuing a new vision of Human Computer Interaction (HCI): “Tangible Bits.” His team seeks to change the “painted bits” of GUIs to “tangible bits” by giving physical form to digital information.

Prof. Ishii and his team have presented their vision of “Tangible Bits” at a variety of academic, industrial design, and artistic venues (including ACM SIGCHI, ACM SIGGRAPH, Industrial Design Society of America, AIGA, Ars Electronica, Centre Pompidou, and Victoria and Albert Museum,) emphasizing that the development of tangible interfaces requires the rigors of both scientific and artistic review. A display of many of the group’s projects took place at the NTT InterCommunication Center (ICC) in Tokyo in the summer of 2000. The following year, a three-year-long exhibition titled “Get in Touch” featured the Tangible Media group’s work at Ars Electronica Center (Linz, Austria) from September 2001 through August 2004. Prof. Ishii was elected to CHI Academy by ACM SIGCHI in 2006.

Prior to joining the MIT Media Lab from 1988-1994, Prof. Ishii led a CSCW research group at NTT Human Interface Laboratories Japan, where his team invented TeamWorkStation and ClearBoard. Prof. Ishii was a visiting assistant professor at the University of Toronto, Canada from 1993-1994. He has also received several degrees in engineering, including a B.E. degree in electronic engineering, M.E. and Ph.D degrees in computer engineering from Hokkaido University, Japan, in 1978, 1980, and 1992, respectively.
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| Hidekazu Yoshikawa, Japan |

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| Taezone Park, Singapore |
| Paul Salmon, Australia |
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| Siraj Shaikh, United Kingdom |
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| Anthony Smoker, United Kingdom |
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| Xianghong Sun, P.R. China |
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| Matthew J.W. Thomas, Australia |
| Rolf Zon, Netherlands |

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| Ronald Baecker, Canada |
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| Jamie Blustein, Canada |
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| Jan Brejcha, Czech Republic |
| Lorenzo Cantoni, Switzerland |
| Maximilian Eibl, Germany |
| Anthony Faiola, United States |
| Emilio Gould, United States |
| Zeldra Harrison, United States |
| Rüdiger Heimgärtner, Germany |
| Brigitte Herrmann, Germany |
| Steffen Hess, Germany |
| Kaleem Khan, Canada |
| Jennifer McGinn, United States |
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| Michael Renner, Switzerland |
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| Christian Sturm, Egypt |
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| Gerhard Weber, Germany |
| Harald Weber, Germany |

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Masaaki Kurosu, Japan

**Human Interface and the Management of Information**

**Program Chair:**
Sakae Yamamoto, Japan

**Engineering Psychology and Cognitive Ergonomics**

**Program Chair:**
Don Harris, UK

**Design, User Experience and Usability**

**Program Chair:**
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**Universal Access in Human-Computer Interaction**

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Margherita Antona, Greece

**Distributed, Ambient and Pervasive Interactions**

**Program Chairs:**
Norbert Streitz, Germany
Constantine Stephanidis, Greece

---

**International Program Boards**

---

**6 • HCI International 2013**

**SESSIONS OVERVIEW**
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Waymon Armstrong, United States
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Rudy Darken, United States
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Charles Hughes, United States
David Kaber, United States
Hirokazu Kato, Japan
Denis Laurendeau, Canada
Fotis Liarokapis, United Kingdom
Mark Livingston, United States
Michael Macedonia, United States
Gordon Main, United Kingdom
Jose San Martin, Spain
Jacquelym Morie, United States
Albert “Skip” Rizzo, United States
Kay Stanney, United States
Christopher Stapleton, United States
Gregory Welch, United States

Cross-Cultural Design

Program Chair:
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Pilsung Choe, P.R. China
Henry Been-Lirn Duh, Singapore
Vanessa Evers, Netherlands
Paul Fu, United States
Zhiyong Fu, P.R. China
Fu Guo, P.R. China
Sung H. Han, Korea
Toshikazu Kato, Japan
Dyi-Yih Michael Lin, Taiwan
Rungtai Lin, Taiwan
Sheau-Farn Max Liang, Taiwan
Liang Ma, P.R. China
Alexander Mädeche, Germany
Katsuhiro Ogawa, Japan
Tom Plocher, United States
Kerstin Röse, Germany
Supriya Singh, Australia
Hsiu-Ping Yueh, Taiwan
Liang (Leon) Zeng, United States
Chen Zhao, United States

Online Communities and Social Computing

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Panayiotis Zaphiris, Cyprus

Areej Al-Wabil, Saudi Arabia
Leonelo Almeida, Brazil
Bjørn Andersen, Norway
Chee Siang Ang, United Kingdom
Aneesha Bakhtaria, Australia
Ania Bobrowicz, United Kingdom
Paul Cairns, United Kingdom
Farzin Deravi, United Kingdom
Andri Ioannou, Cyprus
Slava Kisilevich, Germany
Niki Lambropoulos, Greece
Effie Law, Switzerland
Soo Ling Lim, United Kingdom
Fernando Loizides, Cyprus
Gabriele Meiselwitz, United States
Anthony Norcio, United States
Elaine Raybourn, United States
Panote Siriariay, United Kingdom
David Stuart, United Kingdom
June Wei, United States

Human Aspects of Information Security, Privacy and Trust

Program Chairs:
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Ioannis Askoxylakis, Greece

Claudio Agostino Ardagna, Italy
Zinaida Benenson, Germany
Daniele Catteddu, Italy
Raoul Chiessa, Italy
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Jorge Cuellar, Germany
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Dieter Gollmann, Germany
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Cagatay Karabat, Turkey
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Kerry-Lynn Thomson, South Africa
Julien Touzeau, France
Theo Tryfonas, United Kingdom
João Vilela, Portugal
Claire Vishik, United Kingdom
Melanie Volkmer, Germany

Augmented Cognition

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Cali Fidopiastis, USA

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Martha E. Crosby, United States
Julie Drexler, United States
Ivy Estabrooke, United States
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Wai Tat Fu, United States
Rodolphe Gentili, United States
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Jefferson Grubb, United States
Ming Hou, Canada
Santosh Mathan, United States
Rob Matthews, Australia
Dennis McBride, United States
Jeff Morrison, United States
Mark A. Neerinxc, Netherlands
Denise Nicholson, United States
Bauu Onaral, United States
Lee Sciarini, United States
Kay Stanney, United States
Roy Stripling, United States
Rob Taylor, United Kingdom
Karl van Orden, United States

SUNDAY, 21 JULY 2013
Exhibition

The HCI International Conference is an ideal opportunity to exhibit your products and services to an international audience of about 2,000 researchers, academics, professionals and users in the field of HCI.

The conference objective is to provide an international forum for the dissemination and exchange of up-to-date scientific information on theoretical, generic and applied areas of Human-Computer Interaction (HCI); Universal Access; Engineering Psychology; Cognitive Ergonomics; Virtual, Augmented and Mixed Reality; Cross-Cultural Design; Online Communities; Social Computing; Augmented Cognition; Digital Human Modeling; Design, User Experience and Usability; Distributed, Ambient and Pervasive Interactions; and Information Security, Privacy and Trust. This is accomplished through various modes of communication, such as plenary presentations, parallel sessions, poster sessions, tutorials, exhibitions, etc.

Attendees of the HCII 2013 Exhibition will have a unique opportunity to explore state-of-the-art HCI technology and interact with manufacturing representatives, vendors, publishers, and potential employers.

The Exhibition area will be configured to facilitate continuous interaction between exhibitors and conference participants. Two coffee breaks will also be served daily in this area.

For more information about the Exhibition, please contact the Exhibition Administration. (exhibition@hcii2013.org)
See What We’ve Got Going On

Catalog no. K11447
ISBN: 978-1-4398-2943-1
$149.95 / £95.00

Catalog no. K11245
April 2011, 794 pp.
$139.95 / £89.00

Catalog no. ER628X
June 2009, 1034 pp.
$167.95 / £107.00

Catalog no. K10812
December 2010, c. 344 pp.
ISBN: 978-1-4398-1584-7
$99.95 / £62.99

Catalog no. K12499
ISBN: 978-1-4398-5394-8
$99.95 / £63.99

Catalog no. 88521
ISBN: 978-1-4200-8852-6
$99.95 / £63.99

Catalog no. K11760
ISBN: 978-1-4398-3873-0
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Objectives
To provide a framework that can be used to integrate traditional approaches to usability with the UX issues that create a good user experience. The framework can be used to identify the outcomes of interaction that will determine the relative importance of usability and UX when designing and evaluating interactive systems.

Content and Benefits:
Many proponents of UX have relegated usability to the role of a “hygiene factor”. The tutorial will explain how the relative importance of usability and UX can be identified, and can form part of an integrated approach to specifying and evaluating the quality of a product.

Usability is conventionally associated with goals for effectiveness, efficiency and satisfaction, but has traditionally ignored personal hedonic goals, such as for “being competent”, “being related to others”, or “being special”. UX has also identified that people value qualities of interaction such as fun, engagement, aesthetic pleasure and the avoidance of frustration. Another human goal is to use a trustworthy system and avoid any unacceptable risk of adverse consequences of interaction. These are all potential goals that users may have when interacting.

UX emphasizes understanding the timeline of interaction. The tutorial identifies the potentially analyzable or measurable outcomes of each usability and UX goal at each of the following stages: the objective process of interaction, the experience of interaction, the objectively measurable outcomes, the perceived outcomes, and the degree of satisfaction with the each perceived outcome. This generates a matrix in which the specific outcomes for each goal at each stage can potentially be specified, analyzed, and/or measured. This integration of usability and UX provides a more comprehensive approach than the traditional objective usability measures of effectiveness and efficiency and subjective measures of satisfaction.

The potential outcomes extend the range of issues that are might otherwise considered in the design or evaluation of an interactive system, and provide a checklist of issues whose relative importance will depend on the nature of the system and its objectives.

The tutorial will include exercises to apply the classification, and will explain how each outcome can be analyzed or measured.

Target Audience:
Usability and UX practitioners

Nigel Bevan (www.nigelbevan.com) is an independent usability consultant with wide industrial and research experience. He has been editor of several international standards for usability, software quality and usability methods. Nigel leads the UXPA Body of Knowledge project. He was a member of the National Academy of Science Committee on Human-System Design Support for Changing Technology. He has authored over 80 publications, and has a chapter providing a framework for cost benefits in Cost-Justifying Usability book.

Publications
The tutorial builds on and extends previously published papers by the author (available at www.nigelbevan.com):

Chris Forsythe
Sandia National Laboratories, United States

Objectives
Enable practitioners to apply basic knowledge from cognitive neuroscience to achieve more effective human-systems design.

Content and Benefits:
There has been a revolution in our knowledge of the brain, and despite broad appreciation of the relevance of brain processes to everyday life, brain science has had little impact on most professional activities. The objective of this tutorial is to provide those working in Human Factors with a synopsis of key findings and theoretical advances from cognitive neuroscience that have direct bearing upon their profession. In some cases, this will entail new insights into factors explaining human performance and behavior, and in other cases, elucidate the mechanisms that underlie accepted practices regarding communication, decision making, training, team performance, etc.

Topics covered in the tutorial will include: attention and conscious awareness, decision making, perception, learning and memory, individual differences, and social interactions, as well as factors mediating brain processes such as sleep, caffeine, stress, etc. Additionally, the tutorial will address factors contributing to effective engineering systems design and management, and particularly, team collaboration. Through discussion of alternative approaches to neuroscience data collection, participants will be provided the knowledge to be thoughtful consumers of neuroscience research. Finally, the tutorial will summarize developments in operational neuroscience and neuroergonomics, and the use of neuroscience methods and technologies in operational settings.

Target Audience:
The tutorial should be of broad interest to those practitioners and academics working in Human Factors, Human-Computer Interaction, Ergonomics or related fields. The tutorial requires no previous knowledge of neuroscience and is appropriate for individuals ranging from beginner to expert.

Chris Forsythe (PhD) is a Distinguished Member of the Technical Staff at Sandia National Laboratories in the USA. He has advanced degrees in cognitive psychology and biopsychology and 25 years experience working in applied settings. Primary interests have focused on the application of technology to improve human performance and developing operational applications of cognitive neuroscience.
Martin Maguire
Design School, Loughborough University, United Kingdom

Objectives
Many user interfaces, while sophisticated and attractive suffer from poor usability because users do not have a clear understanding or it or mental model of how it operates. This can prevent users from learning how to use an application and getting the most out of it. There are several techniques which can be used to design and present a clear structure for the user interface that will facilitate a clear mental model and ease of understanding and use. The main objective of this half day tutorial will therefore be to impart advice and guidance for the development of well-structured user interfaces and to enhance delegate's skills in applying them.

Content and Benefits:
This tutorial will include both presentations and practical group work. The session will start by reviewing some examples of user interfaces found on mainstream products and to examine the structures behind them and the user psychology of why they are effective or not. Key guidelines for good design to create effective user interface structures and models will be presented. This will be followed by an audience exercise where they will create the outline design of a mobile application. Working in groups, delegates will create and produce a paper prototype which they will test under 'laboratory conditions' with a user from another group. The session will end with a plenary discussion about what has been learned and how that learning may be taken forward in delegates' own work. The tutorial will enable participants to approach the creation of a user interface structure more confidently and to appreciate how this can greatly enhance the usability of the design.

Target Audience:
The target audience will primarily be for those involved in user interface design for applications. It may include people in different roles such as UX team members, front end developers, QA testers and user representatives. They may be responsible for designing or evaluating applications. The session will not assume any technical knowledge and could be of interest to both human factors and non-human factors professionals.

Biographical Sketch
As a member of the Loughborough University Design School, Martin Maguire, has a background in computer studies and ergonomics. His main interests are in the usability of interactive systems including the needs of inexperienced users, older people and people with disabilities. He has been involved in several EU projects to develop human factors tools, methods and guidelines to promote usability within European IT programmes. Martin developed the RESPECT User-centred requirements handbook for telematics systems. He has conducted ergonomic appraisals of IT systems for many public sector and private organisations in the UK. At the University he teaches HCI and Interaction Design.
Objectives
Participants will acquire an overview of qualitative research methods and understanding of when and how these can be used to inform interaction design. Participants will acquire hands on experience of analyzing and collecting such data. By the end of the tutorial participants will be able to locate and apply appropriate methods depending on the specific challenge at hand, and to appreciate trade offs these entail. They will also be able to adapt such methods to the needs of design or research projects.

Content and Benefits:
An introductory lecture will motivate the use of qualitative research methods and compare them to quantitative methods, relating these to different intellectual traditions like ethnography, action research, grounded theory, etc. Particular emphasis will be paid to the different needs of designers versus researchers in human computer interaction. An overview of the vast range of methods and techniques applicable in the field of human computer interaction and interaction design will be given, emphasizing commonalities and nuances that set them apart, covering techniques such as focus groups, repertory grids, cultural probes, performance ethnography, etc. This will help attendees relate disparate methods with roots in social sciences and design research. The purpose is to help participants easily relate different methods and variants to each other. The iterative nature of qualitative research will be motivated and illustrated in the context of practical activities. The notion of quality in qualitative research will be discussed and compared to those widely accepted for quantitative research. Finally, we shall discuss how to communicate the findings of qualitative research depending on the intended purposes and audience.

Target Audience:
The level is introductory, particularly appropriate for HCI researchers and practitioners without a background in behavioral research methods.

Panos Markopoulos is a computer scientist who has more than 20 years experience in the field of Human Computer Interaction. He has worked on several topics, including task analysis, software engineering methods in human computer interaction, ambient intelligence, awareness systems and privacy, and interaction design for children. He is a Professor at the Eindhoven University of Technology, where a considerable part of his work concerns the appropriate application of research methods from social sciences in the field of interaction design.

Books:
• Evaluating Children’s Interactive Products
  (http://store.elsevier.com/product.jsp?isbn=9780123741110&pagename=search)
• Awareness Systems
Objectives
Acquiring an overview of the state of the art/research in culture-centered HCI design and knowing and applying the most important methods for intercultural user interface design.

Content and Benefits:
• Overview of the state of the art/research in culture-centered HCI design
• Cultural differences and their implications for HCI design
• Overview of methods used in intercultural HCI design
• Training on some of the most important methods for intercultural HCI design
• Knowing methodological problems and how to avoid them
• Deepening what was learned by reflecting upon it with others
• Discussion and reflection on the topics for application in your context

Schedule
• Introduction, Overview of culture-centered HCI design (cf. Shen et al. 2006, Clemmensen & Röse 2012, Rau et al. 2012, Heimgärtner 2012), Knowledge of cultural differences and their effects on HCI design, culture-oriented requirement analysis (30 min. lecturer presentation)
• Coffee Break (30 min.)
• Applying the learned method mix for cross-cultural design to use cases in HCI design (using existing applications defined by the participants) (15 min. task presentation and group and use case determination, 30 min. exercise and 15 min. group presentations & discussion)
• Closing (Summary, Discussion and Feedback (30 min.)

Target Audience:
• HCI researchers, students and practitioners who want to understand and take into account cultural influences in HCI.
• Anyone who is interested in a more systematic approach to culture-centered HCI design. Some familiarity with usability and user centered design is assumed, but no specific prior knowledge is needed.
Objectives
The goals of this tutorial are to provide HCI designers an overview of compatibility principles relevant to interface design and to illustrate use of the principles in the design of both traditional and mobile computer systems.

Content and Benefits:
Cognitive compatibility principles have been highlighted as an area of importance in human-systems integration since the earliest days of human factors and HCI. An indication of this importance is that the first article on compatibility effects, by Fitts and Seeger (1953), was included in the book Selected Readings in Human Factors, published by HFES in 1990. Most human factors and HCI specialists are aware of the importance of maintaining compatible relations between displays and controls, but they are not familiar with the broad range of cognitive compatibility effects that have been discovered and their implications for computer interface design. We will illustrate many of the most important compatibility phenomena and present compatibility guidelines and principles for application to design of traditional and mobile interfaces.

Target Audience:
This is an introductory tutorial geared toward academicians and practitioners who would like to learn about cognitive compatibility and its applications. No prior background relating to compatibility effects is required because we will set the tutorial within the context of human performance more generally. The tutorial should be of interest to computer scientists, industrial designers, and engineers who want to improve their designs by incorporating compatibility principles.

Bio Sketch of Presenters:
Drs. Proctor and Vu are authors of the book Stimulus-Response Compatibility Principles: Data, Theory, and Application, published in 2006 by CRC Press. They are leading researchers on compatibility effects and have published many articles highlighting their implications for applied problems.
Objectives
The objective of this tutorial is to introduce and explore both user-centered design and universal access and to show how they can be implemented successfully in corporate and research environments to deliver genuinely accessible and usable products and services. This tutorial will explore both the theory and its application, examining how real world constraints require the adaptation of theory to meet each new context of use.

Content:
This tutorial will cover the basics and introduce more advanced aspects of both user-centered design and universal access. We will explore how they are fundamentally related and also their application in real-world situations.

It is widely accepted in principle that both user-centered design and universal access are essential for the development of products that are both usable and accessible by the widest possible range of users. However, neither has achieved ubiquity in industrial practice. There are many reasons for this - technological, organisational and cultural. In this tutorial we will examine these barriers to adoption, where they come from and how they can be overcome.

We will look at how user-centered design and universal access have been successfully implemented in typical design management processes, with a minimum of modifications to existing design practice. Significant advances in overall usability and accessibility can be readily achieved and this tutorial will be illustrated by numerous case studies where this has happened. You will see how some companies and organisations have risen to this challenge and how others have failed. By examining from their experiences, you will learn to identify and avoid the common reasons for failure. This also gives a great opportunity for researchers new to the field to learn how real-world experiences often differ from the theoretical approaches taught in the classroom.

In particular, we will examine the role of the whole supply ecosystem in the delivery of products and services – an aspect that is often overlooked by many universal access practitioners.

The case studies will include the design and evaluation of both hardware and software, including kiosks, robots, websites and a focus on the next generation of television and broadcast media using broadcast, Internet and hybrid broadcast/Internet distribution. The UN agency ITU will have published its roadmap for accessibility actions shortly before the tutorial is held and the ITU Focus Group on audiovisual media accessibility provides a useful backdrop on the major issues. There will be interactive design exercises to allow you to put your design skills to the test.

Benefits:
Both instructors are highly experienced in designing, evaluating and delivering genuinely accessible solutions for a wide range of technologies and contexts. Participants in this tutorial will benefit from the theoretical underpinnings and practical examples and case studies that will be discussed. They will also have the opportunity to quiz both instructors about their experiences. The aim is for participants to understand the subtleties and nuances required to produce systems and products that meet the aspirations of universal access.

Target Audience:
The tutorial is designed for anyone with an interest in universal access and accessibility, from academic researchers to practitioners attempting to develop accessible solutions.
Objectives
Online surveys are widely used in HCI to gather feedback and measure satisfaction; at a glance there are many available tools, and the cost of conducting surveys appears low. However, there is a wide gap between quick-and-dirty surveys and surveys that are properly planned, constructed, and analyzed. This full-day tutorial will examine survey research approaches that meet HCI goals, selecting the appropriate sampling method, questionnaire design best practices, identifying and avoiding common survey biases, and considerations for survey implementation, fielding, and analysis. Interactive exercises as well as numerous examples will be used throughout the entire tutorial to engage the attendees with the material and to make it immediately applicable to their work. The audience will gain an appreciation for the breadth and depth of surveys in HCI, combined with keys to conducting valid, reliable, and impactful survey research themselves.

In particular, attendees will learn about:

- The role of survey research to measure attitudes and to gather feedback
- When it is and when it is not appropriate to use survey methods
- The entire survey lifecycle, from goals to project planning, sampling considerations, questionnaire design, choosing the right tool, fielding, and analysis
- How to design surveys, with an understanding of sources of survey error and questionnaire biases

Target Audience:
People from academia, industry, and government with a common desire to further their knowledge of survey research, i.e., including but not limited to user experience researchers, other user experience practitioners, product managers, and analysts. The tutorial targets both those wanting to use surveys and other feedback-gathering methods as a quick and simple tool, as well as those looking to refine their approach to survey research.

Content:
Below is a detailed outline of the topics for the morning and afternoon session:

Part 1: Surveys fundamentals and survey use in HCI research
- Introduction to survey research
- Exercise: Attendees’ experience with survey research
- Survey types and examples
- A short history of survey research
- Surveys appropriateness in the context of HCI
- Exercise: Identifying survey appropriateness in proposed scenarios
- Overview of the survey life cycle
- Research goals & constructs
- Exercise: Turning goals into constructs
- Population & sampling (sample methods, modes, sample sizes)
- Open Q&A

Part 2: Questionnaire design and survey biases
- Overview of the survey life cycle
- Question types & when to use each
- Questionnaire biases
- Other question types to be avoided
- Visual design considerations
- Exercise: Identifying biases from example surveys
- Testing and optimizing your survey
- Implementation considerations for online surveys
- Maximizing response rates
- Data analysis fundamentals (closed & open-ended data)
- Open Q&A

Hendrik Müller
Senior User Experience Researcher, Google, Inc., Sydney, Australia

Aaron Sedley
Senior User Experience Researcher, Google, Inc., Mountain View, USA

Hendrik Müller (Mueller) is a senior user experience researcher at Google currently in Sydney, Australia. He leads user research for Google Drive, supports Google Docs, and previously worked on Google Health and several other products. His research interests focus on file management, cloud storage, collaboration, mobile devices, and survey methodology among other methods. Together with other researchers, he leads survey efforts within Google’s user experience team to measure user happiness. Hendrik received his master’s degree in Human-Computer Interaction from the Georgia Institute of Technology in Atlanta, USA.

Aaron Sedley
is a senior user experience researcher at Google, Inc. in Mountain View, focused on tracking and analyzing user attitudes via surveys. He currently leads survey research within Search, and consults with teams across Google on survey methodology, planning and implementation. Aaron initiated Happiness Tracking Surveys (HaTS) at Google in 2006, an attitudinal measurement platform that is now deployed across over 15 products. Prior to joining Google in 2003, Aaron held research positions with New York Times Digital, Young & Rubicam, and the Carnegie Endowment for International Peace. He earned a bachelor’s degree in Government from Wesleyan University.
Objectives
One objective of this tutorial is to provide an overview of fundamental concepts and findings concerning human information processing. Another is to relate contemporary knowledge of human information processing to issues of relevance to HCI.

Content:
HCI is fundamentally an information-processing task. The human information-processing approach is based on the idea that human performance, from displayed information to a response, is a function of several distinct processes. The nature of these processes, how they are arranged, and the factors that influence how quickly and accurately a particular process operates, can be discovered through appropriate research methods. Because information-processing analyses are used in HCI in several ways, it is beneficial to be familiar with basics of the approach and specific applications to HCI.

Basic facts and theories about information-processing capabilities are taken into consideration when designing interfaces and tasks. The first part of this tutorial will review classic and recent findings on such topics as attention, memory, decision-making, and action selection, and discuss their relevance for HCI.

Information-processing methods are used in HCI to conduct empirical studies evaluating the cognitive requirements of various tasks in which a human uses a computer. The second part of the tutorial will describe recent developments in empirical methods for studying human information processing, and provide examples of how they can be applied to HCI.

Target Audience:
This tutorial is geared toward human factors and HCI professionals who do not have much background in human information processing or for those who want a refresher course concerning basic principles of human information processing, recent developments in the area, and what it has to offer HCI. It should be of interest to computer scientists, industrial designers, and engineers who want to improve their designs by incorporating information-processing analyses.
Part 2: Getting started: High-level design decisions
a. Choosing the barge-in style
b. Selecting recorded prompts or synthesized speech
c. Simple versus complex speech recognition
d. Concise versus verbose prompting styles
e. Speech versus speech plus touchtone
f. Global navigation commands
g. Help mode versus self-revealing help
h. Role of human agents in a deployed system

Part 3: Getting specific: Low-level design decisions
a. Creating introductions
b. Avoid poor practices in introductions
c. Getting the right timing
d. Designing dialogs
e. Constructing appropriate menus and prompts
f. Confirming user input

Part 4: Classroom exercises
a. Design an introduction
b. Design a menu
c. Conduct a WOZ evaluation

Part 5: Wrapping up

Target Audience:
Attendees are not expected to have a background in speech recognition or the design of IVR applications. That said, there has been enough new research over the past 10 years that people with extensive experience in IVR design will likely find new information to inform their design practices.
Objectives
An introduction to human factors and ergonomics will be given with a focus on healthcare. Fundamental principles will be introduced considering the physical, cognitive and organizational aspects. By the end of the tutorial students should be able to assess studies with these elements included.

Content:
The tutorial will include a special section that focuses on the process, methods and structuring of research studies in addition to the implementations specific healthcare practice that integrates human factors principles. With emphasis on patient safety, healthcare information technology implementation, medication impairment and human performance, this tutorial will be accessible to a wide range of participants from practitioners such as healthcare clinicians, to engineers who may or may not have much experience with human factors or clinical applications.

Target Audience:
Participants may include current practitioners and students of related fields including healthcare, information technology and the social sciences.
Standardized Usability Questionnaires

Objectives

Standardized usability questionnaires are questionnaires designed for the assessment of perceived usability, typically with a specific set of questions presented in a specified order using a specified format with specific rules for producing scores based on the answers of respondents. For usability testing, standardized questionnaires are available for assessment of a product at the end of a study (post-study – for example, QUIS, SUMI, PSSUQ, SUS, and, most recently, UMUX and UMUX-LITE) and after each task in a study (post-task – for example, ASQ, Expectation Ratings, SEQ, SMEQ, and Usability Magnitude Estimation). Standardized questionnaires are also available for the general assessment of website usability (for example, WAMMI and SUPR-Q).

All of these questionnaires have undergone psychometric qualification, including assessment of reliability, validity, and sensitivity, making them valuable tools for usability practitioners. The purpose of this course is to provide an introduction to standardized usability measurement, an inventory of currently available instruments (including their psychometric properties) for after-task and after-study measurement, and discussion of recent research in the important characteristics of standardized usability questionnaires (including their interrelationships and statistical connections to other metrics).

At the end of the course, attendees will know about the key properties and uses for the currently available standardized usability questionnaires.

