HCI 2013 International

15th International Conference on Human - Computer Interaction

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

Advance Program

version: ***13 May 2013***

21 - 26 July 2013
Mirage Hotel
Las Vegas
Nevada, USA

Under the auspices of
12 distinguished international boards of
300 Board Members from 37 countries

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HCI 2013 INTERNATIONAL

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Conference at a Glance

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.

Springer *www.springer.com/lncs* *www.springer.com/series/7899*

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:

ISI Conference Proceedings Citation Index *(http://apps.isiknowledge.com)*, EI Engineering Index *(http://ei.org)*, ACM Digital Library *(http://portal.acm.org/dl.cfm)*, IO-Port *(www.io-port.net)*, dblp *(www.informatik.uni-trier.de/~ley/db)*, Google Scholar *(http://scholar.google.com)*, MathSciNet *(www.ams.org/mathscinet)*, Scopus *(www.scopus.com)*, Zentralblatt MATH *(www.zentralblatt-math.org/zmath/en)*.

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Conference Registration

The Conference registration fee includes:

- participation in all open technical sessions (i.e. Parallel Paper Presentations)
- entrance in the exhibition
- refreshment breaks between sessions (2 per day, mid morning and mid afternoon)
- Conference Proceedings
- and one ticket for the Conference Reception

PROGRAM

Sunday 21 July 2013	**09:00 - 17:30**	Tutorials Day 1 - page 11
Monday 22 July 2013	09:00 - 17:30	Tutorials Day 2 - page 18
Tuesday 23 July 2013	08:30 - 17:00	Tutorials Day 3 - page 26
	17:30 - 19:00	Opening Plenary Session - page 5 Keynote Speech **Defy Gravity: The Art of Tangible Bits** by: Hiroshi Ishii Jerome B. Wiesner Professor of Media Arts and Sciences Associate Director of MIT Media Laboratory Co-Director of Things That Think Consortium Head of Tangible Media Group Massachusetts Institute of Technology
	19:30	Conference Reception
Wednesday 24 July 2013	08:00 - 18:00	Parallel paper presentations, Day 1 - page 36 Poster presentations, Day 1 Exhibition, Day 1
Thursday 25 July 2013	08:00 - 18:00	Parallel paper presentations, Day 2 - page 38 Poster presentations, Day 2 Exhibition, Day 2
Friday 26 July 2013	08:00 - 18:00	Parallel paper presentations, Day 3 - page 40 Poster presentations, Day 3 Exhibition, Day 3

General Information

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.

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.

Coffee Breaks

Day / Time	10:00 - 10:30	10:30 - 11:00	15:00 - 15:30	15:30 - 16:00
Sunday, 21 July		✓		✓
Monday, 22 July		✓		✓
Tuesday, 23 July	✓		✓	
Wednesday, 24 July	✓			✓
Thursday, 25 July	✓			✓
Friday, 26 July	✓			✓

Lunch

A wide range of options are available within the Mirage Hotel for Casual and Fine dining *(www.mirage.com/restaurants)*. Participants are kindly asked to make their own arrangements for lunch, during the following lunch breaks:

Sunday, 21 July	12:30 - 14:00
Monday, 22 July	12:30 - 14:00
Tuesday, 23 July	12:00 - 13:30
Wednesday, 24 July	12:30 - 13:30
Thursday, 25 July	12:30 - 13:30
Friday, 26 July	12:30 - 13:30

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

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:
www.hcii2013.org/files/HCII2013_Sponsorship_Opportunities.pdf

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.

Tuesday, **23 July 2013** | **17:30**

Defy Gravity: The Art of Tangible Bits

Hiroshi Ishii
Jerome B. Wiesner Professor of
Media Arts and Sciences
Associate Director of MIT Media Laboratory[1]
Co-Director of Things That Think Consortium[2]
Head of Tangible Media Group[3]
Massachusetts Institute of Technology, *USA*[4]

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
Biographical Sketch

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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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)*

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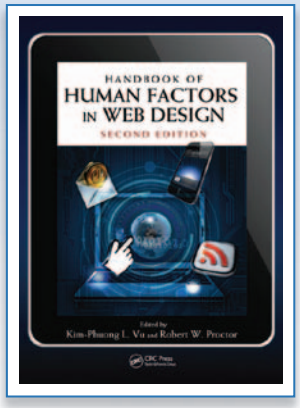

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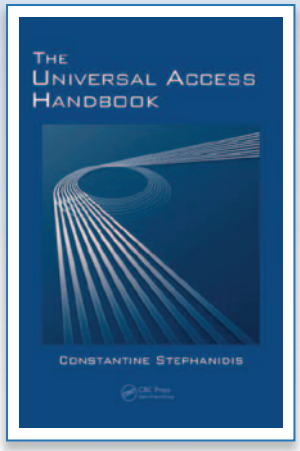

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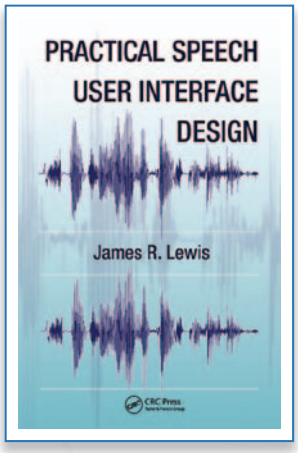

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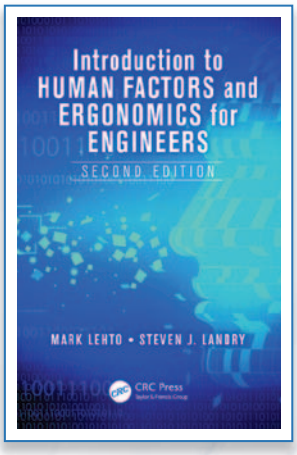

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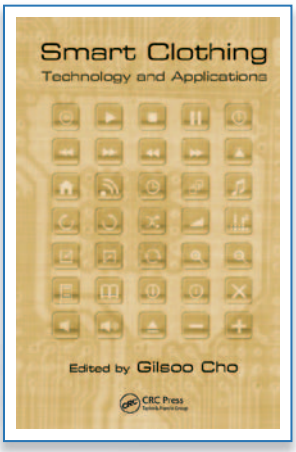

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Tutorials Synopsis

For detailed descriptions vist:
www.hcii2013.org/tutorials

Sunday, 21 July 2013

	Tutorials	Duration	Time	
T 01	**Usability and UX: An integrated approach to design and evaluation** Nigel Bevan	Half - Day	09:00-12:30	*Morning*
T 02	**Cognitive Neuroscience for Human Factors** Chris Forsythe	Half - Day	09:00-12:30	
T 03	**Structuring user interfaces** Martin Maguire	Half - Day	09:00-12:30	
T 04	**Qualitative research methods for interaction design** Panos Markopoulos	Half - Day	14:00-17:30	*Afternoon*
T 05	**Culture-Centered HCI Design** Rüdiger Heimgärtner	Half - Day	14:00-17:30	
T 06	**Principles for Designing Interfaces Compatible with Human Cognition** Robert W. Proctor, Kim-Phuong L. Vu	Half - Day	14:00-17:30	
T 07	**User-centered design and accessibility in real-world contexts** Simeon Keates, Peter Olaf Looms	Half - Day	14:00-17:30	

Monday, 22 July 2013

	Tutorials	Duration	Time	
T 08	**Optimizing survey research for HCI purposes** Hendrik Müller, Aaron Sedley	Full - Day	09:00-17:30	*Morning*
T 09	**Overview of Human Information Processing for HCI** Kim-Phuong L. Vu, Robert W. Proctor	Half - Day	09:00-12:30	
T 10	**Practical Speech User Interface Design for Conversational Systems** James R. Lewis	Half - Day	09:00-12:30	
T 11	**Human Factors in ICT for Healthcare** Vincent Duffy	Half - Day	09:00-12:30	
T 12	**Standardized Usability Questionnaires** James R. Lewis, Jeff Sauro	Half - Day	14:00-17:30	*Afternoon*
T 13	**HCI for 3D and Immersive systems** Amy Ulinski Banic, Bill Sherman	Half - Day	14:00-17:30	
T 14	**Human Modeling for Decision Support** Vincent Duffy	Half - Day	14:00-17:30	
T 15	**HCI in Sci-Fi Movies and Television** Aaron Marcus	Half - Day	14:00-17:30	

Tuesday, 23 July 2013

	Tutorials	Duration	Time	
T 16	**Advances in Brain-Machine/Computer Interfaces** Günter Edlinger, Christoph Guger	Half - Day	08:30-12:00	*Morning*
T 17	**How to Create User Requirements for Software** Anna Wichansky, Ultan O'Broin	Half - Day	08:30-12:00	
T 18	**User Interface Design and Adaptation for Multi-Device Environments** Fabio Paternò	Half - Day	08:30-12:00	
T 19	**An introduction to mobile app development** Benjamin Watson, Vidya Setlur	Half - Day	08:30-12:00	
T 20	**Mobile Persuasion Design** Aaron Marcus	Half - Day	08:30-12:00	
T 21	**Multimodal conversational human-robot interactions** Kristiina Jokinen	Half - Day	13:30-17:00	*Afternoon*
T 22	**Eye Tracking in User Experience Design** Andrew J Schall	Half - Day	13:30-17:00	
T 23	**Human in the loop: Exploring human vulnerabilities of authentication** Theo Tryfonas	Half - Day	13:30-17:00	
T 24	**Mobile UX Design and Mobile UX Trends** Aaron Marcus	Half - Day	13:30-17:00	
T 25	**A journey into the world of avatar creation and use** Jacquelyn Morie, Kip Haynes, Eric Chance	Half - Day	13:30-17:00	

View detailed descriptions of the Tutorials online:

www.hcii2013.org/tutorials

or scan the QR-Code

Nigel Bevan
Professional Usability Services, *United Kingdom*

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
Biographical Sketch

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*):

- Bevan, N. (2009) What is the difference between usability and user experience evaluation methods? UXEM'09 Workshop, INTERACT 2009, Uppsala, Sweden.
- Bevan, N. (2009) Extending quality in use to provide a framework for usability measurement. Proceedings of HCI International 2009, San Diego, California, USA
- Petrie, H. and Bevan, N. (2009) The evaluation of accessibility, usability and user experience. In: The Universal Access Handbook, C Stephanidis (ed), CRC Press.
- Bevan, N. (2008) Reducing risk through Human Centred Design. Proceedings of I-USED 2008, Pisa, September 2008.
- Bevan, N. (2008). Classifying and selecting UX and usability measures. Proceedings of Meaningful Measures: Valid Useful User Experience Measurement (VUUM), 5th COST294-MAUSE Open Workshop, 18th June 2008, Reykjavik, Iceland.
- Bevan, N. (2008) UX, Usability and ISO Standards. Values, Value and Worth workshop, CHI 2008.
- Bevan, N, (2007). Contributor to: Human-System Integration in the System Development Process: A New Look. Editors: Richard W. Pew and Anne S. Mavor. National Academies Press. www.nap.edu/catalog/11893.html.

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
Biographical Sketch

Chris Forsythe (PhD) is a Distinguished Member of the Technical Staff at **Sandia National Laboratories** (www.sandia.gov) 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.

Martin Maguire
Biographical Sketch

As a member of the Loughborough University Design School , **Martin Maguire,** *(www.lboro.ac.uk/departments/lds and, www.lboro.ac.uk/departments/lds/staff/dr-martin-maguire.html)* 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.

Panos Markopoulos
Eindhoven University of Technology, *the Netherlands*

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
Biographical Sketch

Panos Markopoulos is a computer scientist (*www.idemployee.id.tue.nl/p.markopoulos*) 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 (*www.tue.nl*), 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 (*www.springer.com/computer/hci/book/978-1-84882-476-8*)

Rüdiger Heimgärtner
Intercultural User Interface Consulting (IUIC), *Germany*

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)
- Method of culture-oriented HCI-Design (MCD, cf. Röse 2002), User Interface Characteristics (cf. Marcus 2006), HCI dimensions (cf. Heimgärtner 2012): Identification of cultural differences in HCI design (15 min. lecturer presentation, 30 min. exercise + 15 min. group presentations and discussion)
- 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.

Rüdiger Heimgärtner
Biographical Sketch

Dr. Rüdiger Heimgärtner is a specialist for cultural differences in HCI and has worked in software and HCI projects at Siemens and Continental. He is the founder and managing director of the company Intercultural User Interface Consulting (IUIC) *(www.iuic.de)* and has provided training and consultation for Intercultural User Interface Design (IUID) since 2003.

Robert W. Proctor
Purdue University, *USA*

Kim-Phuong L. Vu
California State University Long Beach, *USA*

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.

Robert W. Proctor
Biographical Sketch

Robert Proctor is a Distinguished Professor of Psychology at Purdue (*www1.psych.purdue.edu/~rproctor*). Dr. Proctor's research focuses on basic and applied aspects of human performance. He has published over 200 research articles and numerous books and book chapters. He was co-editor of the first major book on compatibility, Stimulus-Response Compatibility: An Integrated Perspective, and is also co-author of the text Human Factors in Simple and Complex Systems. He is Fellow of the American Psychological Association and Association for Psychological Science, and Honorary Fellow of the Human Factors and Ergonomics Society.

Kim-Phuong L. Vu
Biographical Sketch

Kim Vu is Associate Professor of Psychology at California State University, Long Beach (*www.csulb.edu/~kvu8*). She is Associate Director of the Center for Usability in Design and Accessibility and of the Center for Human Factors in Advanced Aeronautics Technologies. Dr. Vu has over 75 publications in areas relating to human performance, human factors, and human-computer interaction. She is co-editor of the Handbook of Human Factors in Web Design.

Simeon Keates

Chair of HCI and Head of School, School of Engineering, Computing and Applied Mathematics, University of Abertay Dundee, *United Kingdom*

Peter Olaf Looms

Chairman of the ITU-T focus group on audiovisual media accessibility and External Associate Professor at the Danish Technical University and the University of *Hong Kong*.

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.

Simeon Keates

Biographical Sketch

Professor Simeon Keates is Chair of HCI and Head of School of Engineering, Computing and Applied Mathematics at the University of Abertay Dundee *(www.abertay.ac.uk/studying/schools/secam)*. He was formerly an Associate Professor at the IT University of Copenhagen, where he lectured in the Design and Digital Communication study line. He obtained his PhD from the University of Cambridge, where he also worked as an Industrial Research Fellow in the Engineering Design Centre.

After leaving Cambridge, he moved to the US and joined the Accessibility Research Group at the IBM TJ Watson Research Center before moving to Boston and working at ITA Software as a Usability Lead designing interfaces for Air Canada.

Simeon also has an extensive history of consultancy, with clients including The Post Office (Royal Mail), the Social Security Administration, the UK Department of Trade and Industry, Danish Broadcasting Corporation (DR) and Lockheed Martin.

Peter Olaf Looms

Biographical Sketch

Peter Olaf Looms is Danish and was born and educated in the UK. He holds a Master's degree from the University of Cambridge.

Peter has worked for more than 30 years on policy and strategy in broadcasting. Since 2006 this has included television and digital media accessibility. He was instrumental in setting up the DTV4ALL consortium that assisted the European Commission in promoting e-inclusion for digital television across Europe (2008-2011).

Peter is currently chairman of the ITU-T Focus Group on Audiovisual Accessibility *(www.itu.int/en/ITU-T/focusgroups/ava)* that aims to produce a roadmap for digital media accessibility actions for the International Telecommunication Union by early 2013. He is involved in accessible media projects in Europe, China, India and Argentina.

Monday, 22 July 2013 09:00-17:30 *FULL-DAY*

Hendrik Müller
Senior User Experience Researcher, Google, Inc., Sydney, *Australia*
Aaron Sedley
Senior User Experience Researcher, Google, Inc., Mountain View, *USA*

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

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

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.

Hendrik Müller
Biographical Sketch

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
Biographical Sketch

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.

Kim-Phuong L. Vu
California State University Long Beach, *USA*
Robert W. Proctor
Purdue University, *USA*

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:

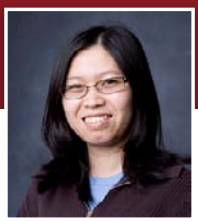
HCI is fundamentally an information-processing task. The human information-processing approach is based on the idea that human performance, from displayed information to a response, is a function of several distinct processes. The nature of these processes, how they are arranged, and the factors that 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.



Kim-Phuong L. Vu
Biographical Sketch

Kim-Phuong L. Vu is Professor of Psychology at California State University, Long Beach (www.csulb.edu/~kvu8). She is Associate Director of the Center for Usability in Design and Accessibility and of the Center for Human Factors in Advanced Aeronautics Technologies at CSULB. Dr. Vu has over 100 publications in areas relating to human performance, human factors, and human-computer interaction. She is co-author of the book Stimulus-Response Compatibility Principles: Data, Theory, and Application and co-editor of the Handbook of Human Factors in Web Design (2nd ed.). Dr. Vu was the recipient of the 2009 Earl A. Alluisi Award for Early Career Contributions of Division 21 (Applied Experimental and Engineering Psychology) of the American Psychological Association.

Robert W. Proctor
Biographical Sketch

Robert Proctor is a Distinguished Professor of Psychology at Purdue (www1.psych.purdue.edu/~rproctor). Dr. Proctor's research focuses on basic and applied aspects of human performance. He has published over 200 research articles and numerous books and book chapters. He was co-editor of the first major book on compatibility, Stimulus-Response Compatibility: An Integrated Perspective, and is also co-author of the text Human Factors in Simple and Complex Systems. He is Fellow of the American Psychological Association and Association for Psychological Science, and Honorary Fellow of the Human Factors and Ergonomics Society.

James R. Lewis
IBM Software Group, *USA*

Objectives

Taught by the author of "Practical Speech User Interface Design", the objective of this course is to provide a basic foundation in current leading practices (many of which are not intuitive) in speech user interface design for interactive voice response applications. Although speech is the most natural form of communication between humans, most people find using speech to communicate with machines anything but natural. Drawing from psychology, human-computer interaction, linguistics, and communication theory, this course will provide a comprehensive yet concise survey of practical speech user interface (SUI) design, including practice-based and research-based guidance on how to design effective, efficient, and pleasant speech applications that people can really use. The techniques for designing usable SUIs are not obvious, and to be effective, must be informed by a combination of critically interpreted scientific research and leading design practices.

Students will learn about the foundations of SUI design (technologies and key concepts in linguistics and communication), important overall aspects of SUI design, how to get started (high-level design decisions: barge-in, speech output methods, speech recognition methods, prompting styles, help styles, role of call center agents), specific aspects of design (low-level design decisions: creating introductions, avoiding poor practices, timing issues, dialog design, confirming input), and will participate in after-lecture exercises to try out new skills.

Content and Benefits:

The course will begin with an introduction to speech user interface design fundamentals, including speech technologies and key issues from psycholinguistics and conversational pragmatics. The next goal is to provide background in self-service technologies and associated market and psychological research which provides additional foundation for IVR design decisions. Design decisions for speech-enabled IVR include high-level and low-level decisions. Important high-level design decisions include decisions related to barge-in methods, use of recorded prompts versus synthesized speech (and when to combine them), simple versus complex speech recognition, concise versus verbose prompting styles, use or non-use of global navigation commands, how to provide help, and the role of call-center agents. Low-level (detailed) design topics will include creating introductions (and avoiding poor practices in introductions), timing issues, dialog design, designing effective menus and prompts, and confirming user input. After covering this material, attendees will participate in class exercises in the crafting of introductions, designing menus, and conducting informal Wizard-of-Oz evaluations.

Part 1: Introduction
- a. Speech technologies
- b. Key concepts in human language and communication

Part 2: Self-service technologies
- a. Satisfaction with and adoption of self-service technologies
- b. Waiting for service
- c. Service recovery
- d. Consequences of forced use of self-service technologies

Part 3: 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 4: 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 5: Classroom exercises
- a. Design an introduction
- b. Design a menu
- c. Conduct a WOZ evaluation

Part 6: 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.

James R. Lewis
Biographical Sketch

James R. (Jim) Lewis is currently a senior human factors engineer (at IBM since 1981), with a primary focus on the design and evaluation of user interfaces (graphical, spoken, mobile) (http://drjim.0catch.com). He is a Certified Human Factors Professional with a Ph.D. in Experimental Psychology (Psycholinguistics). Jim is an internationally recognized expert in usability testing and measurement. He was the technical team lead for the human factors/usability group working in IBM speech product development from 1999 through 2005, and has experience in all areas of speech system usability (including desktop systems, embedded systems, text-to-speech systems, speech interactive voice response applications, and natural language understanding technologies). Before that, he was the lead user experience designer for a number of mobile products, including the product now widely regarded as the first smart phone, the Simon. He is the author of the books Practical Speech User Interface Design (2011) and Quantifying the User Experience: Practical Statistics for User Research (2012).

Vincent Duffy
Purdue University, *USA*

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.

Vincent Duffy
Biographical Sketch

The instructor, **Vincent Duffy** is a faculty member at Purdue University with a dual appointment in the School of Industrial Engineering and the Department of Agricultural & Biological Engineering (*https://engineering.purdue.edu/Engr/People/ptProfile?resource_id=9261*). He is a faculty affiliate of the Regenstrief Center for Healthcare Engineering and has taught a related course for Doctor of Nursing program for the past six years.

James R. Lewis
IBM Software Group, *USA*

Jeff Sauro
www.measuringusability.com, *USA*

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 questions/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 CHI 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 and Jim are co-authors of the 2012 book from Morgan-Kaufmann, "Quantifying the User Experience: Practical Statistics for User Research" and its companion book, "Excel and R Companion to 'Quantifying the User Experience: Practical Statistics for User Research': Rapid Answers to over 100 Examples and Exercises".

James R. Lewis
Biographical Sketch

Dr. **James R. (Jim) Lewis** Ph.D., CHFP *(http://drjim.0catch.com)*, graduated with an M.A. in Engineering Psychology in 1982 from New Mexico State University, and received his Ph.D. in Experimental Psychology (Psycholinguistics) from Florida Atlantic University in 1996. He has worked as a human factors engineer and usability practitioner at IBM since 1981. He has published influential research on the measurement of usability satisfaction, use of confidence intervals, and sample size estimation for usability studies. He is on the editorial board of the International Journal of Human-Computer Interaction and the Journal of Usability Studies, and wrote the chapter on usability testing for the 3rd and 4th editions of the Handbook of Human Factors and Ergonomics (2006/2012). From 2004-2005 he chaired the Formative Usability Testing Metrics Workgroup for National Institute of Standards and Technology (NIST). He is a BCPE Certified Human Factors Professional, an IBM Master Inventor, author of "Practical Speech User Interface Design" (2011), was recently voted onto the board of the Association for Voice Interaction Design, and is a member of UPA and HFES.

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.

Amy Ulinski Banic
University of Wyoming and Idaho National Laboratory, *USA*
Bill Sherman
Indiana University and Idaho National Laboratory, *USA*

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:

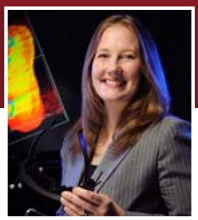
With 3D technology and immersive environments becoming more popular, this tutorial will allow traditional HCI researchers, professionals, developers, etc to initiate work in 3D UI for immersive environments. This tutorial is focused on basic low-cost technology, open-source software, and new UI issues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

Relevant links:

IQ-station (http://iq-station.com)



Amy Ulinski Banic
Biographical Sketch

Amy Ulinski Banic is an Assistant Professor (www.cs.uwyo.edu/faculty/abanic.html) in the Department of Computer Science in the College of Engineering and Applied Science at the University of Wyoming and holds a joint appointment at Idaho National Laboratory (INL), Center for Advanced Energy Studies (CAES). She is the founder and director of the 3D Interaction and Agents (3DIA) research lab at the University of Wyoming. Her research focus is on 3D User Interfaces for Virtual Environments, Immersive Visualizations, and Virtual Humans, primarily in bimanual and multi-modal interaction. Dr. Banic received her Ph.D. and M.S. from the University of North Carolina at Charlotte in 2008, and B.S. in CS and B.A. in Art from Duquesne University in 2003. She held a Post-Doctoral Fellowship position in the Virtual Environments Group at Clemson University, School of Computing.

Bill Sherman
Biographical Sketch

Bill Sherman is Senior Technical Advisor in the Advanced Visualization Lab (http://pti.iu.edu/avl) at Indiana University. Sherman's primary area of interest is in applying immersive technologies to scientific visualizations. He has been involved in visualization and virtual reality technologies for over 20 years, and has been involved in establishing several immersive research facilities.

Vincent Duffy
Purdue University, *USA*

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.

Vincent Duffy
Biographical Sketch

The instructor, **Vincent Duffy** is a faculty member at Purdue University with a dual appointment in the School of Industrial Engineering and the Department of Agricultural & Biological Engineering (*https://engineering.purdue.edu/Engr/People/ptProfile?resource_id=9261*). He is a faculty affiliate of the Regenstrief Center for Healthcare Engineering and has taught a related course for Doctor of Nursing program for the past six years. Dr. Duffy has taught courses titled Work Analysis & Design I & II and Digital Human Modeling at Purdue University. He was recently a Fulbright Scholar in The Russian Federation with a faculty appointment at Bauman Moscow State Technical University in their Faculty of Engineering Business and Management. Duffy is a Certified Professional Ergonomist and has edited six published books on Digital Human Modeling through Springer's LNCS Series and CRC Press.

Aaron Marcus

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

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 enalysis, 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.

Incereased 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:

1. Especially for people who are new to HCI/UX and to Sci-Fi
2. People who have some experience with the HCI/UX and/or Sci-Fi
3. 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*

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.