Content and Benefits:

The course starts with coverage of the basic psychometric properties of standardized measurement – reliability, validity, and sensitivity. The next topic is the inventory of post-study questionnaires (such as the QUIS, SUMI, PSSUQ, SUS, and, most recently, UMUX and UMUX-LITE) – descriptions of the instruments, summaries of their known psychometric properties, and key recent research findings. The SUS will receive special attention due to the relatively large amount of normative and usage data that has become available for it in the past five years. Following that we will cover the available after-task questionnaires (such as ASQ, Expectation Ratings, SEQ, SMEQ, and Usability Magnitude Estimation), with descriptions, summaries, and recent research findings. We will end with a discussion of other standardized usability questionnaires of interest to the HCI community (e.g., some specifically for website evaluation and some key questionnaires from the marketing research literature, such as the TAM and Net Promoter Score).

1. Introduction to standardized usability measurement
2. Post-study questionnaires
3. Post-task questionnaires
4. Questionnaires for assessing the perceived usability of websites
5. Other questionnaires of interest
6. Wrapping up

Target Audience:

The course will likely be of interest to a wide variety of attendees, but will be especially useful to those usability practitioners and HCI researchers who currently use or plan to use standardized usability questionnaires.

Relevant links:

- μMeasuring Usability (www.measuringusability.com)
- UsableΣStats (http://www.usablestats.com)

Bio Sketch of Presenters:


Jeff Sauro

Biographical Sketch

Jeff Sauro is a Usability Engineer and statistical analyst with over a decade of experience conducting quantitative usability and statistical analysis for Oracle, Intuit, PeopleSoft, PayPal, Sage Software and General Electric. Jeff has presented and taught courses at CHI, HCII, HFES and UPA. He was the guest editor for Interactions Magazine dedicated to Quantifying Usability. He holds a Masters from Stanford University from their school of Education specializing in teaching quantitative concepts. His teaching style is to work backwards from practical problems that the usability practitioner is likely to encounter when quantifying usability. From these problems he takes actual usability data and shows how to make better decisions with numbers.
Objectives
Participants in this tutorial will:
• Learn about low-cost immersive systems (input and output hardware).
• Learn how to utilize these hardware solutions.
• Be provided with hands-on instruction of APIs to serve as a base for 3D UI (Free VR, etc.)
• Learn about 3D UI components and design as they relate to immersive systems.
• Learn how these issues relate to the design of user-interface components (metaphors, mental models, navigation, interaction, and appearance) for 3D environments.
• Learn about the cognitive and perception issues and challenges for immersive environments that affect UX.

Content:
• Terminology of Immersive systems (hardware and software) and 3D UI design components and issues.
• Low-cost hardware list and suggestions for putting together immersive system.
• Open-source software list and basic instructions for setting up simple application.
• Instructions for use of basic input technologies for immersive environments.
• 3D UI design methodology and UX evaluation.
• Discussion of cognitive and perception issues and challenges for immersive environments, stimulated by provided examples.

Benefits:
With 3D technology and immersive environments becoming more popular, this tutorial will allow traditional HCI researchers, professionals, developers, etc. to initiate work in 3D UI for immersive environments. This tutorial is focused on basic low-cost technology, open-source software, and new UI issues faced when designing for 3D environments and immersive technology.

Target Audience:
Target audience for this tutorial include traditional HCI/CHI/UI/UX designers, analysts, developers, usability professionals, cognitive scientists, visual and interaction designers, ethnographers, and other professionals in HCI who may know relatively little about 3D UI for immersive systems and 3D environments who may want to or already would like to initiate work in this area. Additionally anyone who may be interested in low cost immersive hardware and software systems for other uses.
Objectives
An overview of models developed over the past four decades will be provided and opportunities for emerging areas will be explained.

Content:
Digital Human Models models can assist in providing early indication of product fit, occupational safety and health. Such models are incorporated into modern and commercially available Computer-Aided Engineering software tools. They incorporate best practices across a wide variety of disciplines including Product Lifecycle Management, aviation, manufacturing and service industries, automotive design and habitability for space travel. Applications in this field demonstrate how to reduce the need for prototyping and incorporate ergonomics and human factors earlier in the design process.

Target Audience:
Practitioners and researchers working in inter-disciplinary operations, decision making and design.
TUTORIAL 15       Monday, 22 July 2013

T15 HCI in Sci-Fi Movies and Television

Monday, 22 July 2013       14:00-17:30

Contents:

Objectives
Participants in this course will:
- Understand how science-fiction movies and television have/have not incorporated fundamental principles of user-centered design to achieve usability, usefulness, and appeal
- Understand the development of HCI/UX of science-fiction in the popular media over the past 100 years
- Understand how to combine their professional knowledge of HCI/UX to look at popular media

Content and Benefits:
Abstract: HCI in Sci-Fi Movies and Television will summarize and analyze the past 100 years of human-computer interaction as incorporated into science-fiction cinema and videos, beginning with the advent of movies in the early 1900s (Melies’ “A Trip to the Moon,” which was recently referenced in the recent movie “Hugo”).

For many decades movies have shown technology in advance of its commercialization (for example, video phones and wall-sized television displays, hand-gesture systems, and virtual reality displays). In some cases mistaken views about what is usable, useful, and appealing seem to be adopted, perhaps because of their cinematic benefits. In any case, these media have served as informal “test-beds” for new technologies of human-computer interaction and communication. They provide ample evidence for heuristic evaluations, ethnographic analysis, market analysis, critique of personas and use scenarios, and new approaches to conceptual and visual design.

The course will explore issues of what is “futuristic” and what is not, gender-role differences, optimism/pessimism, and user-centered design characteristics in more than two dozen films and a half-dozen television shows. Examples from China, India, and Japan will also be referenced.

Participants will be informally quizzed about their recognition of the media examples shown and their analysis of contexts, technologies, business models, user communities, and designs. Discussion with participants throughout the presentation will be encouraged.

Benefits of the Tutorial: Increased understanding of key issues, challenges, philosophies, and principles related to the tutorial topic.
- Increased awareness of cutting-edge/future products and services related to the tutorial topic.
- Increased knowledge of how to use UX/HCI skills, expertise, and experience to analyze sci-fi media.

Post-Conference Activities: Following up from the conference, the speaker plans to send participants who wish to receive them additional papers, as well as an extensive bibliography and list of links relevant to the tutorial topic. They will be able to access and read the free eBook, which they can download, view the one-hour YouTube video, and join sci-fi and HCI discussion groups in the UK, Germany, India, China, and Japan, about which I shall inform them.

Target Audience:
The tutorial is appropriate for:
- Especially for people who are new to HCI/UX and to Sci-Fi
- People who have some experience with the HCI/UX and/or Sci-Fi
- People who have much experience with HCI/UX and would like to learn more about Sci-Fi

HCI/UX/CHI/Visua/Mobile professionals in these (alphabetical order) professions:
- Analysts
- Cognitive Scientists
- Designers
- Evaluators of usability and user-experience
- Marketers
- Researchers: Advanced R+D
- Software Engineers

Links:
- AM+A Website (www.amanda.com)
- Previous version of the primary lecture on youtube: http://uebermedien.org/retrospektive/video-keynote-aaron-marcus

Biographical Sketch:
Since 1982, Mr. Marcus has been President of AM+A. He has taught at six universities (Princeton, Yale, UC/Berkeley, Hebrew University/Jerusalem, Illinois Institute of Technology’s Institute of Design, and the University of Toronto). In 1992, he received the National Computer Graphics Association’s annual award for contributions to industry. In 2000, the International Council of Graphic Design Organizations (ICOGRADA) named him a Master Graphic Designer of the Twentieth Century. In 2007, the American Institute of Graphic Arts (AIGA) named him a Fellow of for his work in cross-cultural design. In 2008, he was elected to the CHI Academy. In 2009, he received the UPA Service award for being Editor-in-Chief of UX Magazine for five years. He has given keynote plenary presentations ACM/SIGGRAPH 1980, ACM/SIGCHI 1999, UPA 2005/Montreal, and User Friendly 2012/Beijing. He is now a Master of the De Tao Academy in Beijing and is starting a Center for User-Experience Innovation in Shanghai. He is also an International Advisor to the Dragon Design Foundation, Beijing, China.
Objectives
The Brain-Machine/Computer Interface (BCI) research area is a vital and fast expanding field. BCIs have been developed during the last years for people with severe disabilities to improve their quality of life. Applications of BCI systems comprise the restoration of movements, communication and environmental control. However, recently BCI applications have been also used in different research areas e.g. in the field of virtual reality. The Tutorial will discuss necessary prerequisites to successfully perform BCI experiments in non-invasive and invasive ways. Live demonstrations of BCI control will allow to understand the progress of the technology.

Content:
• insights into the hardware for BCI research
• insights into the software for BCI research
• enabling participants to run their own experiments
• giving participants the chance to analyze their BCI performance
• showing how to control a smart home environment
• showing avatar control with the BCI
• showing robot control with the BCI
• discussing advantages/disadvantages of dry/wet sensors
• discussing non-invasive and invasive BCI approaches

Target Audience:
The goal of the workshop is to bring together researcher and interested audience to describe and demonstrate the options available in the field of Brain/Neural Machine Interfaces. Especially usability and reliability of BCI control allows now developing and displaying more advanced applications. We think that such a workshop will be very well accepted from the audience working in the area of HCI combining different modalities for interactions.

Relevant links:
• State of Art in BCI research: The BCI Award 2010 book chapter
• BCI videos: New results from g.tec and many others
  [www.gtec.at/Research/Videos](http://www.gtec.at/Research/Videos)
• intendiX: User-Ready Brain-Computer Interface Applications
  [www.intendix.com](http://www.intendix.com)
T17 How to Create User Requirements for Software

Tuesday, 23 July 2013 08:30-12:00

Anna Wichansky
Ph.D, CPE, Senior Director, Oracle Applications User Experience, USA

Ultan O’Broin
Director, Oracle Applications User Experience, USA

Objectives
- To explain why usability must be included in requirements for major software implementations, including upgrades and tailoring scenarios
- To provide hands-on practice with ISO-standard methods to articulate, document, and measure usability requirements
- To provide operational techniques to determine achievement of customers’ usability goals
- To teach you how to complete the Common Industry Specification for Usability - Requirements (CISU –R), the requirements extension of ISO 25062, Common Industry Format for Usability Testing, using a case study example

Content and Benefits:
1. Pre-work: Read a business case study of a fictitious company acquiring financial software, to be distributed in advance.
2. Introduction: objectives, key takeaways, instructors’ backgrounds, agenda
3. What are User Requirements: definition; examples; importance in developing usable software; Levels 1-3 of CISU-R
4. Context of Use: ISO definition; importance in developing usable software; examples
   a. Determining User Characteristics: user profiles; personas
   b. Types of User Requirements: Physical, technological, social, cross-cultural; stakeholders; tasks & goals; usage scenarios; training
   c. How to recruit, interview, and observe users; how developers differ from users
   d. CISU-R Level 1 compliance
   e. Group Exercise 1. Brainstorming Context of Use for an Enterprise Application
5. Usability Criteria: ISO definition; importance in developing usable software
   a. ISO concepts of effectiveness, efficiency, and satisfaction
   b. Core user performance and satisfaction criteria
   c. Goal-line metaphors
   d. CISU-R Level 2 compliance
   e. Group Exercise 2. Brainstorming Usability Criteria for an Enterprise Application
6. Usability Test Methods: ISO definition; importance to developing usable software
   a. Common test methods
   b. Basic components of a user test
   c. CISU-R Level 3 compliance
   d. Group Exercise 3. Brainstorming Usability Test Methods for an Enterprise Application
7. Public domain resources
8. Questions & Answers
9. Benefits:
   a. ensure you design the right product for the right audience in the right context of use
   b. learn the same ISO standard methods and techniques used by professional software implementation consultants working for large enterprises
   c. take away a complete CISU-R document example, provided at the end of the course.

Target Audience:
novice UX researchers; all levels of software designers, product managers, marketing managers, consultants, and developers

Relevant links:
- www.oracle.com/webfolder/ux/applications/getInvolved/OUAB/index.html
- Usable Apps Blog https://blogs.oracle.com/usableapps
- User experience assistance: design & development https://blogs.oracle.com/userassistance

Anna Wichansky
Biographical Sketch
Anna Wichansky Ph.D CPE is an applied experimental psychologist who specializes in the study of how users interact with new technology. She has an M.S. and Ph.D in human factors from Tufts University, Medford, Massachusetts, USA and A.B. from Harvard University, Cambridge, Massachusetts, USA in psychology.

She has researched, developed, and tested user interfaces for transportation, telecommunications, space exploration, electronic instrumentation, computer hardware, software, graphics, and media products. She has a patent for a remote control for interactive television. She worked at the U.S. Department of Transportation Research and Special Programs Administration, Bell Laboratories, Hewlett-Packard, and Silicon Graphics, where she founded the Customer Research and Usability group. At Oracle, she founded and directed the Corporate Usability Labs, and the Advanced User Interface Research group. She is currently Senior Director of Applications User Experience.

Anna is a Fellow of the Human Factors and Ergonomics Society and director emerita of the Board of Certification of Professional Ergonomists. She is on the editorial board of the international scientific journal Ergonomics. She has organized paper sessions for previous HCI International conferences, and is a frequent presenter at ACM SIGCHI annual meetings.

Ultan O’Broin
Biographical Sketch
Ultan O’Broin has worked in Oracle applications development in the US and Europe, Middle East, and Asia since 1996. He is a passionate evangelist for applications user experience, communicating usability guidance and resources to Oracle applications developers, partners, and customers worldwide. Professional and Ph.D research interests include digital seniors, user experience design patterns, cloud-based software developer productivity, and technology globalization.
Objectives

This tutorial aims to help user interface designers and developers to understand the issues involved in multi-device interactive applications accessed through mobile and stationary devices even exploiting different interaction modalities.

Content and benefits:

The tutorial aims to help user interface designers and developers to understand the issues involved in multi-device interactive applications. For this purpose it provides a review of the state of art in terms of concepts, techniques, languages, and tools, with the goal to understand the design space of the possible solutions in order to better apply them and think about new ones. The tutorial will consider how to address the device adaptation issue at both design- and run-time. Particular attention will be dedicated to adaptation in Web applications and also to the use of model-based techniques. It will also discuss how adaptation and continuity can be supported in distributed and migratory user interfaces.

Target Audience:

The tutorial will be interesting for interactive software developers and designers who want to understand the issues involved in multi-device interactive applications and the space of the possible solutions. Likewise, user interface designers would benefit in that they could work more effectively and make their choices more explicit in designing pervasive interactive services. In addition, other researchers who would like to have an update on the state of art and research results in the field will find the tutorial of interest.

Fabio Paternò

CNR-ISTI, Italy

Fabio Paternò

Biographical Sketch

Fabio Paternò (http://giove.isti.cnr.it/~fabio) is Research Director at CNR-ISTI (http://giove.isti.cnr.it), where his main research interests are in user interfaces for ubiquitous environments, model-based design and development, tools and methods for multi-device interactive applications, migratory interfaces. In these areas he has coordinated several projects and the development of various tools. He is an ACM Distinguished Scientist.
Benjamin Watson  
North Carolina State University, USA  
Vidya Setlur  
Tableau Software, USA  

Objectives  
A half-day, journeyman developer's introduction to developing apps for mobile devices including phones and tablets; platforms such as iOS, Android, Windows Phone and the web; and an overview of the industry and its app stores.

Content and Benefits:  
This hands-on course will help journeyman developers who have never developed for mobile devices before get a start in this market. The course will span a comprehensive set of topics focused on developing mobile apps, including an overview of the mobile industry and its app markets, a comparison of mobile and desktop applications, and a survey of mobile development environments. The course will then move to a detailed discussion of UI and graphics development for mobiles, including simple examples for iOS, Android, Windows Phone and the web. During the course itself, various smartphones will be loaned to attendees enabling them to follow along with in class exercises.

Outline:  
1. Ben Watson - Introduction, Mobile Industry and iOS  
   a. Welcome  
   b. The state of the mobile industry  
   c. The state of app stores worldwide  
   d. Design patterns and storyboards  
   e. Cloud services  
   f. iOS coding examples  
   g. Questions and break  
2. Vidya Setlur - Mobile UIs in Windows Phone and on the web  
   a. Good design practice  
   b. UI layouts  
   c. UI components  
   d. Event handling  
   e. Maps and sensors  
   f. Cameras  
   g. Windows Phone and web coding examples  
   h. Questions and break  
3. Ben Watson - Mobile graphics in Android and on the web  
   a. OpenGL ES 1.1 and 2.0  
   b. WebGL  
   c. Android and web coding examples  
   d. Questions  
4. Watson & Setlur: open questions  

Target Audience:  
The course is designed for journeyman developers who have not built any applications for mobile devices. Good programming skills in Java, C or C++, and familiarity with a programming environment such as Eclipse or Visual Studio are expected. Some knowledge of at least one graphics API such as OpenGL or DirectX would also be helpful.

Course home page:  
Developing Visual Interfaces for Mobile Devices  
http://mobicourse.blogspot.gr

Benjamin Watson  
Biographical Sketch  
Benjamin Watson is Associate Professor (http://watson.csc.ncsu.edu) of Computer Science at North Carolina State University (http://www.csc.ncsu.edu). His Design Graphics Lab focuses on the engineering of visual experience, and spans the intersections between graphics, perception, design, and interaction. Much of his work has migrated to the mobile platform, as the most pervasive of visual interfaces. Watson co-chaired the Graphics Interface 2001, IEEE Virtual Reality 2004 and ACM Interactive 3D Graphics and Games (I3D) 2006 conferences, and was co-program chair of I3D 2007. Watson is an ACM and senior IEEE member. He earned his doctorate at the Graphics, Visualization and Usability Center of the Georgia Institute of Technology.

Vidya Setlur  
Biographical Sketch  
Vidya Setlur (http://vidyasetlur.com) is newly principal researcher in mobile experience at Tableau Software (www.tableausoftware.com). For several years before that, she was principal research scientist in mobile experience at Nokia Research Center. Her research interest lies at the intersection of HCI and computer graphics, particularly in the area of iconography and content retargeting. At Nokia, much of her work emphasizes practicality and usefulness to better facilitate tasks performed with a mobile computational device. Vidya has taught mobile courses at conferences such as MobiSys, ACM CHI Conference on Human Factors in Computing Systems, the International Society for Optics and Photonics (SPIE) conferences as well as at universities such as Carnegie Mellon University and San Jose State University. She earned her doctorate in Computer Graphics at Northwestern University.
Objectives
Participants in this tutorial will:
• Learn new terms and concepts to understand mobile user-centered design, personas, use-scenarios, and especially information design theory and persuasion design theory.
• Learn how these concepts relate to the design of mobile user-interface components (metaphors, mental models, navigation, interaction, and appearance).
• Learn practical trade-offs from studying competitive analyses and case-study results.

Content and Benefits:
Abstract
The tutorial reviews four case studies of mobile persuasion design for smart phones and tablet concepts that combine information design and persuasion design to change people’s behavior. Each case study will review the subject matter, personas and use scenarios, information architecture, wireframes and detailed screen designs, as well as evaluations. Case studies are the Green Machine, the Health Machine, the Money Machine, and the Story Machine. Other case studies may be mentioned/shown, depending on time available.

Benefits of the Tutorial:
• Increased understanding of key issues, challenges, philosophies, and principles related to the tutorial topic
• Increased awareness of cutting-edge products and services related to the tutorial topic
• Increased knowledge of how to use your skills, expertise, and experience in this tutorial topic

Post-Conference Activities:
Following up from the conference, the speaker plans to send participants who wish to receive them additional papers, as well as an extensive bibliography and list of links relevant to the tutorial topic.

Target Audience:
The tutorial is appropriate for:
1. Especially for people who are new to the topic
2. people who have some experience with the HCI and/or mobile UX design, persuasion design and the subject-matter areas covered
3. people who have lots of experience with HCI and/or mobile UX design, persuasion design, and the subject-matter areas covered

The target audience:
Objectives
The tutorial aims to give an overview of the research issues and challenges related to human-robot interactions, especially concerning multimodal behaviours and social conversational interaction capabilities. In addition to speech interaction, we will focus on visual signals and the use of gesturing in information presentation and in dialogue management. We will survey a wide range of possibilities for such human-robot interactive applications. Examples are drawn from the WikiTalk robotic system, and its multimodal behaviour.

Content and benefits:

Human-robot interaction has recently been the object of much research and development. Besides the development and evaluation of integrated technological platforms for various input and output modalities, robots also come close to such applications that can support the use of rich natural (language) communication capabilities.

This tutorial will focus on human-robot interaction, and especially on the communication that is meant to be conversational and interesting. This kind of interaction is important in the context of “socially interactive robots”, where the robot needs to have a natural interface for interacting with users: the robot may e.g. need to present important information to the human user, provide interesting news, or give explanations about its own actions and what it is doing.

This tutorial deals with the possibilities and challenges in making interaction with an artificial agent more natural and interesting. We will address issues related to multimodal communication strategies that are necessary to maintain the coherence of the conversation (topic-tracking, topic-switching, new information management, etc.), and to provide multimodal feedback using gaze, nodding and gesturing. Moreover, it is important to engage the partner in the interaction and keep their interest, show rapport, and create mutual bonds. For this end, it is important to equip the artificial agent with behaviours that allow various kinds of sensory input and their interpretation with respect to the environment and the underlying communicative goals.

The tutorial will study examples from the corpus of real human-robot interactions, collected during the evaluation of the Nao WikiTalk system, which was developed at the 8th International Summer Workshop on Multimodal Interfaces in Metz, 2012.

Target Audience:
The tutorial is aimed at researchers and graduate students who are interested in the design and use of natural language within robot interactions. It does not presuppose any prior understanding of technical concepts nor require previous experience in interaction or robot technologies, although familiarity with these may help in following of the presentation.
Objectives
This is an introductory course in eye tracking methodology and will provide an overview of how eye tracking can be a valuable tool for user researchers. The course will feature a diverse mix of presentation materials and participatory activities including eye tracking visualizations and video clips from past research studies, group and individual exercises, and hands-on experience with an eye-tracker. Attendees will also get the chance to design an eye tracking research study and analyze eye tracking data in small groups using eye tracking software that will be installed on several laptop computers.

Tutorial attendees will learn:
- The fundamentals of eye tracking methodology in the field of user experience
- How to design a user experience test to best utilize eye tracking technology
- How to effectively conduct and moderate an eye tracking session
- How to analyze eye tracking data to reveal usability and design issues

Content and Benefits:
Topics covered in the session will include:
- How to identify questions that eye tracking can help answer
- How to design a robust eye tracking research project: Understanding key linking assumptions and how they shape design and limit implementation and analysis
- Tips for translating a research plan to an eye tracking experiment
- How to collect reliable data: Critical differences between moderating traditional usability testing and usability testing with eye tracking
- Survey of eye tracking analysis methods and questions they address
- Learn how to recognize (and resolve) problems in other people’s eye tracking studies. Attendees will also be given the opportunity at designated times to ask questions of the instructors and also to discuss eye tracking methodology with other attendees.

Target Audience:
Participants should be familiar with traditional usability testing methodology. Participants do NOT need to have any experience with eye tracking. The instructor will assume that participants do not have any background in eye tracking and will cover the basics through intermediate level content.
Theo Tryfonas
Bristol Cryptography Group, University of Bristol, UK

Objectives
To discuss human aspects of authentication process design, explore the reasons of human-related failures, provide examples of relevant vulnerabilities, misconceptions and ill defined authentication schemes that facilitated exploitation of human factors. The discussions will enable interface designers, system analysts, IT managers and other key stakeholders to understand essential human-centric aspects of computer security, especially as far as authentication (i.e. establishing and verification of someone’s identity) is concerned.

Content and benefits:
The tutorial will cover aspects of cognitive biases of password, PIN and lock pattern setting by end users, it will explore the design obstacles to password policy compliance, ‘soft’ side channel attacks (i.e. when information is leaked through interactions with people using the system, as opposed to attacking the system directly), social engineering as well as state of art countermeasures of usable security. We will also discuss ways that security measures can be enacted successfully within the context of an organisation, causing least disruption to business operations, looking at examples of effective designs as well as end user awareness campaigns.

Target Audience:
requirements engineers, software designers, human-computer interface specialists.

Theo Tryfonas
Biographical Sketch

Dr Theo Tryfonas (BSc, MSc, PhD, CISA, MBCS CITP) is a Senior Lecturer at the Faculty of Engineering with interests in methodologies, tools and techniques for assessing security of computing technology and developing an understanding of emerging cyber-threats (www.bris.ac.uk/engineering/people/theo-tryfonas).

He also works in the area of digital forensics exploring human and technical aspects of the analysis of digital evidence and its challenges in a national and international context. He has co-authored over 50 relevant articles in international journals and conferences and has assisted forensic investigations acting as an Expert Witness for several cases prosecuted under the Child Protection, the Fraud and the Computer Misuse Acts. He is currently coordinator of the EU-funded project ForToo (HOME/2 010/ISEC/AG/INT/002) working on developing tools for forensic analysis of network-related incidents.

Bristol Cryptography Group
www.cs.bris.ac.uk/Research/CryptographySecurity
Mobile UX Design and Mobile UX Trends

Tuesday, 23 July 2013 13:30-17:00

Aaron Marcus
President, Aaron Marcus and Associates, Inc., Berkeley, California, USA

Objectives
Participants in this tutorial will:

- Learn new terms, concepts, and issues to understand mobile user-centered design, guidelines, personas, and use-scenarios.
- Learn latest trends and challenges of design of mobile user-interface components (metaphors, mental models, navigation, interaction, and appearance).
- Learn practical trade-offs from studying competitive analyses and case-study results.

Content and Benefits:

Abstract
The tutorial presents essential concepts of mobile user-experience design and reviews mobile UX trends in the US, Europe, and Asia. The lectures also provide detailed case studies of developing UX designs specifically for China, a classic disaster of mobile UX design due to lack of user-centered design, and other key issues of mobile UX design for smart phones and tablets.

Benefits of the Tutorial:
- Increased understanding of key issues, challenges, philosophies, and principles
- Increased awareness of current and cutting-edge products and services
- Increased knowledge of how to use your skills, expertise, and experience

Post-Conference Activities:
Following up from the conference, The speaker plans to send participants who wish to receive them additional papers, as well as an extensive bibliography and list of links relevant to the tutorial topic.

Target Audience:
The tutorial is appropriate for:
1. Especially for people who are new to the topic
2. people who have some experience with the HCI and/or Mobile UX Design and Trends
3. people who have lots of experience with HCI and/or Mobile UX Design and Trends

The target audience:
HCI/UX/CHI/Visua/Mobile professionals in these (alphabetical order) professions:
- Analysts
- Anthropologists/Ethnographers
- Designers
- Evaluators of usability and user-experience

Links:
- AM+A Website (http://www.amanda.com)

Aaron Marcus
Biographical Sketch

Mr. Marcus has written over 300 articles; written/co-written eight books, including The Past 100 Years of the Future: HCI in Science-Fiction Movies and Television (2012). He has written chapters/case studies for seven handbooks of UI design, information appliances, and culture; has presented lectures/organized panels about science-fiction and HCI since 1992; has published, lectured, and tutored at conferences internationally; and consulted internationally, for more than 40 years. He is the Editor-in-Chief Emeritus of User Experience, is an Editor of Information Design Journal, wrote a regular column for Interactions for five years, serves/served on the editorial/advisory boards of Visible Language; and the International Institute for Information Design. He is a Visiting Professor at IIT’s Institute of Design in Chicago. He is now a Master of the De Tao Academy in Beijing and is starting a Center for User-Experience Innovation in Shanghai. He is also an International Advisor to the Dragon Design Foundation, Beijing, China.
Objectives
1. Understand how to create and use avatars in a variety of immersive environments
2. Gain knowledge about the scope of avatar use: history, demographics, statistics, styles and more
3. Explore the most recent (and future) research into avatar use and how it affects the user

Content and Benefits:
This tutorial will cover the rise of avatar use within immersive environments and how this represents a sea change for interfacing with one's computer. The tutorial will cover the history of avatar use, how and why people use avatars, and the huge rise in the numbers of people who now regularly use some type of avatar representation. We will cover avatar creation systems and then present an in-depth look at the latest research concerning avatar use. The session will close with a group discussion of suggested future research directions in this area.