Günter Edlinger
g.tec medical engineering GmbH/Guger Technologies OG, *Austria*
Christoph Guger
g.tec medical engineering GmbH/Guger Technologies OG, *Austria*

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
  www.gtec.at/Research/State-of-the-Art-in-BCI-research
- BCI videos: New results from g.tec and many others
  www.gtec.at/Research/Videos
- intendiX: User-Ready Brain-Computer Interface Applications *(www.intendix.com)*

Günter Edlinger
Biographical Sketch

Günter Edlinger *(www.gtec.at)* studied control engineering at the University of Technology Graz and carried out research work at the Institute of Biomedical Engineering (Prof. Pfurtscheller) at the University of Technology Graz. He worked there as an assistant professor and teacher and received his PhD degree in 1998. The topic of his PhD work was the design of a High Resolution EEG. He is co-founder of gtec. He is responsible for R&D with special emphasis on the development and production of medical systems since more than 15 years.

Christoph Guger
Biographical Sketch

Christoph Guger *(www.gtec.at)* studied biomedical engineering at the University of Technology Graz and Johns Hopkins University in Baltimore, USA. Then he carried out research work at the Department of Medical Informatics (Prof. Pfurtscheller) at the University of Technology Graz and received his PhD degree in 1999. The topic of his PhD work was the design of an EEG-based brain-computer interface. This was the first real-time BCI system with continuous feedback. He also developed the real-time analysis with common spatial patterns which is still the fastest and most accurate approach for oscillatory BCIs and developed also a P300 BCI with very high accuracy and speed. In the last years he worked also with ALS and tetraplegic patients in different countries.

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.

Fabio Paternò
CNR-ISTI, *Italy*

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
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 suchas 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.

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

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 subjet matter, personas and use scenarios, information architecture, wirefames 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
- Incereased 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:

HCI/UX/CHI/Visua/Mobile professionals in these (alphabetical order) professions:

- Analysts
- Anthropologists/Ethnographers
- Designers
- Evaluators of usability and user-experience
- Marketers
- Researchers
- Software Engineers

Links:

- AM+A Website *(http://www.amanda.com)*
- Previous version of the primary lecture on you tube *http://www.youtube.com/watch?v=m-A0PjUjYGk&feature=youtu.be*

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 internationall; 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.

Kristiina Jokinen
University of Helsinki and University of Tartu, *Finland*

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.

Kristiina Jokinen
Biographical Sketch

Kristiina Jokinen is Adjunct Professor and Project Manager at University of Helsinki (*www.ling.helsinki.fi/~kjokinen*), and leads the 3I (Intelligent Interactive Informatics) Research Group. She is also Adjunct Professor of Interaction Technology at University of Tampere, Finland, and Visiting Professor at University of Tartu, Estonia. In 2009-2010 she was Visiting Professor at Doshisha University in Kyoto.

Her research focuses on spoken dialogue modelling, multimodal interaction management (especially gestures and eye gaze), natural language communication, and human-machine interaction. She has given regular courses on multimodal interaction and intelligent interactive systems, and in 2011 she organised the Nordic Research Training Course "Feedback, Communicative Gesturing, and Gazing" in Helsinki, and in 2012 she led the summer workshop "Speech, gaze and gesturing – multimodal conversational interaction with Nao robot" in Metz, together with Graham Wilcock.

She has published many papers and articles, and three books: Constructive Dialogue Modelling - Speech Interaction and Rational Agents (John Wiley), Spoken Dialogue Systems (together with M.McTear; Morgan & Claypool) and New Trends in Speech-based Interactive Systems (edited together with F. Chen; Springer).

She has had several national and international cooperation projects and served in several programme and review committees, e.g. she is the Programme Chair for the 2013 International Conference of Multimodal Interaction (ICMI). She is Secretary-Treasurer of SIGDial, the ACL/ISCA Special Interest Group for Discourse and Dialogue.

Andrew Schall
SPARK Experience Design, *USA*

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.

Andrew Schall
Biographical Sketch

Andrew Schall has worked with numerous public and private organizations to use eye tracking as part of their user-centered design process (www.sparkexperience.com/about-andrewschall.html) including organizations such as Aflac, Fossil, GlaxoSmithKline, NASA, PBS, and U.S. Department of Energy. His eye tracking projects have ranged from understanding how children interact with online multimedia to evaluating advanced library search and retrieval systems. He has pioneered new ways to collect, analyze, and present eye tracking data. He is currently working on methods to synthesize eye tracking data with web analytics for a more holistic understanding of the user's experience. Andrew was formerly the eye tracking guru and trainer at Human Factors International, and has conducted his Eye tracking Bootcamp with several organizations including Comcast and GlaxoSmithKline. Andrew has over 10 years of experience as a UX researcher and designer, and is currently Director of User Experience at SPARK Experience Design (www.sparkexperience.com), a UX consulting firm outside Washington, DC. He received his B.S. in Information Technology & New Media from the Rochester Institute of Technology, M.S. in Interaction Design & Information Architecture from the University of Baltimore, and is currently a Ph.D. candidate in Human-Centered Computing at the University of Maryland, Baltimore County.

LinkedIn: www.linkedin.com/in/andrewschall

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'e 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

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
- Incereased 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
- Marketers
- Researchers
- Software Engineers

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 internationall; 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.

Jacquelyn Morie
Institute for Creative Technologies, University of Southern California, *USA*

Kip Haynes
Institute for Creative Technologies, University of Southern California, *USA*

Eric Chance
Institute for Creative Technologies, University of Southern California, *USA*

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.

Biographical Sketches

Jacquelyn Ford Morie

Jacquelyn Ford Morie, PhD, is a Senior Researcher at USC's Institute for Creative Technologies (ICT) (http://ict.usc.edu), working in immersive environments for training and health applications. She has created several novel telehealth care activities in virtual worlds and brings her background in art and computer animation to enhance patient engagement with these programs. Previously she spent six years in the animation and special effects industries. Her early research was in developing emotionally evocative virtual reality immersive environments, and currently she is also begun a program of research into how avatars affect the people who use them.

Kip Haynes

Kip Haynes, who earned his degree in Computer Engineering from WVU in 1998, spent the early part of his career developing high performance parallel distributed rendering applications for large scale data visualization projects. He joined the ICT (http://ict.usc.edu), in 2003 as manager of a research project investigating parallel and distributed systems for a variety of ARMY training and simulation efforts. Subsequently he has overseen the technical integration and implementation of several of the ICT's high profile military training systems, including Joint Effects Call for Fire Training (JFETS), INOTS (Immersive Naval Officer Training Simulation), ELITE (Emergent Leader Immersive Training Environment) and TOPSS-VW (Transitional Online Post-deployment Soldier Support in Virtual Worlds).

Eric Chance

Eric Chance is a USC film program alumnus who specializes in user-generated content for the virtual worlds such as Second Life, where he has been a resident since early 2004. Past clients in SL include Linden Lab, blueair.tv, Eyebeam, and ICT (http://ict.usc.edu). He has worked in the film and live audio industries, theatrical set construction, and studied comic book design from 1997-1998 under the editor-in-chief of Antarctic Press. He is passionate about interactivity, sound, game design, art, and learning. Programs and languages he is familiar with include Second Life, Qavimator, Photoshop, Maya, Cool Edit Pro/Adobe Audition, Premiere, Avid, Speed Razor, LSL, C++, and Max/MSP among others.

Parallel Sessions Overview

Wednesday, **24 July 2013** — Morning **08:00 - 12:30**

Thematic Area	**08:00 – 10:00** *(page 42 - 47)* Session Title	**10:30 – 12:30** *(page 48 - 53)* Session Title
HCI	• A New Horizon for Social Information Systems (I) • Computational Intelligence for Signal and Image Processing -I • Designing and evaluating novel interaction environments • Innovative interaction approaches • Formal and model-based design and development approaches	• A New Horizon for Social Information Systems (II) • Computational Intelligence for Signal and Image Processing -II • Multimodal and ambient communication and collaboration • Designing Situated Experiences: Models, Technologies, Applications • Patterns and Models for User Interface Construction • Communication and HCI in Korea
HIMI	• Designing Usable Interfaces for HCI • Usability for Product design and Industrial Application - I	• HCI considerations for NextGen • Usability for Product design and Industrial Application - II • Adaptive and User Guiding Information Service and Interface - I
EPCE	• Human Factors & Security • Harmonization towards Performance in Future Air Transportation	• Cognitive factors of interaction
UAHCI	• Assessing Information by Younger and/or Older Users • Human, Computer and Environment - I • Creating a Continuum of Care - I	• Inclusion, Design, Technical Devices for Older People • eBooks, eLearning, Digital Libraries/Multimedia: Accessibility, Markets and Copyrights • Creating a Continuum of Care - II
VAMR	• VR and AR for games and entertainment • Navigation and safety in complex environments	• Presence, communication and collaboration in VR environments
CCD	• Design at the Edges (I)	• Design at the Edges (II)
OCSC	• Friendship and affect in Social Communities	• User behaviour in social communities - I
AC	• Opportunities for Augmented Cognition in Cyber Operations • Intuitive Sensemaking	• Research Innovations and Augmented Cognition
DHM	• Utilizing Traditional Wisdom and Technologies for Quality Care • DHM Applications and Validation - I	• DHM Applications and Validation - II
DUXU	• Design, Ergonomics, and Usability - I • Enhancing Government Website Usability • User Experience for Smart Devices and Environments • Designing for healthcare experiences	• Designing for playing experiences • Designing for learning experiences • Designing for cultural experiences • Embodied Haptic Interfaces
DAPI	-	• Pervasive Civic Computing
HAS	-	• Security, Forensic and Legal Aspects of Human-Computer Interaction

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 1**

Wednesday, **24 July 2013** Afternoon **13:30 - 18:00**

Thematic Area	**13:30 – 15:30** *(page 54 - 59)* Session Title	**16:00 – 18:00** *(page 60 - 65)* Session Title
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	• Games and Usability • User Experience for Creating Vision • Designing and Developing for the Smart-Device World • HCI advances in Health Care Systems
HIMI	• Adaptive and User Guiding Information Service and Interface - II • HCI Studies in Management Information Systems (I) • User-oriented technologies and services	• HCI Studies in Management Information Systems (II) • Emboded Interaction and Communication • The Design, Development, and Application of Simulation Systems to Meet Training Needs
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	• eInclusion - Policies, Programs, Best Practices ... and Lessons Learnt • Inclusive Technologies • Creativity, Mobile Multimedia Systems, Human and Social Factors in Software: Communicability Excellence for All
VAMR	• 3D environments	-
CCD	• Social networking and online behavior analysis • Cross-cultural design of IT products and services	• HCI-based welfare system design: Studies from two Asian countries • Design and Research in Multinational Companies
OCSC	• Social Games and entertainment	• User behaviour in social communities - II
AC	• Human-Systems Integration R&D Agenda 2050	• New tools, techniques, and applications
DHM	• Anthropometric data analysis and application	• Product Fit
DUXU	• Design, Ergonomics, and Usability - II • Interaction and materiality - I • Explore User Experiences through Object to Space • Gamification @ Work • eMobility - The customer's perspective	• 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
DAPI	• Aesthetics in Interaction	• Models for Spatial and Embodied Interaction
HAS	-	• The Soft Foundations of Cybersecurity Science

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

Thursday, 25 July 2013 — Morning 08:00 - 12:30

Thematic Area	08:00 – 10:00 *(page 66 - 71)* Session Title	10:30 – 12:30 *(page 72 - 77)* Session Title
HCI	• Computational Intelligence for Signal and Image Processing -III • HCI in aviation • Cultural and Sociotechnical perspectives in HCI • Aging Computer Users • Motion, Gesture and Expression recognition - I	• Capturing the context of use • Gamification: How to motivate your users with game mechanics • Affective Interaction • Gaze-based interaction
HIMI	• HCI Studies in Management Information Systems (III) • Relationality Design and Relationality-oriented Systems Design - I • Tactile and haptic interaction in HCI	• Relationality Design and Relationality-oriented Systems Design - II • Improvement in Learning and Educational Environments using ICT • Human Factors in Collaborative Safe Driving
EPCE	• HCI Aspects of Optimal Healing Environments	• Cognitive Aspects in complex visual environments
UAHCI	• Ergonomics in Architecture • Interaction Models and Techniques for Ageing and Impairment - I • Multimodal Interfaces: Designing Across Boundaries - I	• Universal Access: Interaction Science - I • Interaction Models and Techniques for Ageing and Impairment - II • Multimodal Interfaces: Designing Across Boundaries - II
VAMR	• Design and development support environments • Health and Rehabilitation Applications	• Social and Visual Technologies: New Trends in the Improvement of University Education
CCD	• Culture and user experience	• Design for Feeling • Cultural Differences in Human Computer Interaction
OCSC	-	• User eXperience+: Shared Experience Design for Online Communities and Social Computing
AC	• Neurophysiological Measures for Assessment in Education and Training • A Translational Approach to Neurotechnology Development	• Augmenting Human Capabilities on Training Ranges: Towards the Smart Instrumented Training Ranges of the Future
DHM	• Human Factors in Healthcare - I	• Human Factors in Healthcare - II • Human Models for a comprehensive analysis of mobile Human-Computer-Interaction
DUXU	• Children Interactive Learning Experience • User experience in knowledge management • Architecture and models for user experience design	• Designing Experiences for Facilitating Positive Behavior Change (I) • Design, Ergonomics, and Usability - III • Disaster Information and management • Exploring the Turkish UX Design and Research Landscape • Usability in the Real World: Everyday Experiences
DAPI	• Interaction in Ambient Intelligence	-
HAS	• Passwords, Captcha and User Identification	-

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**

Thematic Area	**13:30 – 15:30** *(page 78 - 83)* Session Title	**16:00 – 18:00** *(page 84 - 89)* Session Title
HCI	• Multimodal and Multicultural Communicative Agents (MMMCA) • Socio-cultural Aspects in Monolingual and Multilingual Human-Computer Interaction • TLC: Technology for Living and Caring • Kawaii, Kansei and affective value creation • Consumer behaviour and persuasive interaction	• Learning environments • Advanced mobile interaction • HCI in critical contexts • Human Aspects of Enterprise Information Systems • Culture, art, music and creativity
HIMI	• Technologies for learning and teaching • Management of Information for Decisions • Design and Evaluation of Human Interface	• Information search • New perspectives on service engineering • Digital Museum
EPCE	• Cognitive issues at work	• Human Factors in Flight Operations
UAHCI	• Universal Access: Interaction Science - II • Accessibility of Documents - I • Design Access in Interaction and Human Factors	• Accessibility of Documents - II • Ambient Assisted Living • Collective Intelligence: impact on e-inclusion
VAMR	• Visualization Techniques for Human-Automation Interaction	• Emerging Trends in Virtual, Augmented and Mixed Reality
CCD	• Design for urban experience and social innovation	• How Industry Policy Shaping UI/UX Research
OCSC	-	• Online Communities and Social Computing in Higher Education
AC	• Augmented Cognition in High Risk Environments • Novel Approaches in Augmented Cognition	• Operational Neuroscience
DHM	• New Development in the Human-Centered Design in Transportation	• DHM in Aviation and Space
DUXU	• Designing Experiences for Facilitating Positive Behavior Change (II) • Ergonomics in Design of Information Systems - I • Agile User Experience Design • Semiotics, Language, Interaction • Cross-Cultural UX in the Life Science Industry	• Ergonomics in Design of Information Systems - II • Beyond Flat Screens: Bringing Design Thinking to Life • Developing Next Generation Crowd Sourced UAVs • Enterprise Software Product UI Design
DAPI	• Smart cities, building and places	• Pervasive Systems for Assistive Environments
HAS	-	• Security Behaviour

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**

Thematic Area	**08:00 – 10:00** *(page 90 - 95)* Session Title	**10:30 – 12:30** *(page 96 - 101)* Session Title
HCI	• UX Engineering and UX Design • Intelligent User Interfaces for Privacy-respecting, Personal Information Management across the Social Web • Speech and Dialogue Systems • Driving and interacting • Novel text input methods	• Gesture-based interaction • Recognizing Emotions • Design and evaluation techniques and methods for medical and rehabilitation devices • User interface design • Human - Robot Interaction
HIMI	• Automotive and Aviation • Communication Enhancement • Customer value by human interface	• Application in physiological and behavioral research for HCI related field • Personalised information spaces • Safety-critical applications
EPCE	• Human Factors and road safety • Human-Automation Integration Issues in Highly Automated Unmanned Vehicles	• Situated Cognitive Engineering for Citizen's Well-Being
UAHCI	• Design Access in Human Communication and Interaction • Multi-Modal, Multi-Party, and Multi-Brain Brain-Computer Interfacing • Accessibility and Software Design for All	• Design Access in Ergonomics and Interaction • Inclusive education • Technologies for Enhancing Universal Access • Cutting Edge in Information Display: Recent Advances in Ergonomic Research for the Use of E-papers
VAMR	• Computational Aspects of Mental Models of Human-Robot Teamwork • Virtual and Augmented Reality HCI in Medicine	• VR and Ultra Reality
CCD	• Product & Service Innovation based on New Developments in Human Factors • Globally Distributed Work- the Interplay between the Social and the Technical	• Design for Individual Differences
OCSC	-	• eSociety 2.0 - I
AC	-	• Applications of Optical Brain Imaging
DHM	-	• Models and simulations in complex human environments • Working with computers: ergonomics, safety and health considerations
DUXU	• Cross-Cultural Interface Design • User Experience for Mobile Business Applications • Industrial Software User Experience • Energy Feedback Design and Information Visualization • Interaction design in daily activity	• Design, Ergonomics, and Usability - IV • Usability Methods and Tools
DAPI	• Interaction for Ubiquitous Virtual Reality - I	• Interaction for Ubiquitous Virtual Reality - II
HAS	-	• Intent Semantics: New Concept in Trust R&D

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 3**

Friday, **26 July 2013** Afternoon **13:30 - 18:00**

Thematic Area	**13:30 – 15:30** *(page 102 - 107)* Session Title	**16:00 – 18:00** *(page 108 - 113)* Session Title
HCI	• Interaction Design for Development (ID4D) of Indigenous Communities • Haptics: Towards interacting with the world via touch • UI Prototyping methods and tools • Motion, Gesture and Expression recognition - II • Inclusive Design for HCI	• Emerging Issues in HCI • UX Design Processes & Evaluation Methods • Interacting with the web - II
HIMI	• Service engineering and interaction • Human-centered Information Systems and Applications • Designing complex environments	• Management of interaction • Creating social media
EPCE	-	• Cognitive aspects in society
UAHCI	• Non visual smart environments • Robots in everyday life • Interaction and Education for the Deaf • Senior Workforce	• Cutting Edge in Information Display: Recent Advances in Ergonomic Research for the Use of 3D • Smart Products and Services • Innovative technologies for children with ASD
VAMR	• The Role of Virtual, Augmented and Mixed Reality in STEAM Education for the 21st Century	• Human robot interaction and haptics • Exploring complexity through simulation and immersion
CCD	• Human-computer interaction and human errors in complex systems • Knowledge Sharing	• Towards a cross-cultural web • User-centered Design for Life Technology
OCSC	-	• eSociety 2.0 - II
AC	• Using Augmented Cognition for Gamification	• Modeling the Complex Dynamics of Teamwork
DHM	• Emerging Technologies in Working Conditions • Automation design and human systems integration: modeling, validation and certification issues	• Biomechanics in Product and Process Design
DUXU	• Design, Ergonomics, and Usability - V • Inclusive and open design • Mobile Web & Mobile App Design and Usage	• Users' involvement, needs and requirements in DUXU • Usability studies • Design at the Frontier of User-Experience Development • Service innovation and creativity management
DAPI	• Design and development frameworks and methods in Ambient Intelligence	• User monitoring in Ambient Intelligence
HAS	• Encouraging an Information Security Culture by addressing Human Behavior	-

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

HCI

Human-Computer Interaction

A New Horizon for Social Information Systems (I)

Chair(s): Yoshio Nakatani, Shogo Nishida.

Applying to Twitter Networks of a Community Extraction Method using Intersection Graph and Semantic Analysis
Toshiya Kuramochi, Naoki Okada, Kyouhei Tanikawa, Yoshinori Hijikata, Shogo Nishida.

A Method for Promoting Interaction Awareness by Biological Rhythm in Elementary School Children
Kyoko Ito, Kosuke Ohmori, Shogo Nishida.

Communication Analysis of Remote Collaboration System with Arm Scaling Function
Nobuchika Sakata, Tomoyuki Kobayashi, Shogo Nishida.

Evaluation of an Information Delivery System for Hearing Impairments at a School for Deaf
Atsushi Ito, Takao Yabe, Koichi Tsunoda, Kazutaka Ueda, Tohru Ifukube, Hikaru Tauchi, Yuko Hiramatsu.

The Proposal of the Remote Consultation Service System Using the Outline Function for Consultation
Hiroshi Yajima, Takuto Gotoh.

An Awareness System for Supporting Remote Communication - Application to Long-distance Relationships -
Tomoya Ohiro, Tomoko Izumi, Yoshio Nakatani.

The Present Condition and Problems for Elderly People Participating in Communities
Noriyuki Kobayashi, Shohei Yamane, Kotaro Ohori, Akihiko Obata.

Computational Intelligence for Signal and Image Processing -I

Chair(s): Ping Guo, Fuqing Duan.

Intent Capturing Through Multimodal Inputs
Weimin Guo, Cheng Cheng, MingKai Cheng, Yonghan Jiang, Honglin Tang.

Semi-Supervised Remote Sensing Image Segmentation Using Dynamic Region Merging
Ning He, Ke Lu, Yixue Wang, Yue Gao.

Kernel based Weighted Group Sparse Representation Classifier
Bingxin Xu, Ping Guo, C. L. Philip Chen.

Classification based on LBP and SVM for human embryo microscope images
Yabo Yin, Yun Tian, Weizhou Wang, Fuqing Duan, Zhongke Wu, Mingquan Zhou.

Visual Image Reconstruction from fMRI Activation Using Multi-scale Support Vector Machine Decoders
Yu Zhan, Jiacai Zhang, Sutao Song, Li Yao.

A New Real-time Visual SLAM Algorithm Based on the Improved FAST Features
Liang Wang, Rong Liu, Chao Liang, Fuqing Duan.

Designing and evaluating novel interaction environments

Chair(s): To be announced

Evaluating Devices and Navigation Tools in 3D Environments
Marcela Câmara, Priscilla Braz, Ingrid Monteiro, Alberto Raposo, Simone Barbosa.

Effect of Unresponsive Time for User's Touch Action of Selecting an Icon on the Video Mirror Interface
Kazuyoshi Murata, Masatsugu Hattori, Yu Shibuya.

Evaluation of a Soft-Surfaced Multi-Touch Interface
Anna Noguchi, Toshifumi Kurosawa, Ayaka Suzuki, Yuichiro Sakamoto, Tatsuhito Oe, Takuto Yoshikawa, Buntarou Shizuki, Jiro Tanaka.

A Remote Pointing Technique using Pull-out
Takuto Yoshikawa, Yuusaku Mita, Takuro Kuribara, Buntarou Shizuki, Jiro Tanaka.

Two Handed Mid-Air Gestural HCI: Point + Command
Matthias Schwaller, Simon Brunner, Denis Lalanne.

Using Kinect for 2D and 3D Pointing Tasks: Performance Evaluation
Alexandros Pino, Evangelos Tzemis, Nikolaos Ioannou, Georgios Kouroupetroglou.

Kinect® as Interaction Device with a Tiled Display
Amilcar Meneses Viveros, Erika Hernández Rubio.

Innovative interaction approaches

Chair(s): Frode Eika Sandnes.

RFID Mesh Network as an Infrastructure for Location Based Services for the Blind
Hugo Fernandes, Jose Faria, Paulo Martins, Hugo Paredes, João Barroso.

The Link Between Inclusive Design and Innovation: Some Key Elements
Kristin Skeide Fuglerud, David Sloan.

Designing Copresent Cycling Experience
Yun-Maw Kevin Cheng, Wei-Ju Chen, Tong-Ying Wu, Frode Eika Sandnes, Chris Johnson, Chao-Yang Yang.

Gesture-Based Applications for Elderly People
Weiqin Chen.

Design of a Wearable Haptic Vest as a Supportive Tool for Navigation
Anak Agung Gede Dharma, Takuma Oami, Yuhki Obata, Li Yan, Kiyoshi Tomimatsu.

Facial Electromyogram Activation as Silent Speech Method
Lisa R Rebenitsch, Charles Owen.

Data Visualisation, User Experience and Context: A Case Study from Fantasy Sport
Rob H Euman, Jose Abdelnour-Nocera.

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
Makram Soui, Mourad Abed, Khaled Ghedira.

Design and Implementation of ErgoIdentifier: 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, Gavriel 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.

Usability for Product design and Industrial Application - I
Chair(s): Yen-Yu Kang.

Usability Evaluation of the Universal Computer Workstation under Supine, Sitting and Standing Postures
Hsin-Chieh Wu, Min-Chi Chiu, Cheng-Lung Lee, Ming-Yao Bai.

A Study of Different Consumer Groups' Preferences of Time Display on Watches
Wen-chih Chang, Wei Ting Chen.

Usability Study of Icon Designs with Social Network Functions
Chien-Hsiung Chen, Wen-Hsin Hsiao, Shih-Chieh Chen, Yen-Yu Kang.

An innovative product design curriculum stimulating by imagination factors
Yinghsiu HUANG, Kai-Wei Hsieh.

The Display Medium, Academic Major and Sex Effect of High School Students on Visuospatial Abilities Test Performance
Yen-Yu Kang.

Research on the Measurement of Product Sales with Relation to Visual Planning for Commercial Websites
Chu-Yu Sun.

A Method for Developing Quality Function Deployment Ontology
Ken Tomioka, Fumiaki Saitoh, Syohei Ishizu.

EPCE

continues...

Engineering Psychology and Cognitive Ergonomics

Human Factors & Security
Chair(s): Alex Stedmon.

Autonomous Control in Military Logistics Vehicles: Trust and Safety Analysis
Nicole Gempton, Stefanos Skalistis, Jane Furness, Siraj Shaikh, Dobrila Petrovic.

A Collaborative Multi-source Intelligence Working Environment: A Systems Approach
Peter Eachus, Ben Short, Alex Stedmon, Jennie Brown, Margaret Wilson, Lucy Lemansky.

Analysing Deceptive Speech
Christin Kirchhuebel, Alex Stedmon, David Howard.

Human Factors and the Human Domain: Exploring Aspects of Human Geography and Human Terrain in a Military Context
Alex Stedmon, Brendan Ryan, Pat Fryer, Anneley 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 Helldin, Göran Falkman, Maria Riveiro, Anders Dahlbom, Mikael Lebram.

WEDNESDAY 8:00 - 10:00

EPCE

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
Xueli He, Wang Lijing.

The Influence of Guanxi Gradient on Crew Resource Management and Values in the Cockpit
Hung-Sying Jing, Berlin Chen.

A Layered Multi-Dimensional Description of Pilot's Workload Based on Objective Measures
Zhen Wang, Shan Fu.

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

Pilot Attention Allocation Modeling under Multiple Factors Condition
Xu Wu, Xiaoru Wanyan, Damin Zhuang.

Cognitive Operations in the Manually Controlled Rendezvous and Docking and their Implications for Interface Design and Inflight Cognitive Performance Monitoring
Yu Tian, Shanguang Chen, Chunhui Wang, Zhiqiang Tian, Yi Xiao, Ting Jiang.

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

UAHCI

Universal Access in Human-Computer Interaction

Assessing Information by Younger and/or Older Users
Chair(s): Eugenius Loos, Jennifer C Romano Bergstrom.

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
Soussan Djamasbi, Adrienne Hall-Phillips, Ruijiao (Rachel) Yang.

What «Digital Divide» Between Generations? A Cross-National Analysis Using Data from the World Internet Project
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
Robert J Youmans, Brooke G. Bellows, Christian A Gonzalez, Brittany Sarbone, Ivonne Figueroa.

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

Human, Computer and Environment - I
Chair(s): Jerzy Charytonowicz.

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

Creating Public Space in Wroclaws Urban Housing Environment
Barbara Gronostajska.

Problems of the Acoustics of Interiors in Architectural and Constructional Solutions of the Extension of the Wrocław Opera Building and Summer Scene
Boguslaw Wowrzeczka, Jacek Dzięgielewski.

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

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

Creating a Continuum of Care - I
Chair(s): Josette Jones, John Finnell.

Supporting the continuum of care for combat wounded patients: Adaptive interfaces for Personal Health Records
Harry D. Tunnell, Aeshvarya 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

Virtual, Augmented and Mixed Reality

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.

An Immersive Environment for a Virtual Cultural Festival
Liang Li, Woong Choi, Kozaburo Hachimura.

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
Christopher G. Courtney, Michael Dawson, Albert "Skip" Rizzo, Brian J. Arizmendi, Thomas D. Parsons.

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

Cross-Cultural Design

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
Tai-Jui Wang, Yu-Ju Y Lin, Jun-Liang Chen.

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

Online Communities and Social Computing

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
Alice K Good, Arunasalam Sambhanthan, Vahid Panjganj.

Searching Emotional Scenes in TV Programs based on Twitter Emotion Analysis
Takashi Yamauchi, Yuki Hayashi, Yukiko Nakano.

AC

Augmented Cognition

Opportunities for Augmented Cognition in Cyber Operations

Chair(s): Chris Forsythe.

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

Enhanced Training for Cyber Situational Awareness
Susan Stevens-Adams, Armida Carbajal, 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, Geneviève 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.

Intuitive Sensemaking

Chair(s): Denise M Nicholson.

Modeling Cues for Intuitive Sensemaking 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 Beeman, 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.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

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, Akirou 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 Astell, Gary Gowans, 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, Mitsuhiro Nakamura, Kyoko Aida, Noriaki Kuwahara, Taiki Ogata, Jun Ota.

Effect evaluation of recreational coloring carried out at pay nursing home
Shinichiro Kawabata, Maki Nasu, Akiyoshi Yamamoto, Noriaki Kuwahara, Yoshiyuki Kida, Akihiko Goto, Hiroyuki Hamada.

Development of a Measurement and Evaluation System for Bed-Making Activity for Self-Training
Ayanori Nagata, Zhifeng Huang, Masako Kanai-Pak, Jukai Maeda, Yasuko Kitajima, Mitsuhiro Nakamura, Kyoko Aida, Noriaki Kuwahara, Taiki Ogata, Jun Ota.

The relationship between nursing students' attitudes towards learning and effects of self-learning system using Kinect
Mitsuhiro Nakamura, Yasuko Kitajima, Jun Ota, Taiki Ogata, Zhifeng Huang, Ayanori Nagata, Kyoko Aida, Noriaki Kuwahara, Jukai Maeda, Masako Kanai-Pak.

DHM Applications and Validation - I

Chair(s): Vincent Duffy.

Grip Force and CR-10 Ratings For Youth Females
Kai Wai Li, Yu C. Lin.

Modeling Body Shape from Surface Landmark Configurations
Matthew P Reed.

Development of Human Balance Assessment System with Continuous Center of Gravity Tracking
Ben-Yi Liau, Chi-Wen Lung, Yih-Kuen Jan.

Using Methods-Time Measurement to Connect Digital Humans and Motion Databases
Ali Keyvani, Dan Lämkull, Gunnar Bolmsjö, Roland Örtengren.

Friction Measurements in a Hand Tool Factory
Kai Wai Li, Ching-Chung Chen, Liwen Liu, Chih-Yong Chen.

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 Santhosh Kumar.

DUXU

Design, Ergonomics, and Usability - I

Chair(s): Marcelo Soares, Tareq Ahram.

Perception of Gamification: between Graphical Design and Persuasive Design
Cathie Marache-Francisco, Eric Brangier.

Ergonomic Evaluation of Usability With Users - Application of The Technique of Cooperative Evaluation
Marcelo Penha, Walter Correia, Marcelo Soares, Fabio Campos, Marina Barros.

Exploring The Need For, and Feasibility of A Web-based Self-management Resource for Teenage and Young Adult Cancer Survivors in The UK
Louise Moody, Andrew Turner, Jane Osmond, Joanna Kosmala-Anderson, Louise Hooker, Lynn Batehup.

Modeling Consumer Sensitivity for Product Design and Perceived Usability
Tareq Ahram, Waldemar Karwowski, Nabin Sapkota.

Application of Virtual Reality Technologies in Consumer Product Usability
Christianne Soares Falcão, Marcelo Soares.

The Conjunction Fallacy and Its Impacts in the User's Data Acquisition Process
Fabio Campos, Dino Lincoln, Maria A Neves, Walter Correia, Marcelo Soares.

Human Error in Aviation: The Behavior of Pilots Facing the Modern Technology
Isnard Thomas Martins, Edgard Thomas Martins, Marcelo Soares, Lia Giraldo Augusto.

Enhancing Government Website Usability

Chair(s): Sarah J Swierenga.

Department of Homeland Security Websites Uncoupled: An Evaluation of Online Counterterrorism and Security Information Across Agencies
Anna Langhorne.

Content as Conversation in Government Websites
Ginny Redish.

From the Ground-up: Role of Usability and Aesthetics Evaluation in Creating a Knowledge-based Website for the U.S. Army Corps of Engineers
Dennis B Propst, Sarah J Swierenga, Graham L Pierce, Eunseong Jeong, Constantinos K. Coursaris.

Usability of County Election Websites
Cyd Harrell, Andrea Fineman, Ethan Newby, Dana Chisnell, Whitney Quesenbery.

Rap Backs: Continuous Workforce Monitoring to Improve Patient Safety in Long-Term Care
Fuad Abujarad, Sarah J Swierenga, Toni Dennis, Lori Post.

Engaging Citizens with UX Design
Kate Walser.

User Experience for Smart Devices and Environments

Chair(s): To be announced

Design and Evaluation of a Predictive Model for Smart Phone Selection
Yerika Jimenez, Patricia A Morreale.

Evaluation of Effects of Textures Attached to Mobile Devices on Pointing Accuracy
Yoshitomo Fukatsu, Tatsuhito Oe, Yuki Kuno, Buntarou Shizuki, Jiro Tanaka.

A Proposal for Optimization Method of Vibration Pattern of Mobile Device with Interactive Genetic Algorithm
Makoto Fukumoto, Takafumi Ienaga.

Sharing Kinetic Interactions for Mobile Devices
Bashar Altakrouri, Darren Carlson, Andreas Schrader.

NUI-based Floor Navigation – A Case Study
Ulrich Furbach, Markus Maron.

Designing for healthcare experiences

Chair(s): To be announced

Lazy Eye Shooter: Making a Game Therapy for Visual Recovery in Adult Amblyopia Usable
Jessica Bayliss, Indu Vedamurthy, Mor Nahum, Dennis Levi, Daphne Bavelier.

Designing Co-located Tabletop Interaction for the Rehabilitation of Brain Injury
Jonathan Duckworth, Patrick Thomas, David Shum, Peter Wilson.

Design for Relaxation During Milk Expression using Biofeedback
Loe M.G. Feijs, Jeanine Kierkels, Nicolle H. Van Schijndel, Marjolein Van Lieshout.

PainDroid: A Mobile Tool for Pain Visualization and Management
Tor-Morten Gronli, Gheorghita Ghinea, Fotios Spyridonis, Jarle Hansen.

Application of Rhetorical Appeals in Interactive Design for Health
Sauman Chu, G. Mauricio Mejia.

HCI

Human-Computer Interaction

A New Horizon for Social Information Systems (II) Chair(s): Yoshio Nakatani, Shogo Nishida.	Computational Intelligence for Signal and Image Processing -II Chair(s): Ping Guo, Fuqing Duan.	Multimodal and ambient communication and collaboration Chair(s): To be announced	Designing Situated Experiences: Models, Technologies, Applications Chair(s): Matthias Rehm, Søren Eskildsen.
An Estimation Framework of A User Learning Curve on Web-based Interface Using Eye Tracking Equipment Masanori Akiyoshi, Hidetoshi Takeno. **Further Benefit of a Kind of Inconvenience for Social Information Systems** Hiroshi Kawakami. **An Empirical Investigation of Similarity-driven Trust Dynamics in A Social Network** Yugo Hayashi, Victor Kryssanov, Hitoshi Ogawa. **Robust Face Recognition System Using a Reliability Feedback** Shotaro Miwa, Shintaro Watanabe, Makito Seki. **Development of Push-Based English Words Learning System by Using E-Mail Service** Shimpei Matsumoto, Masanori Akiyoshi, Tomoko Kashima. **An Evacuation Place Reasoning System to Support Disaster Rescue Teams** Akihiro Kawabe, Tomoko Izumi, Yoshio Nakatani. **Multi-layer Control and Graphical Feature Editing using Server-side Rendering on Ajax-GIS** Takeo Sakairi, Takashi Tamada, Katsuyuki Kamei, Yukio Goto.	**Correcting Distortion of Views into Aquarium** Yukio Ishihara, Makio Ishihara. **AugmentedBacklight: Expansion of LCD Backlights Using Lighting Methods in the Real World** Maho Oki, Koji Tsukada, Itiro Siio. **A Dense Stereo Matching Algorithm with Occlusion and Less or Similar Texture Handling** Hehua Ju, Chao Liang. **A Coastline Detection Method Based on Level Set** Qian Wang, Ke Lu, Fuqing Duan, Ning He, Lei Yang. **Annotate Train Evaluate. A Unified Tool for the Analysis and Visualization of Workflows in Machine Learning Applied to Object Detection** Michael Storz, Marc Ritter, Robert Manthey, Holger Lietz, Maximilian Eibl. **Tracking End-Effectors for Marker-less 3D Human Motion Estimation in Multi-view Image Sequences** Wenzhong Wang, Zhaoqi Wang, Xiaoming Deng, Bin Luo. **A model based semantic frames detection and retrieval in video using motion vector and occurrence rate of shot boundaries** Pradipkumar Ishwarbhai Panchal, Shabbir Merchant, Nirav Patel.	**Multi-party Human-Machine Interaction Using a Smart Multimodal Digital Signage** Tony Tung, Randy Gomez, Tatsuya Kawahara, Takashi Matsuyama. **Multimodal Smart Interactive Presentation System** Hoang-An Le, Khoi-Nguyen C. Mac, Truong-An Pham, Vinh-Tiep Nguyen, Minh-Triet Tran. **Development of Communication Support System at Mealtimes Using Tabletop Interface** Junko Itou, Shizuka Takao, Jun Munemori. **Research on a Large Digital Desktop Integrated in a Traditional Environment for Informal Collaboration** Mariano Perez Pealez, Ryo Suzuki, Ikuro Choh. **Social TV EPG Interaction Design for Multi-screen Environment** Fang You, Ting Xie, Jianmin Wang, Peng Xiao, Lulu Qian, Hongmei Li. **Subjective Ratings in an Ergonomic Engineering Process using the Example of an In-Vehicle Information System** Michael Krause, Klaus Bengler.	**Mobile Recommender Systems in e-learning** Oswaldo Velez-Langs, Nelson Sánchez Sánchez. **Evaluating Intelligibility Usage and Usefulness in a Context-Aware Application** Brian Y Lim, Anind Dey. **Challenges for Contextualizing Language Learning - Supporting Cultural Integration** Søren Eskildsen, Matthias Rehm. **Mobile Inquiry-based Learning - A Study of Collaborative Scaffolding and Performance** Jalal Nouri, Teresa Cerrato-Pargman, Karwan Zetali. **Identifying and Representing Elements of Local Contexts in Namibia** Kasper Rodil, Kasper L. Jensen, Matthias Rehm, Heike Winschiers-Theophilus. **Examining the Role of Contextual Exercises and Adaptive Expertise on CAD Model Creation Procedures** Michael D Johnson, Elif Ozturk, Lauralee Valverde, Bugrahan Yalvac, Xiaobo Peng.

HCI

Patterns and Models for User Interface Construction

Chair(s): Christian Märtin, Peter Forbrig.

Formal Pattern Specifications to Facilitate Semi-Automated User Interface Generation
Jürgen Engel, Christian Märtin, Christian Herdin, Peter Forbrig.

Requirements for a Definition of Generative User Interface Patterns
Stefan Wendler, Ilka Philippow.

Evaluation of User Interface Description Languages for Model-Based User Interface Development in the German Automotive Industry
Gerrit Meixner, Marius Orfgen, Moritz Kümmerling.

Semantic Execution of Subject-oriented Process Models
Albert Fleischmann, Werner Schmidt, Christian Stary.

Patterns and Models for Automated User Interface Construction: In Search of the Missing Links
Christian Märtin, Christian Herdin, Jürgen Engel.

Special Challenges for Models and Patterns in Smart Environments
Peter Forbrig, Christian Märtin, Michael Zaki.

Agility based on Stakeholder Interaction - Blending Organizational Learning with Interactive BPM
Christian Stary, Werner Schmidt, Albert Fleischmann.

Communication and HCI in Korea

Chair(s): Donghun Chung.

Effects of Facebook friends' collective mood on individual's psychological well-being
Indeok Song.

Influence of Gaming Display and Controller on Perceived Characteristics, Perceived Interactivity, Presence, and Discomfort
Hyunji Lee, Donghun Chung.

Do All People Enjoy the Benefits from Technology Innovation?
Yoon Jeon Koh, Jaeheon Park, Byung Do Chung.

Toward a New Design Philosophy of HCI: Knowledge of Collaborative Action of "We" Human-and-Technology
HyunKyoung Cho, Chang-Soo Park.

HIMI

continues...

Human Interface and the Management of Information

HCI considerations for NextGen

Chair(s): Kim-Phuong Vu.

Development of Haptic Assistance for Route Assessment Tool of NASA NextGen Cockpit Situation Display
Eric Park, Jose Robles, Paul Sim, Ryan O'Connor, Martin Koltz, Gregory Arnsdoff, Panadda Marayong, Thomas Z Strybel, Kim-Phuong Vu.

Measuring UAS Pilot Responses to Common Air Traffic Clearances
Jason Ziccardi, Zach Roberts, Ryan O'Connor, Conrad Rorie, Gregory A Morales, Vernol Battiste, Thomas Z Strybel, Dan Chiape, Kim-Phuong Vu, Jay Shively.

Are the Intrusive Effects of SPAM Probes Present when Operators Differ by Skill Level and Training?
Hector I. Silva, Jason Ziccardi, Tristan Grigoleit, Vernol Battiste, Thomas Z Strybel, Kim-Phuong Vu.

Pre-Study Walkthrough with a Commercial Pilot for a Preliminary Single Pilot Operations Experiment
Ryan O'Connor, Zach Roberts, Jason Ziccardi, Robert Koteskey, Joel Lachter, Quang Dao, Walter Johnson, Vernol Battiste, Kim-Phuong Vu, Thomas Z Strybel.

Training Air Traffic Controller Trust in Automation within a NextGen Environment
Tiana M Higham, Kim-Phuong Vu, Jim Miles, Thomas Z Strybel, Vernol Battiste.

The Effects of Early Training with Automation Tools on the Air Traffic Management Strategies of Student ATCos
Henri Battiste, William Choi, Tina Mirchi, Karen Sanchez, Kim-Phuong Vu, Dan Chiape, Thomas Z Strybel.

Usability for Product design and Industrial Application - II

Chair(s): Yen-Yu Kang.

The Designing Expressions of the Special Visual Effect Film in the Digital Technology
Tsun-Hsiung Yao, Chu-Yu Sun.

The Relationship Between Handlebar and Saddle Heights on Cycling Comfort
Min-Chi Chiu, Hsin-Chieh Wu, Nien-Ting Tsai.

An Analysis of Smartphone Size Regarding Operating Performance
Zunhwa Chiang, Chia Ching Wen, An-Che Chen, Cheng-yu Hou.

Usability Evaluation Of The Touch Screen User Interface Design
Chih-Yu Hsiao, You-Jia Liu, Mao-Jiun Wang.

On the reading performance of text layout, switch position, topic of text, and luminance contrast for Chinese E-books interface design
Wen-Te Chang, Ling-Hung Shih, Zunhwa Chiang, Kuo-Chen Huang.

Development of a chest X-ray examination support system for foreigners using a personal digital assistant
Mitsuru Miyata, Chikamune Wada, Masahiro Iinuma.

Situation Aware Interaction with Multi-modal Business Applications in Smart Environments
Mario Aehnelt, Sebastian Bader, Gernot Ruscher, Frank Krüger, Bodo Urban, Thomas Kirste.

WEDNESDAY 10:30 - 12:30

HIMI

Adaptive and User Guiding Information Service and Interface - I

Chair(s): Hanmin Jung.

User Guiding Information Supporting Application for Clinical Procedure in Traditional Medicine
Hyun Chul Jang, Yong-Taek Oh, Anna Kim, Sang Kyun Kim.

Human Support System for Elderly People in Daily Life
Shimizu Shunji, Hiroaki Inoue.

Analytics on Online Discussion and Commenting Services
Sungho Shin, Sangkeun Park, Jinseop Shin, Sa-Kwang Song, Sung-Pil Choi, Hanmin Jung.

Usability Compliance Audit for Technology Intelligence Services
Nadine Pietras, Mazhar Sajjad, Myungkwon Hwang, Jinhyung Kim, Sa-Kwang Song, Do-Heon Jeong, Seungwoo Lee, Hanmin Jung.

Overview of Global User Interfaces For Localization
Clara Peters, Mazhar Sajjad, Myungkwon Hwang, Jinhyung Kim, Sa-Kwang Song, Do-Heon Jeong, Seungwoo Lee, Hanmin Jung.

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.

EPCE

Engineering Psychology and Cognitive Ergonomics

Cognitive factors of interaction

Chair(s): To be announced

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.

UAHCI

Universal Access in Human-Computer Interaction

Inclusion, Design, Technical Devices for Older People

Chair(s): Jennifer C Romano Bergstrom, Eugenius Loos.

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 Schwarze.

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
Stijn Bannier, Ruediger Glott, Valérie Meijs.

Age and Computer Self-Efficacy in the Use of Digital Technologies: An Investigation of Prototypes for Public Self-Service Terminals
Günther Schreder, Michael Smus, Karin Siebenhandl, Eva Mayr.

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.

eBooks, eLearning, Digital Libraries/Multimedia: Accessibility, Markets and Copyrights

Chair(s): Ana Isabel B. 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.

UAHCI

Creating a Continuum of Care - II
Chair(s): Josette Jones, John Finnell.

Ambient Assistive Technology Considered Harmful
Yngve Dahl, Babak Farshchian, Anders Kofod-Petersen, Silje Bøthun, Kristine Holbø, Jarl Reitan.

Application of human error identification (HEI) techniques to cognitive rehabilitation in stroke patients with limb apraxia
Charmayne ML Hughes, Chris Baber, Marta Bienkiewicz, Joachim Hermsdörfer.

Design of Intuitive Interfaces for Electric Wheelchairs to Prevent Accidents
Hitoshi Tamura, Yasushi Kambayashi.

Analysis of User-Generated Multimedia Data on Medication Management and Consumption Behavior Using Data Mining Techniques
Chaiwoo Lee, Lisa D'Ambrosio, Richard Myrick, Joseph Coughlin, Olivier De Weck.

Increasing Physical Activity by Implementing a Behavioral Change Intervention Using Information Technology
Lynn Vincz, Hadi Kharrazi.

VAMR

Virtual, Augmented and Mixed Reality

Presence, communication and collaboration in VR environments
Chair(s): To be announced

Passive Viewpoints in a Collaborative Immersive Environment
Sarah D Coburn, Lisa R Rebenitsch, Charles Owen.

Enhancing Social Presence in Augmented Reality-Based Telecommunication System
Jea In Kim, Taejin Ha, Woontack Woo, Chung-Kon Shi.

DigiLog Space Generator for Tele-collaboration in an Augmented Reality Environment
Kyungwon Gil, Taejin Ha, Woontack Woo.

Perceived Presence's Role on Learning Outcomes in a Mixed Reality Classroom of Simulated Students
Aleshia T Hayes, Stacey Hardin, Charles E Hughes.

Onomatopoeia Expressions for Intuitive Understanding of Remote Office Situation
Kyota Higa, Masumi Ishikawa, Toshiyuki Nomura.

How Fiction Informed the Development of Telepresence and Teleoperation - An Historical Perspective
Gordon Mair.

CCD

Cross-Cultural Design

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

A Study of Applying Qualia to Business Model of Creative Industries
Hui-Yun Yen, Christopher LIN, Rungtai Lin.

A Study of Aesthetic Analysis on Modern Crafts
Po-Hsien Lin, Mo-Li Yeh, Rungtai Lin.

The Difference of User Perception between Similarity and Dissimilarity Judgments
MingXian Sun, Chi-Hsien Hsu, Ming-Chuen Chuang.

Exploring Local Characteristic Product Analysis from an Emotional Design Perspective
Yu-Ju Y Lin, Wei-Han Chen, Tai-Jui Wang.

A Study about the Culture Service Process and Tools Design
Chen-hao Fan, I-Hsin Fan, Chun Chieh Weng, Jia-Haur Liang, Huang-Tsun Lu.

The Study of Style for Kogi Pottery Art in Life
Chi-Hsiung Chen, Shih-Ching Lin.

Research on Symbol Expression for Eye Image in Product Design ： the Usage of the Chinese Traditional "Yun Wen"
Chi-Chang Lu, Po-Hsien Lin.

OCSC

Online Communities and Social Computing

User behaviour in social communities - I
Chair(s): To be announced

Quantifying Cultural Attributes for Understanding Human Behavior on the Internet
Santosh Kumar Kalwar, Kari Heikkinen, Jari Porras.

Sentiment Classification of Web Review using Association Rules
Man Yuan, Ouyang Yuanxin, Zhang Xiong, Sheng Hao.

Emperical Study of Routine Structure in Univeristy Campus
Kingkarn Sookhanaphibarn, Ekachai Kanyanucharat.

A Three-Level Approach to The Study of Multi-cultural Social Networking
Yifan Jiang, Oscar Debruijn.

Online Idea Contests: Identifying Factors for User Retention
Stefan Richter, Stefan Perkmann Berger, Giordano Koch, Johann Füller.

Eye Tracking Analysis of User Behavior in Online Social Networks
Wan Adilah Wan Adnan, Wan Nur Hafizhoh Hassan, Natrah Abdullah, Jamaliah Taslim.

Assessing the Possibility of a Social e-book by Analyzing Reader Experiences
Seyeon Lee, Jea In Kim, Chung-Kon Shi.

AC

Augmented Cognition

Research Innovations and Augmented Cognition

Chair(s): Peter Walker.

The Information Exoskeleton: Augmenting Human Interaction with Information Systems
James Allen, Susan Regli, Kathleen Stibler, Patrick Craven, Peter Gerken, Polly Tremoulet.

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, Angelia 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

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

DHM Applications and Validation - II

Chair(s): Vincent Duffy.

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
Tomohiro Kosuge, Naoaki Itakura, Kazuyuki Mito.

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
Anna Janocha, Marcin Grabowski, Witold Pilecki, Robert Skalik, Krystyna Laszki-Szczachor, Ewa Janocha, Piotr Frąszczak, Małgorzata Sobieszczańska.

DUXU

Design, User Experience, and Usability

Designing for playing experiences

Chair(s): To be announced

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 Valente, Emanuela Marchetti.

Exploring Adjustable Interactive Rings in Game Playing: Preliminary Results
Leonardo Cunha de Miranda, Heiko Hornung, Roberto Pereira, Maria Cecília C. Baranauskas.

Math Fluency through Game Design
Wanda Eugene, Tiffany Barnes, Jennifer Wilson.

Designing for learning experiences

Chair(s): To be announced

Measuring Usability of the Mobile Mathematics Curriculum-based Measurement Application with Children
Mengping Tsuei, Hsin-Yin Chou, Bo-Sheng Chen.

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, Magí Almirall, Llorenç Valverde, Mercè Gisbert.

Exploring Information-Triage: speculative interface tools to help college students conduct online research
Liese Zahabi.

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
Tihomir Orehovački, Nikolina Žajdela Hrustek.

Toward Social Media Based Writing
John P Sadauskas, Daragh Byrne, Robert Atkinson.

DUXU

Designing for cultural experiences
Chair(s): To be announced

Embodied Haptic Interfaces
Chair(s): Patricia J. Flanagan.