Target Audience:
People who are interested in, create, or use immersive environments that feature avatars. Social experts who wonder about the impact of the increasing use of avatars, especially by children. Researchers interested in the psychological aspects of avatar use. Virtual world developers who seek insights to making more accessible and interesting environments.
### Parallel Sessions Overview

**Wednesday, 24 July 2013**

#### Morning 08:00 - 12:30

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<td>Designing Usable Interfaces for HCI</td>
<td>HCI considerations for NextGen</td>
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<td>Usability for Product design and Industrial Application - I</td>
<td>Usability for Product design and Industrial Application - II</td>
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<td><strong>EPCE</strong></td>
<td>Human Factors &amp; Security</td>
<td>Adaptive and User Guiding Information Service and Interface - I</td>
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<td>Harmonization towards Performance in Future Air Transportation</td>
<td>Cognitive factors of interaction</td>
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<td><strong>UAHCI</strong></td>
<td>Assessing Information by Younger and/or Older Users</td>
<td>Inclusion, Design, Technical Devices for Older People</td>
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<td>Creating a Continuum of Care - I</td>
<td>Creating a Continuum of Care - II</td>
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<td><strong>VAMR</strong></td>
<td>VR and AR for games and entertainment</td>
<td>Presence, communication and collaboration in VR environments</td>
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<td>Navigation and safety in complex environments</td>
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<td><strong>CCD</strong></td>
<td>Design at the Edges (I)</td>
<td>Design at the Edges (II)</td>
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<td><strong>OCSC</strong></td>
<td>Friendship and affect in Social Communities</td>
<td>User behaviour in social communities - I</td>
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<td><strong>AC</strong></td>
<td>Opportunities for Augmented Cognition in Cyber Operations</td>
<td>Research Innovations and Augmented Cognition</td>
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<td>Intuitive Sensemaking</td>
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<td><strong>DHM</strong></td>
<td>Utilizing Traditional Wisdom and Technologies for Quality Care</td>
<td>DHM Applications and Validation - II</td>
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<td>DHM Applications and Validation - I</td>
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<td><strong>DU Xu</strong></td>
<td>Design, Ergonomics, and Usability - I</td>
<td>Designing for playing experiences</td>
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<td>Enhancing Government Website Usability</td>
<td>Designing for learning experiences</td>
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<td>User Experience for Smart Devices and Environments</td>
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<td>Designing for healthcare experiences</td>
<td>Embodied Haptic Interfaces</td>
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<td><strong>DA PI</strong></td>
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<td>Pervasive Civic Computing</td>
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<td><strong>HAS</strong></td>
<td>-</td>
<td>Security, Forensic and Legal Aspects of Human-Computer Interaction</td>
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</table>

**Thematic Area Abbreviations:**
- **HCI**: Human-Computer Interaction
- **HIMI**: Human Interface and the Management of Information
- **EPCE**: Engineering Psychology and Cognitive Ergonomics
- **UAHCI**: Engineering Psychology and Cognitive Ergonomics and Applications
- **VAMR**: Virtual, Augmented and Mixed Reality
- **CCD**: Cross-Cultural Design
- **OCSC**: Online Communities and Social Computing

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**Sessions Overview**

- **10:30 – 12:30 (page 48 - 53)**
- **13:30 – 15:30 (page 54 - 59)**
- **16:00 – 18:00 (page 60 - 65)**
### Sessions DAY 1

**Wednesday, 24 July 2013**

**Afternoon 13:30 - 18:00**

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<tr>
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| **HCI**       | - Information search and retrieval  
- Putting together Computer Science, Ergonomics and Medicine: a multidisciplinary study about e-health interfaces  
- New Technology and User Experience for Next Educational Environment  
- Interacting with the web - I  |
| **HIMI**      | - Adaptive and User Guiding Information Service and Interface - II  
- HCI Studies in Management Information Systems (I)  
- User-oriented technologies and services  |
| **EPCE**      | - Cognitive issues in Aviation  
- Cognitive aspects of HCI and usability  
- Cognitive factors in learning  |
| **UAHCI**     | - LEDA: Ludic Engagement Designs for ALL, ArtAbilitation + GameAbilitation  
- Human, Computer and Environment - II  |
| **VAMR**      | - 3D environments  |
| **CCD**       | - Social networking and online behavior analysis  
- Cross-cultural design of IT products and services  |
| **OCSC**      | - Social Games and entertainment  |
| **AC**        | - Human-Systems Integration R&D Agenda 2050  |
| **DHM**       | - Anthropometric data analysis and application  |
| **DUXXU**     | - Design, Ergonomics, and Usability - II  
- Interaction and materiality - I  
- Explore User Experiences through Object to Space  
- Gamification @ Work  
- eMobility - The customer’s perspective  |
| **DAPI**      | - Aesthetics in Interaction  |
| **HAS**       | -  |

**Session Title**

- Games and Usability  
- User Experience for Creating Vision  
- Designing and Developing for the Smart-Device World  
- HCI advances in Health Care Systems  
- HCI Studies in Management Information Systems (II)  
- Embodied Interaction and Communication  
- The Design, Development, and Application of Simulation Systems to Meet Training Needs  
- Inclusion - Policies, Programs, Best Practices ... and Lessons Learnt  
- Inclusive Technologies  
- Creativity, Mobile Multimedia Systems, Human and Social Factors in Software: Communicability Excellence for All  
- HCI-based welfare system design: Studies from two Asian countries  
- Design and Research in Multinational Companies  
- User behaviour in social communities - II  
- New tools, techniques, and applications  
- Product Fit  
- Interaction and materiality - II  
- SciFi and HCI: Trends and Issues in Movies and Television  
- Product Design  
- Shopping and Banking  
- Designing for the web user experience  
- Design, User Experience and Usability in Tourism-related Applications  
- Globalization and Localization of DUXU  
- Models for Spatial and Embodied Interaction  
- The Soft Foundations of Cybersecurity Science

**AC** Augmented Cognition  
**DHM** Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management  
**DUXXU** Design, User Experience and Usability  
**DAPI** Distributed, Ambient and Pervasive Interactions  
**HAS** Human Aspects of Information Security, Privacy and Trust
### Parallel Sessions Overview

**Thursday, 25 July 2013**

**Morning 08:00 - 12:30**

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<td>- Computational Intelligence for Signal and Image Processing - III</td>
<td>- Capturing the context of use</td>
<td>- Capturing the context of use</td>
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<td>- HCI in aviation</td>
<td>- Gamification: How to motivate your users with game mechanics</td>
<td>- Gamification: How to motivate your users with game mechanics</td>
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<td>- Cultural and Sociotechnical perspectives in HCI</td>
<td>- Affective Interaction</td>
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<td>- Aging Computer Users</td>
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<td>- Motion, Gesture and Expression recognition - I</td>
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<td>- Relationality Design and Relationality-oriented Systems Design - I</td>
<td>- Improvement in Learning and Educational Environments using ICT</td>
<td>- Improvement in Learning and Educational Environments using ICT</td>
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<td>- Tactile and haptic interaction in HCI</td>
<td>- Human Factors in Collaborative Safe Driving</td>
<td>- Human Factors in Collaborative Safe Driving</td>
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<td>- Multimodal Interfaces: Designing Across Boundaries - I</td>
<td>- Multimodal Interfaces: Designing Across Boundaries - II</td>
<td>- Multimodal Interfaces: Designing Across Boundaries - II</td>
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<td>- Health and Rehabilitation Applications</td>
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<td>- Culture and user experience</td>
<td>- Design for Feeling</td>
<td>- Design for Feeling</td>
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<td>- Cultural Differences in Human Computer Interaction</td>
<td>- Cultural Differences in Human Computer Interaction</td>
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<tr>
<td><strong>OCSC</strong></td>
<td>-</td>
<td>- User eXperience+: Shared Experience Design for Online Communities and Social Computing</td>
<td>- User eXperience+: Shared Experience Design for Online Communities and Social Computing</td>
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<td><strong>AC</strong></td>
<td>- Neurophysiological Measures for Assessment in Education and Training</td>
<td>- Augmenting Human Capabilities on Training Ranges: Towards the Smart Instrumented Training Ranges of the Future</td>
<td>- Augmenting Human Capabilities on Training Ranges: Towards the Smart Instrumented Training Ranges of the Future</td>
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<td>- A Translational Approach to Neurotechnology Development</td>
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<td>- Human Models for a comprehensive analysis of mobile Human-Computer-Interaction</td>
<td>- Human Models for a comprehensive analysis of mobile Human-Computer-Interaction</td>
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<td><strong>DUXU</strong></td>
<td>- Children Interactive Learning Experience</td>
<td>- Designing Experiences for Facilitating Positive Behavior Change (I)</td>
<td>- Designing Experiences for Facilitating Positive Behavior Change (I)</td>
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<td>- User experience in knowledge management</td>
<td>- Design, Ergonomics, and Usability - III</td>
<td>- Design, Ergonomics, and Usability - III</td>
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<td>- Architecture and models for user experience design</td>
<td>- Disaster Information and management</td>
<td>- Disaster Information and management</td>
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<td>- Exploring the Turkish UX Design and Research Landscape</td>
<td>- Exploring the Turkish UX Design and Research Landscape</td>
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<td>- Usability in the Real World: Everyday Experiences</td>
<td>- Usability in the Real World: Everyday Experiences</td>
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<td><strong>DAPI</strong></td>
<td>- Interaction in Ambient Intelligence</td>
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<tr>
<td><strong>HAS</strong></td>
<td>- Passwords, Captcha and User Identification</td>
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</table>

**Notes:**
- HCI Human-Computer Interaction
- HIMI Human Interface and the Management of Information
- EPCE Engineering Psychology and Cognitive Ergonomics
- UAHCI Engineering Psychology and Cognitive Ergonomics
- VAMR Virtual, Augmented and Mixed Reality
- CCD Cross-Cultural Design
- OCSC Online Communities and Social Computing
### Sessions DAY 2

**Thursday, 25 July 2013**

**Afternoon 13:30 - 18:00**

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<td><strong>HCI</strong></td>
<td>Multimodal and Multicultural Communicative Agents (MMMCA)</td>
<td>Learning environments</td>
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<td>Socio-cultural Aspects in Monolingual and Multilingual Human-Computer Interaction</td>
<td>Advanced mobile interaction</td>
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<td>TLC: Technology for Living and Caring</td>
<td>HCI in critical contexts</td>
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<td>Kawaii, Kansei and affective value creation</td>
<td>Human Aspects of Enterprise Information Systems</td>
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<td>Consumer behaviour and persuasive interaction</td>
<td>Culture, art, music and creativity</td>
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<td><strong>HIMI</strong></td>
<td>Technologies for learning and teaching</td>
<td>Information search</td>
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<td>Management of Information for Decisions</td>
<td>New perspectives on service engineering</td>
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<td>Design and Evaluation of Human Interface</td>
<td>Digital Museum</td>
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<td><strong>EPCE</strong></td>
<td>Cognitive issues at work</td>
<td>Human Factors in Flight Operations</td>
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<td><strong>UAHCI</strong></td>
<td>Universal Access: Interaction Science - II</td>
<td>Accessibility of Documents - II</td>
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<td>Accessibility of Documents - I</td>
<td>Ambient Assisted Living</td>
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<td>Design Access in Interaction and Human Factors</td>
<td>Collective Intelligence: impact on e-inclusion</td>
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<td><strong>VAMR</strong></td>
<td>Visualization Techniques for Human-Automation Interaction</td>
<td>Emerging Trends in Virtual, Augmented and Mixed Reality</td>
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<td><strong>CCD</strong></td>
<td>Design for urban experience and social innovation</td>
<td>How Industry Policy Shaping UI/UX Research</td>
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<td>Online Communities and Social Computing in Higher Education</td>
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<td><strong>AC</strong></td>
<td>Augmented Cognition in High Risk Environments</td>
<td>Operational Neuroscience</td>
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<td>Novel Approaches in Augmented Cognition</td>
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<td><strong>DHM</strong></td>
<td>New Development in the Human-Centered Design in Transportation</td>
<td>DHM in Aviation and Space</td>
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<td><strong>DUXU</strong></td>
<td>Designing Experiences for Facilitating Positive Behavior Change (II)</td>
<td>Ergonomics in Design of Information Systems - II</td>
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<td>Ergonomics in Design of Information Systems - I</td>
<td>Beyond Flat Screens: Bringing Design Thinking to Life</td>
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<td>Agile User Experience Design</td>
<td>Developing Next Generation Crowd Sourced UAVs</td>
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<td>Semiotics, Language, Interaction</td>
<td>Enterprise Software Product UI Design</td>
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<td>Cross-Cultural UX in the Life Science Industry</td>
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<td><strong>DAPI</strong></td>
<td>Smart cities, building and places</td>
<td>Pervasive Systems for Assistive Environments</td>
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<td><strong>HAS</strong></td>
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<td>Security Behaviour</td>
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**AC** Augmented Cognition · **DHM** Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management · **DUXU** Design, User Experience and Usability · **DAPI** Distributed, Ambient and Pervasive Interactions · **HAS** Human Aspects of Information Security, Privacy and Trust
### Parallel Sessions Overview

**Friday, 26 July 2013**

**Morning 08:00 - 12:30**

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<td>Speech and Dialogue Systems</td>
<td>Design and evaluation techniques and methods for medical and rehabilitation devices</td>
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<td>Driving and interacting</td>
<td>User interface design</td>
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<td>Novel text input methods</td>
<td>Human - Robot Interaction</td>
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<td>Automotive and Aviation</td>
<td>Application in physiological and behavioral research for HCI related field</td>
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<td>Communication Enhancement</td>
<td>Personalised information spaces</td>
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<td>Customer value by human interface</td>
<td>Safety-critical applications</td>
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<td>Human Factors and road safety</td>
<td>Situated Cognitive Engineering for Citizen’s Well-Being</td>
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<td>Human-Automation Integration Issues in Highly Automated Unmanned Vehicles</td>
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<td><strong>UAHCI</strong></td>
<td>Design Access in Human Communication and Interaction</td>
<td>Design Access in Ergonomics and Interaction</td>
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<td>Multi-Modal, Multi-Party, and Multi-Brain Brain-Computer Interfacing</td>
<td>Inclusive education</td>
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<td>Accessibility and Software Design for All</td>
<td>Technologies for Enhancing Universal Access</td>
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<td><strong>VAMR</strong></td>
<td>Computational Aspects of Mental Models of Human-Robot Teamwork</td>
<td>Cutting Edge in Information Display: Recent Advances in Ergonomic Research for the Use of E-papers</td>
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<td>Virtual and Augmented Reality HCI in Medicine</td>
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<td><strong>CCD</strong></td>
<td>Product &amp; Service Innovation based on New Developments in Human Factors</td>
<td>Design for Individual Differences</td>
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<td>Globally Distributed Work - the Interplay between the Social and the Technical</td>
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<td><strong>AC</strong></td>
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<td>Applications of Optical Brain Imaging</td>
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<td><strong>DHM</strong></td>
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<td>Models and simulations in complex human environments</td>
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<td>Design, Ergonomics, and Usability - IV</td>
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<td>User Experience for Mobile Business Applications</td>
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<td>Energy Feedback Design and Information Visualization</td>
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<td>Interaction design in daily activity</td>
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<td><strong>DAPI</strong></td>
<td>Interaction for Ubiquitous Virtual Reality - I</td>
<td>Interaction for Ubiquitous Virtual Reality - II</td>
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<td><strong>HAS</strong></td>
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<td>Intent Semantics: New Concept in Trust R&amp;D</td>
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**Thematic Areas:**
- **Human-Computer Interaction (HCI)**
- **Human Interface and the Management of Information (HIMI)**
- **Engineering Psychology and Cognitive Ergonomics (EPCE)**
- **Engineering Psychology and Cognitive Ergonomics (UAHCI)**
- **Virtual, Augmented and Mixed Reality (VAMR)**
- **Cross-Cultural Design (CCD)**
- **Online Communities and Social Computing (OCSC)**
- **Applications of Optical Brain Imaging (AC)**
- **Models and simulations in complex human environments (DHM)**
- **Design, Ergonomics, and Usability (DUXU)**
- **Interaction for Ubiquitous Virtual Reality (DAPI)**
- **Intent Semantics: New Concept in Trust R&D (HAS)**

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**UC PICTURES BY PERMISSION.**
### Sessions DAY 3

**Friday, 26 July 2013**

#### Afternoon 13:30 - 18:00

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<td>Interaction Design for Development (ID4D) of Indigenous Communities</td>
<td>UX Design Processes &amp; Evaluation Methods</td>
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<td>Haptics: Towards interacting with the world via touch</td>
<td>Interacting with the web - II</td>
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<td>UI Prototyping methods and tools</td>
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<td>Motion, Gesture and Expression recognition - II</td>
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<td><strong>HIMI</strong></td>
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<td>Management of interaction</td>
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<td>Human-centered Information Systems and Applications</td>
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<td>Designing complex environments</td>
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<td><strong>UAHCI</strong></td>
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<td>Cutting Edge in Information Display: Recent Advances in Ergonomic Research for the Use of 3D</td>
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<td>Robots in everyday life</td>
<td>Smart Products and Services</td>
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<td>Interaction and Education for the Deaf</td>
<td>Innovative technologies for children with ASD</td>
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<td>Senior Workforce</td>
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<td><strong>VAMR</strong></td>
<td>The Role of Virtual, Augmented and Mixed Reality in STEAM Education for the 21st Century</td>
<td>Human robot interaction and haptics</td>
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<td>Exploring complexity through simulation and immersion</td>
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<td><strong>CCD</strong></td>
<td>Human-computer interaction and human errors in complex systems</td>
<td>Towards a cross-cultural web</td>
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<td>Knowledge Sharing</td>
<td>User-centered Design for Life Technology</td>
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<td>eSociety 2.0 - II</td>
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<tr>
<td><strong>AC</strong></td>
<td>Using Augmented Cognition for Gamification</td>
<td>Modeling the Complex Dynamics of Teamwork</td>
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<td>Emerging Technologies in Working Conditions</td>
<td>Biomechanics in Product and Process Design</td>
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<td>Automation design and human systems integration: modeling, validation and certification issues</td>
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<td><strong>DUXU</strong></td>
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<td>Users’ involvement, needs and requirements in DUXU</td>
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<td>Inclusive and open design</td>
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<td>Mobile Web &amp; Mobile App Design and Usage</td>
<td>Design at the Frontier of User-Experience Development</td>
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<tr>
<td><strong>DAPI</strong></td>
<td>Design and development frameworks and methods in Ambient Intelligence</td>
<td>Service innovation and creativity management</td>
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<tr>
<td><strong>HAS</strong></td>
<td>Encouraging an Information Security Culture by addressing Human Behavior</td>
<td>User monitoring in Ambient Intelligence</td>
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**AC** Augmented Cognition  ·  **DHM** Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management  
**DUXU** Design, User Experience and Usability  ·  **DAPI** Distributed, Ambient and Pervasive Interactions  
**HAS** Human Aspects of Information Security, Privacy and Trust
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<td>A New Horizon for Social Information Systems (I)</td>
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<td>Computational Intelligence for Signal and Image Processing - I</td>
<td>Ping Guo, Fuqing Duan</td>
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<td>Designing and evaluating novel interaction environments</td>
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<td>Yabu Yn, Yon Tian, Weizhou Wang, Fuqing Duan, Zhongke Wu, Mingquan</td>
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<td>Hiroshi Yajima, Takuto Gotoh</td>
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<td>Kristin Skeide Fuglerud, David Sloan</td>
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<td>Design of a Wearable Haptic Vest as a Supportive Tool for Navigation</td>
<td>Anak Agung Gede Dharma, Takuma Oami, Yuki Obata, Li Yan, Kiyoshi</td>
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<td>Rob H Euman, Jose Abdelnour-Nocera</td>
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**Parallel Sessions: Wednesday, 24 July 2013**

**HCI**

**Wednesday, 24 July 08:00 - 10:00**
### Parallel Sessions

- **HCI**
  - Formal and model-based design and development approaches
    Chair(s): To be announced
  - A Logical Design Method for User Interface using GUI Design Patterns
    Ichiro Hirata, Toshiki Yamaoka.
  - Visual Interfaces Design Simplification through Components Reuse
    Javier Rodeiro Iglesias, Pedro Teixeira-Faria.
  - Fuzzy Logic Approach for Adaptive Systems Design
    Makarem Soui, Mourad Abed, Khaled Ghedira.
  - Design and Implementation of Ergolocifin: A Tool for Automated Identification of Websites Interaction Elements
    Oscar Francisco Santos, Marcelo Morandini.
  - Communicating Ideas in Computer-Supported Modelling Tasks: A Case Study with BPMN
    Juliana Jansen Ferreira, Clarisse Sieckenius De Souza.
  - Extending the Information of Activity Diagrams with a User Input Classification
    Cindy Mayas, Stephan Hörold, Heidi Krömker.
  - Parallel Rendering of Human-Computer Interaction Industrial Applications on Multi-/Many-Core Platforms
    Sven Hermann, Arquimedes Canedo, Max Wang.

- **HIMI**
  - Human Interface and the Management of Information
  - Designing Usable Interfaces for HCI
    Chair(s): Robert Proctor.
  - The Influence of Password Restrictions and Mnemonics on the Memory for Passwords of Older Adults
    Kim-Phuong Vu, Martina Hills.
  - Intuitive Design for Non-touch Screen Scrolling: Evidence from a Continuous Text-movement Task
    Jing Chen, Robert Proctor.
  - Value Added by the Axiomatic Usability Method for Evaluating Consumer Electronics
    Yinni Guo, Yu Zhu, Gabriel Salvendy, Robert Proctor.
  - A Visual Discrimination Task for Symbols in Air Traffic Management
    Mary Ngo, Kim-Phuong Vu, Tristan Grigoleit, Thomas Z Strybel.
  - A Precursory Look at Potential Interaction Objectives Affecting Flexible Robotic Cell Safety
    April Savoy, Alister McLeod.
  - Are Prescription Labels Usable? A Review and Analysis
    Meghann Herron, Kim-Phuong Vu.
  - Developing concepts of a ground control station for unmanned aircraft
    Gregory A Morales, Mark Pestana.

- **EPCE**
  - Human Factors & Security
    Chair(s): Alex Stedmon.
  - Autonomous Control in Military Logistics Vehicles: Trust and Safety Analysis
    Nicole Gempton, Stefanos Skalitis, Jane Furness, Siraj Shaikh, Dobri Petrovic.
  - A Collaborative Multi-source Intelligence Working Environment: A Systems Approach
    Peter Eacus, Ben Short, Alex Stedmon, Jennie Brown, Margaret Wilson, Lucy Lemansky.
  - Analysing Deceptive Speech
    Christin Kirchhuebel, Alex Stedmon, David Howard.
    Alex Stedmon, Brendan Ryan, Pat Fryer, Aneley McMillan, Nick Sutherland, Alyson Langley.
  - Tackling financial and economic crime through strategic intelligence management
    Babak Akhgar.
  - Transparency of military threat evaluation through visualizing uncertainty and system rationale
    Tove Hellblad, Göran Falkman, Maria Riveiro, Anders Dahlborn, Mikael Lebram.
Human factors modeling schemes for pilot-aircraft system: A complex system approach
Dan Huang, Shan Fu.

The Experimental Research of Task Load Quantitative Analysis Based on the Pupil Diameter
Xueli He, Wang Lijing.

Pilot Preferences on Displayed Aircraft Control Variables
Anna Trujillo, Irene Gregory.

Digital Expression of Civil Pilot's Basic Operation
Jiang Zhuoyuan, Chen Bin, Cao Quanxin, Liang Yuandong.

Harmonization towards Performance in Future Air Transportation
Chair(s): Shan Fu.

Human factors modeling schemes for pilot-aircraft system: A complex system approach
Dan Huang, Shan Fu.

The Experimental Research of Task Load Quantitative Analysis Based on the Pupil Diameter
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Pilot Preferences on Displayed Aircraft Control Variables
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Digital Expression of Civil Pilot's Basic Operation
Jiang Zhuoyuan, Chen Bin, Cao Quanxin, Liang Yuandong.

Youth, Video Games, and the Constellation of Information
Crystle Martin.

Age-Related Differences in Search Strategy and Performance when Using a Data-Rich Web Site
Erica Olmsted-Hawala, Jennifer C Romano Bergstrom, Wendy Rogers.

SERPs and Ads on Mobile Devices: An Eye Tracking Study for Generation Y
Tiago Lapa, Gustavo Cardoso.

Age Differences in the Knowledge and Usage of QR Codes
Jonathan Mendelson, Jennifer C Romano Bergstrom.

Designing for the Wisdom of Elders: Age Related Differences in Online Search Strategies

Ibero-American Minors: How Are They Accessing and Using Information
Charo Sádaba.

The Current Possibilities for Controlling Parameters of Environment of Housing and Workplace Based on the Selected Architectural Realizations
Paweł Horn.

Creating Public Space in Wroclaw's Urban Environment
Barbara Gronostajewska.

Problems of the Acoustics of Interiors in Architectural and Constructional Solutions of the Extension of the Wrocław Opera Building and Summer Scene
Bogusław Wóźniewczka, Jacek Dziegielewski.

The Computed-Aided Judiciary - How the Contemporary Technologies Change the Courtroom Design?
Grażyna Hryncewicz-Lamber.

Social Dimension of Sustainable Development - Safety and Ergonomics in Maintenance Activities
Malgorzata Jasulewicz-Kaczmarek, Przemysław Drożyner.

Supporting the continuum of care for combat wounded patients: Adaptive interfaces for Personal Health Records
Harry D. Turnell, Aeshwarya Verma.

Evaluation of User Interface of Computer Application Developed for Screening Pediatric Asthma
Maryam Zolnoori, Josette Jones, Mostafa Moin, Hassan Heidarnejad, Mohammad Reza Fazlollahi, Masoud Hosseini.

Facilitators and Barriers to patients’ engagements with Personal Health Records: Systematic review
Abdulrahman Jabour, Josette Jones.

Complexity Analysis of a Transfer Center
Josette Jones, Michelle Lenox, Shelly M Maersch, Tami Raute, Cortney Gundlach, Mark Pfaff.

Data Reduction for Continuum of Care: An Exploratory Study Using the Predicate-Argument Structure to Pre-Process Radiology Sentences for Measurement of Semantic Similarity
Eric Tyner Newsom, Josette Jones.

Ontological Model for CDSS in Knee Management
Kanitha Phalakornkule, Josette Jones, John Finnell.

A Pilot Study: Integrating an Emergency Department with Indiana's Prescription Drug Monitoring Program
Hamed Abedtash, John Finnell.
## VAMR

**VR and AR for games and entertainment**  
Chair(s): To be announced

- **An Experience on Natural Sciences Augmented Reality Contents for Preschoolers**  
  Antonia Cascales, Isabel Laguna, David Perez Lopez, Pascual Perona, Manuel Contero.

- **A 3-D Serious Game to Simulate A Living of A Beehive**  
  José Figueiredo, Vera Werneck, Rosa M. E. M. Costa.

- **On the Use of Augmented Reality Technology for Creating Interactive Computer Games**  
  Chin-Shyurng Fahn, Meng-Luen Wu, Wei-Tyng Liu.

- **Developing Augmented Reality Application to Enhance Science Education in Kindergarten**  
  Taghreed Abdullah Noorsaeed.

- **System Development of Immersive Technology Theatre in Museum**  
  Yi Chia Nina Lee, Li-Ting Shan, Chien-Hsu Chen.

- **AR'Istophanes: Mixed Reality Live Stage Entertainment with Spectator Interaction**  
  Thiemo Kastel, Marion Kesmaecker, Krzysztof Mikolajczyk, Bruno Filipe Duarte-Goncalves.

**Navigation and safety in complex environments**  
Chair(s): To be announced

- **Empirical Investigation of Transferring Cockpit Interactions >From Virtual to Real-Life Environments**  
  Diana Reich, Elisabeth Dittrich.