VMUXE - An Approach to User Experience Evaluation for Virtual Museums
Bianca Gockel, Holger Graf, Alfonsina Pagano, Joakim Eriksson, Sofia Pescarin.

Towards a Common Implementation Framework for Online Virtual Museums
Katarzyna Wilkosinska, Andreas Aderhold, Holger Graf, Yvonne A Jung.

Behind Livia's Villa - A Case Study for the Devolution of Large Scale Interactive «in-site» to «on-line» Application
Guido Lucci Baldassari, Emanuel Demetrescu, Sofia Pescarin, Joakim Eriksson, Holger Graf.

Border Crosser – A Robot As Mediator Between The Virtual And Real World
Anke Tallig, Wolfram Hardt, Maximilian Eibl.

Examining Interdisciplinary Prototyping in the Context of Cultural Communication
Michael Heidt.

Blinklifier: A Case Study for Prototyping Wearable Computers in Technology and Visual Arts
Katia Fabiola Canepa Vega, Patricia J. Flanagan, Hugo Fuks.

Exhibiting Emotion: Capturing Visitors' Emotional Responses to Museum Artefacts
Genevieve Alelis, Ania Bobrowicz, Chee Siang Ang.

Tassophonics: Nanotechnology as the Magical Unknown
Audrey Samson, Kristina Andersen.

Creating Instantly Disappearing Prints using Thermochromic Paint and Thermal Printer in an Interactive Art Installation
Miu Ling Lam.

Empowering Electronic Divas through Beauty Technology
Katia Fabiola Canepa Vega, Hugo Fuks.

Gestural, Emergent and Expressive: Three research themes for haptic interaction
Jared Donovan, Gavin Sade, Jennifer Seevinck.

Fashioning Embodied Interfaces: Open Wearables Crafting
Valerie Lamontagne.

Haptic Interface Aesthetics – 'Feedback Loops, Live Coding and How to Harness the Potential of Embodied Estrangement in Artistic Practices and Aesthetic Theories within Interface Culture'
Patricia J. Flanagan.

DAPI

Distributed, Ambient and Pervasive Interactions

Pervasive Civic Computing
Chair(s): Shin'ichi Konomi.

A Human-Probe System that Considers On-body Position of a Mobile Phone with Sensors
Kaori Fujinami, Yuan Xue, Satoshi Murata, Shigeki Hosokawa.

Blog-based Personal LBS
Hideki Kaji, Masatoshi Arikawa.

A Precision Navigation System for Public Transit Users
Masaki Ito, Satoru Fukuta, Takao Kawamura, Kazunori Sugahara.

Rapid Development of Civic Computing Services: Opportunities and Challenges
Shin'ichi Konomi, Kenta Shoji, Wataru Ohno.

Portable Health Clinic: A Pervasive Way to Serve the Unreached Community for Preventive Healthcare
Ashir Ahmed, Sozo Inoue, Eiko Kai, Naoki Nakashima, Yasunobu Nohara.

The Effects of Multimodal Mobile Communications on Cooperative Team Interactions Executing Distributed Tasks
Gregory Burnett, Andres Calvo, Victor S. Finomore, Gregory Funke.

HAS

Human Aspects of Information Security, Privacy and Trust

Security, Forensic and Legal Aspects of Human-Computer Interaction
Chair(s): Pavel Ocenasek.

The Practice of Global Internet Filtering
Pavel Ocenasek.

On the Secure and Safe Data Synchronization
Pavel Ocenasek, Jaromir Karmazin.

Legal Protection for Personal Information Privacy
Yinan Liu.

Ethical Issues Surrounding the Asymmetric Nature of Workplace Monitoring
John D Bustard.

A Reasonable Expectation of Privacy? Secrecy and National Security in a Democracy
Kathleen Hogan.

The Privacy Paradox Between Users' Attitudes, Stringent Legal Framework and (the Lack of) Adequate Implementation Tools
Shara Monteleone.

HCI

Human-Computer Interaction

Information search and retrieval

Chair(s): To be announced

Usability Guidelines for Desktop Search Engines
Manuel Burghardt, Tim Schneidermeier, Christian Wolff.

Search Strategies in Hypermedia Navigation and Spatial Abilities: A Comparison with Physical Navigation
Aurelie Brouwers.

Design of a Visual Query Language for Geographic Information System on a Touch Screen
Siju Wu, Samir Otmane, Guillaume Moreau, Myriam Servières.

A Study on Document Retrieval System Based on Visualization to Manage OCR Documents
Kazuki Tamura, Tomohiro Yoshikawa, Takeshi Furuhashi.

Web Searching for Health Information: An Observational Study to Explore Users' Emotions
Pallavi Rao Gadahad, Yin-Leng Theng, Joanna Sin Sei Ching, Natalie Pang.

Putting together Computer Science, Ergonomics and Medicine: a multidisciplinary study about e-health interfaces

Chair(s): Claudia Renata Mont'Alvão.

Usability of a Social Network as a Collaborative Learning Platform Tool for Medical Students
Leonardo Frajhof, Ana Cláudia Costa Arantes, Aline Teodosio dos Santos Cardozo, Carlos Jose Pereira de Lucena, Carlos Alberto Pereira de Lucena, Claudia Renata Mont'Alvão.

Software Engineering in Telehealth, an Extension of Sana Mobile Applied to the Process of a Routine Hospital
Alfredo V. Carvalho, Carlos Jose Pereira de Lucena, Elder Cirilo, Paulo Henrique Alves, Pedro Augusto Miranda, Gustavo Robichez, Fábio Rodrigo Araújo, Gabriel Lima.

Experiences with Arthron for Live Surgery Transmission in Brazilian Telemedicine University Network
Tatiana A Tavares, Gustavo Motta, Guido Souza, Erick Melo.

Usability Testing for e-Health Application: A Case Study for SANA/ Open MRS
Claudia Renata Mont'Alvão, Felipe Pierantoni, Carlos Alberto Pereira de Lucena.

Telemedicine and Design: Relationships that Create Opportunities
Carlos Alberto Pereira de Lucena, Claudia Renata Mont'Alvão, Felipe Pierantoni, Leonardo Frajhof.

A Mobile Application Flow Representation for Mutual Understanding of IT and Healthcare Professionals
Yusuf Nasuh Erturan, Semih Bilgen, Gul Tokdemir, Nergiz Ercil Cagiltay, Ekrem Yildiz, Esra Ozcebe.

Usability Evaluation on a Voluntary Patient Safety Reporting System: Understanding the Variance Between Predicted and Observed Time Values by Retrospective Think-aloud Protocols
Lei Hua, Yang Gong.

New Technology and User Experience for Next Educational Environment

Chair(s): Takashi Mitsuishi, Hitoshi Sasaki, Takahiko Mendori.

Design and Evaluation of Training System for Numerical Calculation Using Questions in SPI2
Shin'ichi Tsumori, Kazunori Nishino.

A Server-based System Supporting Motor Learning through Real-time and Reflective Learning Activities
Naka Gotoda, Yoshihisa Sakurai, Kenji Matsuura, Koji Nakagawa, Chikara Miyaji.

Nature Sound Ensemble Learning in Narrative-Episode Creation with Pictures
Kosuke Takano, Shiori Sasaki.

A Proposal of the System Model for Nursing Skill Learning Based on Cognition and Technique
Yukie Majima, Yasuko Maekawa, Masato Soga, Masayuki Sakoda.

Zoom Interface with Dynamic Thumbnails Providing Learners with Companionship through Videostreaming
Takumi Yamaguchi, Haruya Shiba, Masanobu Yoshida, Yusuke Nishiuchi, Hironobu Satoh, Takahiko Mendori.

Study on Effects of Text Decoration for a Text Based Communication Tool in Education
Masateru Hishina, Katsuaki Miike, Nobutake Asaba, Satoru Murakami, Yuichi Ohkawa, Takashi Mitsuishi.

Private Cloud Cooperation Framework for Reducing the Earthquake Damage on e-Learning Environment
Satoshi Togawa, Kazuhide Kanenishi.

Interacting with the web - I

Chair(s): To be announced

Centrality of Visual Aesthetics in the Online Context: An Assessment and Empirical Evidence
Supavich Pengnate, Rathindra Sarathy, Todd Arnold.

The Effects of Negative Interaction Feedback in A Web Navigation Assistant
Marcelo G. Armentano, Analía A. Amandi.

Investigating the Effects of Font Styles on Perceived Visual Aesthetics of Website Interface Design
Ahamed Altaboli.

Automatic Layout Generation for Digital Photo Albums: A User Study
Francine Bergmann, Isabel Manssour, Milene S Silveira, João Oliveira.

A Web Browsing Method on Handheld Touch Screen Devices for Preventing from Tapping Unintended Links
Yu Shibuya, Hikaru Kawakatsu, Kazuyoshi Murata.

SWord: A Concept Application for Mitigating Internet Terminology Anxiety
Santosh Kumar Kalwar, Kari Heikkinen, Jari Porras.

An Ontology-based Interaction Concept for Social-aware Applications
Alexandra Funke, Sören Brunk, Romina Kuehn, Thomas Schlegel.

HIMI

Human Interface and the Management of Information

Adaptive and User Guiding Information Service and Interface - II

Chair(s): Hanmin Jung.

BARMOTIN A Voice Controlled Mobile Tourism Information Network for Barbados
David Byer, Colin Depradine.

Pathway Construction and Extension using Natural Language Processing
Hong-Woo Chun, Sung-Jae Jung, Mi-Nyeong Hwang, Chang-Hoo Jeong, Sa-Kwang Song, Seungwoo Lee, Sung-Pil Choi, Hanmin Jung.

On Services and Insights of Technology Intelligence System
Seungwoo Lee, Minhee Cho, Sa-Kwang Song, Hanmin Jung.

Power & Energy Management: A User-Centered System-of-Systems Engineering Approach
Tareq Ahram, Waldemar Karwowski, Ben Amaba, Paul Fechtelkotter.

Social Experiment on Advisory Recommender System for Energy-Saving
Hiroki Shigeyoshi, Ken'iti Tamano, Ryosuke Saga, Hiroshi Tsuji, Shuki Inoue, Tsuyoshi Ueno.

BookAidee: Managing evacuees from natural disaster by RFID tagged library books
Markus Liuska, Emmi Makkonen, Itiro Siio.

Developing a real time passenger information system for rural areas
Konstantinos Papangelis, Somayajulu Sripada, David Corsar, Nagendra Velaga, Peter Edwards, John Nelson.

HCI Studies in Management Information Systems (I)

Chair(s): Fiona Fui-Hoon Nah.

Psychophsiological Assessment Tools for Evaluation of Learning Technologies
Richard Hall, Nick Lockwood, Hong Sheng.

Exploring User Feedback of a E-Learning System: A Text Mining Approach
Wen-Bin Yu, Ronaldo Luna.

Eyes Don't Lie: Understanding Users' First Impressions on Websites Using Eye Tracking
Hong Sheng, Nick Lockwood, Sirjana Dahal.

Cloud Computing and the Internet of Things: Technology Innovation in Automobile Service
Erwa Qin, Yoanna Long, Chenghong Zhang, Lihua Huang.

Unified Modeling Language: The Teen Years and Growing Pains
John Erickson, Keng Siau.

Gamification of Education Using Computer Games
Fiona Fui-Hoon Nah, Venkata Rajasekhar Telaprolu, Shashank Rallapalli, Pavani Rallapalli Venkata.

User-oriented technologies and services

Chair(s): Hiroyuki Miki.

Reconsidering the Notion of User Experience for Human-Centered Design
Hiroyuki Miki.

Application of the Ethno-Cognitive Interview and Analysis Method for the Smart Communication Design
Ayako Yajima, Haruo Hira, Toshiki Yamaoka.

A Study for Personal Use of the Interactive Large Public Display
Shigeyoshi Iizuka, Wataru Naito, Kentaro Go.

Qualitative Study for Designing Peripheral Communication between Hospitalized Children and Their Family Members
Yosuke Kinoe, Chika Ojima, Yuri Sakurai.

The Urgent Communication System for Deaf and Language Dysfunction People
Naotsune Hosono, Fumihiro Miyajima, Toshiyuki Inaba, Masaru Nishijima, Michio Suzuki, Hiroyuki Miki, Yutaka Tomita.

A Dialog Based Speech User Interface of a Makeup Support System for Visually Impaired Persons
Makoto J. Hirayama, Naomi Kuraya, Yushi Komachi.

Acceptance of Telemedical Treatments – a Medical Professional Point of View
Martina Ziefle, Lars Klack, Wiktoria Wilkowska, Andreas Holzinger.

EPCE

continues...

Engineering Psychology and Cognitive Ergonomics

Cognitive issues in Aviation

Chair(s): To be announced

How Can a Future Safety Net Successfully Detect Conflicting ATC Clearances – Yet Remain Inconspicuous to the Tower Runway Controller? First Results from a SESAR Exercise at Hamburg Airport
Marcus Biella, Karsten Straube, Marcus Helms, Stephen Straub, Benjamin Weiß, Felix Schmitt, Heribert Lafferton, Stéphane Dubuisson, Roger Lane.

Discriminability of Flight Maneuvers and Risk of False Decisions Derived from Dual Choice Decision Errors in a Videopanorama-based Remote Tower Work Position
Norbert Fuerstenau, Maik Friedrich, Monika Mittendorf, Markus Schmidt, Michael Rudolph.

A Fixed-Based Flight Simulator Study: The Interdependence of Flight Control Performance and Gaze Efficiency
Lewis L Chuang, Frank Nieuwenhuizen, Heinrich Bülthoff.

Pilot Operating Characteristics Analysis of Long Landing based on Flight QAR Data
Wang Lei, Wu Changxu, Sun Ruishan.

A Coherent Assessment of Visual Ergonomics in Flight Deck Impacted by Color and Luminance
Ye Zhou, Wei Zhang, Baofeng Li, Jinhai Yu, Zhi Ma.

The Glare Evaluation Method Using Digital Camera for Civil Airplane Flight Deck
Zhi Ma, Wei Zhang, Ye Zhou, Jinhai Yu, Baofeng Li.

WEDNESDAY 13:30 - 15:30

EPCE

Cognitive aspects of HCI and usability

Chair(s): To be announced

Error Analysis for Tablet User Interface Transfers Based on Operational Knowledge Interference
Kazutoyo Takata, Koji Morikawa, Tsukasa Hirashima.

Comprehension of Vibrotactile Route Guidance Cues
Andre Garcia, Jesse Eisert, Carryl Baldwin, Victor S. Finomore.

Data Transmission Latency and Sense of Control
Bruno Berberian, Patrick Le Blaye, Christian Schulte, Nawfel Kinani, Pern Ren SIM.

Image Quality Assessment using the SSIM and the Just Noticeable Difference Paradigm
Jeremy R Flynn, Steve Ward, Julian Abich IV, David Poole.

Using Cognitive Work Analysis to Drive Usability Evaluations in Complex Systems
Aren C. Hunter, Tania E Randall.

Automatic Classification of Eye Blink Types using a Frame-splitting Method
Kiyohiko Abe, Hironobu Sato, Shogo Matsuno, Shoichi Ohi, Minoru Ohyama.

The Use of Timed Directional Link Analysis to Improve User Interaction During Universal Remote Control Setup Procedures
Robert J Youmans, Bridget Lewis, Ivonne Figueroa, Jesus Perez.

Cognitive factors in learning

Chair(s): To be announced

Impact of Different Course Contents on Working Memory of Elementary School Students
Tai-Yen Hsu, Fang-Ling Lin, Chih-Lin Chang, Hsien-Te Peng.

The Effects of User Involvement in Online Games, Game-Playing Time and Display Duration on Working Memory
Fang-Ling Lin, Chih-Lin Chang, Tai-Yen Hsu, Tung-Shen Wu.

The roles of anxiety and motivation in Taiwanese college students' English learning
Yi-an Hou, Yen-ju Hou, Hsueh-yu Cheng.

Evaluating Two Modes of Observational Learning in Cognitive-Spatial Task Training
Nirit Gavish, Michal Shelef.

Multitasking: Digital Natives' Interaction with New Media
Tuba Uğraş, Sevinç Gülseçen.

Taiwanese EFLs' metacognitive awareness of reading strategy and reading comprehension
Yen-ju Hou.

UAHCI

Universal Access in Human-Computer Interaction

LEDA: Ludic Engagement Designs for ALL, ArtAbilitation + GameAbilitation

Chair(s): Anthony L Brooks.

Ludic Engagement Designs: Creating Spaces for Playful Learning
Eva Petersson Brooks.

Approaches to e-Learning
Susanne Akrawi Hartvig, Eva Petersson Brooks.

Evaluating Therapeutic Engagement and Expressive Communication in Immersive Multimedia Environments
Ceri Williams.

The Effects of Mirroring in a Playful Virtual Environment: A Comparative Study with Children and Adults Having Impairments
Nanna Borum, Line Gad Christiansen, Henrik Jepsen, Kasper Kristensen, Jacob Lam, David Lindholm, Eva Petersson Brooks, Anthony L Brooks.

Educational Inclusiveness through Ludic Engagement and Digital Creativity
Rachel McCrindle.

Human Computer Confluence in Rehabilitation: Digital Media Plasticity and Human Performance Plasticity
Anthony L Brooks.

Engaging people with intellectual disabilities through games based learning and related technologies
David Brown, Penny Standen, Maria Saridaki, Nick Shopland, Elina Roinioti, Lindsay Evett, Simon Grantham, Pauline Smith.

Human, Computer and Environment - II

Chair(s): Jerzy Charytonowicz.

The Role of Women and Men in Shaping of Old and Modern Households
Przemyslaw Nowakowski.

Shaping an Integrating Kitchen Space with Gesture-based Control System
Agata Bonenberg.

The Impact of Visual Impressions on Human Work Environment – Based on the Example of Industrial Design
Wojciech Bonenberg.

The Meaning of Human-Computer Interaction in the process of obtaining information about best practice of sustainable in Canada
Anna Bac.

Heuristic Methods Aiding Ergonomic Design
Marcin Butlewski.

The Role of Ergonomics in Reducing the Digital Divide Phenomenon in Poland
Marcin Butlewski, Edwin Tytyk.

VAMR

Virtual, Augmented and Mixed Reality

3D environments

Chair(s): To be announced

Development of Multiview Image Generation Simulator for Depth Map Quantization
Minyoung Kim, Ki-Young Seo, Seokhwan Kim, Kyoung Shin Park, Yongjoo Cho.

Authoring System using Panoramas of Real World
Hee Jae Kim, Jong Weon Lee.

Legibility of Letters in Reality, 2D and 3D Projection
Elisabeth Dittrich, Stefan Brandenburg, Boris Beckmann-Dobrev.

Parameter Comparison of Assessing Visual Fatigue Induced by Stereoscopic Video Services
Kimiko Kawashima, Jun Okamoto, Kazuo Ishikawa, Kazuno Negishi.

Real-time Stereo Rendering Technique for Virtual Reality System based on the Interactions with Human View and Hand Gestures
Viet Tran Hoang, Anh Nguyen Hoang, Dongho Kim.

The Virtual Dressing Room: A Perspective on Recent Developments
Michael B Holte.

CCD

Cross-Cultural Design

Social networking and online behavior analysis

Chair(s): Xianghong Sun.

Predicting Mental Health Status on Social Media - A Preliminary Study on Microblog
Bibo Hao, Lin Li, Ang Li, Tingshao Zhu.

What's Your Point? How Chinese and Americans Achieve Their Conversational Aims in Cross-Cultural and Gender Interactions in CMC.
Nancy Marksbury, Qiping Zhang.

Two Sites, Two Voices: Linguistic Differences between Facebook Status Updates and Tweets
Han Lin, Lin Qiu.

An Analysis of Microblogging Behavior on Sina Weibo: Personality, Network Size and Demographics
Lingyu Wang, Weina Qu, Xianghong Sun.

Do we need a new Internet for elderly people? A cross-cultural investigation
Maxie Lutze, Stefan Brandenburg.

A Study of Cross-Culture for a Suitable Information Feeding in Online Social Networks
Arunee Ratikan, Mikifumi Shikida.

Cross-cultural design of IT products and services

Chair(s): Tom Plocher, P. L. Patrick Rau.

A Log Analyzer of Public Transit Guidance Service to Improve a Route Bus Service
Genki Kenjo, Masaki Ito, Takao Kawamura, Kazunori Sugahara.

How to Make Friends in Social network service A Comparison between Chinese and German
Zhe Chen, P. L. Patrick Rau, Bertram Frank, Faranda Ignazio, Jay Zhou, Jamali Seyedsajed, Yong Xiang.

A Human Factors Evaluation of the Spatial Gesture Interface for In-Vehicle Information Systems
Yishuo Liu, Zhihao Lu, Pilsung Choe.

From Global Terminology to Local Terminology: A Review on Cross-Cultural Interface Design Solutions
Elke Duncker, Javed A Sheikh, Bob Fields.

Technology-Based Medical Interpretation for Cross-Language Communication: In Person, Telephone, and Videoconference Interpretation and Their Comparative Impact On Limited English Proficiency (LEP) Patient and Doctor
Margaret McLaughlin, Yujung Nam, Win May, Lourdes Baezconde-Garbanati, Panayiotis Georgiou, Zheng Ahn.

Integration of Characteristics of Culture into Product Design: A Perspective from Symbolic Interactions
Yu-Hsiu Hung, Wei-Ting Li, Yi Sheng Goh.

OCSC

Online Communities and Social Computing

Social Games and entertainment

Chair(s): To be announced

Communication and Avatar Representation during Role-Playing in Second Life Virtual World
Tugba Tokel, Esra Cevizci.

The Effect of Leaderboard Rankings on Players' Perception of Gaming Fun
Charles A Butler.

Metaheuristic Entry Points for Harnessing Human Computation in Mainstream Games
Peter Jamieson, Lindsay D. Grace, Jack Hall, Aditya Wibowo.

Well-being's Predictive Value: A Gamified Approach to Managing Smart Communities
Margeret Hall, Simon Caton, Christof Weinhardt.

AC

Augmented Cognition

Human-Systems Integration R&D Agenda 2050
Chair(s): Kay Stanney.

Panel Discussion

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

Anthropometric data analysis and application
Chair(s): Zhizhong Li, Jianwei Niu.

Evaluation of Muscle Fatigue Based on Surface Electromyography and Subjective Assessment
Qianxiang Zhou, Fang Xie, Zhongqi Liu.

The control method of Manual-Control Rendezvous and Docking
Ting Jiang, Chunhui Wang.

Higher Order Statistics Analyses based on the Mathematical Model of Surface Electromyography
Yan Zhao, Dongxu Li, Jian Zhang.

Model Reconstruction of Human Buttocks and the Shape Clustering
Wang Lijing, Xueli He.

An Interface Design Method for E-commerce Sites' Homepage considering Users' Emotions
Fu Guo, Yaqin Cao, Meng Wang, Yi Ding, Weilin Liu.

Oxygenation and blood volume in skeletal muscle in response to external force
Hao Li, Chunhui Wang, Zheng Wang.

DUXU

Design, User Experience, and Usability

Design, Ergonomics, and Usability - II
Chair(s): Marcelo Soares, Carla Galvão Spinillo.

Interactive Doodles: a Comparative Analysis of the Usability and Playability of Google Trademark Games between 2010 and 2012
Breno Carvalho, Marcelo Soares, Andre Neves, Rodrigo Medeiros.

Evaluating interaction with websites: case study of a government website of the Brazilian Ministry of Labor and Employment
Luis C Paschoarelli, Fabiane Fernandes, José Silva.

Beyond Comprehension: A Usability Study on User Instruction Manual for Stove with Steam Function
Carla Galvão Spinillo, Kelli Smythe.

Ergonomic Evaluation of Websites Focusing on the Human-Computer Interface so as to Improve Access to the Web Especially by People with Visual Disabilities
Andre R Melo, Marcelo Soares, Fabio Campos, Walter Correia.

Customization of Wheelchairs Seats Through Intervention In Support Materials
Elisa Beretta, Fabio Silva, Wilson Kindlein Júnior, Liane Roldo.

Is Reality Real? Thoughts and Conjectures About Culture, Self, Intersubjectivity and Parallel Worlds in Digital Technologies
Ana Carol P. França, Marcelo Soares, Luciano Meira.

Interaction and materiality - I
Chair(s): Teng-Wen Chang.

InTouch: Crossing Social Interaction with Perception
Rung-Huei Liang, Wei-Ming Chung, Hsin-Liu Kao, Tsen-Ying Lin.

A Service Design on Driving like Living
Hung-Pin Hsu.

An Empirical Study of the Characteristics of Interactive Projection Systems in Multi-media Exhibits
Ting-Han Chen, Shiau-Yuan Du.

Texture and Relative Movement in Moving Image
Yen-Ting Cho.

dJOE: Design Jigsaw On sitE a Computational Interface of Displacing Ideas in the Design Productive Process
Chia Hui Nico Lo, Ih-Cheng Lai, Teng-Wen Chang.

Paradoxes In Design - As a Tool for Thought
Pei-Ying Lin.

DUXU

Explore User Experiences through Object to Space
Chair(s): Eui-Chul Jung.

Hypertext in Mutation: The Mapping of a Mythos
Tara Ogaick, WonJoon Chung.

Context as a System, Product as a Component, and the Relationship as Experience
WonJoon Chung, Sara Fortier.

Musical Experience Development Model Based On Service Design Thinking
Sunyoung C Kim, Eui-Chul Jung.

How To Observe, Share and Apply in Design Process? Focusing on International Design Workshops as a Case Study
Nam-Gyu Kang, Hidetsugu Suto.

Multi-touch based standard UI design of car navigation system for providing information of surrounding areas
Jung-Min Choi.

Studies on the Design Marketing Strategies in the Experiential Economy through the Case Study of 'the Starbucks Company'
Yung Joo Jang, Eui-Chul Jung.

A Study of the Satisfaction Level of User Experience in Digital Media Space Accordance with Differences in Flow Characteristic
Youngtae Kim, Eui-Chul Jung.

Gamification @ Work
Chair(s): Janaki Kumar.

Gamification: When it works, when it doesn't
Erika Webb.