- **Predicting Navigation Performance with Psychophysiological Responses to Threat In a Virtual Environment**  

- **Evaluating distraction and disengagement of attention from the road**  
  Valentine Ikechukwu Nwakacha, Gary Burnett, Andrew Crabtree.

- **Mixed Reality Environment for Mission Critical Systems Servicing and Repair**  
  Andrea F. Abate, Fabio Narducci, Stefano Ricciardi.

- **A New Approach for Indoor Navigation Using Semantic Webtechnologies and Augmented Reality**  
  Tamas Matuszka, Gergő Gombos, Attila Kiss.

- **A Study of Navigation and Selection Techniques in Virtual Environments Using Microsoft Kinect**  
  Peter F. Dam, Priscilla F. A. Braz, Alberto B. Raposo.

## CCD

**Design at the Edges (I)**  
Chair(s): Rungtai Lin, Po-Hsien Lin.

- **Consumers’ Evaluation and Perception within the Trend of Cultural Creative Design**  
  Chi-Hsien Hsu, Shu-Hsuan Chang, Jung-Yu Lin.

- **The Effects of Emotion on Judgements of Effectiveness and Good-design**  
  Hui Yueh Hsieh.

- **Employing Poetry Culture for Creative Design with a Polyphonic Pattern**  
  Mo-Li Yeh, Po-Hsien Lin, Ming-sian Wang.

- **The Research on Cognition Design in Chinese Opera Mask**  

- **A Study of the Attraction Factors of Japanese Pop-culture by Young People in Taiwan**  
  Chen-hao Fan, I-Hsin Fan, Huang-Tsun Lu, Suyao Lee.

- **The Influence of Design Training and Spatial Solution Strategies on Spatial Ability Performance**  
  Han-Yu Lin.

- **The Effect of Exhibition Visit and Photograph Watch on Visitor’s Experience**  
  Jun-Liang Chen, Si-Jing Chen, Chih-Long Lin.

## OCSC

**Friendship and affect in Social Communities**  
Chair(s): To be announced

- **You Are Not Alone Online: A Case Study of Long Distance Romantic Relationships in the Renren Online Community**  
  Yurong He, Kari Kraus, Jennifer Preece.

- **Who Are Seeking Friends? The Portrait of Stranger-Seeker in Social Network Sites**  
  Xitong Yue, Yuanyuan Shi, Huajian Cai.

- **Understanding Social Network Sites (SNSs) Preferences: Personality, Motivation, and Happiness Matters**  
  Yuanyuan Shi, Xitong Yue, Jin He.

- **A consideration of the functions that support to find new friends in social games**  
  Kohei Otake, Tomofumi Uetake, Akito Sakurai.

- **Exploratory Study on Online Social Networks User from SASANG Constitution - Focused on Korean Facebook users**  
  Joung Youn Lee, Hyun Suk Kim, Eunjung Choi, Soon Jeong Choi.

- **Looking Back At Facebook Content And The Positive Impact Upon Wellbeing: Exploring Reminiscing As A Tool For Self Soothing**  

- **Searching Emotional Scenes in TV Programs based on Twitter Emotion Analysis**  
  Takashi Yamauchi, Yuki Hayashi, Yukiko Nakano.
**Parallel Sessions: WEDNESDAY, 24 JULY 2013**

**AC**

**Opportunities for Augmented Cognition in Cyber Operations**
Chair(s): Chris Forsythe.

**Intuitive Sensemaking**
Chair(s): Denise M Nicholson.

**Adaptive Systems for Cyber Operator Augmentation**
Benjamin Knott, Scott Galster, Gregory Funke.

**Enhanced Training for Cyber Situational Awareness**
Susan Stevens-Adams, Armida Carbaljai, Austin Silva, Kevin Nauer, Benjamin Anderson, Theodore Reed, Chris Forsythe.

**Identifying Contextually-Driven Perceptions of Risk in Cybersecurity Operations**
Jennifer Cowley, James Cebula.

**Instrumenting Competition-based Exercises to Evaluate Cyber Defender Situation Awareness**
Theodore Reed, Kevin Nauer, Austin Silva.

**Effects of Teamwork versus Group Work on Signal Detection in Cyber Defense Teams**
Prashanth Rajivan, Michael Champion, Nancy Cooke, Shree Jariwala, Genevieve Dubé, Verica Buchanan.

**Improving Tool Support for Software Reverse Engineering in a Security Context**
Brendan Cleary, Christoph Treude, Fernando Figueira Filho, Margaret-Anne Storey, Martin Salois.

**Human Dimension in Cyber Operations Research and Development Priorities**
Chris Forsythe, Austin Silva, Susan Stevens-Adams, Jeffrey Bradshaw.

**Modeling and Simulations**
Sae Schatz, Kathleen Bartlett.

**Towards Evaluating Computational Models of Intuitive Decision Making with fMRI Data**
James Niehaus, Victoria Romero, Avi Pfeffer.

**Human Memory Systems: A Framework for Understanding the Neurocognitive Foundations of Intuition**
Paul J Reber, Mark Beeeman, Ken Paller.

**Using Simulation Based Training Methods for Improved Warfighter Decision Making**
Perakath Benjamin, Paul Koola, Kumar Akella, Michael Graul, Michael Painter.

**Instrumenting a Perceptual Training Environment to Support Dynamic Tailoring**
Robert E Wray, Jeremiah Folsom-Kovarik, Angela Woods.

**Enhancing Intuitive Decision Making through Implicit Learning**
Joseph Cohn, Peter Squire, Ivy Estabrooke, Elizabeth O'Neill.

**Intuitive Sensemaking: From Theory to Simulation-Based Training**
Kathleen Bartlett, Margaret Nolan, Andrea Marraffino.

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**DHM**

**Utilizing Traditional Wisdom and Technologies for Quality Care**
Chair(s): Akihiko Goto, Noriaki Kuwahara.

**A Study of The Effect of The Shape, The Color, and The Texture of Ikebana on A Brain Activity**
Yuki Ikenobo, Yoshiyuki Kida, Noriaki Kuwahara, Akihiko Goto, Akiroo Kimura.

**Home Care Risk Management: Nursing Issues Related to Technology**
Juliana J. Brixey, James P. Turley.

**Supporting Conversation for People with Dementia by Introducing a Computer-based Third Element to the Interaction**
Norman Alm, Arlene Asten, Gyan Gowan, Maggie Ellis, Phillip Vaughan, Richard Dye.

**Feedback-based Self-training System of Patient Transfer**
Zhifeng Huang, Ayanori Nagata, Masako Kanai-Pak, Jukai Maeda, Yasuko Kitajima, Mitsuhiko Nakamura, Kyoko Aida, Noriaki Kuwahara, Taiki Ogata, Jun Ota.

**Effect evaluation of recreational coloring carried out at pay nursing home**

**Development of a Measurement and Evaluation System for Bed-Making Activity**

**Anatomy-based variational modeling of Digital Hand and its verification**
Yulai Xie, Satoshi Kanai, Hiroaki Date.

**Towards Enhancing the Acoustic Models for Dysarthric Speech**
Kuruvachan K George, C Santoshsh Kumar.
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<td>Content as Conversation in Government Websites</td>
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<td>From the Ground-up: Role of Usability and Aesthetics Evaluation in Creating a Knowledge-based Website for the U.S. Army Corps of Engineers</td>
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<td>Design and Evaluation of a Predictive Model for Smart Phone Selection</td>
<td>Yerika Jimenez, Patricia A Morreale.</td>
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<td>Evaluation of Effects of Textures Attached to Mobile Devices on Pointing Accuracy</td>
<td>Yoshitomo Fukatsu, Tatsuhiro Oe, Yuki Kuno, Buntarou Shizuki, Jiro Tanaka.</td>
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<td>A Proposal for Optimization Method of Vibration Pattern of Mobile Device with Interactive Genetic Algorithm</td>
<td>Makoto Fukumoto, Takafuli Ienaga.</td>
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<td>NUI-based Floor Navigation – A Case Study</td>
<td>Ulrich Furbach, Markus Maron.</td>
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<td>PainDroid: A Mobile Tool for Pain Visualization and Management</td>
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<td>Application of Rhetorical Appeals in Interactive Design for Health</td>
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<td>Multi-modal and ambient communication and collaboration</td>
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<td>Designing Situated Experiences: Models, Technologies, Applications</td>
<td>Chair(s): Matthias Rehm, Sören Eskildsen.</td>
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<td>Further Benefit of a Kind of Inconvenience for Social Information Systems</td>
<td>Hiroshi Kawakami.</td>
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<td>Robust Face Recognition System Using a Reliability Feedback</td>
<td>Shotaro Miwa, Shintaro Watanabe, Makito Seki.</td>
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<td>An Evacuation Place Reasoning System to Support Disaster Rescue Teams</td>
<td>Akihiro Kawabe, Tomoko Izumi, Yoshi Nakatani.</td>
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<td>Multi-layer Control and Graphical Feature Editing using Server-side Rendering on Ajax-GIS</td>
<td>Takeo Sakairi, Takashi Tamada, Katsuyuki Kamei, Yukio Goto.</td>
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<td>Correcting Distortion of Views into Aquarium</td>
<td>Yukio Ishihara, Makio Ishihara.</td>
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<td>A Dense Stereo Matching Algorithm with Occlusion and Less or Similar Texture Handling</td>
<td>Hehua Ju, Chao Liang.</td>
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<td>A Coastline Detection Method Based on Level Set</td>
<td>Qian Wang, Ke Lu, Fuqing Duan, Ning He, Lei Yang.</td>
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#### Patterns and Models for User Interface Construction
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#### HCI considerations for NextGen
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**User Guiding Information Supporting Application for Clinical Procedure in Traditional Medicine**
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**Human Support System for Elderly People in Daily Life**
Shimizu Shunji, Hiroaki Inoue.

**Analytics on Online Discussion and Commenting Services**
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**Usability Compliance Audit for Technology Intelligence Services**
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**Overview of Global User Interfaces For Localization**

**Designing and Verifying Application Schema by Applying Standard Element for Managing Ocean Observation Data**
Sun-Tae Kim, Lee-Kyum Kim, Tae-Young Lee.

**Visualization of Anomaly Data Using Peculiarity Detection on Learning Vector Quantization**
Fumiaki Saitoh, Syohei Ishizu.

**Presenting a Fire Alarm Using Natural Language: The Communication of Temporal Information**
Yan Ge, Xianghong Sun, Li Wang.

**Development of a Graphical User Interface as Data Collection Tool for Cognitive Performance in a Navigation Task**
Katherine G. Bagley, Eui Park.

**An Approach to Optimal Text Placement on Images**
Gautam K. Malu, Bipin Indurkhya.

**Effects of Task and Presentation Modality in Detection Response Tasks**
Roman Vilimek, Juliane Schaefer, Andreas Keinath.

**Effect of Transliteration on Readability**
Sambhav Jain, Kunal Sachdeva, Ankush Soni.

**Cognitive factors of interaction**
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**Inclusion, Design, Technical Devices for Older People**
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**Small Input Devices Used by the Elderly – How Sensorimotor Transformation and Task Complexity Affect Interaction**
Michael Oehl, Luisa Dahlmanns, Christine Sutter.

**Are Internet and Social Network Usage Associated with Wellbeing and Social Inclusion of Seniors? – The Third Age Online Survey on Digital Media Use in Three European Countries**
Dirk Richter, Stijn Bannier, Ruediger Glott, Markus Marquard, Thomas Schwarz.

**Senior Patients Online: Which Functions should a Good Patient Website Offer?**
Nadine Bol, Christin Scholz, Ellen Smets, Eugenius Loos, Hanneke De Haes, Julia Van Weert.

**How E-Inclusion and Innovation Policy Affect Digital Access and Use for Senior Citizens in Europe**
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**Age and Computer Self-Efficacy in the Use of Digital Technologies: An Investigation of Prototypes for Public Self-Service Terminals**
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**Design for Adapted Devices: an Evaluation Tool of Smart Things for Seniors**
Javier Barcenilla, Charles Tijus, Djamel Aissaoui, Eric Brangier.

**A Usability Study of Websites for Older Travelers**
Kate Finn, Jeff Johnson.

**Universal Access in Human-Computer Interaction**
Chair(s): Ana Isabel B. Paraguay.

**Access to Books: Human Rights, Copyright and Accessibility**
Abigail P. Rekas.

**Can Accessible Digital Formats Improve Reading Skills, Habits and Educational Level For Dyslectic Youngsters?**
Simon Moe, Michael Wright.

**Online Digital Libraries at Universities: an inclusive proposal**
Amanda Meincke Melo, Joseane Giacomelli da Silva.

**AcceSciTech: A Global Approach to Make Scientific and Technical Literature Accessible**
Alex Bernier, Dominique Burger.

**Nonvisual Presentation and Navigation within the Structure of Digital Text-Documents on Mobile Devices**
Martin Lukas Dorigo, Bettina Harriehausen-Mühlbauer, Ingo Stengel, Paul S Haskell-Dowland.

**Accessible online learning: How much accessible? For whom?**
Projetar Para Todos, Ana Isabel B. B. Paraguay.

**Implementing Disability Accommodations in a Widely Distributed Web based Visualization and Analysis Platform – Weave**
Heather Granz, Merve Tuccar, Shweta Purushe, Georges Grinstein.
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  - Towards noise-enhanced Augmented Cognition
    Alexander J Casson.

  - Augmenting Instructional Design with State-Based Assessment
    Kevin Oden.

  - Guided Learning Algorithms: An Application of Constrained Spectral Partitioning to Functional Magnetic Resonance Imaging (fMRI)
    Henry L Phillips, Peter Walker, Carrie Kennedy, Owen Carmichael, Ian Davidson.

  - Developing Visualization Techniques for Improved Information Comprehension and Reduced Cognitive Workload
    Scott Scheff, Tristan Plank, John Wilson, Angela Sebok.

  - From Explicit to Implicit Speech Recognition
    Chad M. Spooner, Erik Viirre, Bradley Chase.

  - Augmented Interaction: Applying the Principles of Augmented Cognition to Human-Technology and Human-Human Interactions
    Anna D Skinner, Lindsay Long, Jack Vice, John Blitch, Cali M. Fidopiastis, Chris Berka.

**DHM**

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  - Extraction of Light Stripe Centerline Based on Self-Adaptive Thresholding and Contour Polygonal Representation
    Qingguo Tian, Yujie Yang, Xiangyu Zhang, Baozhen Ge.

  - A Study for Conducting Waves by Using the Multi-channel Surface EMG
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  - Artificial Neural Network-Based Prediction of Human Posture
    Mohammad H Bataineh, Tim Marler, Karim Abdel-Malek.

  - Ergonomic Assessment of Patient Barrow Lifting Technique Using Digital Human Modeling
    Wen Cao, Meng Jiang, Ying Han, Mohammad Khasawneh.

  - Ergonomics Study of Direct and Indirect Visibility Evaluation at Uncontrolled Intersections Based on Three-Dimensional Computer Simulation
    Midori Mori, Noboru Kubo.

  - Assessment of body surface potential mapping in VDT-operators
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  Chair(s): Vincent Duffy.

  - Augmenting Yu-Gi-Oh! Trading Card Game as Persuasive Transmedia Storytelling
    Mizuki Sakamoto, Tatsuo Nakajima.

  - Work and gameplay in the transparent 'magic circle' of gamification. Insights from a gameful collaborative review exercise
    Razvan Rughinis.

  - Stand Up, Heroes!: Gamification for Standing People on Crowded Public Transportation
    Itaru Kuramoto, Takuya Ishibashi, Keiko Yamamoto, Yoshihiro Tsujino.

  - Teachers and Children Playing with Factorization: Putting Prime Slaughter to The Test
    Andrea Valentie, Emanuela Marchetti.

  - Exploring Adjustable Interactive Rings in Game Playing: Preliminary Results
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  - Math Fluency through Game Design
    Wanda Eugene, Tiffany Barnes, Jennifer Wilson.

  - Measuring Usability of the Mobile Mathematics Curriculum-based Measurement Application with Children
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  - Investigation of Interaction Modalities Designed for Immersive Visualizations using Commodity Devices in the Classroom
    Kira Lawrence, Alisa Maas, Neera Pradhan, Treschiel Ford, Jacqueline Shinker, Amy Banic.

  - Improving User Experience in e-Learning, the Case of the Open University of Catalonia
    Eva De Lera, Magi Almirall, Llorenç Valverde, Mercé Gisbert.

  - Exploring Information-Triage: speculative interface tools to help college students conduct online research
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  - The Learning Machine: Mobile UX Design that Combines Information Design with Persuasion Design
    Aaron Marcus, Yuan Peng, Nicola Lecca.

  - Development and Validation of an Instrument to Measure the Usability of Educational Artifacts Created with Web 2.0 Applications
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  - Toward Social Media Based Writing
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**Healthcare Interoperability: CDA Documents Consolidation Using Transport Record Summary (TRS) Construction**  
Philip DePalo, Kyung Eun Park, Yeong-Tae Song.
### Parallel Sessions

**HIMI**

**HCI Studies in Management Information Systems (II)**
Chair(s): Fiona Fui-Hoon Nah.

**Embodied Interaction and Communication**
Chair(s): Tomio Watanabe.

**The Design, Development, and Application of Simulation Systems to Meet Training Needs**
Chair(s): Nickolas Macchiarella.

**Usability of Performance Dashboards, Usefulness of Operational and Tactical Support, and Quality of Strategic Support: A Research Framework**
Bih-Ru Lea, Fiona Fui-Hoon Nah.

**Designing Effective User Interfaces for Crowdsourcing: An Exploratory Study**
Robbie T Nakatsu, Elissa Grossman.

**Timing and Basis of Online Product Recommendation: The Preference Inconsistency Paradox**
Amy Shi, Chuan-Hoo Tan, Choon Ling Sia.

**Are HCI Issues a Big Factor in Supply Chain Mobile Apps?**
Barry Flachsbart, Cassandra Eirond, Michael G Hilgers.

**Enhancing Information Systems Users’ Knowledge and Skills Transference through Self-regulation Techniques**
Brenda Eschenbrenner.

**Development of a System for Communicating Human Factors Readiness**
Matthew R. Johnston, Katie Del Giudice, Kelly S. Hale, Brent Winslow.

**Design of Space for Expression Media with the Use of Fog**
Shiroh Itai, Yuji Endo, Yoshiyuki Miwa.

**Bodily Expression Media by Dual Domain Design of Shadow**
Naruhiko Hayashi, Yoshiyuki Miwa, Shiroh Itai, Hiroko Nish.

**ARM-COMS: Arm-supported embodied communication monitor system**
Teruaki Ito, Tomio Watanabe.

**Evaluation of Superimposed Self-Character Based on the Detection of Talkers’ Face Angles in Video Communication**
Yutaka Ishii, Tomio Watanabe.

**Effects of a Communication with Make-Believe Play in a Real-Space Sharing Edutainment System**
Hiroki Kanegae, Masaru Yamane, Michiya Yamamoto, Tomio Watanabe.

**Consideration of the Effect of Gesture Exaggeration in Web3D Communication using 3DAgent**
Toshiya Naka, Toru Ishida.

**Relative Position Calibration between Two Haptic Devices Based on Minimum Variance Estimation**
Masanori KOEDA, Yuki KONBU, Hiroshi Noborio.

### UAHCI

**Inclusion - Policies, Programs, Best Practices ... and Lessons Learnt**
Chair(s): Ana Isabel B. B. Paraguay.

**Best Practice for Efficient Development of Inclusive ICT**
Till Halbach Røssvoll, Kristin Skeide Fuglerud.

**Good Practice in Developing Interfaces Using Responsive Web Design**
Afonso Alban, Ana Carolina Bertoletti De Marchi.

**ICT Accessibility Criteria in Public Procurement in OECD Countries – The Current Situation**
Gunela Astbrink, William Tibben.

**Gathering the Users’ Needs in the Development of Assistive Technology: a Blind Navigation System Use Case**
Hugo Paredes, Hugo Fernandes, Paulo Martins, João Barroso.

**Universal Access to Interaction as Revealed by UAHCI Words**
Maria Cecília Calani Baranauskas, Julian Esteban E. Gutierrez Posada.
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Chair(s): Dyi-Yih Michael Lin, Chikamune Wada. |
| Creativity, Mobile Multimedia Systems, Human and Social Factors in Software: Communicability Excellence for All  
Chair(s): Francisco Cipolla-Ficarra. | Design and Research in Multinational Companies  
Chair(s): Paul Fu. |
| Mobile Technology and E-Inclusion  
John Isaacs, Santiago Martinez, Ken C Scott-Brown, Allan Miline, Aled Evans, Daniel Gilmour.  
Design Principles of Open Innovation Concept- Universal Design Viewpoint  
Moyen Mohammad Mustaquim, Tobias Nystrom.  
The Relationship between Touchscreen Sizes of Smartphones and Hand Dimensions  
Yu-Cheng Lin.  
Photography as a Research Method in Collecting Information from Elderly Respondents in Senior Housing Design  
David Ming-Da Lee, Robert CC Chen, Tsai-Ju Lee.  
Prototype of a Virtual User Modeling Software Framework for Inclusive Design of Consumer Products and User Interfaces  
Svetlana Matiouk, Markus Modzelewski, Yehya Mohamad, Michael Lawo, Pierre Kirisci, Patrick Klein, Antoinette Fennell.  
Using Human Factors Standards to Support User Experience and Agile Design  
Martin C Maguire.  
Designing Sustainable IT System - from the Perspective of Universal Design Principles  
Moyen Mohammad Mustaquim, Tobias Nystrom. | Mixed Factorial Analysis of In-Vehicle Information Systems: Age, Driving Behavior, and Task Performance  
Yung-Ching Liu, Chin-Heng Ho.  
A Study of the Effects of Display Atmospherics and Control Mode of 3D Virtual Store on Consumer Behavior in the Elderly  
Cheng-Li Liu, Shiu-Tsyr Uang.  
Design and Assessing the Usability of an Interactive Digital Game in Assisting the Older Adult's Prescriptive Medication Behavior  
Dyi-Yih Michael Lin, Liang-Chun Wu.  
Improvement Research of Shoe-type Measurement Device for A Walking Rehabilitation Support System  
Chikamune Wada, Daisuke Takigawa, Futoshi Wada, Kenji Hachisuka, Takafumi Ienaga, Yoshihiko Kimuro.  
A Study of a Human Interface Device Controlled by Formant Frequencies for the Disabled  
Norhiro Uemi.  
Designing a metal hydride actuator with human-compatible softness and high power-to-weight ratio for future quality-of-life technologies  
Shiuchi Ino, Mitsuru Sato, Minako Hosono, Chikamune Wada, Shinich Yoshimura, Kazuhiko Yamashita, Takashi Izumi.  
Toward a Virtual Companion for the Elderly: Exploring the Behaviors that Potentially Achieve Rapport in Human Communication  
Sayumi Shibusawa, Hung-Hsuan Huang, Yugo Hayashi, Kyoji Kawagoe. | Cloud Computing Adoption Journey within Organizations  
Seema Swamy.  
Developing Customer Experience Ecosystem – Driving Business Results by Integrating Multiple Touch Points  
Frank Guo.  
Behavior Study of Traveling Chinese Businesspersons  
Yanxia Yang, Grace Deng.  
Implement User-Centered Design in Internationally Distributed Design Teams  
Paul Fu, Stephanie Chan.  
Social Media’s Impact on Teenagers  
Rahul Vasanith, Seema Swamy. |
| Creativity, Mobile Multimedia Systems, Human and Social Factors in Software: Communicability Excellence for All”  
Francisco Cipolla-Ficarra, Alejandra Quiroga, Valeria M. Ficarra.  
Touching Buildings – A Tangible Interface for Architecture Visualization  
Andreas Kratky, Tiffany Chen.  
Web Attacks for Local and International Business”  
Francisco Cipolla-Ficarra, Maria Villarreal, Miguel Cipolla-Ficarra.  
User Centered Design and Human Factors for Tablet PC  
Anneliese Anneliese Peitz.  
Towards an Information Architecture Model for Robotics 3D Vision”  
Jutta Rudel, Anneliese Anneliese Peitz.  
An Ontology-based Architecture for Natural Language Access to Relational Databases  
Lawrence Muchemi Githiari, Fred Popowich.  
Adopting Open Protocols to Increase the Impact on Digital Repositories  
Marcos Stair Sunye, Walter Shima, Ligia Setenareski. |
## OCSC
**User behaviour in social communities - II**
Chair(s): To be announced

## AC
**New tools, techniques, and applications**
Chair(s): Santosh Mathan.

## DHM
**Product Fit**
Chair(s): Ravindra S. Goonetilleke.

## DUXU
**Interaction and materiality - II**
Chair(s): Teng-Wen Chang.

### OCSC
**Motivations of Facebook Users for Responding to Posts on a Community Page**
Fei-Hui Huang.

**What Motivates People Use Social Tagging**
Ning Sa, Xiaojun Yuan.

**User-centred Investigation of Social Commerce Design**
Zhao Huang, Morad Benyoucef.

**Supporting Distributed Search in Virtual Worlds**
Hiep P Luong, Dipesh Gautam, John Gauch, Susan Gauch, Jacob G Hendricks.

**A LivingLab Approach to Involve Elderly in the Design of SmartTV Applications Offering Communication Services**
Malek Alaoui, Myriam Lewkowicz.

**Building and Sustaining a Lifelong Adult Learning Network.**
Ken N Eustace.

**The Effects of Navigation Support and Group Structure on Collaborative Online Shopping**
Yihong Cheng, Yanzhen Yue, Zhenhui (Jack) Jiang, Hyung Jin Kim.

### AC
**Soft, Embeddable, Dry EEG Sensors for Real World Applications**
Gene F Davis, Catherine McConnell, Djordje Popovic, Chris Berka, Stephanie Korszen.

**Novel Tools for Driving Fatigue Prediction: (1) Dry EEG Sensor and (2) Eye Tracker**
Frederick L. K. Tey, Sheng Tong Lin, Ying Ying Tan, Xiao Ping Li, Andrea Phillipou, Larry Abel.

**Robust Classification in RSVP Keyboard**
Matthew Higger, Murat Aksakay, Umut Orhan, Deniz Erdogmus.

**A Practical Mobile Dry EEG System for Human Computer Interfaces**
Yu M Chi, Yijun Wang, Yu-Te Wang, Tzsy-Ping Jung, Trevor Kerth, Yuchan Cao.

**A Novel HCI System based on Real-time fMRI Using Motor Imagery Interaction**
Xiaofei Li, Lele Xu, Li Yao, Xiaojie Zhao.

### DHM
**A Sustainable Human Centered Design Framework Based on Human Factors**
Onan Demirel, Vincent Duffy.

**The Causal Analysis of Requested Alterations for Pressure Garments**
Chia-Fen Chi, Chih-Hsiang Lin, Hung-Wei Cheng.

**Extending Global Education through Remote Laboratory Access**
Uwe Reischl.

**How could this have happened? Unintentional Injuries of Young Children at Home**
Rani Lueder.

**Setting that Mouse for Tracking Tasks**
Ransalu Senanayake, Ravindra S. Goonetilleke.

**Application and Future Developments of ema in Digital Production Planning and Ergonomics**
Benjamin Illmann, Lars Fritzsche, Wolfgang Leidholdt, Sebastian Bauer, Markus Dietrich, Adrian Moreno.
| DUXU | SciFi and HCI: Trends and Issues in Movies and Television  
Chair(s): Masaaki Kurosu. | Product Design  
Chair(s): To be announced | Shopping and Banking  
Chair(s): To be announced | Designing for the web user experience  
Chair(s): To be announced |
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| **User-Experience and Science-Fiction in Chinese, Indian, and Japanese Films**  
Aaron Marcus. | **Sci-Fi Movies and the Pessimistic View for the Future Controlled Society of Totalitarianism**  
Masaaki Kurosu. | **Future Fashion - at the Interface**  
Patricia J. Flanagan, Katia Fabiola Canepa Vega. | **Of Hoverboards and Hypertext**  
Daniel Yule, Jamie Blustein. |
| **An Experimental Study for Applying Generative Design to Electronic Consumer Products**  
Ming-Huang Lin, Lin Chien Lee. | **TRIGGER: Maximizing Functional Effect of Using Products**  
Min KyungBo, Eui-Chul Jung. | **A Proposal of Design Method of Obtaining the Construction Items of Mental Models in Product Design**  
Naoya Okazawa, Toshiki Yamaoka. | **Designing a Product Satisfaction Model Using Customer Segmentation and Information Consolidation**  
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| **Design of Experience: Measuring the Co-production with the Consumer Engagement during the Product Development Process**  
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Martin Götz, Antonia S. Conti, Andreas Keinath, Tarek Said, Klaus Bengler. | **Interactive Shopping Experience through Immersive Store Environments**  
Kunal Mankodiya, Rolando Martins, Jonathan Francis, Elmer Garduno, Rajeev Gandhi, Priya Narasimhan. | **Re-Thinking Bookmark Management – Less Choice is more Efficient**  
Siu-Tsen Shen, Stephen D Prior. |
| **Users in Social Media**  
Mohsin Ali Memon, Jiro Tanaka. | **Locality Friends Based on Individual’s Sharing Life Experiences with Friends**  
Karolina Schieder, Lorenzo Cantoni. | **Towards Determinants of User-Intuitive Web Interface Signs**  
Muhammad Nazrul Islam. |
| **Geospatial Web Interfaces, why Are They so «Complicated»?**  
Erick Lopez-Ornelas, Elmer Garduno, Kunal Mankodiya, Rolando Martins, Jonathan Francis, Elmer Garduno, Rajeev Gandhi, Priya Narasimhan. | **Intuitive Web Interface Signs Towards Determinants of User-Experience**  
Yeolib Kim. | **Creative Tourism Experiences through Immersive Store Environments**  
Yeolib Kim. | **Geospatial Web Interfaces, why Are They so «Complicated»?**  
| **Menu Design Guidelines for Coffee Vending Machines**  
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Yi Gao, Eva Petersson Brooks. | **The Mobile Drive-thru Service by a Fast Food Restaurant App**  
Joongsup Lee. | **Analysis of Query Entries of a Job Search Engine**  
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| **TRIGGER: Maximizing Functional Effect of Using Products**  
Min KyungBo, Eui-Chul Jung. | **A Proposal of Design Method of Obtaining the Construction Items of Mental Models in Product Design**  
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**Alterations in Resting-state after Motor Imagery Training: A Pilot investigation with Eigenvector Centrality Mapping**
- RUSHAO ZHANG, HANG ZHANG, LELE XU, MINGQI HUI, ZHIYING LONG, YIJUN LIU, LI YAO

**Catadioptric camera calibration using RANSAC**
- Rong Liu

**Camera calibration with 1D objects based on the heteroscedastic error-in-variables model**
- Hui Zhang

**Momentary Phase of Ongoing EEG Oscillations Reflects the Optimal Brain State for Stimulus Presentation**
- Cai Zhang

**Kernel Fuzzy Similarity Measure-Based Spectral Clustering for Image Segmentation**
- Yifang Yang, Yuting Wang, Yiuming Cheung

**Semantic Annotation Method of Clothing Image**
- Lu Zhaolao, Mingquan Zhou, Wang Xuesong, Fu Yan, Tan Xiaohui

**Fast Dynamic Channel Allocation Algorithm for TD-HSPA System**
- Haidong Li, Hailin Liu, Xueyi Liang

**Human Centered Design Approach to Integrate Touch Screen in Future Aircraft Cockpits**
- Jerome Barbe, Marion Wolff, Regis Mollard

**AHPM as a Proposal to Improve Interaction with Air Traffic Controllers**
- Leonardo L. B. V. Cruciol, Li Weigang

**Supervisory Control Interface Design for Unmanned Aerial Vehicles through GEDIS-UAV**
- Salvador D Lorite, Adolfo Muñoz, Josep Tornero, Pedro Ponsa, Enric Pastor

**Adaptive Consoles for Supervisory Control of Multiple Unmanned Aerial Vehicles**
- Christian Fuchs, Sergio Ferreira, João Sousa, Gil Gonçalves

**Target Orientation Effects on Movement Time in Rapid Aiming Tasks**
- Yungang Zhang, Bifeng Song, Wensheng Min

**Developing a Concept Interface Design of ATM Systems Based on Human-Centred Design Processes**
- Satoru Inoue, Hajime Hirako, Toshiya Sasaki, Hisae Aoyama, Yutaka Fukuda, Kazuhiro Yamazaki

**Young Egyptians Use of social Networks and the January 2011 Revolution**
- Ghada Refaat El Said

**Localization Beyond National Characteristics: The Impact of Language on Users’ Performance with Different Menu Structures**
- Christian Sturm, Gerhard Strube, Sara Gouda

**Reconfiguring the Corporate and Commons: Mobile and Online Activism as a Form of Socio-technical Design**
- Constance Kampf

**The Effects of (Social) Media on Revolutions – Perspectives from Egypt and the Arab Spring**
- Christian Sturm, Hossam Amer

**Participatory Action Research in Software Development: Indigenous Knowledge in Software Development: Participatory Action Research**
- Mohammed El Sayed, El Sayed El Sayed, El Sayed El Sayed

**A Developer-Oriented Visual Interface for Interactive Media System**
- AHPM as a Proposal to Improve Interaction with Air Traffic Controllers
- Rong Liu

**Interaction of the Elderly Viewer with Additional Multimedia Content to Support the Appreciation of Television Programs**
- Kamila Rios Hora Rodrigues, Vânia Paula de Almeida Neres, Cesar Augusto Camillo Teixeira

**Icon Design for Older Users of Project Management Software**
- Christina Böhl, Jennifer Büttler, Nicole Jochems, Christopher M. Schlick

**From Living Space to Urban Quarter: Acceptance of ICT Monitoring Solutions in an Ageing Society**
- Simon Himmel, Martina Ziefle, Katrin Arning

**Ageing and Innovation**
- Matthias Goebel
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Motion, Gesture and Expression recognition - I  
Chair(s): To be announced

A Developer-Oriented Visual Model for Upper-Body Gesture Characterization  
Simon Ruffieux, Denis Lalanne, Omar Abou Khaled, Elena Mugellini.

Context-based Bounding Volume Morphing in Pointing Gesture Application  
Andreas Braun, Arthur Fischer, Alexander Marin, Carsten Stocklöw, Martin Majewski.

Robust Hand Tracking in Realtime Using a Single Head-Mounted RGB Camera  
Jan Hendrik Hammer, Jürgen Beyrer.

Tracking People with Active Cameras  
Alparslan O. Yildiz, Noriko Takemura, Yoshio Iwai, Kosuke Sato.

Audio-based Pre-classification for Semi-automatic Facial Expression Coding  
Ronald Böck, Kerstin Limbrecht-Ecklunde, Ingo Siegert, Steffen Walter, Andreas Wendemuth.

Depth Camera based Real-time Fingertip Detection using Multi-view Projection  
Weixin Yang, Zhengyang Zhong, Xin Zhang, Lianwen Jin, Chenlin Xiong, Pengwei Wang.

Recognition of Multi-Touch Drawn Sketches  
Michael Schmidt, Gerhard Weber.

#### HIMI

HIMI Studies in Management Information Systems (III)  
Chair(s): Scott McCoy.

Enabling Access to Healthy Food Alternatives for Low-Income Families: The Role of Mobile Technology  
Andrea Everard, Brian Jones, Scott McCoy.

Assessing the Effects of MOBILE OS Design on Single-step Navigation and Task Performance  
Brian Jones, Nathan Johnson.

Understanding the Impact Congruent Images & News Articles Have on Mood and Attitude  
Eleanor T. Loiacono, Miaokun Lin.

Young Adult Health Promotion: Supporting Research Design with Eye-Tracking Methodologies  
Sousan Djamashi, Vance Wilson.

Search Results Pages and Competition for Attention Theory: An Exploratory Eye-Tracking Study  
Sousan Djamashi, Adrienne Hall-Phillips, Ruijiao (Rachel) Yang.

The Effects of Website Familiarity on Website Quality and Intention to Use  
Scott McCoy, Eleanor T. Loiacono, Gregory D Moody, Cristóbal Fernández Robin.

Security, But at What Cost? An Examination of Security Notifications within a Mobile Application  
Gregory D Moody, Dezhi Wu.

A Study of the Crossroad Game for Improving the Teamwork of Students  
Hidetsugu Suto, Ruediger Oehlmann.

Persuasive Narrative via Digital Storytelling  
Kaoru Sumi, Mizue Nagata.

Finding a Prototype Form of Sustainable Strategies for the Iterated Prisoners Dilemma  
Mieko Tanaka-Yamawaki, Ryota Itô.

Estimation of the Facial Impression from Individual Facial Features for Constructing the Makeup Support System  
Ayumi Honda, Chika Oshima, Koichi Nakayama.

Detection of Division of Labor in Multiparty Collaboration  

A Model of Living Organisms to Integrate Multiple Relationship Network Descriptions  
Tetsuya Maeshiro.

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Hiroyuki Kamo, Jiro Tanaka.

Evaluation of Somatosensory Evoked Responses when Multiple Tactile Information was Given to the Palm  
Akihito Jinnai, Asuka Otsuka, Seiji Nakagawa, Kentaro Kotani, Taka'fumi Asao, Satoshi Suzuki.

Tactile Vibration of Personal Digital Assistants for Conveying Feelings  
Atsushi Nakamura, Miwa Nakanishi.

Analysis of spatio-temporal memory on tactile stimuli by using air-jet for development of noncontact tactile display  
Kentaro Kotani, Nobuki Kido, Satoshi Suzuki, Taka'fumi Asao.

Characteristics of touch panel operation with non-dominant hand in car driving context  
Takashi Torizuka, Yoshinori Horie, Masaya Sugimoto.

Development of Dual Tactor Capability for a Soldier Multisensory Navigation and Communication System  
Linda R. Elliott, Bruce Mortimer, Roger Chelewiaek, Greg Mort, Gary Zets, Rodney Pittman.

Study on Haptic Interaction with Maps  
Daiji Kobayashi, Anna Suzuki, Nanami Yoneya.

Correction Method Based on KI-VPA Model for Changes in Vibratory Perception Caused by Adaptation  
Yuki Mori, Takayuki Tanaka, Shun'ichi Kaneko.
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| **Web-based architecture for at-home health systems**  
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| **Novel Chromatic Pupillometer: Portable Pupillometry Diagnostic System**  
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| **Creating User-Friendly Healing Environments with Adaptable Lighting for Senior Citizens**  
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| **CogWatch - Automated Assistance and Rehabilitation of Stroke-induced Action Disorders in the Home Environment**  
Joachim Hermsdörfer, Marta Bienkiewicz, José M. Cogollor, Martin Russel, Emilie Jean-Baptiste, Manish Parekh, Alan M. Wing, Manuel Ferre, Charmayne ML Hughes. | **Optimum Building Shapes for Energy Saving**  
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| **Religious and Cultural Aspects in Shaping the Public Space of Hygiene and Sanitation Activities**  
Anna Jaglarz. | **Design of Modern Hotels – Humanization of the Residential Environment**  
Elzbieta Trocka-Leszczynska, Joanna Jablonska. |
| **Facade Retention**  
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Emilene Zitkus, Patrick Langdon, P. John Clarkson. |
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Gökçen Aydemir, Patrick Langdon, Simon Godsill. |
| **Effect of Impairment on Upper Limb Performance in an Ageing Sample Population**  
Newton Howard, Ross Pollock, Joe Prinold, Joydeep Sinha, Di Newham, Jeroen Bergmann. | **Older Adults’ Perceptions and Use of Technology: A Novel Approach**  
Cara Fausset, Linda Harley, Sarah Farmer, Brad Fain. |
| **Inclusive Design and the Bottom Line: How Can Its Value Be Proven To Decision Makers?**  
Anna Mieczkowska, Sue Hessey, P. John Clarkson. | **BioCyberUrban parQ: an ubiquitous and pervasive computing system for environmental integration**  
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| **A Conceptual Client-Designer Framework: Inspiring the Development of Inclusive Design Interactive Techniques**  
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| **Designing ethnographic encounters for enriched HCI**  
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Helia Vannucchi, Alexandre Torrezam. |
| **Designing Intrinsically Motivating User Interfaces for the Ageing Population**  
Tanya Goldhaber, Patrick Langdon, P. John Clarkson. | **Dead-Until-Touched: How Digital Icons Can Transform the Way We Interact With Information**  
Isabel Cristina G. Froes. |
| **User Target Intention Recognition from Cursor Position using Kalman Filter**  
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Maria Isabel Farias Carneiro, José Eustáquio Rangel de Queiroz, Joseana Macêdo Fechine. |
| **Older Adults’ Perceptions and Use of Technology: A Novel Approach**  
Cara Fausset, Linda Harley, Sarah Farmer, Brad Fain. | **A Compendium for the Assorted Challenges Encountered in Different Stages of Sign Language Recognition**  
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**The Virtual Reality Applied in Construction Machinery Industry**  
Yun-feng Wu, Ying Zhang, Jun-wu Shen, Tao Peng.

**Enhancing Metric Perception with RGB-D Camera**  
Daiki Handa, Hirotake Ishii, Hiroshi Shimoda.

**Augmented Reality interactive system to support space planning activities**  
Guido Re, Giandomenico Caruso, Monica Bordegoni.

**Natural Feature Tracking**  
A low cost virtual reality system for rehabilitation of upper limb  
Pawel Budziszewski.

**Theory-Guided Virtual Reality Psychotherapies: Going Beyond CBT-Based Approaches**  
Sheryl Brahnam.

**Super Pop VR(TM): an Adaptable Virtual Reality Game for Upper-Body Rehabilitation**  
Sergio Garcia-Vergara, Yu-Ping Chen, Ayanna Howard.

**Projected AR-based Interactive CPR Simulator**  
Nohyoung Park, Yeram Kwon, Sungwon Lee, Woontack Woo, Jihoon Jeong.

**Development of the Home Arm Movement Stroke Training Environment for Rehabilitation (HAMSTER) and Evaluation by Clinicians**  
Elizabeth B Brokaw, Bambi Brewer.

### CCD
**Culture and user experience**  
Chair(s): Pilsung Choe.

**Modeling of a Human Decision-making Process with Prospect Theory**  
Dongmin Shin, Hokyoun Ryu, Namhun Kim, Jieun Kim.

**Communication and Social Network Requirements of Chinese Elderly People for Mobile Services**  
Lu Jia, Pilsung Choe.

**RFID-Based Road Guiding Cane System for the Visually Impaired**  
Chen Liao, Pilsung Choe, Tianying Wu, Yue Tong, Chenxu Dai, Yishuo Liu.

**Improving the User Interface for Reading News Articles through Smartphones in Persian Language**  
Sanaz Motamed, Mehdi Hasheminezhad, Pilsung Choe.

**User Experience with Chinese Handwriting Input on Touch-Screen Mobile Phones**  
Elizabeth B Brokaw, Bambi Brewer.

### AC
**Neurophysiological Measures for Assessment in Education and Training**  
Chair(s): Roy Stripling.

**QEEG Biomarkers: Assessment and Selection of Special Operators, and Improving Individual Performance**  
Donald R DuRousseau.

**Brain Activity Based Assessment**  
Roy Stripling, Grace Chang.

**Enhancing HMD-based F-35 Training through Integration of Eye Tracking and Electroencephalography Technology**  
Meredith B Carroll, Glenn Surpris, Shyama D Strally, Matt Archer, Frank Hannigan, Kelly S. Hale, Wink Bennett.
**AC**

**A Translational Approach to Neurotechnology Development**
Chair(s): Kaleb McDowell, Anthony J Ries.

**A Novel Method for Single-trial Classification in the Face of Temporal Variability**

**Optimal Feature Selection for Artifact Classification in EEG Time Series**
Vernon Lathern, W. David Hairston, Kay Robbins.

**Translation of EEG-based Performance Prediction Models to Rapid Serial Visual Presentation Tasks**

**A Real-World Neuroimaging System to Evaluate Stress**
Bret Kellihan, Tracy Jill Doty, W. David Hairston, Jonroy Canady, Keith Whitaker, Chin-Teng Lin, Tzyy-Ping Jung, Kaleb McDowell.

**A Translational Approach to Neurotechnology Development**
Kaleb McDowell, Anthony J Ries.

**Combined Linear Regression and Quadratic Classification Approach for an EEG-Based Prediction of Driver Performance**
Greg Apker, Brent Lance, Scott Kerick, Kaleb McDowell.

**Integration of Automated Neural Processing into an Army-relevant Multitasking Simulation Environment**

**DHM**

**Human Factors in Healthcare - I**
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**Implementing Scenarios as an Evaluation Method of the Patient-Physician Interaction in Decision Aids**
Curtis Lauterbach, Jeremiah Still.

**Using digital interactive television to promote healthcare and wellness inclusive services**
André Baptista, Iolanda Figueira Veríssimo, Célia Quico, Mário Cardoso, Manuel José Damásio, Ágata Sequeira.

**Usability Problems in Patient- and Clinician-Oriented Health Information Systems: What are they and how do they differ?**
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**Adaptive User-centered Design for Safety and Comfort of Physical Human Nursing – care Robot Interaction**
Minghui Sun, Hiromichi Nakashima, Shinya Hirano, Kazuya Matsuo, Ming Ding, Chang'an Jiang, Toshiharu Mukai.

**Supporting a participant-centric management of obesity via a self-improving health game**
Philippe J Giabbanelli, Penny Deck, Lisa Andres, Thecla Schiphorst, Diane Finegood.

**Digital Human Modeling and applications in Health, Safety, Economics and Risk Management**

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**Children Interactive Learning Experience**
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**Gestural Interface Selection: Choosing Specific Gesture Patterns for Children Aged Two to Four Years for iPad Applications**
Nor Azah Abdul Aziz.

**A Digital Storytelling Tool for Arab Children**
Zahra Al-Musawi, Asmaa Alsumait.

**Interactive System for Solving Children Communication Disorder**
Wafaa Shalash, Malak Bas-sam, Ghada Shawely.

**YUSR: Speech Recognition Software for Dyslexics**
Mounira Talleb, Reem Al Saggaf, Amal Al Ghamdi, Maha Al Zeibaid, Sultana Al Sahafi.

**Towards an Arabic Language Augmentative and Alternative Communication Application for Autism**
Bayan I Al-Arifi, Arwa Al-Rubaian, Gadah Al-Ofisan, Norah Al-Romi, Areej Al-Wabli.

**A Novel Reading Technique Application: Exploring Arabic Children Experience**
Maram Alhafzy, Ebtessam Alomari, Hind Mahdy, Maysoon F. Abulkhair.

**Improving Autistic Children’s Social Skills using Virtual Reality**
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**UXU: Design, User Experience, and Usability**

**User experience in knowledge management**
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**User-Centered Evaluation of a Discovery Layer System with Google Scholar**
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**Effects of Domain Knowledge on User Performance and Perception in a Knowledge Domain Visualization System**
Xiaojun Yuan, Chaomei Chen, Xiangmin Zhang, Josh Avery, Tao Xu.

**Investigating the Effect of Visualization on User Performance of Information Systems**
Xiaojun Yuan.

**Designing Discovery Experience for Big Data Interaction: A Case of Web-Based Knowledge Mining and Interactive Visualization Platform**
Qing Liu, Mihaela Vorvoreanu, Krishna Madhavan, Ann McKenna.

**Scaffolding Computer Supported Argumentation Processes through Mini Map based Interaction Techniques**
Nguyen-Thinh Le, Sabine Niebuhr, David Drexlere, Niels Pinkwart.

**ARS Module of Contents Management System using Cell Phones**
Toshikazu Ittaka.
Parallel Sessions

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Architecture and models for user experience design  
Chair(s): To be announced

**DAPI**

Interaction in Ambient Intelligence  
Chair(s): To be announced

**HAS**

Passwords, Captcha and User Identification  
Chair(s): Steven Furnell.

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Understand System’s Relative Effectiveness Using Adapted Confusion Matrix  
Nan Jiang, Haibin Liu.

Human in the loop: a model to integrate interaction issues in complex simulations  
Stefano Filippi, Daniela Barattin, Francesco Ferrise, Monica Bordegoni, Umberto Cugini.

Activity-based Context-Aware Model  
Yuyang Chen, Zhengjie Liu, Juhan Vainio.

Modelling User Behaviour and Experience – the R2D2 Networks Approach  
Amela Karahasanoivc, Asbjorn Felsad.

Visualizing Information Associated with Architectural Design Variations and Simulations  
David N. Aurelio.

System for Evaluating Usability and User Experience by Analyzing Repeated Patterns  
YOUNGBIN KIM, Shin Jin Kang, Chang Hun Kim.

Designing IDTV Applications from Participatory Use of Patterns  
Samuel B Buchdid, Roberto Pereira, Maria Cecilia C. Baranauskas.

Subtle, Natural and Socially Acceptable Interaction Techniques for Ringerfaces  
Mikko J Rissanen, Samantha Yu, Owen Noel Newto Fernando, Natalie Pang, Schubert Foo.

Proxemic Interaction Applied to Public Screen in Lab  
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How to Click in Mid-Air  
Florian Van de Camp, Alexander Schick, Rainer Stiefelhagen.

A Taxonomy-Based Approach Towards NUI Interaction Design  
Florian Klompmaker, Volker Paetke, Holger Fischer.

Enabling Interactive Surfaces by Using Mobile Device and Conductive Ink Drawing  
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Comparative Evaluation among Diverse Interaction Techniques in Three Dimensional Environments  
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Multicriteria Optimization to Select Images as Passwords in Recognition Based Graphical Authentication Systems  
Soumyadeb Chowdhury, Ron Poet, Lewis Mackenzie.

Gamified CAPTCHA  
Junya Kani, Masakatsu Nishigaki.

„The Four Most-used passwords are Love, Sex, Secret, and God“: Password Security and Training in Different User Groups  
Birgy Lorenz, Kaido Kikkas, Aare Klooster.

Evaluating the Usability of System-Generated and User-Generated Passwords of Approximately Equal Security  
Sourav Bhuyan, Joel Greenstein, Kevin Juang.

Inconspicuous Personal Computer Protection with Touch-mouse  
Ming-Chun Huang, Wenyao Xu, Jason Liu, Yi Su, Lei He, Majid Sarrafzadeh.

Learning a Policy for Gesture-Based Active Multi-touch Authentication  
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  - Kouki Takemori, Tomohiro Yamaguchi, Kazuki Sasaji, Keiki Takadama.

- **Incentive Structure of Participation in Community Activity**
  - Yurika Shiozu, Katsuhiko Yonezaki, Katsunori Shimohara.

- **Factor Models for Promoting Flow by Game Players’ Skill Level**
  - Mamiko Sakata, Tsubasa Yamashita, Masashi Okubo.

- **Towards Understanding of Relationship among Pareto Optimal Solutions in Multi-Dimensional Space via Interactive System**
  - Keiki Takadama, Yuya Sawadaishi, Tomohiro Harada, Yoshihiro Ichikawa, Keiji Sato, Kiyohiko Hattori, Hiroyuki Sato, Tomohiro Yamaguchi.

- **Digital War Room for Design Requirements for Collocated Group Work Spaces**
  - Mika P. Nieminen, Mari Tyllinen, Mikael Runonen.

- **CoPil: A Web-based Collaborative Planning Interface Platform**
  - Mohammad K Hadhrawi, Mariam Nouh, Anas Alfarris, Abdel Sanchez.

- **Freiform: a SmartPen based Approach for creating Interactive Paper Prototypes for collecting data**
  - Marcel Klomann, Jan-Torsten Milde.

- **Learning by Problem-Posing with Online Connected Media Tablets**
  - Sho Yamamoto, Takehiro Kanbe, Yuta Yoshida, Kazushige Maeda, Tsukasa Hirashima.

- **Instantaneous Assessment of Learners’ Comprehension for Lecture by using Kit-Build Concept Map System**
  - Kan Yoshida, Takuya Osada, Kota Sugihara, Yoshiaki Nino, Masakuni Shida, Tsukasa Hirashima.

- **Video Feedback System for Teaching Improvement Using Students’ Sequential and Overall Teaching Evaluations**
  - Yusuke Kometani, Takehiro Tomoto, Takehiro Furuta, Takako Akakura.

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  - Yuki Hayashi, Yuji Ogawa, Yukiko Nakano.

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  - Juan Sebastián Casallas, James Oliver, Jonathan Kelly, Frédéric Merienne, Samir Garbaya.

- **Symbology development for a 3D conformal synthetic vision helmet-mounted display for helicopter operations in degraded visual environment**
  - Patricia Knabl, Helmut Többen.

- **Visuospatial Processing and Learning Effects in Virtual Reality Based Mental Rotation and Navigational Tasks**

- **Design and Implementation of a Cognitive Simulation Model for Robotic Assembly Cells**
  - Marco Faber, Sinem Kuz, Marcel Ph. Mayer, Christopher M. Schlick.

- **The Role of Specular Reflection in the Perception of Transparent Surfaces – The Influence on User Safety**
  - Marcin M Brzezicki.

- **Effects of Object Category and Graphic Representations on Recognition Accuracy**
  - Chun-Cheng Hsu, Regina W.Y. Wang.

- **The Research of Collision Detection Perception in 3D Scenarios**
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Using Pitch and Roll  
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**An Approach to Universal Interaction on the Case of Knowledge Transfer**  
Saša Mladenović, Andrina Granić, Goran Zaharić.  
**Rational Interfaces for Effective Security Software:**  
Polite Interaction Guidelines for Secondary Tasks  
Gisela Susanne Bahr, William Allen III.  
**Musically Inspired Computer Interfaces:**  
Reaction Time and Memory Enhancements in Visual-Spatial Timelines (VIST) for Graphic User Interfaces  
Gisela Susanne Bahr, Melissa Walwanis, Beth Atkinson.  
**Universal Access: a Concept to be Adapted to Technological Development and Societal Change**  
Laura Burzaghi, Pier Luigi Emiliani.  
**Build up virtual environments using gestures**  
Alexander Marinc, Carsten Stocklöw, Andreas Braun. |
| **Interaction Models and Techniques for Ageing and Impairment - II**  
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**Volunteer Website for the Older Adult**  
Melissa L McDonald.  
**Elderly's Barriers and Requirements for Interactive TV**  
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**Exploring prior experience and the effects of age on product interaction and learning**  
Christopher R Wilkinson, Patrick Langdon, P. John Clarkson.  
**A Survey on Technology Exposure and Range of Abilities of Elderly And Disabled Users In India**  
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**Age-Related Differences in Factors Contributing to Affective Experiences among Japanese Adults**  
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**Beyond Rationality: Affect as a Function of User Interfaces**  
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**Designing Wearable Bio-interfaces: a Transdisciplinary Articulation between Design and Neuroscience**  
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**Multimodal Synthesizer for Russian and Czech Sign Languages and Audio-Visual Speech**  
Alexey A. Karpov, Zdenek Krnoul, Milos Zelezny, Andrey Ronzhin. |

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**THURSDAY 10:30 - 12:30**

**UAHCI**

**Interaction Science and the Aging User: Techniques to Assist in Design and Evaluation**  
**Tilt-based Support for Multimodal Text Entry on Touchscreen Smartphones:**  
Using Pitch and Roll  
Sandi Ljubic, Mihael Kukec, Vlado Glavnic.
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Laura Burzaghi, Pier Luigi Emiliani.
**Build up virtual environments using gestures**  
Alexander Marinc, Carsten Stocklöw, Andreas Braun.
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**Design for Feeling**
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- Designing “Hometown Feeling” into Products
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- Analysis of Cognition Difference of Visual and Imagine Haptic Inputs on Product Texture
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- The Influence of the Nature of Need for Touch, Handcraft Material and Material Color on the Motivation of Touch
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- Affective Fusion of PAD-based Tactile Sense: A Case Study of Teacups
  Jui-Ping Ma, Mei-Ting Lin, Rungtai Lin.
- An Exploration on Tactile Styles of Products
  Yung Ting Chen, Ming-Chuen Chuang.
- The Cognitive Difference of Visual and Imaged Tactile Sense of Product Forms
  Mei-Ting Lin, Jui-Ping Ma, Chih-Long Lin.
- Some Thoughts on Haptic Aesthetics for Design Transmodal Aesthetics
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- Influence of Organizational Culture and Communication on the Successful Implementation of Information Technology in Hospitals
  Shuyan Xie, Markus Helfert, Artur Lugmayr, Rüdiger Heimgärtner, Andreas Holzinger.
- The Acceptance and Adoption of Smartphone Use among Chinese College Students
  Dan Pan, Na Chen, P. L. Patrick Rau.
- Comparison of Trust on Group Buying Websites between American and Chinese Young Adults
- A Cross-Cultural Study of User Experience of Video on Demand on Mobile Devices
  Na Sun, Dominik Frey, Robert Jin, Hui Huang, Zhe Chen, P. L. Patrick Rau.
- Lessons Learned from Projects in Japan and Korea Relevant for Intercultural HCI Development
  funkcja Martin Blankl, Peter Biersack, Rüdiger Heimgärtner.
- A Cross-Cultural Comparison of UI Components Preference between Chinese and Czech users
  Jan Brejcha, Gong Hong Yin, Han Li, Zhengjie Liu.
- Characteristics of UI English: From Non-native’s Viewpoint
  Ryutaro Nishino, Kayoko Nohara.