Gamification at Work: Designing Engaging Business Software
Janaki Kumar.

Case Study: Identifying Gamification Opportunities in Sales Applications
Joelle Carignan, Sally Lawler Kennedy.

How Gamification and Behavioral Science Can Drive Social Change One Employee at a Time
Susan Hunt Stevens.

Applying Gamification in Customer Service application to Improve Agent's Efficiency and Satisfaction.
Prerna Makanawala, Eliad Goldwasser, Jaideep Godara, Hang Le.

Bridging the Gap Between Consumer and Enterprise Applications through Gamification
Tim C Thianthai, Eric Zhou.

eMobility - The customer's perspective
Chair(s): Roman Vilimek.

Exploring Electric Driving Pleasure - The BMW EV Pilot Projects
Jens Ramsbrock, Roman Vilimek, Julian Weber.

Analyses of Interactions Between Current EV Drivers and the General Public Helps to Identify Likely New Adaptors (and Non-Adaptors) of EVs.
Mark Burgess, Margaret Harris, Naomi King, Sarah Mansbridge.

Social Media in the Product Development Process of the Automotive Industry: A New Approach
Andreas Klein, Götz Spiegel.

Adaptations in Driving Efficiency with Electric Vehicles
Magnus Helmbrecht, Klaus Bengler, Roman Vilimek.

The Timeframe of Adaptation to Electric Vehicle Range
Stefan Pichelmann, Thomas Franke, Josef Krems.

Mobile App Support For EV Drivers: A Review of Today's Marketplace and Future Directions
Tai Stillwater, Justin Woodjack, Michael Nicholas.

Connecting Electric Vehicles and Green Energy
Peter Dempster.

DAPI

Distributed, Ambient and Pervasive Interactions

Aesthetics in Interaction
Chair(s): Matthias Rauterberg.

Aesthetics and Design for Group Music Improvisation
Mathias Funk, Bart Hengeveld, Joep Frens, Matthias Rauterberg.

Experience the World with Archetypal Symbols: A New Form of Aesthetics
Huang-Ming Chang, Leonid Ivonin, Marta Diaz, Andreu Catala, Wei Chen, Matthias Rauterberg.

Attractiveness of an Interactive Public Art Installation
Jun Hu, Duy Le, Mathias Funk, Feng Wang, Matthias Rauterberg.

Smart Technology In The Field of Interior Design
Ela T. Poursani.

HCI

Human-Computer Interaction

Games and Usability Chair(s): Ute Klotz.	User Experience for Creating Vision Chair(s): Kazuhiko Yamazaki.	Designing and Developing for the Smart-Device World Chair(s): Stephen Kimani, Shah Rukh Humayoun.	HCI advances in Health Care Systems Chair(s): Joyram Chakraborty.
Navigation Experiences - A Case Study of Riders Accessing an Orientation Game via Smartphone Annika Worpenberg, Barbara Grueter. **A Biofeedback Game for Training Arousal Regulation during a Stressful Task: The Space Investor** Olle Hilborn, Henrik Cederholm, Jeanette Eriksson, Craig Lindley. **Design Guidelines for Audio Games** Franco E Garcia, Vânia Paula de Almeida Neris. **Designing Serious Videogames through Concept Maps** Jaime Sanchez, Matías Espinoza. **Assessing the Impact of Latency and Jitter on the Perceived Quality of Call of Duty Modern Warfare 2** Rahul Amin, France L Jackson, Juan Gilbert, James Martin, Terry Shaw. **The development interactive toy for preschool child by cause and effect relationship** Yinghsiu HUANG, Maggie Sheu.	**Case Study for Experience Vision - Application for PC -** Kanako Ariya. **Structured Scenario-Based Design Method for Experience Vision** Yoshihiro Ueda, Kentaro Go, Katsumi Takahashi, Seiji Hayakawa, Kazuhiko Yamazaki, Koji Yanagida. **User Research for Experience Vision** Seiji Hayakawa, Kazuhiko Yamazaki, Koji Yanagida, Kentaro Go, Katsumi Takahashi, Yoshihiro Ueda. **Visualization and Evaluation for Experience Vision** Katsumi Takahashi, Kazuhiko Yamazaki, Seiji Hayakawa, Koji Yanagida, Kentaro Go, Yoshihiro Ueda. **Method Format for Experience Vision** Koji Yanagida, Yoshihiro Ueda, Kentaro Go, Katsumi Takahashi, Seiji Hayakawa, Kazuhiko Yamazaki. **Case Study for Experience Vision- Designing Notebook PC** Der-Jang Yu, Ming-Chuen Chuang, Steven Tseng. **Proposal for Experience Vision** Kazuhiko Yamazaki, Kentaro Go, Seiji Hayakawa, Yoshihiro Ueda, Koji Yanagida, Katsumi Takahashi. **USE: User Strategic Experience** Kevin Clark.	**My-World-in-My-Tablet: an Architecture for People with Physical Impairment** Mario Caruso, Febo Cincotti, Francesco Leotta, Massimo Mecella, Angela Riccio, Francesca Schettini, Luca Simione, Tiziana Catarci. **Developing Mobile Apps Using Cross-Platform Frameworks: A Case Study** Shah Rukh Humayoun, Stefan Ehrhart, Achim Ebert. **A Framework for Community-Oriented Mobile Interaction Design in Emerging Regions** Monica Sebillo, Genny Tortora, Giuliana Vitiello, Pasquale Di Giovanni, Marco Romano. **Supportive User Interfaces for MOCOCO (Mobile, Contextualized and Collaborative) Applications** Bertrand David, René Chalon, Florent Delomier. **The Ecological AUI (Auditory User Interface) Design and Evaluation of User Acceptance for Various Tasks on Smartphones** Myounghoon Jeon, Ju-Hwan Lee. **Sensor-based Adaptation of User Interface on Android Phones** Tor-Morten Gronli, Gheorghita Ghinea, Jarle Hansen.	**Designing, Implementing and Testing a Mobile Application to Assist with Pediatric-to-Adult Health Care Transition** Jeremy A Dixon, Josh Dehlinger, Shannan Dixon. **SP-CIP: A Secure and Privacy Aware Patient Centric Information Portal** Subrata Acharya. **Achieving Electronic Health Record Access from the Cloud** Brian Coats, Subrata Acharya. **Cross Cultural Design Considerations in HealthCare** Joyram Chakraborty. **Discussion of Some Challenges Concerning Biomedical Ontologies** Osama B. Rabie, Anthony Norcio. **Healthcare Interoperability: CDA Documents Consolidation Using Transport Record Summary (TRS) Construction** Philip DePalo, Kyung Eun Park, Yeong-Tae Song.

HIMI

Human Interface and the Management of Information

HCI Studies in Management Information Systems (II)

Chair(s): Fiona Fui-Hoon Nah.

Usability of Performance Dashboards, Usefulness of Operational and Tactical Support, and Qualty 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 Elrod, 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.

Emboded Interaction and Communication

Chair(s): Tomio Watanabe.

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
Naruhiro 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
Masanao KOEDA, Yuki KONBU, Hiroshi Noborio.

The Design, Development, and Application of Simulation Systems to Meet Training Needs

Chair(s): Nickolas Macchiarella.

Burglary Crime Analysis Using Logistic Regression
Daniel Antolos, Dahai Liu, Andrei Ludu, Dennis A Vincenzi.

Designing Simulation to Meet UAS Training Needs
Dennis A Vincenzi, Brent Terwilliger, David Ison.

Developing a High-Fidelity Simulation and Training to Improve Coordination between Aerospace Specializations
Michael B. Hein, Paul Carlson, Paul Craig, Rick Moffett, Glenn Littlepage, Andrea Georgiou.

Safety Culture: An Examination of the Relationship Between a Safety Management System and Pilot Judgment Using Simulation in Aeronautics
Stuart Campbell.

Articulating an Experimental Model for the Study of Game-Based Learning
Christina Frederick-Recascino, Dahai Liu, Shawn Doherty, Jason Kring, Devin Liskey.

Improving User Performance in Conditional Probability Problems with Computer-Generated Diagrams
Vincent J Kellen, Susy Chan, Xiaowen Fang.

UAHCI

continues...

Universal Access in Human-Computer Interaction

eInclusion - 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.

WEDNESDAY 16:00 - 18:00

UAHCI

Inclusive Technologies
Chair(s): Simeon Keates.

Mobile Technology and E-Inclusion
John Isaacs, Santiago Martinez, Ken C Scott-Brown, Allan Milne, 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.

Creativity, Mobile Multimedia Systems, Human and Social Factors in Software: Communicability Excellence for All
Chair(s): Francisco Cipolla-Ficarra.

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 Sfair Sunye, Walter Shima, Ligia Setenareski.

CCD

Cross-Cultural Design

HCI-based welfare system design: Studies from two Asian countries
Chair(s): Dyi-Yih Michael Lin, Chikamune Wada.

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, Shiaw-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
Norihiro Uemi.

Designing a metal hydride actuator with human-compatible softness and high power-to-weight ratio for future quality-of-life technologies
Shuichi Ino, Mitsuru Sato, Minako Hosono, Chikamune Wada, Shinichi 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.

Design and Research in Multinational Companies
Chair(s): Paul Fu.

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 Vasanth, Seema Swamy.

OCSC

Online Communities and Social Computing

User behaviour in social communities - II

Chair(s): To be announced

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

Augmented Cognition

New tools, techniques, and applications

Chair(s): Santosh Mathan.

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 Akcakaya, Umut Orhan, Deniz Erdogmus.

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

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

Real-time Vigilance Estimation Using Mobile Wireless Mindo EEG Device with Spring-loaded Sensors
Li-Wei Ko, Chun-Hsiang Chuang, Chih-Sheng Huang, Yen-Hsuan Chen, Shao-Wei Lu, Lun-De Liao, Wan-Ting Chang, Chin-Teng Lin.

Bio-reckoning: Perceptual User Interface Design for Military Training
Tami Griffith, Deanna Rumble, Pankaj Mahajan, Cali M. Fidopiastis.

Removal of Ocular Artifacts from EEG using Learned Templates
Max Quinn, Santosh Mathan, Misha Pavel.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

Product Fit

Chair(s): Ravindra S. Goonetilleke.

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

continues...

Design, User Experience, and Usability

Interaction and materiality - II

Chair(s): Teng-Wen Chang.

Proactive Home Furnishings: Inspiring From Interactive Art for Designing Functional Aesthetics in a Space
Scottie Chih-Chieh Huang.

The cross-disciplinary education experience of human interface design
Chung-Wen Hung, Teng-Wen Chang, Lung-Chu Lu.

The Interactive Media between Human and the Sacred: An Example for Taiwanese Spiritual Practice
Pi-Fen Wang.

Designing for a Thumb: An Ideal Mobile Touchscreen Interface for Chinese Users
Qian Fei.

Desirability of a Teaching and Learning Tool for Thai Dance Body Motion
Worawat Choensawat, Kingkarn Sookhanaphibarn, Chommanad Kijkhun, Kozaburo Hachimura.

LOCATION, LOCATION, LOCATION: ABOUT HOME NETWORKING DEVICES' LOCATIONS & FEATURES
Abbas Moallem.

DUXU

SciFi and HCI: Trends and Issues in Movies and Television
Chair(s): Masaaki Kurosu.

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.

Product Design
Chair(s): To be announced

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
Meng-Dar Shieh.

Design of Experience: Measuring the Co-production with the Consumer Engagement during the Product Development Process
Sabrina T Oliveira, Virgínia Kistmann, Adriano Heemann, Maria Lucia L. R. Okimoto.

Evaluation of A New Cockpit Color Concept Under Mesopic Lighting for Urban Driving
Martin Götze, Antonia S. Conti, Andreas Keinath, Tarek Said, Klaus Bengler.

Shopping and Banking
Chair(s): To be announced

Interactive Shopping Experience through Immersive Store Environments
Kunal Mankodiya, Rolando Martins, Jonathan Francis, Elmer Garduno, Rajeev Gandhi, Priya Narasimhan.

Design Guidelines for Coffee Vending Machines
Tim Schneidermeier, Manuel Burghardt, Christian Wolff.

Designing Ludic Engagement in an interactive Virtual Dressing Room system – A comparative study
Yi Gao, Eva Petersson Brooks.

The Mobile Drive-thru service by a Fast food restaurant App
Joongsup Lee.

A Study on Time Differences Between Actual Advertisement Viewing and Retrospective Perception Using Differing Design Layouts
Miao-Hsien Chuang, Chiwu Huang.

Designing for the web user experience
Chair(s): To be announced

Re-Thinking Bookmark Management – Less Choice is more Efficient
Siu-Tsen Shen, Stephen D Prior.

Towards Determinants of User-Intuitive Web Interface Signs
Muhammad Nazrul Islam.

Geospatial Web Interfaces, why Are They so «Complicated»?
Erick Lopez-Ornelas, Rocio Abascal-Mena, J. Sergio Zepeda-Hernandez.

Usability of Virtual Worlds
Haind Lu, Tobias Brockmann, Stefan Stieglitz.

Analysis of Query Entries of a Job Search Engine
Yeolib Kim.

Usability design and testing of an interface for search and retrieval of social web data
Dimitris Spiliotopoulos, Ruben Boumeester, Georgios Kouroupetroglou, Pepi Stavropoulou, Dimitrios Tsonos.

DUXU

Design, User Experience and Usability in Tourism-related Applications
Chair(s): Lorenzo Cantoni.

Examining User Experience of Cruise Online Search Funnel
Asta Adukaite, Alessandro Inversini, Lorenzo Cantoni.

Meta-design Approach for Mobile Platforms Supporting Creative Tourism Experiences
Iis P Tussyadiah.

The Effect of Feedback within Social Media in Tourism Experiences
Jeongmi (Jamie) Kim, Dan Fesenmaier, Steven Johnson.

The Travel Machine: Mobile UX Design that Combines Information Design with Persuasion Design
Aaron Marcus, Theresa Karolina Schieder, Lorenzo Cantoni.

Fulfilled and Missed Requirements for Online Reservation Systems: An Empirical Investigation of Austrian and Swiss Hotels
Gerhard F. Knolmayer, Viola Sini, Polina Chelnokova.

Sharing Life Experiences with Friends Based on Individual's Locality
Mohsin Ali Memon, Jiro Tanaka.

Globalization and Localization of DUXU
Chair(s): Rüdiger Heimgärtner, Emilie Gould.

Lessons Learned During a HCI Design Process in Intercultural Context
Alkesh Solanki, Rüdiger Heimgärtner.

Lessons from Intercultural Project Management for the Intercultural HCI Design Process
Yvonne G. Schoper, Rüdiger Heimgärtner.

Arabic Website Design: User Evaluation from a Cultural Perspective
Nouf Khashman, Andrew Large.

Intercultural Design for Use – Extending Usage-Centered Design by Cultural Aspects
Helmut Windl, Rüdiger Heimgärtner.

User Experience on Product Detail Display Page at Tmall.com
Jie Gao, Yujing Zeng, Xiaopeng Guo, Zhenghua Zhang.

Dot, Line, Network: Helping Individuals Make Sense of «New Data"
Emilie Gould.

DAPI

Distributed, Ambient and Pervasive Interactions

Models for Spatial and Embodied Interaction
Chair(s): Rainer Groh, Dietrich Kammer, Jan Wojdziak.

Understanding the influence of viewpoint and image geometry in linear perspective paintings to enhance embodied interaction
Franziska Hannss, Rainer Groh.

A User-Centered-Design Perspective on Systems to Support Co-located Design Collaboration
Javier Quevedo-Fernández, Derya Ozcelik Buskermolen, Jean-Bernard Martens.

MTIS: A Multi-Touch Text Input System
Michael Schmidt, Anja Fibich, Gerhard Weber.

Improving motive-based search: Utilization of vague feelings and ideas in the process of information seeking
Mandy Keck, Martin Herrmann, Andreas Both, Ricardo Gaertner, Rainer Groh.

Atmospheres and Socio-Spatial Patterns: Designing Hyperspaces for Knowledge Work
Jörg Noennig, Lars Schlenker.

Parametric Ideation: Interactive Modeling of Cognitive Processes
Jörg Noennig, Sebastian Wiesenhütter.

HAS

Human Aspects of Information Security, Privacy and Trust

The Soft Foundations of Cybersecurity Science
Chair(s): Theo Tryfonas, Bryan Cline.

Factors Influencing the Adoption of Encryption to Secure Data in the Cloud
Ken E. Stavinoha.

Strategic Stakeholder Interaction Analysis of Cloud-based Mobile Applications Use of Privacy-Sensitive End Users
Kalliopi Anastasopoulou, Theo Tryfonas, Spyros Kokolakis.

Modeling Security Policy and the Effect for End-Users
Kevin Jones, Kizito Salako.

Constructing Positive Influences for User Security Decisions to Counter Corporate or State Sponsored Computer Espionage Threats
Martyn Styles.

High-Level Design for a Secure Mobile Device Management System
Keunwoo Rhee, Sun-Ki Eun, Mi-Ri Joo, Jihoon Jeong, Dongho Won.

Recognition of Human Identity by Detection of User Activity
Giuseppe Scardino, Ignazio Infantino, Filippo Vella.

A Privacy-level Model of User-Centric Cyber-Physical Systems
Nikolaos E. Petroulakis, Ioannis Askoxylakis, Apostolos Traganitis, George Spanoudakis.

HCI

Human-Computer Interaction

Computational Intelligence for Signal and Image Processing -III

Chair(s): Ping Guo, Fuqing Duan.

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 Stimuls Presentation
Cai Zhang.

Kernel Fuzzy Similarity Measure-Based Spectral Clustering for Image Segmentation
Yifang Yang, Yuping 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.

HCI in aviation

Chair(s): To be announced

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, Sérgio Ferreira, João Sousa, Gil Gonçalves.

Target Orientation Effects on Movement Time in Rapid Aiming Tasks
Yugang 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, Kazuhiko Yamazaki.

Cultural and Sociotechnical perspectives in HCI

Chair(s): Jose Abdelnour-Nocera, Rüdiger Heimgärtner.

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 Management Systems Case Study
Siang-Ting Siew, Alvin W. Yeo, Tariq Zaman.

A Cross-Cultural Evaluation of HCI Student Performance - Reflections for the Curriculum
Jose Abdelnour-Nocera, Ann Austin, Mario Michaelides, Sunila Modi.

A Framework to Support Social-Collaborative Personalized e-Learning
Maria De Marsico, Andrea Sterbini, Marco Temperini.

Aging Computer Users

Chair(s): Christopher M. Schlick, Nicole Jochems.

Icon Design for Older Users of Project Management Software
Christina Bröhl, Jennifer Bützler, 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.

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

HCI

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 Marinc, Carsten Stocklöw, Martin Majewski.

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

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-Ecklundt, 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

Human Interface and the Management of Information

HCI 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
Soussan Djamasbi, Vance Wilson.

Search Results Pages and Competition for Attention Theory: An Exploratory Eye-Tracking Study
Soussan Djamasbi, 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.

Relationality Design and Relationality-oriented Systems Design - I

Chair(s): Katsunori Shimohara.

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 Itoi.

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
Noriko Suzuki, Tosirou Kamiya, Ichiro Umata, Sadanori Ito, Shoichiro Iwasawa, Mamiko Sakata, Katsunori Shimohara.

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

Interlocked Surfaces: A Dynamic Multi-Device Collaboration System
Hiroyuki Kamo, Jiro Tanaka.

Tactile and haptic interaction in HCI

Chair(s): Kentaro Kotani, Miwa Nakanishi.

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

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

Development of Dual Tactor Capability for a Soldier Multisensory Navigation and Communication System
Linda R. Elliott, Bruce Mortimer, Roger Cholewiak, 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.

EPCE

Engineering Psychology and Cognitive Ergonomics

HCI Aspects of Optimal Healing Environments
Chair(s): Herbert Plischke, John A. Ives.

Web-based architecture for at-home health systems
Tiffany Chua, Mark Bachman.

Using Light Guiding to Structure Everyday Life
Guido Kempter, Walter Ritter, Markus Canazei.

Novel Chromatic Pupillometer: Portable Pupillometry Diagnostic System
Peyton Paulick, Philipp Novotny, Mark Bachman, Herbert Plischke.

Creating User-Friendly Healing Environments with Adaptable Lighting for Senior Citizens
Christoph Nedopil, Cornelia S.M. Schauber, Sebastian Glende.

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.

UAHCI

Universal Access in Human-Computer Interaction

Ergonomics in Architecture
Chair(s): Jerzy Charytonowicz.

Facade Retention Accomplishments in View of Ergonomic Design
Jerzy Charytonowicz, Maciej Skowronski.

Dwelling Houses of Building Cooperative Schlesische Heimstätte in Wrocław (Former Breslau) and in Silesia in 1919-1941 as A Precursor of Modern Ergonomics in Architecture
Jadwiga Urbanik.

Spatial Transformations of Architect's Workplace due to Development of Computer Aided Design
Elzbieta Trocka-Leszczynska, Joanna Jablonska.

Optimum Building Shapes for Energy Saving
Andrzej Skowronski.

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.

Interaction Models and Techniques for Ageing and Impairment - I
Chair(s): Patrick Langdon.

Effect of Impairment on Upper Limb Performance in an Ageing Sample Population
Newton Howard, Ross Pollock, Joe Prinold, Joydeep Sinha, Di Newham, Jeroen Bergmann.

Inclusive Design and the Bottom Line: How Can Its Value Be Proven To Decision Makers?
Anna Mieczakowski, Sue Hessey, P. John Clarkson.

A Conceptual Client-Designer Framework: Inspiring the Development of Inclusive Design Interactive Techniques
Emilene Zitkus, Patrick Langdon, P. John Clarkson.

Designing ethnographic encounters for enriched HCI
Jo-Anne Bichard, Catherine Greene, Gail Ramster, Tom Staples.

Designing Intrinsically Motivating User Interfaces for the Ageing Population
Tanya Goldhaber, Patrick Langdon, P. John Clarkson.

User Target Intention Recognition from Cursor Position using Kalman Filter
Gökçen Aydemir, Patrick Langdon, Simon Godsill.

Older Adults' Perceptions and Use of Technology: A Novel Approach
Cara Fausset, Linda Harley, Sarah Farmer, Brad Fain.

Multimodal Interfaces: Designing Across Boundaries - I
Chair(s): Luisa Paraguai, Ana Isabel B. B. Paraguay.

BioCyberUrban parQ: an ubiquitous and pervasive computing system for environmental integration
Suzete Venturelli, Francisco de P. Barretto, André Bassani De Freitas.

Multimedia Information Delivery on Mobile Cultural Applications
Heloisa Candello.

Universal Access: the "Universal" is Not as it Seems
Helia Vannucchi, Alexandre Torrezam.

Experimental Art with Brain Controlled Interfaces
Tania Fraga, Mauro Pichiliani, Donizetti Louro.

Dead-Until-Touched: How Digital Icons Can Transform the Way We Interact With Information
Isabel Cristina G. Froes.

Including Uncertainty Treatment on the Accessibility Assessment of DOSVOX system
Maria Isabel Farias Carneiro, José Eustáquio Rangel de Queiroz, Joseana Macêdo Fechine.

A Compendium for the Assorted Challenges Encountered in Different Stages of Sign Language Recognition
Ketki Vijay Paranjape, Nilakshi Suhas Naphade, Suparna Chandrashe Chafekar, Ketaki Dhananjay Deshpande, Prasad R Jayashree.

VAMR

Virtual, Augmented and Mixed Reality

Design and development support environments
Chair(s): To be announced

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 Augmented Reality for on-site Assembly Assistance Systems
Rafael Radkowski, James Oliver.

Integrated Platform for an Augmented Environment with Heterogeneous Multimodal Displays
Jaedong Lee, Sangyong Lee, Gerard Jounghyun Kim.

Ultra Low Cost Eye Gaze Tracking for Virtual Environments
Matthew E Swarts, Jin Noh.

Health and Rehabilitation Applications
Chair(s): To be announced

Human-Computer Confluence for Rehabilitation Purposes after Stroke
Rupert Ortner, David Ram, Alexander Kollreider, Harald Pitsch, Joanna Wojtowicz, Guenter Edlinger.

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 García-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

Cross-Cultural Design

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

Modeling of a Human Decision-making Process with Prospect Theory
Dongmin Shin, Hokyoung 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 Motamedi, Mehdi Hasheminezhad, Pilsung Choe.

User Experience with Chinese Handwriting Input on Touch-Screen Mobile Phones
Qin Gao, Bin Zhu, P. L. Patrick Rau, Shilpa Vyas, Cuiling Chen, Hui Li.

Re-engaging with Cultural Engagement: Innovative Product Design of Cultural Field Experience
Tsen-Yao Chang, Fang-Wu Tung.

AC

continues...

Augmented Cognition

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.

Neurophysiological Predictors of Team Performance
Robin Johnson, Chris Berka, David Waldman, Pierre Balthazard, Pless Nicola, Thomas Maak.

Quantifying resilience to enhance individualized training
Brent Winslow, Meredith B Carroll, David Jones, Frank Hannigan, Kelly S. Hale, Kay Stanney, Peter Squire.

How Tasks Help Shape the Neurodynamic Rhythms and Organizations of Teams
Ronald Stevens, Trysha Galloway, Gwendolyn Campbell, Chris Berka, Pierre Balthazard.

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

THURSDAY 8:00 - 10:00

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
Amar R Marathe, Anthony J Ries, Kaleb McDowell.

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

Translation of EEG-based Performance Prediction Models to Rapid Serial Visual Presentation Tasks
Jonathan Touryan, Greg Apker, Scott Kerick, Brent Lance, Anthony J Ries, Kaleb McDowell.

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
Jonathan Touryan, Anthony J Ries, Paul Weber, Laurie Gibson.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

Human Factors in Healthcare - I
Chair(s): Vincent Duffy.

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?
Dinara Saparova, Josipa Basic, Yunhui Lu, Francis Kibaru, Yanfei Ma, Borchuluun Yadamsuren.

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.

DUXU

Design, User Experience, and Usability

Children Interactive Learning Experience
Chair(s): Maysoon F. Abulkhair.

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 Taileb, Reem Al Saggaf, Amal Al Ghamdi, Maha Al Zebaidi, 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-Wabil.

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

Improving Autistic Children's Social Skills using Virtual Reality
Omaima Bamasak, Roa'a Braik, Hadeel Al-Tayari, Shatha Al-Harbi, Ghadeer Al-Semairi, Malak Abu-Hnaidi.

User experience in knowledge management
Chair(s): To be announced

User-Centered Evaluation of a Discovery Layer System with Google Scholar
Tao Zhang.

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 Drexler, Niels Pinkwart.

ARS Module of Contents Management System using Cell Phones
Toshikazu Iitaka.

DUXU

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

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
Yuanyuan Chen, Zhengjie Liu, Juhani Vainio.

Modelling User Behaviour and Experience – the R2D2 Networks Approach
Amela Karahasanović, Asbjørn Følstad.

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 Cecília C. Baranauskas.

DAPI

Distributed, Ambient and Pervasive Interactions

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

Subtle, Natural and Socially Acceptable Interaction Techniques for Ringterfaces —Finger-Ring Shaped User Interfaces
Mikko J Rissanen, Samantha Vu, Owen Noel Newto Fernando, Natalie Pang, Schubert Foo.

Proxemic Interaction Applied to Public Screen in Lab
Huiliang Jin, Tao Xu, Bertrand David, René Chalon.

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 Paelke, Holger Fischer.

Enabling Interactive Surfaces by Using Mobile Device and Conductive Ink Drawing
Chiu Shu-Chuan, Chiang Chen-Wei, Kiyoshi Tomimatsu.

Comparative Evaluation among Diverse Interaction Techniques in Three Dimensional Environments
Giannis Drossis, Dimitris Grammenos, Maria Bouhli, Ilia Adami, Constantine Stephanidis.

HAS

Human Aspects of Information Security, Privacy and Trust

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

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
Raquel Torres Peralta, Antons Rebguns, Ian Fasel, Kobus Barnard.

Investigating an Intrusion Prevention System For Brain-Computer Interfaces
Saul D Costa, Dale Stevens, Jeremy A Hansen.

HCI

Human-Computer Interaction

Capturing the context of use	Gamification: How to motivate your users with game mechanics	Affective Interaction	Gaze-based interaction
Chair(s): To be announced	Chair(s): Erika Webb.	Chair(s): Min Cheol Whang, Chang S. Nam.	Chair(s): To be announced
Using the Common Industry Format to Document the Context of Use Nigel Bevan. **Analyzing varying environmental contexts in public transport** Stephan Hörold, Cindy Mayas, Heidi Krömker. **Applying Contextual Design to Multiple Teams in Emergency Management** Tania E Randall, Jacqelyn Crebolder, Gerard Torenvliet, Jeremy Leal. **Principled Ways of Finding, Analysing and Planning for Communicative Overhead in Interaction Technology for Fashion Industry** Jason S. Yang, Sean Rintel, Stephen Viller. **An Exploratory Study to Understand Knowledge-sharing in Data-intensive Science** Jongsoon Park, Joe Gabbard. **Combinatorial Task Planning Using Hierarchical Reinforcement Learning** Dan Zong. **Unifying Conceptual and Spatial Relationships between Objects in HCI** David W Blezinger, Ava Fatah gen. Schieck, Christoph Hoelscher.	**The Motivational GPS: Would a Rat Press a Lever to Get a Badge?** Kes Sampanthar. **Building Internal Enthusiasm for Gamification in Your Organization** Erika Webb, Andrea Cantu. **Best Practices for Using Enterprise Gamification to Engage Employees and Customers** Marta Rauch. **Gamifying Support** Chad Sampanes. **The Business Love Triangle-Smartphones, Gamification, and Social Collaboration** Michele Snyder, Lynn Rampoldi-Hnilo.	**Vision Based Body Dither Measurement for Estimating Human Emotion Parameters** Sangin Park, Deajune Ko, Min Cheol Whang, Eui Chul Lee. **Extreme Motion Based Interaction for Enhancing Mobile Game Experience** Youngwon Kim, Jong-gil Ahn, Gerard Jounghyun Kim. **Emotion Sharing with the Emotional Digital Picture Frame** Kyoung Shin Park, Yongjoo Cho, Minyoung Kim, Ki-Young Seo, Dongkeun Kim. **Brain Function Connectivity Analysis for Recognizing Different Relation of Social Emotion in Virtual Reality** Jonghwa Kim, Sangmin Ann, Sangin Park, Dongkeun Kim, Min Cheol Whang. **Context-Aware Multimodal Sharing of Emotions** Maurizio Caon, Leonardo Angelini, Yong Yue, Omar Abou Khaled, Elena Mugellini. **Affect-based Retrieval of Landscape Images using Probabilistic Affective Model** Yunhee Shin, Eun Yi Kim, Tae-Eung Sung.	**Study on Cursor Shape Suitable for Eye-gaze Input System** Atsuo Murata, Raku Uetsugi, Takehito Hayami. **Proposal of Estimation Method of Stable Fixation Points for Eye-gaze Input Interface** Atsuo Murata, Takehito Hayami, Keita Ochi. **Study on Character Input Methods Using Eye-gaze Input Interface** Atsuo Murata, Kazuya Hayashi, Makoto Moriwaka, Takehito Hayami. **Experimental Study toward Modeling of the Uncanny Valley Based on Eye Movements on Human/Non-Human Faces** Yoshimasa Tawatsuji, Kazuaki Kojima, Tatsunori Matsui. **Head-Free, Remote Gaze Detection System Based on Pupil-Corneal Reflection Method with Using Two Video Cameras - One-Point and Nonlinear Calibrations -** Yoshinobu Ebisawa, Kiyotaka Fukumoto. **Sentimental Eyes!** Amitava Das, Björn Gambäck. **Study of Eye-glance Input Interface** Dekun Gao, Naoaki Itakura, Tota Mizuno, Kazuyuki Mito.

HIMI

Human Interface and the Management of Information

Relationality Design and Relationality-oriented Systems Design - II

Chair(s): Katsunori Shimohara.

Modeling a human's learning processes to support continuous learning on human computer interaction
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, Hiroyoki Sato, Tomohiro Yamaguchi.

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

CoPI: A Web-based Collaborative Planning Interface Platform
Mohammad K Hadhrawi, Mariam Nouh, Anas Alfaris, Abel Sanchez.

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

Improvement in Learning and Educational Environments using ICT

Chair(s): Takahito Tomoto, Takako Akakura.

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, Takahito Tomoto, Takehiro Furuta, Takako Akakura.

Development of a Computer Programming Learning Support System Based on Reading Computer program
Haruki Kanamori, Takahito Tomoto, Takako Akakura.

Development and Evaluation of a Mobile Search System for Science Experiments to Connect School Knowledge to Common Knowledge
Takahito Tomoto, Tomoya Horiguchi, Tsukasa Hirashima.

An Experimental Environment for Analyzing Collaborative Learning Interaction
Yuki Hayashi, Yuji Ogawa, Yukiko Nakano.

Human Factors in Collaborative Safe Driving

Chair(s): Makoto Itoh.

Comparison of Cognitively Impaired, Healthy Non-Professional and Healthy Professional Driver Behavior on a Small and Low-Fidelity Driving Simulator
Makoto Itoh, Masashi Kawase, Keita Matsuzaki, Katsumi Yamamoto, Shin'ichi Yokoyama, Masaaki Okada.

Human Behavior of Prioritizing Right-Turning Vehicles and Traffic Flow at Intersections
Hironori Suzuki, Yoshitaka Marumo, Tsuyoshi Katayama, Yuuki Yazawa.

Approach to Haptic Guidance Control in Steering Operation based on Cooperative States between Driver and Control System
Takahiro Wada, Ryota Nishimura, Seiji Sugiyama.

Influence of Deceleration Intention Indicating System of Forward Vehicle on Driver Behavior
Yuichi Saito, Shin Kato, Makoto Itoh, Toshiyuki Inagaki.

Autonomous Locomotion Based on Interpersonal Contexts of Pedestrian Areas for Intelligent Powered Wheelchair
Takuma ITO, Minoru Kamata.

Proposal of Non-dimensional Parameter Indices to Evaluate Safe Driving Behavior
Toshihiro Hiraoka, Shota Takada, Hiroshi Kawakami.

Acceptable System Error of Collision Avoidance System Based on the Integrated Error of Driver and System
Keisuke Suzuki, Makoto Mochizuki.

EPCE

Engineering Psychology and Cognitive Ergonomics

Cognitive Aspects in complex visual environments

Chair(s): To be announced

Towards a Model for Predicting Intention in 3D Moving-Target Selection Tasks
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
Patrizia Knabl, Helmut Többen.

Visuospatial Processing and Learning Effects in Virtual Reality Based Mental Rotation and Navigational Tasks
Thomas D. Parsons, Christopher G. Courtney, Michael Dawson, Albert "Skip" Rizzo, Brian J. Arizmendi.

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
Yiyuan Zheng.

THURSDAY 10:30 - 12:30

UAHCI

Universal Access in Human-Computer Interaction

Universal Access: Interaction Science - I

Chair(s): Gisela Susanne Bahr.

Interaction Science and the Aging User: Techniques to Assist in Design and Evaluation
Sandy Marshall.

Tilt-based Support for Multimodal Text Entry on Touchscreen Smartphones: Using Pitch and Roll
Sandi Ljubic, Mihael Kukec, Vlado Glavinic.

An Approach to Universal Interaction on the Case of Knowledge Transfer
Saša Mladenović, Andrina Granić, Goran Zaharija.

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 Visuo-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 Burzagli, Pier Luigi Emiliani.

Build up virtual environments using gestures
Alexander Marinc, Carsten Stocklöw, Andreas Braun.

Interaction Models and Techniques for Ageing and Impairment - II

Chair(s): Patrick Langdon.

Improvements in Interface Design through Implicit Modeling
Patrick K. A. Wollner, Ian Hosking, Patrick Langdon, P. John Clarkson.

Volunteer Website for the Older Adult
Melissa L McDonald.

Elderly's Barriers and Requirements for Interactive TV
Mai Baunstrup, Lars Bo Larsen.

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
Pradipta Biswas, Patrick Langdon.

Age-Related Differences in Factors Contributing to Affective Experiences among Japanese Adults
Qin Tang, Wendy Rogers, Hiroyuki Umemuro.

Multimodal Interfaces: Designing Across Boundaries - II

Chair(s): Ana Isabel B. B. Paraguay, Luisa Paraguai.

Odours and spatialities: designing sensory experiences
Luisa Paraguai.

Beyond Rationality: Affect as a Function of User Interfaces
Bernardo Santos Schorr, Rejane Spitz.

Designing Wearable Bio-interfaces: a Transdisciplinary Articulation between Design and Neuroscience
Rachel Zuanon.

To Embody the N-Body: Spatial Perception Utilized in Large-Scale Visualizations
Julieta C Aguilera-Rodríguez.

«Multicultural/Cross-Cultural Emotional Design»: The usage of Pictographs to Design Emotional Interactive Environments.
Haytham Nawar, Hala A. Gabr.

Using Pupil Size Variation during Visual Emotional Stimulation in Measuring Affective States of Non-Communicative Individuals
Dania Al-Omar, Areej Al-Wabil, Manar Hosny Fawsi.

Multimodal Synthesizer for Russian and Czech Sign Languages and Audio-Visual Speech
Alexey A. Karpov, Zdenek Krnoul, Milos Zelezny, Andrey Ronzhin.

VAMR

Virtual, Augmented and Mixed Reality

Social and Visual Technologies: New Trends in the Improvement of University Education

Chair(s): David Fonseca.

Teaching 3D arts Using Game Engines for Engineering and Architecture
Jaume Duran, Sergi Villagrasa.

A Mobile Personal Learning Environment Approach
Francisco José García-Peñalvo, Miguel Ángel Conde, Alberto Del Pozo.

Real-time Dynamic Lighting Control of an AR Model Based on a Data-Glove with Accelerometers and NI-DAQ
Isidro Navarro, Alex Rodiera.

Geo-Elearning. Geolocated Teaching in Urban Environments through Mobile Devices. A Case Study and Work in Process.
Ernesto Redondo, Albert Sanchez, David Fonseca, Alberto Peredo.

DCS 3D operators in industrial environments - New HCI Paradigm for the Industry
Manuel Pérez-Cota, Miguel Ramón González-Castro.

The building as the interface. Architectural design for education in virtual worlds.
Luis A Hernandez Ibañez, Viviana Barneche Naya.

CCD

Cross-Cultural Design

Design for Feeling
Chair(s): Rungtai Lin, John Kreifeldt.

Designing "Hometown Feeling" into Products
Chiu-Wei Chien, Si-Jing Chen, Jun-Liang Chen.

Analysis of Cognition Difference of Visual and Imagine Haptic Inputs on Product Texture
Hui-Yun Yen, Christopher LIN, Rungtai Lin.

The Influence of the Nature of Need for Touch, Handcraft Material and Material Color on the Motivation of Touch
Si-Jing Chen, Chih-Long Lin, Chiu-Wei Chien.

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
John Kreifeldt.

Cultural Differences in Human Computer Interaction
Chair(s): Rüdiger Heimgärtner, Na Chen.

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
Na Chen, P. L. Patrick Rau, Dominik Kolz.

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
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.

OCSC

Online Communities and Social Computing

User eXperience+: Shared Experience Design for Online Communities and Social Computing
Chair(s): Habib M. Fardoun, Niki Lambropoulos.

Experiences by using AFFINE for Building Collaborative Applications for Online Communities
Mohamed Bourimi, Dogan Kesdogan.

Improvement of Students Curricula in Educational Environments by means of Online Communities and Social Networks
Habib M. Fardoun, Antonio Paules Ciprés, Abdulrahman H. Altalhi.

Being Example: A Different Kind Of Leadership, Looking For Exemplary Behaviors
Sebastián Romero López, Habib M. Fardoun, Abdulfattah S. Mashat.

Using Facebook for Collaborative Academic Activities in Education
Habib M. Fardoun, Bassam Zafar, Antonio Paules Ciprés.

Context Management for RFID-based Distributed Interaction Spaces
Jose Antonio Gallud, Ricardo Tesoriero, Pedro G. Villanueva, Félix Albertos, Antonio Hernández, Víctor M. R. Penichet.

Towards Visual Configuration Support For Interdependent Security Goals
Fatih Karatas, Mohamed Bourimi, Dogan Kesdogan.

Composites Ideas in COMPOOL Immersion: A Semantics Engineering Innovation Network Community Platform
Niki Lambropoulos, Panayota Tsotra, Ilias Kotinas, Iosif Mporas.

AC

Augmented Cognition

Augmenting Human Capabilities on Training Ranges: Towards the Smart Instrumented Training Ranges of the Future
Chair(s): Amela Sadagic.

Real-time Workload Assessment as a Foundation for Human Performance Augmentation
Kevin T Durkee, Alexandra Geyer, Scott Pappada, Andres Ortiz, Scott Galster.

Automated Camera Selection and Control for Better Training Support
Adrian D Ilie, Gregory Welch.

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.

THURSDAY 10:30 - 12:30

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

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 Pinciroli, 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 Brooks.

Plantar Pressure Gradient Angles to Evaluate Risk of Diabetic Foot Ulcer
Chi-Wen Lung, Ben-Yi Liau, Yih-Kuen Jan.

Automatic 3D reconstruction of transfemoral residual limb from MRI images
Giorgio Colombo, Giancarlo Facoetti, Caterina Rizzi, Andrea Vitali, Alessandro Zanello.

Human Models for a comprehensive analysis of mobile Human-Computer-Interaction

Chair(s): Thomas Alexander.

Using Anthropomorphism to Improve the Human-Machine Interaction in Industrial Environments (Part I)
Sinem Kuz, Marcel Ph. Mayer, Simon Müller, Christopher M. Schlick.

Using Anthropomorphism to Improve the Human-Machine Interaction in Industrial Environments (Part 2)
Marcel Ph. Mayer, Sinem Kuz, Christopher M. Schlick.

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
Christian Brecher, Simon Müller, Sinem Kuz, Wolfram Lohse.

The Effects of Touch Screen Virtual Keyboard Key Sizes on Typing Performance, Typing Biomechanics and Muscle Activity
Jeong Ho Kim, Lovenoor Aulck, Ornwipa Thamsuwam, Michael Bartha, Christy Harper, Peter Johnson.

Usability of Portable Fire Extinguisher: Perspectives of Ergonomics and Intuitive Use
Maria Lucia L. R. Okimoto, Maicon B. Puppi, Sabrina T Oliveira, Vanessa D de Macedo.

DUXU

Design, User Experience, and Usability

Designing Experiences for Facilitating Positive Behavior Change (I)

Chair(s): Marc Fabri, Marientina Gotsis.

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
Sauro Vicini, Sara Bellini, Alice Rosi, Alberto Sanna.

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
Marcelo Soares, Fabio Campos, Walter Correia, Andre Neves, Joao Corte, Saul Mendonca.

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
Alexana Vilar Soares Calado, Marcelo Soares, Fabio Campos, Walter Correia.

Virtual Reality Immersion: An important tool for Diagnostic Analysis and Rehabilitation of People with Disabilities
Helda Barros, Marcelo Soares, Epitácio L. Rolim Filho, Walter Correia, Fabio Campos.

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
Cinthia C. Kulpa, Fábio Teixeira, Régio Da Silva.

DUXU

Disaster Information and management
Chair(s): Maysoon F. Abulkhair.

Safety of Natural Disasters
Lamiaa Fattouh Ibrahim, Reem Albatati, Samah Batweel, Rudainah Shilli, Mai Bakeer, Tsneem Abo al Iaban.

Heuristic Evaluation of iCalamityGuide Application
Aaron Marcus, Scott Abromowitz, Maysoon F. Abulkhair.

Efficient Information Representation Method for Driver-centered AR-HUD system
Hye Sun Park, Kyong-Ho Kim.

Join the Ride! User Requirements and Interface Design Guidelines for a Commuter Carpooling Platform
Katrin Arning, Martina Ziefle, Heike Muehlhans.

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

Exploring the Turkish UX Design and Research Landscape
Chair(s): Kerem Rızvanoğlu.

Effects of In-car Navigation Systems on User Perception of Spatial Environment
Mehmet Göktürk, Ali Pakkan.

User Experience Transformation in Telco Companies: Turkcell Case
Cem Sakarya, Seda Alpkaya.

Developing ISO9241-151 Product Certification Process: Challenges
Kürşat Çağıltay, Ozge Alacam, Nihan Ocak, Feride Erdal.

A New Framework for Increasing User Engagement in Mobile Applications Using Machine Learning Techniques
Merve Gençer, Gökhan Bilgin, Özgür Zan, Tansel Voyvodaoğlu.

M-Commerce Usability: An Explorative study on Turkish Private Shopping Apps and Mobile sites
Özgürol Öztürk, Kerem Rızvanoğlu.

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.

Usability in the Real World: Everyday Experiences
Chair(s): Arne Berger, Tim Schneidermeier.

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
Piotr Chynał, Janusz Sobecki, Jerzy Szymański.

Development of a General Internet Attitude Scale
Mary C Joyce, Jurek Kirakowski.

Shifting the Focus: An Objective Look at Design Fixation
Melissa A. Smith, Robert J Youmans, Brooke G. Bellows, Matthew S. Peterson.

What's Important in Designing for Everyday Life, Seriously? (Discovering Service Opportunities Based On Fundamental User Values)
Joonhwan Kim.

HCI

Human-Computer Interaction

THURSDAY 13:30 - 15:30

Multimodal and Multicultural Communicative Agents (MMMCA)

Chair(s): Kristiina Jokinen, David Novick, David Traum.

Linguistic Processing of Implied Information and Connotative Features in Multilingual HCI Applications
Christina Alexandris, Ioanna Malagardi.

From Multicultural Agents to Culture-aware Robots
Matthias Rehm.

Grounding and Turn-Taking in Multiparty Multimodal Conversation
David Novick, Ivan Gris.

A Cross-cultural study of playing simple economic games online with humans and virtual humans
Elnaz Nouri, David Traum.

Modeling Situation-Dependent Nonverbal Expressions for a Pair of Embodied Agent in a Dialogue Based On Conversations in TV Programs
Keita Okuuchi, Koh Kakusho, Takatsugu Kojima, Daisuke Katagami.

STRANGERS AND FRIENDS Adapting the Conversational Style of an Artificial Agent
Nikita Mattar, Ipke Wachsmuth.

Perception and BDI Reasoning Based Agent Model for Human Behavior Simulation in Complex System
Jaekoo Joo.

Socio-cultural Aspects in Monolingual and Multilingual Human-Computer Interaction

Chair(s): Christina Alexandris.

The Impact of Explanation Dialogues on Human-Computer Trust
Florian Nothdurft, Tobias Heinroth, Wolfgang Minker.

Multimodal Feedback in First Encounter Interactions
Kristiina Jokinen.

Controlling Interaction in Multilingual Conversation
Christina Alexandris.

Socio-Cultural Rhythms of the Human Interface
Satinder Gill.

Robust Multi-Modal Speech Recognition in Two Languages Utilizing Video and Distance Information from the Kinect
Georgios Galatas, Gerasimos Potamianos, Filia Makedon.

TLC: Technology for Living and Caring

Chair(s): Mark Bachman, Tsai-Hsuan Tsai.

Human Adequate Lighting in Optimal Healing Environments - Measuring Non-Visual Light Effects of a LED Light Source According to German Draft Pre-Standard DIN SPEC 5031-100:2012
Herbert Plischke, Christoph Schierz, Peyton Paulick, Niko Kohls.

The Solid Angle of Light Sources and Its Impact on the Suppression of Melatonin in Humans
Philipp Novotny, Peyton Paulick, Markus Schwarz, Herbert Plischke.

Development of a Virtual Keyboard System using a Bio-signal Interface and Preliminary Usability Test
Kwang-Ok An, Da-Hey Kim, JongBae Kim.

Engagingdesign - Methods for Collective Creativity
Paul Chamberlain, Claire Craig.

A Dynamic Fitting Room Based on Microsoft Kinect and Augmented Reality Technologies
Hsien-Tsung Chang, Yu-Wen Li, Huan-Ting Chen, Tsung-Tien Chien, Shih-Yi Feng.

Memotree: Using Online Social Networking to Strengthen Family Communication
Tsai-Hsuan Tsai, Yi-Lun Ho, Hsien-Tsung Chang, Yu-Wen Li.

Digital Menu Boards as Influencer for Healthy Eating
Anicia Peters, Brian Mennecke.

Kawaii, Kansei and affective value creation

Chair(s): Michiko Ohkura.

A Study on Combinative Value Creation in Songs Selection
Hiroko Shoji, Jun Okawa, Ken Kaji, Ogino Akihiro.

3D Softness Model of Baby Diaper
Yoshiko Nakao, Noriko Nakagawa, Koichi Morimoto, Zhiwu Liang.

System of Generating Japanese Sound Symbolic Expressions Using Genetic Algorithm
Yuichiro Shimizu, Tetsuaki Nakamura, Maki Sakamoto.

The Feeling of Kawaii is a Function of Interaction
Hisao Shiizuka.

Basic Study on Kawaii Feeling of Material Perception
Michiko Ohkura, Tsuyoshi Komatsu.

Study of Kawaii-ness in Motion -Physical Properties of Kawaii Motion of Roomba-
Shohei SUGANO, Yutaka Miyaji, Ken TOMIYAMA.

HCI

Consumer behaviour and persuasive interaction
Chair(s): To be announced

Analysis of Customer Preference through Unforced Natural Passive Observation
Terumasa Tajima, Yusuke Iida, Toshikazu Kato.

suGATALOG: 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

Human Interface and the Management of Information

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
Takayuki Watabe, Yoshinori Miyazaki, Yoshiki Hayashi.

Social Networking and Culturally Situated Design Teaching Tools: Providing a Collaborative Environment for K-12
Albanie Bolton, Cheryl Seals.

New Potential of E-learning by Re-utilizing Open Content Online -TED NOTE: English Learning System as an Auto-assignment Generator-
Ai Nakajima, Kiyoshi Tomimatsu.

Quantitative Models and Software Architecture, Facing Student Desertion and Permanence
Jesus Alfonso Perez Gama, Andrey Ali Alvarez Gaitan, Martha Isabel Rozo Arteaga, Roger Smith Londoño Buritica, Juan Carlos Rincon Serrato, Alexis Mena Mena, Lina Maria Perilla Cubides, Alejandro Marulanda Quinche.

NFC provided user friendliness for technologically advanced services
Anders Andersen, Randi Karlsen, Arne Munch-Ellingsen.

Management of Information for Decisions
Chair(s): Yumi Asahi.

Prediction of the Concern of People using CGM
Yusuke Ueda, Yumi Asahi.

User Needs Search Using Text Mining
Yukiko Takahashi, Yumi Asahi.

The Study to Clarify The Type of "Otome-game" User
Misaki Tanikawa, Yumi Asahi.

Analysis of Purchasing Behavior Focusing on the Passage of Time at a Group Buying Site of Coupon
Takuto Kobayashi, Toshikazu Yamaguchi, Yumi Asahi.

Human Factors in Supply Chain Management - Decision Making in Complex Logistic Scenarios
Philipp Brauner, Simone Runge, Marcel Groten, Günther Schuh, Martina Ziefle.

Sales Strategy Mining System with Visualization of Action History
Haruhi Satonaka, Wataru Sunayama.

Rapid Computational Socio-Cultural Network Analysis and Decision Support Systems
Tareq Ahram, Waldemar Karwowski.

Design and Evaluation of Human Interface
Chair(s): Masaru Noda.

Determination of Alarm Setpoint for Alarm System Rationalization using Performance Evaluation
Naoki Kimura, Takashi HAMAGUCHI, Kazuhiro TAKEDA, Masaru Noda.

Pilot experiments in education for safe bicycle riding to evaluate actual cycling behaviors when entering an intersection
Hiroaki Kosaka, Masaru Noda.