### AC

**Augmenting Human Capabilities on Training Ranges: Towards the Smart Instrumented Training Ranges of the Future**
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- Real-time Workload Assessment as a Foundation for Human Performance Augmentation
  Kevin T. Durkee, Alexandra Geyer, Scott Pappada, Andres Ortiz, Scott Galster.
- Visual Analysis and Filtering to Augment Cognition
  Mathias Kölsch, Juan Wachs, Amela Sadagic.
- A Hierarchical Behavior Analysis Approach for Automated Trainee Performance Evaluation in Training Ranges
  Saad Khan, Hui Cheng, Rakesh (Teddy) Kumar.
- Next Generation of Physical Training Environments: Bringing in Sensor Systems and Virtual Reality Technologies
  Amela Sadagic.
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**Human Factors in Healthcare - II**  
Chair(s): Vincent Duffy.

- **Explicit Tracking in the diagnostic process for hand dermatological practices**  
  Luca Mazzola, Sara Marceglia, Stefano Bonacina, Francesco Pincirolti, Fabio Ayala, Ornella De Pita, Paolo Pigatto.  
  A Comparative Analysis of the Educational Effectiveness of Leaflet and Website for Low-literate Patients – A Case Study of Immigrant Mothers in Taipei  
  Yah-Ling Hung, Kai-Ren Chen, Catherine Stones, Tom Cassidy.  
- **Ontology Based System Architecture to Predict the Risk of Hypertension in Related Diseases**  
  Puliprathu Cherian Sherimon, P.V. Vinu, Reshmy Krishnan, Youseff Takroni.  
- **Facilitators’ Intervention Variance and Outcome Influence When Using Video Games with Fibromyalgia Patients**  
  Anthony L Brooks, Eva Petersson.  
- **Plantar Pressure Gradient Angles to Evaluate Risk of Diabetic Foot Ulcer**  
  Chi-Wen Lung, Ben-Yi Liu, Yih-Kuen Jan.  
- **Automatic 3D reconstruction of transfemoral residual limb from MRI images**  
  Giorgio Colombo, Giancarlo Faccoetti, Caterina Rizzi, Andrea Vitali, Alessandro Zanello.

**Human Models for a comprehensive analysis of mobile Human-Computer-Interaction**  
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- **Using Anthropomorphism to Improve the Human-Machine Interaction in Industrial Environments (Part 1)**  
  Sinem Kuz, Marcel Ph. Mayer, Simon Müller, Christopher M. Schlick.  
- **Using Anthropomorphism to Improve the Human-Machine Interaction in Industrial Environments (Part 2)**  
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- **Considering Ergonomic Aspects of Head-Mounted Displays for Applications in Industrial Manufacturing**  
  Sabine Theis, Thomas Alexander, Marcel Ph. Mayer, Matthias Wille.  
- **Towards Anthropomorphic Movements for Industrial Robots**  
- **The Effects of Touch Screen Virtual Keyboard Key Sizes on Typing Performance, Typing Biomechanics and Muscle Activity**  
  Jeong Ho Kim, Lovenoor Aulck, Orniwpa Thamswum, Michael Bartha, Christy Harper, Peter Johnson.  
- **Usability of Portable Fire Extinguishers: Perspectives of Ergonomics and Intuitive Use**  
  Maria Lucia L. R. Okimoto, Maicon B. Puppi, Sabrina T Oliveira, Vanessa D de Macedo.

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**Designing Experiences for Facilitating Positive Behavior Change (I)**  
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- **Changing Eating Behaviours through a Cooking-Based Website for the Whole Family**  
  Marc Fabri, Andrew Wall, Pip Trevorrow.  
- **Game-based Interactive Media in Behavioral Medicine: Creating Serious Affective-Cognitive-Environmental-Social Integration Experiences**  
  Alasdair G Thin, Marientina Gotsis.  
- **Well-being on the Go: an IoT Vending Machine Service for the Promotion of Healthy Behaviors and Lifestyles**  
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- **Engineering AwarenessTM: An e-Service Design Approach for Behavioral Change in Healthcare and Well-being**  
  Alberto Sanna, Sauro Vicini, Sara Bellini, Ilaria Baroni, Alice Rosi.  
- **Designing Supportive Mobile Technology for Stable Diabetes**  
  Katherine Blondon, Predrag Klasnja.

**Design, Ergonomics, and Usability - III**  
Chair(s): Marcelo Soares.

- **An Applied Ergonomics Study on IT User Interaction in A Large Hydroelectric Company in The Northeast of Brazil**  
- **Legibility in Children’s Reading: The Methodological Development of an Experiment for Reading Printed and Digital Texts**  
  Daniel Lourenço, Solange Coutinho.  
- **Virtual Reality Applied to the Study of the Interaction between the User and the Built Space: A Literature Review**  
- **Virtual Reality Immersion: An important tool for Diagnostic Analysis and Rehabilitation of People with Disabilities**  
- **PALMA: usability testing of an application for adult literacy in Brazil**  
  Francimar FRM Maciel.  
- **A Color Model in the Usability of Computer Interface Applied to Users with Low Vision**  
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### Heuristic Evaluation of iCalamityGuide Application
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### Efficient Information Representation Method for Driver-centered AR-HUD system
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### Join the Ride! User Requirements and Interface Design Guidelines for a Commuter Carpooling Platform
Katrín Arning, Martina Ziefle, Heike Muehlians.

### Feed-in Tariff Personal Carbon Allowance: A Case Study of Psychological Change
Takayoshi Kitamura, Asao Takamatsu, Hirotake Ishii, Hiroshi Shimoda.

### Effects of In-car Navigation Systems on User Perception of Spatial Environment
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### User Experience Transformation in Telco Companies: Turkcell Case
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### Developing ISO 9241-151 Product Certification Process: Challenges
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### A New Framework for Increasing User Engagement in Mobile Applications Using Machine Learning Techniques
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### M-Commerce Usability: An Explorative study on Turkish Private Shopping Apps and Mobile sites
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### Selection and Implementation of Navigation and Information Search Strategies in Bank Web Sites: Turkish Case
Kerem Rızvanoğlu, Özgürol Öztürk.

### A Method for Teaching Affordance for User Experience Design in Interactive Media Design Education
Evren Yantaç.

### Human-Centered Communication Planning: A Conceptual Approach
Tim Schneidermeier, Florian Maier, Johannes Schricker.

### Usagame – A New Methodology to Support User Centered Design of Touchscreen Applications
Pedro Vinagre, Isabel L. Nunes.

### Towards a Holistic Tool for the Selection and Validation of Usability Method Sets Supporting Human-Centred Design
Holger Fischer, Benjamin Strenge, Karsten Nebe.

### Remote usability evaluation using eye tracking enhanced with intelligent data analysis
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### Development of a General Internet Attitude Scale
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### Shifting the Focus: An Objective Look at Design Fixation
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### What’s Important in Designing for Everyday Life, Seriously? (Discovering Service Opportunities Based On Fundamental User Values)
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**sugATLOG: Fashion Coordination System that Supports Users to Choose Everyday Fashion with Clothed Pictures**  
Ayaka Sato, Keita Watanabe, Michiaki Yasumura, Jun Rekimoto.

**It Was Nice With The Brick so I Will Now Click: The Effects of Offline and Online Experience, Perceived Benefits, and Trust on Dutch Consumers’ Online Repeat Purchase Intention**  
Ardion D. Beldad, Mariel Segers.

**Responses Analysis of Visual and Linguistic Information on Digital Signage Using fNIRS**  
Satoru Iteya, Atsushi Maki, Toshikazu Kato.

**Design and Evaluation of Eco-feedback Interfaces to Support Location-based Services for Individual Energy Awareness and Conservation**  
Yang Ting Shen, Po-Chun Chen, Taysheng Jeng.

**Empowering Young Adolescents to Choose the Healthy Lifestyle: A Persuasive Intervention Using Mobile Phones**  
Lies Kroes, Suleman Shahid.

**Towards a Next Generation Universally Accessible ‘Online Shopping-for-apparel’ System**  
Kasper Kristensen, Nanna Borum, Line Gad Christiansen, Henrik Jepsen, Jacob Lam, Anthony L. Brooks, Eva Petersson Brooks.

### HIMI

**Technologies for learning and teaching**  
Chair(s): To be announced

**A Hybrid Model For An E-learning System which Develops Metacognitive Skills at Students Maria Canter.**

**Application to Help Learn the Process of Transforming Mathematical Expressions with a Focus on Study Logs**

**Social Networking and Culturally Situated Design Teaching Tools: Providing a Collaborative Environment for K-12**

**New Potential of E-learning by Re-utilizing Open Content Online TED NOTE: English Learning System as an Auto-assignment Generator**

**Quantitative Models and Software Architecture, Facing Student Desertion and Permanence**

**Empowering Young Adolescents to Choose the Healthy Lifestyle: A Persuasive Intervention Using Mobile Phones**

**NFC provided user friendliness for technologically advanced services**

**Prediction of the Concern of People using CGM**

**User Needs Search Using Text Mining**

**The Study to Clarify The Type of “Otome-game” User**

**Analysis of Purchasing Behavior Focusing on the Passage of Time at a Group Buying Site of Coupon**

**Human Factors in Supply Chain Management - Decision Making in Complex Logistic Scenarios**

**Sales Strategy Mining System with Visualization of Action History**

**Rapid Computational Socio-Cultural Network Analysis and Decision Support Systems**

**Determination of Alarm Setpoint for Alarm System Rationalization using Performance Evaluation**

**Pilot experiments in education for safe bicycle riding to evaluate actual cycling behaviors when entering an intersection**

**Human Factors in Supply Chain Management - Decision Making in Complex Logistic Scenarios**

**Human Factors in Supply Chain Management - Decision Making in Complex Logistic Scenarios**

**Empirical Evaluation of Multimodal Input Interactions**

**Performance Monitoring of Industrial Plant Alarm Systems by Statistical Analysis of Plant Operation Data**

**Empirical Evaluation of Multimodal Input Interactions**

**Usability Evaluation of Comprehension Performance and Subjective Assessment on Mobile Text Advertising**

**Survey and Expert Evaluation for e-Banking**

**GUI Efficiency Comparison Between Windows and Mac**

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**HCI International 2013 • 79**
Cognitive issues at work
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Secure, Usable Biometric Authentication Systems
Liam M Mayron, Yasser Hausawi, Gisela Susanne Bahr.

WorkSense: an Interactive Space Design for Future Workplace
Hsuan-Cheng Lin, Taysheng Jeng.

What is Age’s Affect in Collaborative Environments
Kieran Jordine, Dale-Marie Wilson, Raghavi Sakpal.

A Passive Brain-Computer Interface for Supporting Gaze-Based Human-Machine Interaction
Janna Protzak, Klas Ildne, Thorsten O. Zander.

OnScreenDualScribe: A Computer Operation Tool for Users with a Neuromuscular Disease

Design and Development of Accessible Educational and Teaching Material for Deaf Students in Greece
Vassilis Kourbetis.

Design and Developing Methodology for 8-dot Braille Code Systems
Hernisa Kacorri, Georgios Kouroupetroglou.

Regression Modeling of Reader’s Emotions Induced by Font Based Text Signals
Dimitrios Tsonos, Georgios Kouroupetroglou, Despina Deligiorgi.

Improving the Accessibility of Digital Documents for Blind Users: Contributions of the Textual Architecture Model
Laurent Sorin, Mustapha Mojahid, Nathalie Aussennac-Gilles, Julie Lemarié.

Improving Communication of Visual Signals by Text-to-Speech Software
Robert F. Lorch, Jr, Julie Lemarié.

Comparison of the Effectiveness of different Accessibility Plugins based on Important Accessibility Criteria
Allreza Darvishy, Hans-Peter Hutter.

Towards Designing Audio Assistance for Comprehending Haptic Graphs: A Multimodal Perspective
Ozge Alacam, Christopher Habel, Cengiz Acarturk.

Integrating The Image Identifiable Principle of Human Cognition and Computer Vision to Develop A New Pattern Recognition Design System for Smart Home
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The Survey of Usability Evaluation in Social Network Sites’ Reply Mechanism
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Cognitive-based Approach for Assessing Accessibility of e-Government Websites
Khulud Aljarallah, Robert CC Chen, Omar AIShathry.

The Effects of Projector Arrangement on Children Physical Activity
Loan Tu Quynh Ngo, Fong-Gong Wu.

A Study of Cognitive Behavior in Relation to the Elderly Visual Experiences
Delai Men, Xiaoping Hu, Wen Cing-Yan Nivala, Robert CC Chen.

Demands and Needs of Elderly Chinese People for Garment Xiaoping Hu, Xia Feng, Delai Men, Robert CC Chen.

Cognitive Factors Involved in the Ability to Manipulate a Digital Camera
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- **New Development in the Human-Centered Design in Transportation**  
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- **Human-Centered Design of a Pre-Collision System**  
  Hirofumi Aoki, Hiroyuki Takahashi, Satoshi Udaka, Toshinori Okita, Hiroyasu Ichida, Masami Aga.

- **Proposal of Automotive 8-directional Warning System that makes use of Tactile Apparent Movement**  
  Atsuo Murata, Susumu Kemori, Makoto Moriwaka, Takehito Hayami.

- **Effectiveness of Automotive Warning System presented with Multiple Sensory Modalities**  
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- **Prediction of Drowsy Driving using Behavioral Measures of Drivers - Change of Neck Bending Angle and the Sitting Pressure Distribution**  
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- **Addressing Human Computer Interaction Issues of Electronic Health Record (EHR) in Clinical Encounters**  
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Tomomi Gotoh, Takahiro Kida, Munehiro Takimoto, Yasushi Kambayashi.

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**Optimization for Lunar Mission Training Scheme Based on Anybody**
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**Assessing Designs of Interactive Voice Response Systems for Better Usability**
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**Ergonomics Aspects in Operators of the Electric Power Control and Operation Centers**
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**Are Emergency Egress Signs Strong Enough to Overlap the Influence of the Environmental Variables?**
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**SustainDesign. A project with Young Creative People**
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Martin Olsen.

**Interactive Visualization of Evolving Force-Directed Graphs**
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**Looking beyond the Single Pane of Glass: Visualization and Perspective in Enterprise Network**
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**User-Centered Soft Innovation in Established Business Fields**
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**Online Advertising as a New Story: Effects of User-driven Photo Advertisement in Social Media**
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**Health is Silver, Beauty is Golden? How the Usage Context Influences the Acceptance of an Invasive Technology**
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**Perception of Risky Security Behaviour by Users: Survey of Current Approaches**
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<td><strong>Driving and interacting</strong></td>
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<td><strong>Auditory and Head-up Displays in Vehicles</strong>&lt;br&gt;Christina Dicke, Grega Jakus, Jaka Sodnik.</td>
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## The Conceptual Model of Experience Engineering (XE)
- Masaaki Kurosu.

## Usability in RFP’s: The Current Practice and Outline for The Future
- Timo Jokela, Juha Laine, Marko H.T. Nieminen.

## User Perceived Value as Foundation for Designing Work-related Systems
- Mikael Runonen.

## Decision Space Visualization: Lessons Learned and Design Principles
- Jill Drury, Mark Pfaff, Gary Klein, Yikun Liu.

## Understanding User Experience and Artifact Development through Qualitative Investigation: Ethnographic Approach for Human-Centered Design
- Ayako Hashizume, Masaaki Kurosu.

## Human-Machine Interaction Evaluation Framework
- Hans Jander, Jens Alfredson.

## Trust and Privacy in the di.me Userware
- Marcel Heupel, Mohamed Bourimi, Dogan Kesdogan.

## SOCIETY: A Social Reading Application to Join Education and Social Network Experience
- Elena Guercio, Fabio Luciano Mondin, Maurizio Belluati, Lucia Longo.

## A Self-Evaluation Tool for Quantitative User Research Within the digital.me Project
- Andreas Schuller, Rafael Gimenez, Fabian Hermann.

## Interacting with a Context-Aware Personal Information Sharing System
- Simon Scerri, Andreas Schuller, Ismael Rivera, Judie Attard, Jeremy Debattista, Massimo Valla, Fabian Hermann, Siegfried Handschuh.

## Trustworthy and Inclusive Identity Management for Applications in Social Media
- Till Halbach Rassvoll, Lothar Fritsch.

## The di.me User Interface: Concepts for Sharing Personal Information via Multiple Identities in a Decentralized Social Network

## Identity Management through «Profiles» - Prototyping an Online Information Segregation Service
- Julio Angulo, Erik Wästlund.

## Evaluation of WikiTalk – User Studies of Human-Robot Interaction
- Dimitra Anastasiou, Kristiina Joikinen, Graham Wilcock.

## Situated Multiparty Interaction between Humans and Agents
- Aasish Pappu, Ming Sun, Seshadri Sridharan, Alexander I Rudnicky.

## Iterative and User-centred Design and Development of Social Conversation with a Pedagogical Agent
- Annika Sillevarg.

## In-Car Information Systems: Matching and Mismatching Personality of Driver with Personality of Car Voice
- Ing-Marie Jonsson, Nils Dahlbäck.

## Emotion and Emotion Regulation Considerations for Speech-Based In-Vehicle Interfaces
- Helen Harris.

## A Knowledge Elicitation Study for Collaborative Dialogue Strategies Used to Handle Uncertainties in Speech Communication While Using GIS

## Investigating the Impact of Combining Speech and Earcons to Communicate Information in e-Government Interfaces
- Badr Mohammed Almutairi, Dimitrios Rigas.

## Auditory and Head-up Displays in Vehicles
- Mohamed Ramadan Fekry, Aya Hamdy, Ayman M. Ezzat Atia.

## Proposal for Driver Distraction Indexes Using Biological Signals Including Eye Tracking
- Nobumichi Takahashi, Satoshi Inoue, Hironori Seki, Shuhei Ushio, Yukou Saito, Koyo Hasegawa, Michiko Ohkura.

## Ergonomics Design on Expert Convenience of Voice-based Interface for Vehicle’s AV Systems
- Pei-Ying Ku, Sheue-Ling Hwang, Hsin-Chang Chang, Jian-Yung Hung, Chih-Chung Kuo.

## WheelSense: Enabling Tangible Gestures on the Steering Wheel for In-Car Natural Interaction
- Leonardo Angelini, Maurizio Caon, Francesco Carrino, Stefano Carrino, Denis Lalanne, Omar Abou Khaled, Elena Mugellini.

## Single-Handed Driving System with Kinect
- Jae Pyo Son, Arcot Sowmya.

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**Friday, 26 July**

**08:00 - 10:00**

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**Parallel Sessions: FRIDAY, 26 JULY 2013**
### HCI

**Novel text input methods**
Chair(s): To be announced

**Collaborative Smart Virtual Keyboard with Word Predicting Function**
Chau Thai Truong, Duy-Hung Nguyen-Huynh, Minh-Triet Tran, Anh-Duc Duong.

**Keyboard Clawing: Input Method by Clawing Key Tops**
Toshifumi Kurosawa, Buntarou Shizuki, Jiro Tanaka.

**Long-Term Study of a Software Keyboard that Places Keys at Positions of Fingers and their Surroundings**
Yuki Kuno, Buntarou Shizuki, Jiro Tanaka.

**Speech-based Text Correction Patterns in Noisy Environment**
Ladislav Kunc, Tomas Macek, Martin Labsky, Jan Kleindienst.

### HIMI

**Automotive and Aviation**
Chair(s): To be announced

**Lifecycle Support of Automotive Manufacturing Systems through a Next-Generation Operator Interface Implementation**
Vishal Barot, Robert Harrison.

**What, Where, and When? Intelligent Presentation Management for Automotive Human Machine Interfaces and its Application**
Sandro Castronovo, Angela Mahar, Christian Müller.

**Improving the Flexibility of In-Vehicle Infotainment Systems by the Smart Management of GUI-Application Binding related Information**
Ran Zhang, Tobias Altmüller.

**Embedded systems: HMI concepts transferability between the aviation, automotive and maritime sectors**
Stella I Nikolaoou, Sara Silvagni, Cristina Martinez Gomez, Iraklis Lazakis, Tineke Bosma.

**A Semiotic Based Method for Evaluating Automated Cockpit Interfaces**
Waldemiro S Moreira, Rodrigo Bonacini.

**Intuitive Gestures On Multi-Touch Displays for Reading Radiological Images**
Susanne Bay, Philipp Brauner, Thomas Gossler, Martina Zieffle.

**Communication Enhancement**
Chair(s): Yutaka Ishii, Tomohito Yamamoto.

**Estimation of Interruptibility during Office Work based on PC Activity and Conversation**
Satoshi Hashimoto, Takahiro Tanaka, Kazuaki Aoki, Kinya Fujita.

**Web- and mobile-based environment for designing and presenting spatial audiovisual content**
Mami Yamanaka, Makoto Uesaka, Yoshiteru Ito, Shigeyuki Horikawa, Hikari Shiozaki, Tomohito Yamamoto.

**Identification of Agency through Virtual Embodied Interaction**
Takafumi Sakamoto, Yugo Takeuchi.

**Design Approach of Simulation Exercise with Use of Device and its Significance**
Shigeru Wesugi.

**Proposal of Avatar Generating Method by Composition of the Portraits Made by Friends**
Masashi Okubo, Satoshi Nobuta.

**Development of a Mobile Tablet PC with Gaze-Tracking Function**
Michiya Yamamoto, Hironobu Nakagawa, Koichi Egawa, Takashi Nagamatsu.

**A New Presence Display System Using Physical Interface Running on IP-phones**
Takeshi Sakurada, Yoichi Hagiwara.

**Effective practice of HCD by Usability Modeling and Standardization**
Hideo Zempo.

**Environment-Centered Approach to ICT Service Design**
Takahiko Ohno, Momoko Nakatani, Yurika Katagiri.

**Physiological Responses and Kansai Evaluation of Awareness**
Keiko Kasamatsu, Hiroaki Kiso, Misako Yamagishi, Hideo Jingu, Shin’ichi Fukuzumi.

**Collaborative User Experience Design Methods for Enterprise System**
Hiroko Yasu, Naoko Iwata, Izumi Kohno.

**Generalized Algorithm for Obtaining a Family of Evaluating Attributes’ Sets Representing Customer’s Preference**
Takuya Mogawa, Fumiaki Saitoh, Syohei Ishizu.

Gen-Yih Liao, Po-Jui Liang, Li-Ting Huang.
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**Human Factors and road safety**
Chair(s): Paul Salmon.

**Human-Automation Integration Issues in Highly Automated Unmanned Vehicles**
Chair(s): Axel Schulte.

- Actualising a safe transport system through a human factors systems approach
  - Michael Lenné, Paul Salmon, Neville A. Stanton, Elizabeth Grey.
- The Safe System Approach - A Road Safety Strategy Based on Human Factors Principles
  - Peter Larsson, Claes Tingvall.
- Awesome Foursome? The Compatibility of Driver, Cyclist, Motorcyclist, and Pedestrian Situation Awareness at Intersections
  - Paul Salmon, Michael Lenné, Guy Walker, Ashleigh Fitlness.
- Development of a Systems-based Human Factors Design Approach for Road Safety Applications
  - Gemma J. M. Read, Paul Salmon, Michael Lenné.

**An Evaluation of the Interior Design of the Stockholm Bypass Tunnel – A Driving Simulator Study**
Ruggero L. Ceci, Christopher Patten, Selina Mardh.

- Combined Effect on Accident Risk of a Dual Task and Higher Driving Speed: A Simulator Study
  - Evangelia Portouli, Vassilis Papakostopoulos, Dimitris Nathanael.

**An Evaluation of Cognitive Design Features of Traffic Sings in Turkey**
Mahmut Ekşioğlu, Onur Yıldırım, Yonca Kumsar, Doğukan Işık.

**Effects of Individual Differences on Human-Agent Teaming for Multi-Robot Control**
Jessie YC Chen, Stephanie Quinn, Julia Wright, Michael Barnes.

**«Person to Purpose» Manpower Architecture Applied to A Highly Autonomous UAS Cloud**
Jon T Platts, Scott Findlay, Andrew Berry, Helen Keirl.

**An Overview of Humans in Autonomy for Military Environments: Safety, Types of Autonomy, Agents, and User Interfaces**
Michael Barnes, Jessie YC Chen, Florian G Jentsch, Elizabeth Redden, Kenneth Light.

**Single-Seat Cockpit-based Management of Multiple UCAVs Using On-Board Cognitive Agents for Coordination in Manned-Unmanned Fighter Missions**
Stefan Gangl, Benjamin Lettl, Axel Schulte.

**Design of a guided missile operator assistant system for high-tempo intervention support**
Tobias Kloss, Axel Schulte.

**Enabling Dynamic Delegation Interactions with Multiple Unmanned Vehicles: Flexibility from Top to Bottom**
Christopher Miller, Mark Draper, Joshua Hamell, Gloria Calhoun, Timothy Barry, Heath Ruff.

**The Impact of Type and Level of Automation on Situation Awareness and Performance in Human-Robot Interaction**
David Schuster, Florian G Jentsch, Thomas Fincannon, Scott Oosoky.

### UAHCI

**Design Access in Human Communication and Interaction**
Chair(s): Fong-Gong Wu.

**Motion Sensing Technology on Rehabilitation for Children with Physical Disabilities**
Chien-Yu Lin, Lin-Ming Chi, Shu-Hua Chen.

**Exploring psychophysical factors influencing visibility of virtual image display**

**Evaluation of Guideline System and Sign Design of Public Space in Taiwan Emergency Department**
Wan-Ting Tseng, Jin-Han Tseng, Hsin-Hsi Lai, Fong-Gong Wu.

**Gesture-based Interaction for Cultural Exhibitions - The Effect of Discrete Visual Feedback on the Usability of Gesture-based User Interfaces**
Tin-Kai Chen, Robert CC Chen, Fong-Gong Wu.

**Pupils’ Satisfaction in Using Netbook**
Fong-Gong Wu, Chii-Zen Yu, Chiu-Min Yen.

**Design Research of Augmented Reality Plant to Depressurize on Office Ladies**
Ji-Chen Hsieh, Chang-Chan Huang, Hwa-San Kwan.

**A Method To Evaluate Disabled User Interaction: A Case Study With Down Syndrome Children**
Iysis Macedo, Daniela G Trevisan.

**Investigation into a Mixed Hybrid using SSVEP and Eye Gaze for Optimising User Interaction within a Virtual Environment**
Paul McCullagh, Leo Galway, Gaye Lightbody.

**Effortless Passive BCIs for Healthy Users**
Anne-Marie Brouwer, Jan Van Erp, Dirk Heylen, Ole Jensen, Manes Poel.

**Multi-modal Computer Interaction for Communication and Control Using EEG, EMG, EOG and Motion Sensors**
Guenter Edlinger, Christoph Kapeller, Arnau Espinosa, Sergi Torrellas, Felpo Mirailes, Christoph Guiger.

**A Collaborative Brain-Computer Interface for Accelerating Human Decision Making**
Peng Yuan, Yijun Wang, Xiaorong Gao, Tzyy-Ping Jung, Shangkai Gao.

**Brain-computer Interfacing for Users with Cerebral Palsy: Challenges and Opportunities**
Ian Daly, Martin Billinger, Reinhold Scherer, Gernot Müller-Putz.

**Towards Implicit Control through Steady-State Somatosensory Evoked Potentials**

**Multi-Brain Games: Cooperation and Competition**
Anton Nijholt, Hayrettin Gurkok.
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### UAHCI

**Accessibility and Software Design for All**  
Chair(s): Hugo Paredes, Manuel Pérez-Cota.

**Using Mediating Metacommunication to Improve Accessibility to Deaf in Corporate Information Systems on the Web**  
Aline S Alves, Simone B. Leal Ferreira, Viviane Santos de Oliveira, Ingrid T Monteiro, Denis Silva da Silveira.

**Web Accessibility – From the Evaluation and Analysis to the Implementation – the anoGov/PEPPOL Case**  
Ramiro Gonçalves, Jose L.B. Martins, Frederico Branco, João Barroso.

**Usability in a New DCS Interface: New Model of Viewing in Operator Displays**  
Manuel Pérez-Cota, Miguel Ramón González-Castro.

**Supporting Accessibility in Higher Education Information Systems**  
Arsénio Reis, João Barroso, Ramiro Gonçalves.

**Designing for Children with Autism Spectrum Disorders**  
Thais Castro, Alberto N. Castro Jr., David Lima, Keembéç Relvas, Marcos Paulo Siqueira.

**Early Accessibility Evaluation in Web Application Development**  
Helmut Vieritz, Daniel Schilberg, Sabina Jeschke.

**One-Handed Gesture Design for Browsing on Touch Phone**  
Fong-Gong Wu, JO-YU KUO.

### VAMR

**Virtual and Augmented Reality**  
Chair(s): Christian Lebiere, Florian G Jentsch.

**Computational Aspects of Mental Models of Human-Robot Teamwork**  
Chair(s): Matthias Schuetz.

**What will you do next? A Cognitive Model for Understanding Others’ Intentions based on Shared Representations**  
Haris Dindo, Antonio Chella.

**Human Considerations in the Application of Cognitive Decision Models for HRI**  
Scott Ososky, Florian G Jentsch, Elizabeth Phillips.

**Toward Task-Based Mental Models of Human-Robot Teaming: A Bayesian Approach**  
Michael Goodrich, Dajing Yi.

**Cognitive Models of Decision Making Processes for Human-Robot Interaction**  
Christian Lebiere, Florian G Jentsch, Scott Ososky.

**Computational Mechanisms for Mental Models in Human-Robot Interaction**  
Matthias Schuetz.

**Gait Analysis Management and Diagnosis in a Prototype Virtual Reality Environment**  
Salsabeel AlFalah, David K. Harrison, Vassilis Charissis.

**The Design Considerations of a Virtual Reality Application for Heart Anatomy and Pathology Education**  
Victor Nyamse, Vassilis Charissis, David Moore, Caroline Parker, Soheeb Khan, Warren Chan.

**The Characterisation of a Virtual Reality System to Improve the Quality and to Reduce the Gap between Information Technology and Medical Education**  
Jannat Falah, David K. Harrison, Vassilis Charissis, Bruce Wood.

**Asynchronous Telemedicine Diagnosis of Musculoskeletal Injuries through a Prototype Interface in Virtual Reality Environment**  
Soheeb Khan, Vassilis Charissis, David K. Harrison, Sophia Sakellariou, Warren Chan.

**Developing A Theory-Informed Interactive Animation to Increase Physical Activity Among Young People With Asthma**  

**Spatial Augmented Reality on Person: Exploring the Most Personal Medium**  
Adrian Johnson, Yu Sun.

### CCD

**Product & Service Innovation based on New Developments in Human Factors**  
Chair(s): Binbin Li.

**Service Design Research about Redesign Sedentary Office Guided by New Ergonomics Theory**  
Yingxue Zhao, Craig Vogel, Gerald Michaud, Steven Doehler.

**The Study of Modern Emergency Products under the Direction of New Ergonomics**  
Jianxin Cheng, Meiyu Zhou, Junnan Ye.

**An Empirical Research on Experience Evaluation and Image Promotion of Wuxi Fruit Brand: the Case of the Brand Package of Yangshan Shuimi Peaches**  
Wei Xiong, Liang Yin, Xinli Lin, Shengli Lu.

**Human Factors Design Research with Persona for Kids Furniture in Shanghai Middle-Class Family**  
Linong Dai, Boming Xu.

**From Logic of Things to Logic of Behaviors**  
Xiangyang Xin.

**An Empirical Research on Designing and Promoting the Brand Logo of Yangshan Shuimi Peaches Based on the Theory of Brand Experience**  
Liang Yin, Junmiao Wang, Ying Shan, Yi Jin, Zilin Sun, Weifeng Huang, Binbin Li.

**Service Based Design Solutions— A Case of Migrant Workers’ Affective Links with their Families in Rural Areas of China**  
Jikun Liu, Qing Liu, Chenyu Zhao.

**Interaction Design Research of Home Integrated Ceiling Based on Neo-Ergonomics**  
Qing Ge, Yin Wang.
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**DUUX**

Energy Feedback Design and Information Visualization  
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Interaction design in daily activity  
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Social Context and Game Mechanics for Energy Efficiency and Peak Load Reduction  
Yoav Lurie.

The Usability Perception Scale (UPscale): A Measure for Evaluating Feedback Displays  
Beth Karlin, Rebecca Ford.

Graphical Displays in Eco-Feedback: A Cognitive Approach  
Rebecca Ford, Beth Karlin.

Design Matters: Mid-Term Results from a Multi-Design Fuel Economy Feedback Experiment  
Tai Stillwater, Kenneth Kurani.

Classifying Energy-related Events Using Electromagnetic Field Signatures  
Anand Kulkarni, Karla Conn Welch.

The Driving Machine: Mobile UX Design that Combines Information Design with Persuasion Design  
Aaron Marcus, Scott Abromowitz.

CHARM Pad: Ontology-based Tool for Learning Systematic Knowledge about Nursing  
Munehiko Sasajima, Satoshi Nishimura, Yoshinobu Kitamura, Akemi Hirao, Kanetoshi Hattori, Akemi Nakamura, Hiroe Takahashi, Yoshiyuki Takaoka, Riichiro Mizoguchi.

Community Participation Support using an ICF-based Community Map  
Satoru Kitamura, Koji Kitamura, Yoshifumi Nishida, Kenichiro Sakae, Junko Yasuda, Hiroshi Mizoguchi.

Interactive Rock Climbing Playground Equipment: Modeling through Service  
Mikiko Oono, Koji Kitamura, Yoshifumi Nishida, Yoichi Motomura.

Co-creation of the nursing assist system with nurses in practice by a workflow evaluation method  
Junji Ohyama, Takehiro Matsumoto, Mizuho Okada, Yoichi Motomura, Hiroshi Sato.

Interaction Design using a Child Behavior-Geometry Database  
Hiroyuki Kakara, Yoshifumi Nishida, Hiroshi Mizoguchi.

Capturing Nursing Interactions from Mobile Sensor Data and In-room Sensors  
Sozo Inoue, Kousuke Hayashida, Masato NAKAMURA, Yasunobu Nohara, Naoki Nakashima.

Participatory Interaction Design for the Healthcare Service Field  

**DAPI**

Interaction for Ubiquitous Virtual Reality - I  
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An approach to the content-to-content interactivity in performing arts over networks  
Boncheol Goo.

SemanticRadar: AR-based Pervasive Interaction Support via Semantic Communications  
Heesuk Son, Byoungoh Kim, Taejun Kim, Dongman Lee, SoonJoo Hyun.

The New Communication Interface to Determine the Lifespan of Digital Information  
Sooyeon Maeng, Bong Gwan Jun.

Long-range Hand Gesture Interaction Based on Spatio-temporal Encoding  
Jaewon Kim, Gyu Chull Han, Ig-Jae Kim, Hyoung-Gon Kim, Sang Chul Ahn.

Intelligent Machine Space for Interacting with Human in Ubiquitous Virtual Reality  
Youngho Lee, Young J. Ryoo, Jongmyong Choi, Sungtae Moon.
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<td>Evaluating Engagement Physiologically and Knowledge Retention Subjectively through Two Different Learning Techniques</td>
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**Robots in everyday life**<br>Chair(s): Hirotada Ueda.

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**Audio Transportation System for Blind People**<br>Jaimie Sanchez, Marcia de Borba Campos.

**Enriching Graphic Maps to Enable Multimodal Interaction by Blind People**<br>Caterina Senette, Maria Claudia Buzzi, Marina Buzzi, Barbara Leporini, Loredana Martusciello.

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**Characteristics of Robots and Virtual Agents as a Persuasive Talker**<br>Kaoru Sumi, Mizue Nagata.

**How Does Unintentional Eye Contact with a Robot Affect Users’ Emotional Attachment to it?: Investigation on the Effects of Eye Contact and Joint Attention on Users’ Emotional Attachment to a Robot**<br>Takanori Komatsu, Haruka Takahashi.

**How Do We Feel When Babyloid Starts Crying Suddenly?: Felix Jimenez, Masayoshi Kanoh, Masato Goto.**

**Home Robots, Learn by Themselves**<br>Osamu Hasegawa, Daiki Kimura.


**A Map Guidance System by Multiple Dialog Robots Cooperation**<br>Ken Yonezawa, Yu Suzuki, Hirotada Ueda.

**AwareCover: Interactive Cover of the Smartphone for Awareness Sharing**<br>Ayumi Fukuchi, Koji Tsukada, Itiro Siio.

**Using Mediated Communication to Teach Vocational Concepts to Deaf Users**<br>Ingrid T Monteiro, Aline S Alves, Clarisse Sieckenius De Souza.


**Deaf students and comic hypermedia: proposal of accessible learning object**<br>Raul Busarello, Vania Ribas Ulbricht, Patricia Bieging, Vilma Villarouco.

**Innovation in Learning - the Use of Avatar for Sign Language**<br>Tania Cristina Lima, Mario Sandro Rocha, Thebano Almeida Santos, Angelo Benetti, Evandro Soares, Helvecio Siqueira de Oliveira.

**Analyzing Barriers for People with Hearing Loss on the Web: a Semiotic Study**<br>Marta Angelica Montiel Ferreira, Rodrigo Bonacini.

**Subunit Modeling for Japanese Sign Language Recognition Based on Phonetically Depend Multi-stream Hidden Markov Models**<br>Shinji Sako, Tadashi Kitamura.

**Development and Field Trial of a Social TV System for Elderly People**<br>Masaru Miyazaki, Masanori Sano, Shigeaki Mitsuya, Hideki Sumiyoshi, Masahide Naemura, Arisa Fujii.

**Age-based Task Specialization for CrowdsourcedProofreading**<br>Masatomo Kobayashi, Tatsuya Ishihara, Toshinari Itoko, Hironobu Takagi, Chieko Asakawa.

**How Unfamiliar Words in Smartphone Manuals Affect Senior Citizens**<br>Tatsuya Ishihara, Masatomo Kobayashi, Hironobu Takagi, Chieko Asakawa.

**Towards Mobile Embodied 3D Avatar as Telepresence Vehicle**<br>Yutaka Tokuda, Atsushi Hiyama, Takahiro Miura, Tomohiro Tanikawa, Michitaka Hirose.

**Time-mosaic Formation of Senior Workforces for Complex Irregular Work in Cooperative Farms**<br>Takahiro Miura, Masato Nakayama, Atsushi Hiyama, Naomi Yatomi, Michitaka Hirose.

**A Framework of Affordance and Usability of Mobile User Interface for Older Adults**<br>Chui Yin Wong.

**Breaking Psychological Barrier toward Changes: Two Experiences**<br>Bruno Merlin.
### VAMR
The Role of Virtual, Augmented and Mixed Reality in STEAM Education for the 21st Century  
Chair(s): Stephen M Fiore.

Picking Up STEAM: Educational Implications for Teaching with an Augmented Reality Guitar Learning System  
Joseph Keebler, Travis Wilshire, Dustin Smith, Stephen M Fiore.

Virtual Reality Data Visualization for Team-Based STEAM Education: Tools, Methods, and Lessons Learned  
Daniel Keefe, David Laidlaw.

ChronoLeap: The Great World’s Fair Adventure  
Lori C. Walters, Darin E Hughes, Manuel Gertrudix Barrio, Charles E Hughes.

Mixed Reality Space Travel for Physics Learning  
Darin E Hughes, Shabnam Sabbagh, Robb Lindgren, J. Michael Mosheil, Charles E Hughes.

Using Motion Sensing for Learning: A Serious, Mixed Reality Nutrition Game  
Mina Johnson.

Mission: LEAP - Teaching Innovation Competencies by Mixing Realities  
Christopher Stapleton, Atsusi "2C" Hirumi, Dana S. Mott.

### CCD
Human-computer interaction and human errors in complex systems  
Chair(s): Qin Gao, Zhizhong Li.

Human error factor analysis of computer-based control system  
Licao Dai.

Secondary Task Method for Workload Measurement in Alarm Monitoring and Identification Tasks  
Xiaojun Wu, Zhizhong Li.

Evaluation of Human-System Interfaces with Different Information Organization Using an Eye Tracker  
Kejin Chen, Zhizhong Li.

Cultural Diversity - New Challenge to Medical Device Use Safety for International Markets  
Long Liu, Uvo Hoelscher, Ziyin Yao.

Introducing Human Performance Modeling in Digital Nuclear Power Industry  
Xiang Jiang, Qin Gao, Zhizhong Li.

Effects of Sleep Deprivation on Pilot’s Cognitive Behavior in Flight Simulation  
Zhongqi Liu, Fang Xie, Qianxiang Zhou.

Effects of Spaceflight Operation Complexity and Training on Operation Error  
Meng Wang, Yijing Zhang.

Changes in Heart Rate Variability during Manual Controlled Rendezvous and Docking with Task Complexity  
Pengjie Li, Bin Wu, Yijing Zhang, Zhi Yao, Weifen Huang, Xiang Zhang.

### AC
Using Augmented Cognition for Gamification  
Chair(s): Martha E. Crosby.

Combining Augmented Cognition and Gamification  
Curtis Ikehara, Martha E. Crosby, Paula Alexandra Silva.

So Fun it Hurts - Gamifying an Engineering Course  
Gabriel Barata, Sandra Gama, Joaquim Jorge, Daniel Gonzalves.

Measuring Engagement to Stimulate Critical Thinking  
Patricia Donohue, Tawnya Gray, Dominic Lamboy.

Behavioral Biometric Identification on Mobile Devices  
Matt B Wolff.

Issues in Implementing Augmented Cognition and Gamification on a Mobile Platform  
Curtis Ikehara, Jiecai He, Martha E. Crosby.

Using the Smartphone Accelerometer to Monitor Fall Risk while Playing a Game: the Design and Usability Evaluation of Dancing Don’t Fall  
Paula Alexandra Silva, Francisco Nunes, Ana Vasconcelos, Maureen Kerwin, Ricardo Moutinho, Pedro Teiveira.

Gamification for Measuring Cyber Security Situational Awareness  
Barbara Endicott-Popovsky, Glenn Fink, Daniel Best, David Manz, Viatcheslav Popovsky.
### Parallel Sessions: FRIDAY, 26 JULY 2013

#### DHM

**Emerging Technologies in Working Conditions**

Chair(s): Elisabeth M. De Korte.

**Automation design and human systems integration: modeling, validation and certification issues**

Chair(s): Didier Fass, Brian F. Gore.

**Ami-Technology at Work – A Sociological Perspective**

Covering Aspects of Occupational Safety And Health (OSH)

Michael Bretschneider-Hagemes.

**Safety and Health at Work through Persuasive Assistance Systems**

Matthias Hartwig, Armin Windel.

**Evaluating comfort levels of a workstation with an individually controlled heating and lighting system**

Elsbeth M, De Korte, Lottie Kuijt-Evers, Marleen Spiekman, Linda Hoes-Van Oeffelen, Bianca Van der Zande, Gilles Vissenberg, Gerard Huiskes.

**Serious Gaming used as Management Intervention to Prevent Work-related Stress and Raise Work-engagement among Workers**

Noortje M. Wiezer, Maartje Bakhuys Roozeboom, Esther Oprins.

**Chair based measurements of sitting behaviour – a field study of sitting postures and sitting time in office workers**

Mathijs Netten, Bas Van der Doelen, Richard Goossens.

**Validation of an Integrated Biomechanical Modeling Approach to the Ergonomic Evaluation of Drywall Installation**

Lu Yuan.

**The Effect of Dynamic Workstations on The Performance of Various Computer and Office-based Tasks**

Eva-Maria Burford, Juliane Botter, Dianne Commissaris, Reinier Koenemann, Suzanne Hiemstra-van Mastrigt, Rolf Peter Ellegast.

### DUXU

**Design, Ergonomics, and Usability - V**

Chair(s): Marcelo Soares, Claudia Renata Mont’Alvão.

**Inclusive and open design**

Chair(s): Hua Dong.

**Usability Assessment in The Multicultural Approach**

Maria Lucia L. R. Okimoto, Cristina Olaverrí Monreal, Klaus Bengler.

**Branding “for All”: Toward the Definition of Inclusive Toolkits of Analysis and Visual Communication for Brand Identities**

Giuseppe Di Bucchianico, Stefania Camplone, Stefano Picciani.

**Participatory Design and Usability: A Behavioural Approach of Workers’ attitudes in the Work Environment**

Dieci M. Silveira.

**Breaking Technological Paradigms - Sustainable Design in Air Transport Multi-Mission**

Edgard Thomas Martins, Isnard Thomas Martins, Marcelo Soares.

**Information Accessibility in Museums with a Focus on Technology and Cognitive Process**

Laura Martins, Felipe P.T. Gabriele.

**Usability Testing of Mobile Applications Store: Purchase, Search and Reviews**

Wilson S Prata, Claudia Renata Mont’Alvão, Manuela Quaresma.

**User-Mobile Phone Interactions: a Postphenomenology Analysis**

Bin Zhang, Hua Dong.

**Designing technology for older people – The role of technical self-confidence in usability of an inclusive heating control**

Nicola Combe, David Harrison, Hua Dong.

**Open design: non-professional user-designers creating products for citizen science, a case study of beekeepers.**


**How to categorize users from a design point of view?**

Lena Lorentzen.

**A Pilot Study of the intuitiveness of Smartphone Camera Interface for Elderly Users**

HyunJu Shin, DaeSung Ahn, Junghyun Han.
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**End-User Development of Mobile Mashups**<br>Cinzia Cappiello, Maristella Matera, Matteo Piccozi.


**Smart Metering with Smartphones: User-centered Design of a Mobile Application in the Context of Energy Efficiency**<br>Stephan Böhm, Lee Szvec.

**A mobile prototype for clinical emergency calls**<br>Cornelius Wille, Thomas Marx, Maciak Adam, Dr.

**Feature Evaluation for Mobile Applications: A Design Science Approach Based on Evolutionary Software Prototypes**<br>Bodo Igler.

**User-Originated Innovation of Mobile Financial Services**<br>Päivi Heikkilä, Heli M. Järventie-Ahonen, Sirpa Riihiaho.

**Requirements for Applying Simulation-based Automated Usability Evaluation to Model-based Adaptive User Interfaces for Smart Environments**<br>Michael Quade, Andreas Rieger, Sahin Albayrak.

**A Prototyping and Evaluation Framework for Interactive Ubiquitous Systems**<br>Christine Keller, Romina Kuehn, Anton Engelbrecht, Mandy Korzet, Thomas Schiegel.

**How Does User Feedback to Video Prototypes Compare to that Obtained in a Home Simulation Laboratory?**<br>Prina Bajracharya, Thebhi Mamagkaki, Alexandra Pzdnyakova, Marianna Viera da Fonseca Serras Pereira, Tatiana Zavialova, Tin De Zeeuw, Pavan Dadlami, Panos Markopoulos.


**A context-aware middleware for interaction device deployment in AmI**<br>Tao Xu, Huiliang Jin, Bertrand David, René Chalon, Yun Zhou.


**Human Aspects of Information Security, Privacy and Trust**

**Security Expertise Choices, Perceptions of Risk and Relationships between Password Practices of End-users and Service Providers**<br>Nina Bär, Steven Furnell.

**Personality’s Influence on Facebook’s Privacy Settings: A Case of College Students in Taiwan**<br>Tingya Kuo, Hung-Lian Tang.

**A Taxonomy of Cyber Situation Awareness Questions for the User-Centered Design of Cyber Situation Awareness**<br>Celeste Lyn Paul, Kirsten Whitley.

**Understanding People’s Preferences for Disclosing Contextual Information to Smartphone Apps**<br>Fuming Shih, Julia Boortz.


**Relationships between Password Choices, Perceptions of Risk and Security Expertise**<br>Sadie Creese, Duncan D Hodges, Sue Jamison-Powell, Monica Whitty.
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Parallel Sessions

FRIDAY, 26 JULY 2013
16:00 – 18:00

HIMI

Creating social media
Chair(s): To be announced

Responsibilities and Challenges of Social Media Managers
Christian Meske, Stefan Stieglitz.

EventLens: An Automatic Magazine Generating System for Social Media
Hao Chen, Han Tang, Zhiyu Wang, Peng Cui, Yingqing Xu, Shiqiang Yang.

A User Driven Design Approach to Creating UGC Services – Challenging the Newspaper Industry
Esbjörn Ebbesson, Carina Ihlström Eriksson.

Placebooks: participation, community, design, and ubiquitous data aggregation ‘in the wild’
Alan Chamberlain, Andrew Crabtree, Mark Davies, Kevin Glover, Stuart Reeves, Peter Tolmie, Matt Jones.

Semantically structured VDL-based iconic tags system
Xiaoyue Ma, Jean-Pierre Cahier.

Mo-Buzz: Socially-Mediated Collaborative Platform for Ubiquitous Location Based Service

A Support Framework for Automated Video and Multimedia Workflows for Production and Archive
Robert Manthey, Robert Herms, Marc Ritter, Michael Storz, Maximilian Eibl.

EPCE

Cognitive aspects in society
Chair(s): To be announced

Promotion of Cooperative Behavior in Social Dilemma
Situation - How Group Heuristics, Restriction of Short-term Memory, and Penalty Promote Cooperative Behavior

A New Behavioral Measure of Cognitive Flexibility

Individual Differences in Cognitive Flexibility Predict Poetry Originality
Ivonne Figueroa, Robert J Youmans.

When stereotypes meet robots: The effect of gender stereotypes on people’s acceptance of a security robot
Benedict Tiong Chee Tay, Taezoon Park, Younbo Jung, Yeow Kee Tan, Alvin Hong Yee Wong.

Proposal of Intellectual Productivity Model based on Work State Transition
Kazune Miyagi, Kotori Oishi, Kosuke Uchiyama, Hirotake Ishii, Hiroshi Shimoda.

UAHCI

Cutting Edge in Information Display: Recent Advances in Ergonomic Research for the Use of 3D
Chair(s): Hiroki Takada, Sina Fateh.

Measurement of Lens Accommodation and Convergence during the Viewing of 3D Images
Takumi Oohashi, Hiromu Ishii, Yuki Okada, Tomohiko Yanase, Takehito Kojima, Masaru Miyao.

Evaluating the Legibility of Stereoscopic Game Consoles
Yuki Okada, Takehito Kojima, Takumi Oohashi, Masaru Miyao.

A Surgery Planning System by Visualizing 3D Profile of the Knee during Motion for Anterior Cruciate Ligament Reconstruction
Kouki Nagamune, Yuichiro Nishizawa, Daisuke Araki, Koji Nishimoto, Yuichi Hoshino, Ryosuke Kuroda, Masahiro Kurosaka.

Effect of Display Size on Body Sway in Seated Posture while Viewing an Hour-long Stereoscopic Film
Masahiro Kurosaka.

Effect of Display Orientation on Accommodation and Measurement of Lens Accommodation
Yuichi Nishizawa, Daisuke Araki, Koji Nishimoto.

Proposal of a Motional Mechanism
Shu Matsuura.

A Surgery Planning System by Visualizing 3D Profile of the Knee during Motion for Anterior Cruciate Ligament Reconstruction
Kouki Nagamune, Yuichiro Nishizawa, Daisuke Araki, Koji Nishimoto, Yuichi Hoshino, Ryosuke Kuroda, Masahiro Kurosaka.

Effect of Display Size on Body Sway in Seated Posture while Viewing an Hour-long Stereoscopic Film
Masahiro Kurosaka.

Universal Access to Participatory Musical Experiences for People with Disabilities
Nizan Friedman, David Reinkensmeyer, Mark Bachman.

Development of Smart Device-Based Thermostatic Control System Applying on Cooling Vests
Jing-Jing Fang, Tai-Hong Kuo, Cheng-Ying Wu.

Single Tap Hierarchy-Structured Zoom as interface for Interactive Indoor Wayfinding Map for Elderly Users
Chun-Wen Chen, Kevin Tseng, Yun-Fong Kao.

User Acceptance of a Community-based Healthcare Information System Preserving User Privacy
Chien-Lung Hsu, Ming-Ren Lee.

Effectiveness of Learning Chinese Character Using Tablet Technology
Chao-Yang Yang, Ting-Yi Chiu-Huang, Yu-Ting Wu.

Modified Control-response Ratio for Move and Rotation Operations on a Large Multi-touch Interface
Wenzhi Chen, Chun-Wen Chen, Kuan-Hung Chen.

Content Analysis of Specialist Interviews in the Development of the Music Therapy Activity System
Kevin Tseng, Chieh-Yun Liu.
### Parallel Sessions

**Friday, 16:00 - 18:00**

**UAHCI**

- **Innovative technologies for children with ASD**
  Chair(s): To be announced

- **A Novel Virtual Reality Driving Environment for Autism Intervention**
  Dayi Bian, Joshua Wade, Lian Zhang, Esubalew T Bekele, Amy Swanson, Julie Crittendon, Medha S Sarkar, Zachary E Warren, Nilanjan Sarkar.

- **A Step towards Adaptive Multimodal Virtual Social Interaction Platform for Children with Autism**
  Esubalew T Bekele, Mary Young, Zhi Zheng, Lian Zhang, Amy Swanson, Rebecca Johnston, Zachary E Warren, Nilanjan Sarkar, Julie Davidson.

- **Virtual Reality-based Facial Expressions Understanding for Teenagers with Autism**
  Esubalew T Bekele, Mary Young, Zhi Zheng, Lian Zhang, Amy Swanson, Julie Davidson, Zachary E Warren, Nilanjan Sarkar.

- **Project Communicate: Empowering Children with Autism and their Caregivers in India**
  Rachir Hajela, Prasanta Bhattacharya, Rahul Banerjee.

- **A Usability Study on Natural Interaction Devices with ASD Children**
  Ravi Agarwal, Harini Alagarai, Sampath, Bipin Indurkhya.

- **A Proposed ASD-Centric Framework: The Case of ASDAPT**
  Panagiotis Germanakos, Maria Claudia Buzzi, Marina Buzzi.

- **Design and Evaluation of Applying Robots to Assisting and Inducing Children with Autism in Social Interaction**
  Tzu Chi Yin, Fang-Wu Tung.

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**VAMR**

- **Human robot interaction and haptics**
  Chair(s): Scott Ososky.

- **Increasing Robot Autonomy Effectively Using the Science of Teams**
  David Schuster, Florian G Jentsch.

- **Cybernetic Teams: Towards the Implementation of Team Heuristics in HRI**
  Travis Wiltshire, Dustin Smith, Joseph Keebler.

- **Visual, Vibrotactile, and Force Feedback of Collisions in Virtual Environments: Effects on Performance, Mental Workload and Spatial Orientation**
  Bernhard M. Weber, Mikel Sagardia, Thomas Hulin, Carsten Preusche.

- **Development of Knife-shaped Interaction Device Providing Virtual Tactile Sensation**
  Azusa Toda, Kazuki Tanaka, Asako Kimura, Furumisa Shibata, Hideyuki Tamura.

- **Optimal Design of a Haptic device for a particular task in a Virtual Environment**
  Jose San Martin, Loic Corentyne, Luis Pastor, Marcos Garcia.