Performance Monitoring of Industrial Plant Alarm Systems by Statistical Analysis of Plant Operation Data
Masaru Noda.

Empirical Evaluation of Multimodal Input Interactions
Sanjay Ghosh, Anirudha Joshi, Sanjay Tripathi.

Usability Evaluation of Comprehension Performance and Subjective Assessment on Mobile Text Advertising
Ya-Li Lin, Chih-Hsiang Lai.

Survey and Expert Evaluation for e-Banking
Basil Soufi.

GUI Efficiency Comparison Between Windows and Mac
Eric A. McCary, Jingyuan Zhang.

EPCE

Engineering Psychology and Cognitive Ergonomics

Cognitive issues at work
Chair(s): To be announced

Empirical Insights on Operators' Procedure Following Behavior in Nuclear Power Plants
Huafei Liao, Michael Hildebrandt.

Estimation of Operator Input and Output Workload in Complex Human-Machine-Systems for Usability Issues with iFlow
Stefan Pfeffer, Patrick Decker, Thomas Maier, Eric Stricker.

Evaluation of Advanced Multi-Modal Command and Control Communication Management Suite
Victor S. Finomore, Adam Sitz, Kelly Satterfield, Courtney Castle, Elizabeth Blair.

Developing Metacognitive Model for Team-based Dynamic Environment Using Fuzzy Cognitive Mapping
Jung Hyup Kim, Gretchen Macht, Ling Rothrock, David Nembhard.

A Detection Method of Temporary Rest State while Performing Mental Works by Measuring Physiological Indices
Shutaro Kunimasa, Kazune Miyagi, Hirotake Ishii, Hiroshi Shimoda.

An Intellectual Productivity Evaluation Tool based on Work Concentration
Hiroshi Shimoda, Kotaro Oishi, Kazune Miyagi, Kosuke Uchiyama, Hirotake Ishii, Fumiaki Obayashi, Mikio Iwakawa.

UAHCI

Universal Access in Human-Computer Interaction

Universal Access: Interaction Science - II
Chair(s): Gisela Susanne Bahr.

Secure, Usable Biometric Authentication Systems
Liam M Mayron, Yasser Hausawi, Gisela Susanne Bahr.

Interviewer Agent for Cognitive Task Analysis
Taro Kanno, Masahiro Uetsuhara, Kazuo Furuta.

The future of universal access? Merging computing, design and engineering
Simeon Keates, David Bradley, Andrew Sapeluk.

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 Ihme, Thorsten O. Zander.

OnScreenDualScribe: A Computer Operation Tool for Users with a Neuromuscular Disease
Torsten Felzer, I. Scott MacKenzie, Stephan Rinderknecht.

Accessibility of Documents - I
Chair(s): Georgios Kouroupetroglou.

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 Aussenac-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
Alireza Darvishy, Hans-Peter Hutter.

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

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

Integrating The Image Identifiable Principle of Human Cognition and Computer Vision to Develop A New Pattern Recognition Design System for Smart Home
Pin-Chin Wang, Wan-Ting Tseng, Chun-Min Cheng, Yi-Hsuan Sung, Yi-Chun Chou, Fong-Gong Wu.

The Survey of Usability Evaluation in Social Network Sites' Reply Mechanism
Tsung-Han Tsai, Fong-Gong Wu, Yu-Hsiu Hung.

Cognitive-based Approach for Assessing Accessibility of e-Government Websites
Khulud Aljarallah, Robert CC Chen, Omar AlShathry.

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
Keisuke Ishihara, Toshihisa Doi, Sou Yanagimogo, Toshiki Yamaoka.

VAMR

Virtual, Augmented and Mixed Reality

Visualization Techniques for Human-Automation Interaction
Chair(s): Jessie YC Chen.

Using a Predictive Model to Improve Operator Performance on a Supervisory Control System
Gregory Trafton.

Proactive Supervisory Decision Support from Trend-Based Monitoring of Autonomous and Automated Systems: a Tale of Two Domains
Harvey S. Smallman, Maia B. Cook.

Assessing Interfaces Supporting Situational Awareness in Multi-agent Command and Control Tasks
Donald Kalar, Collin Green.

Multiple Remotely Piloted Aircraft Control: Visualization and Control of Future Path
Gloria Calhoun, Heath Ruff, Chad Breeden, Joshua Hamell, Mark Draper, Christopher Miller.

Interactive Virtual Reality Shopping and the Impact in Luxury Brands
Samar Altarteer, Vassilis Charissis, David K. Harrison, Warren Chan.

The Visual, the Auditory and the Haptic - A User Study on Combining Modalities in Virtual Worlds
Julia Fröhlich, Ipke Wachsmuth.

GUI design solution for a monocular, see-through head-mounted display based on users' eye movement characteristics
Takahiro Uchiyama, Kazuhiro Tanuma, Yusuke Fukuda, Miwa Nakanishi.

CCD

Cross-Cultural Design

Design for urban experience and social innovation
Chair(s): Zhiyong Fu.

Original-Ecology Sounds of Cities' Impression
Lie Zhang, Jin Huang.

GeoCity Beijing: Platform of Eco-City Information Visualization and Interactive Narrative
Ken Tsui, Zhiyong Fu, Shen Li, Junjie Yu.

The innovative PSS design of Urban Transportation based on Sharing Style
Xin Liu, Yankai Zhao.

Defining cross-culture theoretical framework of user interface
Ping Liu, Chun Keung.

Urban Phenomenology: Incorporating Dynamic Frames of Reference in the Design of Urban OS
Christopher Grant Kirwan.

Designing urban experience for Beijing in the context of smart city
Zhiyong Fu.

SoLoMo User Experience Study Using a Pivoted Parallel Coordinates
Xiaohua Sun, Jie Qiu, Lei Zhang.

AC

Augmented Cognition

Augmented Cognition in High Risk Environments
Chair(s): Huafei Liao.

Integration of Psycognitive States to Broaden Augmented Cognition Frameworks
Karmen Guevara.

Adult Neurogenesis: Implications on Human and Computational Decision Making
Craig Vineyard, Stephen Verzi, Thomas Caudell, Michael Bernard, James Aimone.

Developing Methodology for Experimentation using a Nuclear Power Plant Simulator
Lauren Reinerman-Jones, Svyatoslav Guznov, Joseph Mercado, Amy D'Agostino.

Cognitive-Affective Interactions in Strategic Decision Making
Yanlong Sun, Hongbin Wang.

EEG-based Reward System for Response Control in Stop-signal Task
Li-Wei Ko, Yu-Ting Liu.

Novel Approaches in Augmented Cognition
Chair(s): To be announced

The Effects of Spatial Attention on Face Processing: An ERPs Study
Liang Zhang, Kan Zhang.

Evaluating classifiers for Emotion Recognition using EEG
Ahmad Tauseef Sohaib, Shahnawaz Qureshi, Johan Hagelbäck, Olle Hilborn, Petar Jerčić.

Improvement of Sensory Stabilization and Repeatability of Vibration Interface for Distance Presentation
Yuki Sampei, Takayuki Tanaka, Yuki Mori, Shun'ichi Kaneko.

A Study on Application of RB-ARQ Considering Probability of Occurrence and Transition Probability for P300 Speller
Eri Samizo, Tomohiro Yoshikawa, Takeshi Furuhashi.

Using the EEG Error Potential to Identify Interface Design Flaws
Jeff Escalante, Serena Butcher, Mark R Costa, Leanne Hirshfield.

Effect of Light Priming and Encouraging Feedback on the behavioral and Neural Responses in a General Knowledge Task
Andreea-Ioana Sburlea, Tsvetomira Tsoneva, Gary N Garcia-Molina.

An Effective ERP Model for Brain Computer Interface
Mariko Funada, Yoshihide Igarashi, Tadashi Funada, Miki Shibukawa.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

New Development in the Human-Centered Design in Transportation
Chair(s): Eliza Y Du.

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
Atsuo Murata, Michihiro Kanbayashi, Takehito Hayami.

Prediction of Drowsy Driving using Behavioral Measures of Drivers -Change of Neck Bending Angle and the Sitting Pressure Distribution-
Atsuo Murata, Taiga Koriyama, Takuya Endoh, Takehito Hayami.

Towards Early Status Warning for Driver's Fatigue Based on Cognitive Behavior Models*
Yanfei Liu, Yu Zhang, Junsong Li, Jing Sun, Feng Fu, Jiangsheng Gui.

Personality and attitude as predictors of risky driving behaviors: Evidence from Beijing drivers
Jun Kong, Kan Zhang, Xuefeng Chen.

DUXU

Design, User Experience, and Usability

Designing Experiences for Facilitating Positive Behavior Change (II)
Chair(s): Marc Fabri, Marientina Gotsis.

Positive Design: New Challenges, Opportunities, and Responsibilities for Design
Anna E Pohlmeyer.

Avatar Interfaces for Biobehavioral Feedback
Tylar Murray, Delquawn Hardy, Donna Spruijt-Metz, Eric Hekler, Andrew Raij.

Increasing Trust in Personal Informatics Tools
Luis G Jaimes, Tylar Murray, Andrew Raij.

The Innovation Machine: Mobile UX Design Combining Information and Persuasion Design to Change Behavior
Aaron Marcus, Megan Chiou, Chirag Narula, Allan Yu.

Setting Conditions for Learning. Mediated Play and Socio-Material Dialogue
Emanuela Marchetti, Eva Petersson Brooks.

Running to Behaviour Change
Pip Trevorrow, Marc Fabri.

Ergonomics in Design of Information Systems - I
Chair(s): Francisco Santos Rebelo.

Strategy for the Development of a Walk-In-Place Interface for Virtual Reality
Luís Teixeira, Emília Duarte, Elisangela Vilar, Paulo Noriega, Francisco Santos Rebelo, Fernando Moreira da Silva.

Main Usability Issues in Using Virtual Environments for Older Population Warning Studies
Lara Maia Reis, Emília Duarte, Francisco Santos Rebelo.

Sense of presence in a VR-based study on behavioral compliance with warnings
Emília Duarte, Francisco Santos Rebelo, Luís Teixeira, Elisangela Vilar, Julia Teles, Paulo Noriega.

Using Virtual Reality to Examine Hazard Perception in Package Design
Hande AYANOGLU, Francisco Santos Rebelo, Emília Duarte, Paulo Noriega, Luís Teixeira.

Evaluating Emotional Responses to Interior Design of Hospital Room: A Study Using Virtual Reality
Susana Dinis, Emília Duarte, Paulo Noriega, Luís Teixeira, Elisangela Vilar, Francisco Santos Rebelo.

Interaction and Control in Second-screen Interactive TV Scenarios
Alexandre Fleury, Lars Bo Larsen.

Agile User Experience Design
Chair(s): Sisira Adikari.

Understanding the UX Designer's Role within Agile Teams
Tiago Silva, Milene S Silveira, Claudia de O. Melo, Luiz Claudio Parzianello.

Keeping User Centred Design (UCD) Alive and Well in your Organisation: Taking an Agile Approach
Colette Raison, Snezna Schmidt.

Reframed Contexts: Design Thinking for Agile User Experience Design
Sisira Adikari, Craig McDonald, John Campbell.

DUXU

Semiotics, Language, Interaction
Chair(s): Jan Brejcha.

Semiotics of Void and Information Representation
Kumiko Tanaka-Ishii.

Metacommunication and Semiotic Engineering: Insights from a Study With Mediated HCI
Ingrid T Monteiro, Clarisse Sieckenius De Souza, Carla Leitão.

Techno–imagination and Implicit Knowledge
Jiri Bystricky.

On the Poetry of Design
Arash Faroughi, Roozbeh Faroughi.

The Lack of Subjective Experience in Hybrid Intelligent Agents in Interactive Storytelling
Oliver Guy, Ronan Champagnat.

Semiotic Analysis for Gestural and Emotional Human--Computer Interaction
Roman Danylak.

Social Movement Information Design and A Curriculum of Proper Knowledge Consumption
Gabriel Y Schaffzin.

Cross-Cultural UX in the Life Science Industry
Chair(s): Brigitte Herrmann.

Web-Portal Solution for Supporting In-country Reviews
Michael Oettli, Tasos Panagis.

German Chinese Business Communication
Maren Kropfeld.

A Component-Based Evaluation Protocol for Clinical Decision Support Interfaces
Alessandro Febretti, Karen Dunn Lopez, Janet Stifter, Andrew Johnson, Gail Keenan, Diana Wilkie.

Improving Management of Medical Equipment
Yu Hao, Yida Gong, Young Mi (Christina) Choi.

Addressing Human Computer Interaction Issues of Electronic Health Record (EHR) in Clinical Encounters
Martina A Clarke, Linsey Steege, Joi Moore, Jeffery Belden, Richelle Koopman, Min Kim.

Development and Evaluation of a Contradiction-oriented Method for the Treatment of Use-based and Technical Risks Exemplified by Medical Devices
Simon Plogmann, Armin Janss, Arne Jansen, Klaus Radermacher.

DAPI

Distributed, Ambient and Pervasive Interactions

Smart cities, building and places
Chair(s): Zhang Xiong.

A Novel Taxi Dispatch System for Smart City
Qingnan Zou, Guangtao Xue, Yuan Luo, Jiadi Yu, Hongzi Zhu.

Marker-Free Indoor Localization and Tracking of Multiple Users in Smart Environments using a Camera-Based Approach
Andreas Braun, Tim Dutz, Michael Alekseew, Philipp Schillinger, Alexander Marinc.

Empowering People through Mobile Devices for Smarter Places
Federico Devigili, Daniele Magliocchetti, Giuseppe Conti, Raffaele De Amicis.

Do Strollers in Town Needs Recommendation?: on Preferences of Recommender in Location-Based Services
Kenro Aihara.

VIA - Visualizing Individual Actions to Develop a Sustainable Community Culture through Cycling
Benjamin Watson, David Berube, Nickolay Hristov, Carol Strohecker, Scott Betz, Louise Allen, Matthew Burczyk, Amber Howard, William Anthony McGee, Matthew Gymer, Daniel Canas, Mark Kirstner.

HCI

Human-Computer Interaction

Learning environments

Chair(s): To be announced

Evaluation of Computer Algebra Systems Using Fuzzy AHP at the Universities of Cyprus
Ilham Huseyinov, Feride S. Tabak.

Refining Rules Learning Using Evolutionary PD
Afdallyna Harun, Steve Benford, Claire O'Malley, Nor Laila Md. Noor.

A Teacher Model to Speed Up the Process of Building Courses
Carla Limongelli, Matteo Lombardi, Alessandro Marani, Filippo Sciarrone.

A Comparative Evaluation of Podcasting-based and Mobile-based Material Distribution Systems in Foreign Language Teaching
Yuichi Ono, Manabu Ishihara, Mitsuo Yamashiro.

Recommendation of Collaborative Activities in e-Learning Environments
Veronica Rossano, Teresa Roselli, Maria Laterza, Pierpaola Di Bitonto.

E-learning: The Power Source of Transforming the Learning Experience in an ODL Landscape
Blessing Thuthuka Mbatha, Mbali Mbatha.

Advanced mobile interaction

Chair(s): To be announced

A Mobile Brain-computer Interface for Freely Moving Humans
Yuan-Pin Lin, Yijun Wang, Chun-Shu Wei, Tzyy-Ping Jung.

Undo/Redo by Trajectory
Tatsuhito Oe, Buntarou Shizuki, Jiro Tanaka.

Multi-User Interaction with Shadows
Tomomi Gotoh, Takahiro Kida, Munehiro Takimoto, Yasushi Kambayashi.

An Interaction Concept for Public Displays and Mobile Devices in Public Transport
Romina Kühn, Diana Lemme, Thomas Schlegel.

A Pedestrian Navigation Method for User's Safe and Easy Wayfinding
Hiroshi Furukawa, Yutaka Nakamura.

A multi-modal interaction framework for multitasking in a mobile environment
JUNGYOON YANG.

User Experience in Public Information Service Design for Smart Life
Qiong Wu, Guanshang Wu, Xin Tong.

HCI in critical contexts

Chair(s): Philippe Palanque.

V&V of Lexical, Syntactic and Semantic Properties for Interactive Systems Through Model Checking of Formal Description of Dialog
Guillaume Brat, Célia Martinie, Philippe Palanque.

Characterizing Incidents Reporting Systems across Applications Domains
Marco Winckler, Cédric Bach, Regina Bernhaupt.

A Situation Awareness Assistant for Human Deep Space Exploration
Guy Andre Boy, Donald Platt.

Tuning an HCI Curriculum for Master Students to Address Interactive Critical Systems Aspects
Michel Galindo, Célia Martinie, Philippe Palanque, Marco Winckler, Peter Forbrig.

Linking Context to Evaluation in the Design of Safety Critical Interfaces
Mike Feary, Dorrit Billman, Xiuli Chen, Andrew Howes, Richard Lewis, Lance Sherry, Satinder Singh.

The Implementation of Multi-touch Table to Support the Military Decision Making through Critical Success Factors (CSFs)
Norshahriah Abdul Wahab, Halimah Badioze Zaman.

Design and Interface Considerations for Web-Enabled Data Management in Civil Infrastructure Health Monitoring
David E Kosnik, Lawrence J. Henschen.

Human Aspects of Enterprise Information Systems

Chair(s): Xiaowen Fang, Fan Zhao.

Semantically Integrated Business Applications for Enterprise Information Systems
Patricia Kraft, Rainer Thome.

Interaction between Enterprise Resource Planning Systems and Organizational Culture
Carlotta P M Herberhold.

Reverse Business Innovations - The Impact of ERP Software Upgrades on Organizations
Stefanie Rauff, Andreas Hufgard.

Repository-based Implementation of Information Pyramid: A Study Based on an ERP Case Study
Hans-Jürgen Scheruhn, Daniel Ackermann, Roman Braun, Ulrich Förster.

Electronic Health Records: A Case Study of an Implementation
Guillaume Cusseau, Jon Grinsell, Christopher Wenzel, Fan Zhao.

Continuing On-Premise or Adopt On-Demand? An Empirical Study of ERP Adoption in SMEs
Fan Zhao, Elias Kirche.

Human Total Ownership Cost: A Universal Framework for Human Performance Cost Components
Waldemar Karwowski, Tareq Ahram.

THURSDAY 16:00 - 18:00

HCI

Culture, art, music and creativity
Chair(s): To be announced

Audio-Visual Documentation Method for Digital Storytelling for a Multimedia Art Project
Chui Yin Wong, Chee Weng Khong, Kimberly Chu, Muhammad Asyraf Mhd Pauzi, Man Leong Wong.

A Method for Discussing Musical Expression between Music Ensemble Players using A Web-Based System
Takehiko Sakamoto, Shin Takahashi, Jiro Tanaka.

Enhancing Human Computer Interaction with Episodic Memory in a Virtual Guide
Felix Rabe, Ipke Wachsmuth.

Enhanced 3D Sketch System Incorporating "Life-size" and "Operability" Functions
Shun'ichi Tano, Naofumi Kanayama, Xinpeng Huang, Junko Ichino, Tomonori Hashiyama, Mitsuru Iwata.

Eloe: Application of Brain-Computer Interfaces in Visual Creativity
Maxim Safioulline.

HIMI

Human Interface and the Management of Information

Information search
Chair(s): To be announced

Can a Clipboard Improve User Interaction and User Experience in Web-based Image Search?
Leon Kastler, Ansgar Scherp.

Trailblazing Information: An Exploratory Search User Interface
Marcus Nitsche, Andreas Nürnberger.

Research on Website Usage Behavior Through Information Search Perspective: A Comparison of Experiential and Goal-Directed Behaviors
Juihsiang Lee, Manlai You.

A Novel Human-Computer Interface for Browsing Web Data by Leaping Up Web Pages
Che-Lun Hung, Cherng Chin, Chen-Chun Lai, Ho Cheung Cheung.

QUEST: Querying complex Information by Direct Manipulation
Marcus Nitsche, Andreas Nürnberger.

Finders, keepers, losers, seekers: A study of academics' research-related personal information collections
Mashael Yacoub Alomar, Andrew Cox.

New perspectives on service engineering
Chair(s): Hirohiko Mori, Sakae Yamamoto.

Evaluation of System Engineers' Intellectual Productivity - Focusing on Coding Procedures in Application Development Tools -
Ryo Hirano, Yohei Nakamura, Miwa Nakanishi.

Searching blogsites with product reviews
Hironori Kuwata, Makoto Oka, Hirohiko Mori.

Modeling of Music Recommendation Methods to Promote the User's Singing Motivation -For Next-Generation Japanese Karaoke Systems
Satoshi Isogai, Miwa Nakanishi.

Challenges for incorporating "quality in use" in embedded system development
Nowky Hirasawa.

Service Evaluation Method for Managing Uncertainty
Koji Kimita, Yusuke Kurita, Kentaro Watanabe, Takeshi Tateyama, Yoshiki Shimomura.

A Method for Service Failure Effects Analysis based on Customer Satisfaction
Yusuke Kurita, Koji Kimita, Kentaro Watanabe, Yoshiki Shimomura.

An automatic classification of Product review Into given viewpoints
Yuki Tachizawa, Makoto Oka, Hirohiko Mori.

Digital Museum
Chair(s): Michitaka Hirose.

Mixed Reality Digital Museum Project
Tomohiro Tanikawa, Takuji Narumi, Michitaka Hirose.

Digital Railway Museum: An Approach to Introduction of Digital Exhibition Systems at the Railway Museum
Takuji Narumi, Torahiko Kasai, Takumi Honda, Kunio Aoki, Tomohiro Tanikawa, Michitaka Hirose.

Train Ride Simulation using Assist Strap Device
Takashi Sasaki, Koichi Hirota, Tomohiro Amemiya, Yasushi Ikei.

A Method of Viewing 3D Horror Contents for Amplifying Horror Experience
Omori Nao, Masato Tsutsui, Ryoko Ueoka.

Augmented Reality System for Measuring and Learning Tacit Artisan Skills
Atsushi Hiyama, Hiroyuki Onimaru, Mariko Miyashita, Eikan Ebuchi, Masazumi Seki, Michitaka Hirose.

Virtual Experience System for a Digital Museum
Yasushi Ikei, Koji Abe, Yukinori Masuda, Yujiro Okuya, Tomohiro Amemiya, Koichi Hirota.

EPCE

Engineering Psychology and Cognitive Ergonomics

Human Factors in Flight Operations
Chair(s): Wen-Chin Li.

Distributed Cognition in Flight Operations
Don Harris.

The Application of Human Factors Analysis and Classification System (HFACS) to Investigate Human Errors in Helicopter Accidents
Chia-Fen Chi, Shao-Yu Liu, Wen-Chin Li.

The Analysis of Safety Recommendation and Human Error Prevention Strategies in Flight Operations
Jeng-Chung Chen, Chia-Fen Chi, Wen-Chin Li.

The Investigation of Visual Attention and Workload by Experts and Novices in the Cockpit
Wen-Chin Li, Fa-Chung Chiu, Ying-shin Kuo, Ka-Jay Wu.

The Use of Eye Tracking in the Study of Airline Cabin Safety Communication
Yueh-Ling Hsu, Wen-Chin Li, Ching-Hui Tang.

New Technologies for FRMS
Min Luo, Mei Rong, Jing Li, Wen Dong Hu, Chang Hua Sun.

Affective priming with subliminal auditory stimulus exposure
Juan Liu, Yan Ge, Xianghong Sun.

UAHCI

Universal Access in Human-Computer Interaction

Accessibility of Documents - II
Chair(s): Georgios Kouroupetroglou.

Usability of Web Search Interfaces for Blind Users – A Review of Digital Academic Library User Interfaces
Tapio M Haanperä, Marko H.T. Nieminen.

WebSight: The Use of the Grid-Based Interface to Convey Layout of Web-Pages in a Non-Visual Environment
Hesham M. Kamel, Halil Erhan.

Evaluating Facial Expressions in American Sign Language Animations for Accessible Online Information
Hernisa Kacorri, Pengfei Lu, Matt Huenerfauth.

Providing an Accessible Track Changes Feature for Persons Who Are Blind
John G Schoeberlein, Yuanqiong Wang.

User Perception Knowledge for Socially-aware Web Document Accessibility
Dimitris Spiliotopoulos, Pepi Stavropoulou, Georgios Kouroupetroglou, Dimitrios Tsonos.

Image Quality Assessment for the Visually Impaired
Tatiana Koshkina, Eric Dinet, Hubert Konik.

Designing Accessible Visualizations: The case of designing a weather map for blind users
Dustin D Carroll, Suranjan Chakraborty, Jonathan Lazar.

Ambient Assisted Living
Chair(s): To be announced

Resource Management for multimodal and multilingual adaptation of user interfaces in Ambient Assisted Living environments
Carsten Stocklöw, Tjark Vandommele, Tim Dutz, Andrej Grguric, Arjan Kuijper.

Ambient Assisted Living Development in East Slovakia
Dusan SIMSIK, Alena Galajdova, Daniel Siman, Daniela Onofrejova.

Can Ubiquitous Devices Utilising Reminiscence Therapy be Used to Promote Well-being in Dementia Patients? An Exploratory Study
Claire Ancient, Alice K Good, Clare Wilson, Tineke Fitch.

User Interfaces for Older Adults
Christopher Mayer, Martin Morandell, Matthias Gira, Miroslav Sili, Martin Petzold, Sascha Fagel, Christian Schüler, Jan Bobeth, Susanne Schmehl.

Conversational System Encouraging Communication of the Aged by Method of Reminiscence and Quantification of Active Participation
Tetsuaki Okada, Misato Nihei, Takuya Narita, Minoru Kamata.

Back on Track: Lost and Found on Public Transport
Stefan P Carmien, Michael Obach.

Collective Intelligence: impact on e-inclusion
Chair(s): Pier Luigi Emiliani, Laura Burzagli.

E-inclusion as the Next Challenge for Sustainable Consumption
Amon Rapp, Alessandro Marcengo, Marina Geymonat, Rossana Simeoni, Luca Console.

Impact of Universal Design in Combination with Assistive Technologies to Community Based Disaster Preparedness Development: a case study on Collective Intelligence
Hiroshi Kawamura.