- **The Electric Bow Interface**
  Masasuke Yasumoto, Takashi Ohta.

- **Making Sense of Large Datasets in the Context of Complex Situation Understanding**
  Marielle Mokhtari, Eric Boivin, Denis Laurendeau.

- **An Asymmetric Bimanual Gestural Interface for Immersive Virtual Environments**
  Julien-Charles Lévesque, Denis Laurendeau, Marielle Mokhtari.

- **Virtual Reality based Virtual Reality based Interactive Conceptual Simulations Combining Post-Processing and Linear Static Simulations**
  Holger Graf, André Stork.

- **Information Management for Multiple Entities in a Remote Sensor Environment**
  Peter Venero, Allen Rowe, Thomas Carretta, James Boyer.

- **VWSocialLab: Prototype Virtual World (VW) Toolkit for Social and Behavioral Science Experimental Set-Up and Control**
  Lana Jaff, Austen Hayes, Amy Banic.

- **Controlling and Filtering Information Density with Spatial Interaction Techniques via Handheld Augmented Reality**
  Jens Keil, Michael Zoellner, Timo Engelke, Folker Wientapper, Michael Schmitt.

- **Painting Alive: Handheld Augmented Reality System for Large Targets**
  Jae-In Hwang, Minhyuk Sung, Ig-Jae Kim, Sang Chul Ahn, Hyoung-Gon Kim, Heedong Ko.

---

**CCD**

- **Towards a cross-cultural web**
  Chair(s): To be announced

- **A Comparison of Eye Movements between Americans and Koreans when Searching Information on Web Pages**
  Changwoo Yang.

- **Incorporating Culture in Website Design: A Comparison of Taiwanese and Australian Website Characteristics**
  Hsu Ching Laura Hsieh, Chi-Hsiung Chen, Sin Dai Hong.

- **Localization of Web Design: An Investigation of Culturally Preferred Web Attributes in Taiwan and the UK**
  Hsu Ching Laura Hsieh, Sin Dai Hong.

- **Developing a Contextual Network for Indigenous Communities in Mexico**
  Mario Alberto Moreno Rocha, Carlos Alberto Martinez Sandoval, Cauahtémoc Rivera Loaiza, Marga Virgen González.

- **Cultural Differences between Chinese and English Speakers in Mobile Internet Content Preference**
  Qifeng Yan.

- **The Design of Online Communities and Cultural Specific Interpretation of Cross-Cultural perspective**
  Chen Xue, Javed A Sheikh.

- **Generating Culturally Based Web Design Standards for E-commerce Applications**
  Bennett Stone.
Parallel Sessions

Friday, 26 July
16:00 – 18:00

User-centered Design for Life Technology
Chair(s): Hsiu-Ping Yueh.

The Impact of Workplace Gossip on Organizational Cynicism: Insights from the Employment Relationship Perspective
Chien-Chih Kuo, Chiu-Yi Lu, Ting-Kuei Kuo.

Exploring Consumers’ Responses to Delayed Introduction of a New Mobile Phone
Hsu-Hsuan Ku.

On Class Design using Multi-mouse Quiz by Elementary Schoolteachers
Juan Zhou, Mikhiko Mori, Hajime Kita.

The interaction between human and home service robots on a daily life cycle
Hsiu-Ping Yueh, Wei-Jane Lin.

Discovering the Use of a Home Smart Telephone: A Persona Approach
Wei-Jane Lin, Chih-Lo Chen, Chien-Ting Yang, Hsiu-Ping Yueh.

Smart Mobile Devices in Lifestyles under Transformation: A Comparative Study of Smart Communication among Youth in Hong Kong and Beijing
Albee Xin Chen, Kin Wai Michael Siu.

Moderating Effect of Culture on IT and Health Standard: A Country-Level Analysis
Supumnali Ahangama, Danny Poo.

Parallel Sessions: FRIDAY, 26 JULY 2013

OCSC
eSociety 2.0 - II
Chair(s): To be announced

A comparative review of research literature on Microblogging use and risk in organizational and educational Settings
Soureh Latif Shaghahi, Nordiana Ahmad Kharman Shah, Andrew Cox.

The Role of the Community in a Technical Support Community: A Case Study
Don Allen, Thomas Schneider.

Effects of Sharing Farmers’ Information using Content Management System
Tomoko Kashima, Shimpel Matsumoto, Tatsuo Matsumoto.

Social Media: An Ill-defined Phenomenon
James White, King-wa Fu, Braeden Benson.

A High-School Home-Schooling Education Model Based on Cloud Computing
Jordan Valdespino, William Zuhlke, June Wei.

Parallel Sessions: FRIDAY, 26 JULY 2013

AC
Modeling the Complex Dynamics of Teamwork
Chair(s): Ronald Stevens.

The Geometry of Behavioral and Brain Dynamics in Team Coordination
Silke M Dodel, Emmanuelle Tognoli, Scott Kelso.

Neurophysiological Estimation of Team Psychological Metrics
Maja Stikic, Chris Berka, David Waldman, Pierre Balthazard, Pless Nicola, Thomas Maak.

Analysis of Semantic Content and its Relation to Team Neurophysiology during Submarine Crew Training
Jamie Gorman, Melanie Martin, Terri Dunbar, Ronald Stevens, Trysha Galloway.

How Long is the Coastline of Teamwork? A neurodynamic model for group and team operation and evolution
John Kolm, Ronald Stevens, Trysha Galloway.

Physio-behavioral Coupling as an Index of Team Processes and Performance: Overview, Measurement, and Empirical Application
Adam Strang, Gregory Funke, Sheldon Russel, Robin Thomas.

Modeling Complex Tactical Team Dynamics in Observed Submarine Operations
Tara Smallidge, Eric M Jones, Jerry Lamb, Rachel Feyre, Ronald Steed, Abageal Caras.

Ecological Momentary Storytelling: Bringing down Organizational Stress through Qualifying Work Life Stories
Lisbeth H. Kappelgaard, Katja Lund.

Parallel Sessions: FRIDAY, 26 JULY 2013

DHM
Biomechanics in Product and Process Design
Chair(s): Vincent Duffy.

Constructing Ergonomic Safety Modelling for Evaluating New Designs of Child Car Seats
Che-Yu Lu, Hsin-Hsi Lai.

The Biomechanical and Physiological Effect of Two Dynamic Workstations
Juliane Botter, Eva-Maria Burford, Dianne Commissaris, Reinier Koenemann, Suzanne Hiemstra-van Mastrijt, Rolf Peter Eligast.

Digital Human Modeling for Physiological Factors Evaluation in Work System Design
Lingyan Wang, Henry Lau.

Visualizing design problems and solutions of workstations on ships
Monica M Lundh, Mikael Blomé, Steven Mallam, Joanna Paraïso.

Markerless Motion Capture Integrated with Human Modeling for Virtual Ergonomics
Giorgio Colombo, Daniele Regazzoni, Caterina Rizzi.

Human Pose Estimation from Depth Image Using Visibility Estimation and Key Points
Sungjin Huh, Gyeonghwan Kim.
### DUXU

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<td>A usability testing of Chinese character writing system for foreign learners</td>
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<td>A Dependency-Sharing Tool for Global Software Engineering</td>
<td>Douglas Lee, Allen E Milewski, Daniela Rosca.</td>
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<td>Designing for resonance by evocative objects: An experimental interaction design method</td>
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<td>Design Process and Knowledge Searching Model based on User Creativity</td>
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<td>Innovative Behavioral Intention and Creativity Achievement in Design: Test of an Integrated Model</td>
<td>Chia-Chen Lu, Ding-Bang Luh.</td>
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<td>Conception Pyramid Method for Cultural Product Form Development</td>
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DAPI

User monitoring in Ambient Intelligence
Chair(s): To be announced

Understanding Privacy and Trust Issues in a Classroom Affective Computing System Deployment
Shaundra B Daily, Dante Myers, Shelby Darnell, Tania Roy, Melva James.

Detecting Emotion from Dialogs and Creating Personal Ambient in a Context Aware System
Lun-Wei Ku, Cheng-Wei Sun.

Architecture for Organizing Context-Aware Data in Smart Home for Activity Recognition System
Konlakorn Wongpatikaseree, Junsoo Kim, Yoshiki Makino, Azman Osman Lim, Yasuo Tan.

Unobtrusive Recognition of Working Situations

Creating Rule Sets for Smart Environments through Behavior Recording
Alexander Marinc, Tim Dutz, Felix Kamieth, Maxim Djakow, Pia Weiss.

PhotoLoop: Implicit Approach for Creating Video Narrations for Slideshows
Keita Watanabe, Koji Tsukada, Michiaki Yasumura.
Increased Community Engagement via Map Based Website Modules/Plugins
Sapumal Ahangama.

Interactive Screening for Learning Difficulties: Analyzing Visual Patterns of Reading Arabic Scripts with Eye Tracking
Arwa Al-Edaily, Areej Al-Wabil, Yousef Al-Ohalri.

How to Diagram a Dramatic Story
Sahab Al-Fedaghi.

The E-training Caravans: An e-Inclusion Initiative in Saudi Arabia
Hend S. Al-Khalifa.

Brainwave Typing: Comparative Study of P300 and Motor Imagery for Typing Using Dry-Electrode EEG Devices
Hadeel Al-Negheimish, Lama Alandas, Latifah Al-Mofeez, Aljawharah Al-Abdullatif, Nuha Al-Khalifah, Areej Al-Wabil.

Eye-Controlled Games for Behavioral Therapy of Attention Deficit Disorders
Ashwag Al-Shathri, Areej Al-Wabil, Yousef Al-Ohalri.

Interactive Serious Gaming for Children with Auditory Processing Difficulties in the Arabic Language
Arwa Alamoudi, Modhi Almozainy, Rawan Alabudulrahman, Sara Alkooblen, Sarah Drine, Areej Al-Wabil.

AN INVESTIGATION OF MULTIMODAL METAPHORS IN E-BOOK ASSESSMENT INTERFACES
Amirah Nasser Algahtani, Dimitrios Rigas.

The Design and Development of an Online Multimedia Language Assistant for Arabic-Speaking Web Users with Dyslexia
Ohood Alharbi, Areej Al-Wabil, Noura Alarfaq, Lamya Al-Hathloop, Maha Al-Ghofaili, Dana Madani.

An Investigation into the Impact of CG Film Resources used to Depict a Historical City of Al-Madinah with Regards to Educating Children in a Museum Context City of Al-Madinah Walaa jamal Alharthi.

Accessibility and utilization of e-learning tools and library support services among tertiary institution students in Lagos State, Nigeria
Stella N Anasi, Stella Oyediran-Tidings.

Issues with Designing Dementia-Friendly Interfaces
Claire Ancient, Alice K Good.

Visual Perception Modeling on Sense of Material of Object Surface
Yoshiki Aoyama, Toshikazu Kato.

Usability Needs of mobile applications for business management among MSEs: A case of Myshop in Uganda
Rehema Baguma, Bridget Nakajubi, Nancy Mwakaba, Marko Myllyluoma.

Unintelligibility of Tokens in Virtual Tourism
Maryam Bakhshaie, Abbas Motamedi, Ali Aminbeidokhti.

Android vs. iOS Interaction Design Study for a Student Multimodal App
Abimael Barea, Xavier Ferre, Lorenzo Villarroel.

Towards an Emergent and Autopoietic Approach to Adaptive Chord Generation Through Human Interaction
Francisco de P. Barreto, Suzete Venturini, Gabriel Do Rego.

Persuasive Features in a Web-Based System for Weight-Loss Team Competition
Josipa Basic, Borchuluun Yadamsuren, Dinara Saparova, Yanfei Ma.

Using EEG Biometric Feedback Devices to Investigate Interruption Impact on Multi-Tasking Task Completion
Robert Beaton, Scott McCrickard, Manuel Perez-Quinones.

Gesture Recognition using Commodity RGB-D Sensor for Imitation Learning Platform for Children with Autism

User Driven Service Design and Innovation Platforms
Birgitta A Bergvall-Käreborn, Mikael Wiberg.

OnRoute: A Mobile Context-Aware Public Transportation Planning Application
Etienne Bertou, Suleman Shahid.

Pee-democracy : Opening data to the Great British Public Toilet Map
Jo-Anne Bichard, Gail Ramster.

Smart Watches for Home Interaction Services
Gerald Bieber, Nicole Fernholz, Mirko Gaerber.

Applying an approach to develop web applications considering accessibility practices using Design Rationale
Thiago Jabur Bittar, Leandro Agostini do Amaral, Luanna Lobato, Renata Pontin de Mattos Fortes.

Usability and User Acceptance of University Web Portal Interfaces: A Case of South African Universities
Vathiswa M Booi, George Dista.

Designing Educational Information Systems for Saudi Students
Abeer A. Boreqqah, Amandeep Dhir, Khalid Buragga.

Integrating Production Workers into User Interface Design for Diagnosis Devices in Automotive Production Environments: Field Experiences and Lessons Learned
Nikolaj Borisov, Annette Kluge, Wolfram Luther, Benjamin Weyers.

Empirical Review of Challenge Design in Video Game Design
Michael Brandse, Kiyoshi Tomimatsu.

End-User Development supporting Ubiquitous User Experience
Jailson A. de Brito Junior, Vaninha Vieira, Adolfo Duran.

Pilot’s interaction with a glass cockpit navigation system
Ondrej Bruna, Tomas Levora, Pavel Paces.

Facebook an Open Education Platform: Exploring its Educational Uses
Khalid Buragga, Amandeep Dhir, Abeer A. Boreqqah.

iPad 2013: A Leaning Tool for Students with Special Needs
Khalid Buragga, Amandeep Dhir, Abeer A. Boreqqah.

A New Serious Game Software Development Methodology Better Addressing End-User Involvement
Nergiz Ercil Cagiltay, Mehmet Cagatay, Gul Tokdemir, Pinar Ege.

An Accessible Chat Prototype for Screen Reader Users in Mobile Devices
Rocio Calvo, Ana Iglesias, Lourdes Moreno.

Applying an Augmented Book for a Sport Skill Learning
Mauro CGA Carvalho, Bruno M Carvalho, Felipe LP Carvalho, Heidi D Oliveira-Junior, Gerson G Cunha, Luiz Landau, Estelio HM Dantas.

Improve of Business Intelligence Usage in Brazilian Chemical Industry in the Global Crisis of 2008, 2009 and 2010
Tiago Vieira Carvalho, Renato Jose Sassi.

The Systems of communication in cabin for heavy trucks drivers. Usability study
Juan Castillo.
Posters

A HCI/Al Tool for Astronomy
Jerry D Cavin.

Calculating Website’s Usability Metrics Using Log File Information
Marcus V. Cerrato, Marcelo Morandini.

A study on the relationships between drivers’ emotions and brain signals
Songyi Chae.

Participate: Pervasive Computing for Environmental Campaigns
Alan Chamberlain, Dominic Price, Kevin Glover, Martin Flintham, Chris Greenhalgh, Steve Benford, Andy Gower, Amanda Gower.

Service-Learning Model of Cultural and Creative Talent Cultivation for the Bamboo Industry Cluster
Tsen-Yao Chang, Kuo-Li Huang.

The slip-resistance effect assessment of the anti-slip strip on different contaminated floors
Ching-Chung Chen, Hui Chun Chen.

Developing an Interactive Game System for Upper Limb Stroke Rehabilitation
Chun-Ching Chen.

Gesture-based human-machine interface: A case study comparing the realism of furniture products in e-commerce
Kuen-meau Chen.

Study on Application of Shaanxi Mianhua Folk Rural Culture in Product Design
Liling Chen, Li Jing Ji, Shuxia Wang, Junxuan Chen.

Eye Gaze and Mouse Cursor Relationship in a Debugging Task
Monchu Chen, Veraneka Lim.

Green Credit: A Multi-Modal Input Personal Informatics System
Po-Chun Chen, Taysheng Jeng.

A Self-customizing Digital Menu app for the Apple ipad
Xiaohan Chen.

The application of HFACS and HFIX on commercial aviation in Asia: Taiwan as an example
Yi-yuan Chen.

An Approach to Design with People who have Special Needs
Selene Chew.

Estimation of User’s State During a Dialog Turn with Sequential Multi-modal Features
Yuya Chiba, Masashi Ito, Akinori Ito.

The Question Concerning Technology As Art
HyunKyoung Cho, Chang-Soo Park.

CamouLED: Real-time Generation of Pixel Pattern for Camouflage
Woon Jung Cho, Hye-Kyoung Seo, Hannah Kim, Jiyeun Lee, Dong-Hyun Kang, Min-Ki Kim, Kwang-Hee Han.

Affective Service Design Considered Informational Assimilation of Layout Factors
Youngil Cho, Sukyoung Kim.

Analysis of Perceived Discomfort and Electromyography for Touch Locations of a Soft Keyboard
Bori Choi, Seokbong Park, Ki hyo Jung.

A Novel User Interface and Interaction Method using Smart Handheld Devices for Digital Information Display in Public Spaces
Yonghun Choi, Hae-Cheol Yoon, Yong Gu Ji, Ji-Hyung Park.

Chongwook Chung, Jeounghoon Kim, Chung-Kon Shi.

Effects of Digital Age to the Turkish Academic Libraries, Librarians, and Library Users
Ertugrul Cimen.

A Sensor Glove System for Rehabilitation in Instrumental Activities of Daily Living
Aodhan L Coffey, Tomas E Ward.

Apps for Rapid Epidemiological Analysis (AREA)

Dense Array, Low Field Magnetic Resonance Imaging Devices for Combat Casualty Care

Medical Modeling and Simulation Based Training Return on Investment Decision Model
Joseph Cohn, Kirsten Carlson, David Combs, Antonio Anglero, Brian Johnson, David Rozovski, Stephen Eggan, Brennan Cox, Elizabeth O’Neill, Meredith B Carroll.

Stress Resilience Training System (SRTS)

Is video game use associated with improved post-work recovery and reduced work-home interference, and is this mediated by online social support?
Emily I M Collins, Anna Cox.

An App a Day Keeps the Doctor...Informed: User Evaluation of a Patient Mobile Health Application and Clinician Dashboard
Sarah L Cook, Rita Sembajwe, Barbara Massoudi, Amanda Recker.

Servo-actuated stylus for post stroke arm, and fore arm rehabilitation.
Mario Covarrubias, Monica Bordegoni, Umberto Cugini.

The Role of Knowledge Management in Agile Software Development
Broderick Crawford, Claudio Leon de la Barra, Ricardo Soto, Mario Dorochesi, Eric Monfroy.

Ants Can Schedule Software Projects
Broderick Crawford, Ricardo Soto, Franklin Johnson, Eric Monfroy.

Mobile (rescue) architecture in the light of contemporary habituation standards and the ergonomics of the solutions.
Roman Czajka.

Constructing an Embodied Interaction For Concept Mapping
Andreea Danielescu, Caroline Savio-Ramos, John P Sadauskas.

Inclusive websites for the elderly: user friendly guidelines for designers and managers of websites and applications
Alireza Darvishy, Alice K Good.

Issues and Understandings for Rural HCI Systems Development: agile approaches “in the wild”
Mark Davies, Alan Chamberlain, Andrew Crabtree.

My Music Mosaic
Jaylyn Dawson, Molly C Satterfield, Joshua Vargas, Amanda McIntyre, Vesna Dragojlov, Ryan Meuth.
**Parallel Sessions**

**Wednesday 24 July - Friday 26 July 2013, 08:00 - 18:00**

**Posters**

- **Tabletnet: Using Cloud Services to Improve the Educational Environment**
  Habib M. Fardoun, Bassam Zafar, Antonio Paules Ciprés, Sebastian Romero Lopez.

- **DualMouse: Permitting Fast, Precise and User-Friendly Keyboard-Based Mouse Control**
  Torsten Felzer, Stephan Rinderknecht.

- **Rules of Engagement: Brain-Computer Interfaces for Military Training**
  Cali M. Fidopiastis, Tami Griffith.

- **Employing Creative Practice as a Research Method in the Field of Wearable and Interactive Technologies**
  Tania Raune Frankjaer, Patricia J. Flanagan, Daniel Gilgen.

- **Changing Interactions to Reduce Energy Consumption: Specification of a Context-Aware System Centered on the Home Occupants’ Concerns**
  Myriam Fréjus, Michele Dominici, Frederic Weis, Germain Poizat, Julien Guibourdenche, Bastien Pietropaoli.

- **Interpret Human Gestures with a Time of Flight Camera using Standard Image Processing Algorithms on a Distributed System**
  Bjoern Froemmer, Nils Roeder, Elke Hergenrother.

- **Evaluation of Subjective and EEG-Based Measures of Mental Workload**
  Gregory Funke, Benjamin Knott, Vincent F Mancuso, Adam Strang, Justin Estepp, Lauren Menke, Rebecca Brown, Allen Dukes, Brent Miller.

- **Designing of face image processing technique for sorting out Japanese raccoons form raccoons**
  Tadasuke FURUYA, Yayoi KANEKO, Hiroaki ISHII, Takafumi SAITO.

- **Use of Assistive Technology Resources for Low Vision Students**
  Maria Elisabete R. Freire Gasparretto, Marilia Ferrari.

- **Intelligent Student-Bot for an interactive question and answer user interface**
  Emmanuel Günther, Bettina Harriehausen-Mühlbauer.

- **A Cost Metamodel to Improve the Development of Context-Aware HCIs**
  Nadia Ghaibi, Olfa Daassi.

- **Finger Spell: Human Computer Interaction using Vision based Hand Gesture Recognition to Aid Indian Deaf and Dumb Community**
  Archana Santosh Ghotkar, Gajanan Kharate.

- **Road Accident Auto-Dialer via Pressure Sensor**
  Kim Nee Goh, Yoke Yie Chen, Davindren Arumugam.

- **Personal risk management**
  Hanna Golas.

- **Living in a trap: exposure, risk and vulnerability in contemporary building design.**
  Leonardo A. Gomez Castillo, Ney Dantas.

- **Self soothing by Looking Back on Favorite Memories: An Exploration of Mobile Application Prototypes That Facilitate Positive Wellbeing Via Reminiscing**
  Alice K Good, Claire Ancient, Georgiana Postolache, Alex Socranu, Adam Afgan.

- **Application of SMART criteria in planning improvements to the operating conditions of machinery**
  Adam Gorny, Beata M. Mrugalska.

- **Infoscope: A Mobile Device Supporting Exploratory and Playful Knowledge Discovery in Physical Environments**
  Dimitris Grammenos.

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**Effects of the updating frequencies of timely information on decision making behavior: An eye-tracking approach**
Rong-Fuh Day.

**New Perspectives on Interactivity in Project Management Tools**

**Study Of Effect Of Controlled Breaks On Mental Fatigue In Air Traffic Controllers**
Manasi N Deshpande.

**Photo Sharing with Cloud Services for Teenagers - A User Study in India**
Amandeep Dhir, Marko H.T. Nieminen.

**User-Centered Practices and Tools for Industrial Crowdsourcing**
Amandeep Dhir, Marko H.T. Nieminen.

**Developing Mobile Financial Services from the “User value” Viewpoint**
Amandeep Dhir.

**My iPad: A New Learning Tool for Classrooms**
Amandeep Dhir, Mohammed Al-Kahtani.

**Survey of Available Web Services for Maritime Tracking**
Tatyana Velikova Dimitrova.

**The Design and Usability Testing of a Mobile Application to Aid in Child-to-Adult-Care Transition**
Jeremy A Dixon, Josh Dehlinger, Shannan Dixon.

**Your Own Facial Parameter Generation for a 3D Avatar Interface Using an MRI Medical Image**
Hirosi Dohi, Hitoshi Iba, Mitsuura Ishizuka.

**Relationship between Weight of Our Developed White Cane and Muscle Load on the Upper Limbs during Swinging Action of the Cane**
Kouki Doi, Atsushi Sugama, Takahiro Nishimura, Akihiko Seo, Shuichi Ino, Kiyohiko NUNOKAWA, Kazuhiko Kosuge, Akiyoshi Miyaizaki, Masaaki Sugiyama, Yoshihiro Tanaka, Mayumi Sawada, Ken Kaneko, Susumu Ouchi, Katsuhiro Kamamori.

**Verification of the Questionnaire for the Level of Mental Models Building**
Toshihisa Doi, Keisuke Ishihara, Toshiki Yamaoka.

**MAGIC: Developing a Multimedia Gallery Supporting mid-Air Gesture-based Interaction and Control**
Giannis Drossis, Dimitris Grammenos, Chryssi Birliraki, Constantine Stephanidis.

**A Shadow Touching Technique for Interactive Projector Devices**
Lan-Rong Dung, Ren-Yu Huang.

**Pupil Detection using Stereo-Matching Method and a Constant Interpupillary Distance Condition for a Solution of Glasses Reflection Problem in the Video-Based Gaze Detection System**
Yoshinobu Ebisawa, Kiyotaka Fukumoto, Hiroki Yamakawa.

**Proposal of PC Input Method by Combination of Gaze Detection and Head Movement Detection**
Yoshinobu Ebisawa, Hayato Hakamada, Kiyotaka Fukumoto.

**A Study on the Prototype of Focusing on the Operability for Requirement Acquisition**
Yusuke EMORI, Yusuke KISHIYAMA, Tsutomu KONOSU.

**Modeling the Types of Interaction with Ambient Environment**
DongJin Eun, Hark-Joon Kim, ChoonYoung Moon, Pilsung Yang, Seonghoon Kang.
A Computational Model of Graded Cueing: Robots Encouraging Behavior Change
Jillian Greaczek, Amin Atrash, Maja Mataric.

Giving Form to the Voices of Lay-Citizens: Monumental-IT, an Intelligent, Robotic, Civic Monument
Keith Evan Green, Tarek Mokhtar, Ian D. Walker.

Audio-Only Augmented Reality System for Social Interaction
Tom Gurion, Nori Jacoby.

Affordance-based Human Behavior Modeling in Product-use Situations
Taehyun Ha, Sangwong Lee.

A Novel Approach for Adaptive EEG Artefact Rejection and EOG Gaze Estimation
Mohammad Reza Haji Samadi, Neil Cooke.

The Importance of Choice Design for Low Literate User Experience

The Problem of Implicature in “Do Not Track” Choice Design
Lisa D. Harper, Deborah Kohl, Kathryn Summers.

Towards Usable and Secure Natural Language Processing Systems
Yasser Hausawi, Liam M Mayron.

Narratarium: An Immersive Storytelling Environment
Katherine Hayden, Dan Novy, Catherine Havasi, Michael Bove, Santiago Alfaro, Rob Speer.

Variables of Usability
James N Helfrich.

Point-and-click Interface Based on Parameter-free Eye Tracking Technique Using a Single Camera
Shinichi Hikita, Yasuhiro Seto.

Developing Visualisation Techniques of Tasks in Air Traffic Control Work
Hajime Hirako, Toshiya Sasaki, Kazuhiro Yamazaki, Hisae Aoyama, Satoru Inoue, Yutaka Fukuda.

The Site-specific Learning Model on Mobile Phones Using Zeigarnik Effect
Yuko Hiramatsu, Atsushi Ito, Fumihiro Sato.

The Effects of Online Multiuser Virtual Environments on Creative Motivation in Collaborative Design Studios
SeungWan Hong, Yun Gil Lee, Yehuda Kalay.

Comparisons of computer exposure and forearm musculoskeletal symptoms among three computer groups - The application of an external logger
Wei-Hsien Hsu, Hsieh-Ching Chen, Ya-Hsiu Hsu, Hsin-Chieh Wu.

Prototyping Method for Augmented Reality Service based on Head Mounted Display Devices
Yoo Hoonsik, Pan Younghwan.

The Convergence of Security and Usability: Defining a Combined Framework of Design Principles for Mobile Devices
Ann-Marie Horcher, Guiwrender Tejay.

How genders differ in Taiwanese college students’ multiple intelligences and English learning
Yi-an Hou.

Designing a Service Innovation Measurement of SMEs
Yen-Hao Hsieh.

Moving Castle: Service Design on Sedan Security System
Hung-Pin Hsu.

Human-centric design for human-machine interface of next generation ICU
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