Addressing Learning Disabilities in Ambient Intelligence Educational Environments
Stavroula Ntoa, Margherita Antona, George Margetis, Constantine Stephanidis.

The Evolving Global Public Inclusive Infrastructure (GPII)
Gregg Vanderheiden, Jutta Treviranus, Maria Gemou, Evangelos Bekiaris, Kasper Markus, Colin Clark, Antranig Basman.

A Static and Dynamic Recommendations System for Best Practice Networks
Pierfrancesco Bellini, Ivan Bruno, Paolo Nesi, Michela Paolucci.

Collective intelligence for eInclusion
Laura Burzagli, Pier Luigi Emiliani.

THURSDAY 16:00 - 18:00

VAMR

Virtual, Augmented and Mixed Reality

Emerging Trends in Virtual, Augmented and Mixed Reality

Chair(s): Stephanie Lackey, Sherry Ogreten.

Mixed and Augmented Reality for Marine Corps Training
Richard Schaffer, Sean Cullen, Phe Meas, Kevin Dill.

Establishing Workload Manipulations Utilizing a Simulated Environment
Julian Abich IV, Lauren Reinerman-Jones, Grant Taylor.

Assessing Engagement in Simulation-Based Training Systems for Virtual Kinesic Cue Detection Training
Eric Ortiz, Crystal Maraj, Julie N Salcedo, Stephanie Lackey, Irwin L Hudson,.

Effects of Visual Fidelity on Biometric Cue Detection in Virtual Combat Profiling Training
Julie N Salcedo, Crystal Maraj, Stephanie Lackey, Eric Ortiz, Irwin L Hudson,, Joy Martinez.

The ART of CSI: An Augmented Reality Tool (ART) to Annotate Crime Scenes in Forensic Investigation
Jan Willem Streefkerk, Mark Houben, Pjotr Van Amerongen, Frank Ter Haar, Judith Dijk.

Design of the Mobile Guide System with Augmented Reality and the Sense of Place—The Application of Heritage Interpretation in Cultural Heritage
Yu-Lien Chang, Chao-Yang Pan, Kuo-EN Chang, H.-T. Hou.

Embodiment and Embodied Cognition
Mark R Costa, Sung Yeun Kim, Frank Biocca.

CCD

Cross-Cultural Design

How Industry Policy Shaping UI/UX Research

Chair(s): Chaoyin Chi, Sheau-Farn Max Liang.

A Policy or a Silent Revolution: Experience Sharing on Aligning UX Process with Product Development Process
Sean Chiu, Chen-Shuang Wei.

Use Second Screen to Enhance TV Viewing Experiences
Yu-Ling Chuang, Chia-Wei Liao, Wen-Shiuan Chen, Wen-Tsung Chang, Shao-Hua Cheng, Yi-Chong Zeng, Kai-Hsuan Chan.

Identifying Usability Problems in a Smart TV Music Service
Sheau-Farn Max Liang, Yi-Chung Kuo, Shu-Chin Chen.

Enhancing People's Television Experience by Capturing, Memoing, Sharing, and Mixing
Tun-Hao You, Yi-Jui Wu, Cheng-Liang Lin, Yaliang Chuang.

Designing Government Funded Religious E-Reader by Adopting User Experience Methods
Sheng Kai Tang, Wen Kang Chen, Chih Hao Tsai, Yi Ting Chen.

Diversity in Unity - How Industry Policy Shaping UI/UX Research
Chaoyin Chi.

Integrating Internationalization in the User-Centered Software Development Process
José A. Macías.

OCSC

Online Communities and Social Computing

Online Communities and Social Computing in Higher Education

Chair(s): Gabriele Meiselwitz.

Teaching about the Impacts of Social Networks: An End of Life Perspective
James Braman, Giovanni Vincenti, Alfreda Dudley, Yuanqiong Wang, Karen Rodgers, Ursula Thomas.

Project Awareness System -- Improving Collaboration through Visibility
Daniel Kadenbach, Carsten Kleiner.

Readability Assessment of Policies and Procedures of Social Networking Sites
Gabriele Meiselwitz.

Adult Learners and their use of Social Networking Sites
Yuanqiong Wang, Jessica Arfaa.

WEB 2.0 Technologies Supporting Students and Scholars in Higher Education
Paula PM Miranda, Pedro Isaias, Carlos Costa, Sara Pifano.

Influence of Monetary and Non-Monetary Incentives on Students´ Behavior in Blended Learning Settings in Higher Education
Stefan Stieglitz, Annika Eschmeier, Michael Steiner.

AC

Augmented Cognition

Operational Neuroscience

Chair(s): Rodolphe J. Gentili.

The Development and Application of a Novel Physiological Metric of Cognitive Workload
Jeremy Rietschel, Matthew Miller.

DEVELOPMENT OF FATIGUE-ASSOCIATED MEASUREMENT TO DETERMINE FITNESS FOR DUTY AND MONITOR DRIVING PERFORMANCE
Ying Ying Tan, Frederick L. K. Tey, Sheng Tong Lin.

Neural Oscillatory Signature of Original Problem Solving
Henk Haarmann, Polly O'Rourke, Timothy George, Alexei Smaliy, Kristin Grunewald, Joseph Dien.

Brain Biomarkers of Neural Efficiency during Cognitive-Motor Performance: Performing Under Pressure
Michelle Costanzo, Bradley D. Hatfield.

Understanding Brain Connectivity Patterns during Motor Performance under Social-Evaluative Competitive Pressure
Hyuk Oh, Rodolphe J. Gentili, Michelle Costanzo, Ronald Goodman, Li-Chuan Lo, Jeremy Rietschel, Mark Saffer, Bradley D. Hatfield.

Human–Robotic Collaborative Intelligent Control for Reaching Performance
Rodolphe J. Gentili, Hyuk Oh, Isabelle Shuggi, Ronald Goodman, Jeremy Rietschel, Bradley D. Hatfield, James Reggia.

Controlling Attention in the Face of Threat: A Method for Quantifying Endogenous Attentional Control
Bartlett Russell, Bradley D. Hatfield.

THURSDAY 16:00 - 18:00

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

DHM in Aviation and Space
Chair(s): To be announced

Attentional Biases During Steering Behavior
Hans-Joachim Bieg, Heinrich Bülthoff, Lewis L Chuang.

Predicating the Safety of Airport Approaches Using a Cognitive Pilot Model
Changpeng Yang, Yin Tangwen, Shan Fu.

Optimization for Lunar Mission Training Scheme Based on Anybody
Jing Zhang, Rong Zhou, Jingwen Li, Li Ding, Li Wang.

Pilot Performance Models
Xiaoyan Zhang, Hongjun Xue.

Simulation of Pushing the Push-pull Rod Action based on Human Body Dynamics
Zheng Yang, Yiyuan Zheng, Shan Fu.

DUXU

Design, User Experience, and Usability

Ergonomics in Design of Information Systems - II
Chair(s): Francisco Santos Rebelo.

User Experience Starts At The Keystroke Level: The Model of User Experience (MUX)
Stefan Brandenburg, Marlene Vogel, Uwe Drewitz.

Assessing Designs of Interactive Voice Response Systems for Better Usability
Siddhartha Asthana, Pushpendra Singh, Amarjeet Singh.

Ergonomics Aspects in Operators of the Electric Power Control and Operation Centers
Miguel Otávio Melo, Francisco Santos Rebelo, Luiz Bueno, Ana Almeida.

The challenges and solutions for producing e-Learning contents
Carlos Ferreira, Geraldo Fernandes.

Virtual environment to treat social anxiety
Ana Paula Cláudio, Maria Beatriz Carmo, Tânia Pinheiro, Francisco Esteves, Eder Lopes.

Are Emergency Egress Signs Strong Enough to Overlap the Influence of the Environmental Variables?
Elisangela Vilar, Francisco Santos Rebelo, Paulo Noriega, Luís Teixeira, Emília Duarte, Ernesto Vilar Filgueiras.

Beyond Flat Screens: Bringing Design Thinking to Life
Chair(s): Martin Osen, Roby Attisano.

Merging Two Worlds Together
Alex Schieder.

SustainDesign. A project with Young Creative People
Roby Attisano.

Humor Illustration Design, a Summary of Illustrations, Designs, and Projects
Jochen Gasser.

Minimal Yet Integral – Designing a Gestural Interface
Martin Osen.

Interactive Visualization of Evolving Force-Directed Graphs
Walter Rafelsberger.

An Individual Differences Approach to Design Fixation: Comparing Laboratory and Field Research
Brooke G. Bellows, Robert J Youmans, Jordan Higgins.

How to Create a User Experience Story
Ioanna Michailidou, Constantin Von Saucken, Udo Lindemann.

Developing Next Generation Crowd Sourced UAVs
Chair(s): Stephen D Prior.

Applications of open source based UAV's in the fight against crime
Murray Spoelstra.

AeroQuad - Development Challenges with Crowd Sourced UAV's.
Ted Carancho.

HALO the Winning Entry to the DARPA UAVForge Challenge 2012
Stephen D Prior, Siu-Tsen Shen, Mehmet Ali Erbil, Mantas Brazinskas, Witold Mielniczek.

Development of an Unconventional Unmanned Coaxial Rotorcraft: GremLion
Feng Lin, Kevin Ang, Fei Wang, Ben Chen, Tong Heng Lee, Beiqing Yang, Miaobo Dong, Xiangxu Dong, Jinqiang Cui, Swee King Phang, Biao Wang, Delin Luo, Shiyu Zhao, Mingfeng Yin, Kun Li, Kemao Peng, Guowei Cai.

Extractor X - Autonomous Quad Tilt Rotor UAV
Joshua Chao.

Evaluating a Web-based Tool for Crowdsourced Navigation Stress Tests
Florian Meier, Alexander Bazo, Manuel Burghardt, Christian Wolff.

DUXU

Enterprise Software Product UI Design
Chair(s): Esin Kiris.

A User Experience Study of Airline Websites
Mahmut Ekşioğlu, Esin Kiris, Tuğba Çakır, Merve Güvendik, Efsane Koyutürk, Merve Yılmaz.

Looking beyond the Single Pane of Glass: Visualization and Perspective in Enterprise Network
Maria C Velez-Rojas, Serge Mankovskii, Michael Roberts, Steven Greenspan, Esin Kiris.

User-Centered Soft Innovation in Established Business Fields
Henning Breuer, Zeno Wolze, Elisabeth Umbach.

The Adoption of Mobile Internet: Industry and Users Experiences
Manuel José Damásio, Inês Teixeira-Botelho, Sara Henriques, Patrícia Dias.

Online Advertising as a New Story: Effects of User-driven Photo Advertisement in Social Media
Min Shin, Da Young Ju.

DAPI

Distributed, Ambient and Pervasive Interactions

Pervasive Systems for Assistive Environments
Chair(s): Ilias Maglogiannis.

The role of emotion and mood in elderly's independent living
Panos D Bamidis.

Fusion of Color and Depth Video for Human Behavior Recognition in an Assistive Environment
Dimitrios Kosmopoulos, Paul Doliotis, Vassilis Athitsos, Ilias Maglogiannis.

Design and Evaluation of a Nonverbal Communication Platform Between Assistive Robots and their Users
Anthony Threatt, Keith Evan Green, Johnell O. Brooks, Jessica Merino, Ian D. Walker, Paul Yanik.

SmartAssist: Open Infrastructure and Platform for AAL Services
Peter Rothenpieler, Darren Carlson, Andreas Schrader.

Design Considerations for Leveraging Over-familiar Items for Elderly Health Monitors
Edward Wang, Samantha Ipser, Patrick Little, Noah Duncan, Benjamin Liu, Shinsaku Nakamura.

Multi-person Identification And Localization For Ambient Assistive Living
Georgios Galatas, Shahina Ferdous, Filia Makedon.

HAS

Human Aspects of Information Security, Privacy and Trust

Security Behaviour
Chair(s): Kerry-Lynn Thomson.

A Study using TAM on the Recognition of Individuals' Privacy and the Acceptance of Risk - The Case of Japanese Internet users -
Ayako Komatsu.

Health is Silver, Beauty is Golden? How the Usage Context Influences the Acceptance of an Invasive Technology
Johanna KLuge, Martina Ziefle.

An Influence of Self-evaluated Gender Role on the Privacy Management Behavior in Online Social Networks
Kijung Lee, Il-Yeol Song.

Perception of Risky Security Behaviour by Users: Survey of Current Approaches
Lynsay Shepherd, Jacqueline Archibald, Ian Ferguson.

"Click me if you can!" – When do users follow a call to action in an online message?
Thomas Pfeiffer, Heike Theuerling, Michaela Kauer.

Studying the Effect of Human Cognition on Text and Image Recognition CAPTCHA Mechanisms
Marios Belk, Panagiotis Germanakos, Christos Fidas, George Spanoudis, George Samaras.

HCI

Human-Computer Interaction

UX Engineering and UX Design
Chair(s): Masaaki Kurosu.

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.

Intelligent User Interfaces for Privacy-respecting, Personal Information Management across the Social Web
Chair(s): Dieter Spath, Fabian Hermann.

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 Røssvoll, Lothar Fritsch.

The di.me User Interface: Concepts for Sharing Personal Information via Multiple Identities in a Decentralized Social Network
Fabian Hermann, Andreas Schuller, Simon Thiel, Christian Knecht, Simon Scerri.

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

Speech and Dialogue Systems
Chair(s): Ing-Marie Jonsson.

Evaluation of WikiTalk – User Studies of Human-Robot Interaction
Dimitra Anastasiou, Kristiina Jokinen, 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 Silvervarg.

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
Hongmei Wang, Ava Gailliot, Douglas Hyden, Ryan Lietzenmayer.

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

Driving and interacting
Chair(s): To be announced

Auditory and Head-up Displays in Vehicles
Christina Dicke, Grega Jakus, Jaka Sodnik.

Reducing Speeding Behavior in Young Drivers Using a Persuasive Mobile Application
Anne Bergmans, Suleman Shahid.

Anti-Bump: A Bump/Pothole Monitoring and Broadcasting System for Driver Awareness
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.

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

Human Interface and the Management of Information

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 Mahr, 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 Nikolaou, Sara Silvagni, Cristina Martinez Gomez, Iraklis Lazakis, Tineke Bosma.

A Semiotic Based Method for Evaluating Automated Cockpit Interfaces
Waldomiro S Moreira, Rodrigo Bonacin.

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

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.

Customer value by human interface
Chair(s): Shin'ichi Fukuzumi.

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

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

Physiological Responses and Kansei 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.

Towards An Ontological Interpretation on the i* Modeling Language Extended With Security Concepts: a Bunge-Wand-Weber Model Perspective
Gen-Yih Liao, Po-Jui Liang, Li-Ting Huang.

FRIDAY 8:00 - 10:00

EPCE

Engineering Psychology and Cognitive Ergonomics

Human Factors and road safety

Chair(s): Paul Salmon.

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 Filtness.

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.

Human-Automation Integration Issues in Highly Automated Unmanned Vehicles

Chair(s): Axel Schulte.

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 Ososky.

UAHCI

Universal Access in Human-Computer Interaction

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
Shys-Fan Yang-Mao, Ming-Hui Lin, Yu-Ting Lin, Wen-Jun Zeng, Yueh-Yi Lai.

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 Realty Plant to Depressurize on Office Ladies
Jei-Chen Hsieh, Chang-Chan Huang, Hwa-San Kwan.

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

Multi-Modal, Multi-Party, and Multi-Brain Brain-Computer Interfacing

Chair(s): Anton Nijholt, Brendan Z Allison.

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, Mannes Poel.

Multi-modal Computer Interaction for Communication and Control Using EEG, EMG, EOG and Motion Sensors
Guenter Edlinger, Christoph Kapeller, Arnau Espinosa, Sergi Torrellas, Felip Miralles, Christoph Guger.

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
Thorsten O. Zander, Jonas Broenstrup, Elisa Klose, Robert Sonnenberg, Wouter Vos, Marc Grootjen.

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

Parallel Sessions

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, Keembéc 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, Augmented and Mixed Reality

Computational Aspects of Mental Models of Human-Robot Teamwork
Chair(s): Christian Lebiere, Florian G Jentsch.

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, Daqing 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 Scheutz.

Virtual and Augmented Reality HCI in Medicine
Chair(s): Vassilis Charissis.

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
Jennifer Murray, Brian Williams, Gaylor Hoskins, John McGhee, Dylan Gauld, Gordon Brown.

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

CCD

continues...

Cross-Cultural Design

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.

CCD

Globally Distributed Work- the Interplay between the Social and the Technical

Chair(s): Ye Li, Alexander Mädche.

Extending Role of "I" Virtually – Identity Performance and their Influence on Individual Behaviour and Team Performance in Globally Distributed Work Virtual Teams
K.B. Akhilesh, Sindhuja CV, Simran k Kahai.

Mobile Application Development in FLOSS Platform: A Collaborative Network Approach
Qiqi Jiang, Chuan-Hoo Tan, Kwok Kee Wei.

Uncovering the Effects of Cultural Intelligence on Cross-Cultural Virtual Collaboration Processes
Ye Li, Asgeir Skulason.

On Relationship between Self-Construal and Individual Behavior in Video-Mediated Multicultural Group Decision Making
Hui Li, P. L. Patrick Rau, Xiaobo Zhao, Gavriel Salvendy.

Trust and Coordination in Offshore Outsourcing: An Account of Intercultural Collaboration in a Danish and Indian IT Context
Thomas Tøth.

Supporting Globally Distributed Work - Cultural Adaptivity meets Groupware Tailorability
Angela Hirlehei, Axel Hunger.

DUXU

Design, User Experience, and Usability

Cross-Cultural Interface Design

Chair(s): Nouf Khashman, Emilie Gould.

Two Solitudes Revisited: A Cross-cultural Exploration of Online Image Searchers' Behaviours
Elaine Ménard, Nouf Khashman, Jonathan Dorey.

Intercultural User Interface Design – Culture-Centered HCI Design – Cross-Cultural User Interface Design: Different Terminology or Different Approaches?
Rüdiger Heimgärtner.

Exploring Offline Browsing Patterns to Enhance the Online Environment
Xiaopeng Guo, Jie Gao, Yujing Zeng, Zhenghua Zhang.

Tracing Technology Diffusion of Social Media with Culturally Localized User Experience Approach
Huatong Sun.

Banner Evaluation Predicted by Eye Tracking Performance and the Median Thinking Style
Man Ying Wang, Da-Lung Tang, Chih Tung Kao, Vincent C. Sun.

Observation Analysis Method for Culture Centered Design - Proposal of KH method -
Kaho Asano, Kazuhiko Yamazaki.

User Experience for Mobile Business Applications

Chair(s): Steffen Hess, Ralf Carbon.

User Interaction Forensics – Detecting and Interpreting the User's Footprints during Touch Interaction
Kai Breiner.

Adressing Animated Transitions already in Mobile App Storyboards
Marcus Trapp, René Yasmin.

Novel Method of Evaluating GUI Design from the Viewpoint of Worker Experience -Central control systems for social infrastructure-
Daiki Hama, Mai Kurioka, Mariko Kato, Ken Imamura, Miwa Nakanishi.

Developing Interactive Checklist for Nurses' Handoff in Intensive Care Unit
Shang Hwa Hsu, Yan-Ying Li.

9/11 Memorial App: A Case Study of Serious Smart Phone UX Design
Tobias Komischke.

Industrial Software User Experience

Chair(s): Sanjay Tripathi.

Pragmatic Approach to Cost Benefit Analysis of User Centered Design
Izumi Kohno, Hiroko Yasu, Satoshi Sugawara, Masahiro Nishikawa.

A User Centred Approach to Determining the Impact of Faster Broadband on Small and Medium Sized Enterprises
Doug L Williams, Andy Gower, Joshan Meenowa, Jon Wakeling.

A Work-Centred, Systems Engineering Approach to Interface Design for Command and Control
Bruce A Chalmers.

SysML-based Approach for Automation Software Development – Explorative Usability Evaluation of the Provided Notation
Daniel Schütz, Martin Obermeier, Birgit Vogel-Heuser.

Emotional Experience and Interactive Design in the Workplace
Kuo-Pin Chen, Wen-Huei Chou.

How to Design Experiences: Macro UX versus Micro UX Approach
Constantin Von Saucken, Ioanna Michailidou, Udo Lindemann.

DUXU

Energy Feedback Design and Information Visualization
Chair(s): Janelle LaMarche, Brian Y Lim.

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.

Interaction design in daily activity
Chair(s): Yoichi Motomura.

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
Takuichi Nishimura, M. Kobayakawa, N. Nakajima, K.C. Yamada, T. Fukuhara, M. Hamasaki, H. Miwa, Kentaro Watanabe, Y. Sakamoto, T. Sunaga, Yoichi Motomura.

DAPI

Distributed, Ambient and Pervasive Interactions

Interaction for Ubiquitous Virtual Reality - I
Chair(s): Woontack Woo.

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, Taehun 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.

Human-Computer Interaction

HCI

Gesture-based interaction

Chair(s): To be announced

Functional Gestures for Human-Environment Interaction
Stefano Carrino, Maurizio Caon, Omar Abou Khaled, Rolf Ingold, Elena Mugellini.

Finger Controller : Natural User Interaction using Finger Gestures
Unseok Lee, Jiro Tanaka.

Computational Cognitive Modeling of Touch and Gesture on Mobile Multitouch Devices: Applications and Challenges for Existing Theory
Kristen K. Greene, Franklin P. Tamborello, Ross Micheals.

A Method for Single Hand Fist Gesture Input to Enhance Human Computer Interaction
Tao Ma, William Wee, Chia Yung Han, Xuefu Zhou.

MOBAJES: Multi-User Gesture Interaction System with Wearable Mobile Device
Enkhbat Davaasuren, Jiro Tanaka.

The Language of Motion: A Taxonomy for Interface
Elaine Froehlich, Brian Lucid, Heather Shaw.

Study of Interaction Concepts in 3D Virtual Environment
Vera Oblaender, Maximilian Eibl.

Recognizing Emotions

Chair(s): To be announced

Personality and Emotion as Determinants of the Learning Experience: How Affective Behavior Interacts with Various Components of the Learning Process
Zacharias Lekkas, Panagiotis Germanakos, Nikos Tsianos, Constantinos Mourlas, George Samaras.

Evaluating Engagement Physiologically and Knowledge Retention Subjectively through Two Different Learning Techniques
Marvin Andujar, Josh Ekandem, Juan Gilbert, Patricia A Morreale.

A New E-learning System Focusing on Emotional Aspect Using Biological Signals
Saromporn Charoenpit, Michiko Ohkura.

Evaluating Emotional State during 3DTV Viewing Using Psychophysiological Measurements
Kiyomi Sakamoto, Seiji Sakashita, Kuniko Yamashita, Akira Okada.

The Impact of Gender and Sexual Hormones on Automated Psychobiological Emotion Classification
Stefanie Rukavina, Sascha Gruss, Junwen Tan, David Hrabal, Steffen Walter, Harald Traue, Lucia Jerg-Bretzke.

Comparison of Kansei Information between Joyful and Happy Expressions in Dance
Nao Shikanai, Kozaburo Hachimura.

Design and evaluation techniques and methods for medical and rehabilitation devices

Chair(s): Simone Borsci.

Environmental Evaluation of a Rehabilitation Aid Interaction under the Framework of the Ideal Model of Assistive Technology Assessment Process
Stefano Federici, Simone Borsci, Maria Laura Mele.

User Requirements for the Development of Smartphone Self-Reporting Applications in Healthcare
Michael P Craven, Kirusnapillai Selvarajah, Robert Miles, Holger Schnädelbach, Adam Massey, Kavita Vedhara, Nicholas Raine-Fenning, John Crowe.

A Grounded Procedure for Managing Data and Estimating the Sample Size of a Home Medical Device Assessment
Simone Borsci, Jennifer Martin, Julie Barnett.

Native Apps versus Web Apps: Which is Best for Healthcare Applications?
Kirusnapillai Selvarajah, Michael P Craven, Adam Massey, John Crowe, Kavita Vedhara, Nicholas Raine-Fenning.

Evaluation of Hip Impingement Kinematics on Range of Motion
Mahshid YazdiFar, Mohammadreza Yazdifar, Pooyan Rahmanivahid, Saba Eshraghi, Ibrahim Esat, Mahmoud Chizari.

Study on Relationship Between Foot Pressure Pattern and Hallux Valgus Progression
Saba Eshraghi, Ibrahim Esat, Pooyan Rahmanivahid, Mahshid YazdiFar, Mona Esharghi, Amir Mohagheghi, Sara Horne.

User interface design

Chair(s): Sheue-Ling Hwang.

Human Factor Research of User Interface for 3D Display
Chih-Hung Ting, Teng-Yao Tsai, Yi-Pai Huang, Wen-Jun Zeng, Ming-Hui Lin.

Evaluation of Mono/Binocular Depth Perception Using Virtual Image Display
Shys-Fan Yang-Mao, Yu-Ting Lin, Ming-Hui Lin, Wen-Jun Zeng, Yao-lien Wang.

Establishing a Cognitive Map of Public Place for Blind and Visual Impaired by Using IVEO Hands-On Learning System
Qing-Wen Lin, Sheue-Ling Hwang, Jan-Li Wang.

Ergonomics Design with Novice Elicitation on an Auditory-Only In-Vehicle Speech System
Ming-Hsuan Wei, Sheue-Ling Hwang, Hsin-Chang Chang, Jian-Yung Hung, Chih-Chung Kuo.

Towards a Design Guideline of Visual Cryptography on Stereoscopic Displays
Shih-Lung Tsai, Chao-Hua Wen.

The Development of an Innovative Design Process for Eco-efficient Green Products
Shiaw-Tsyr Uang, Cheng-Li Liu.

Towards Ergonomic User Interface Composition: A Study about Information Density Criterion
Yoann Gabillon, Sophie Lepreux, Káthia Marçal De Oliveira.

HCI

Human - Robot Interaction
Chair(s): To be announced

Ergonomic Rating of Interaction Technologies for A Mobile Robot System
Uwe Herbst, Steffen Rühl, Andreas Hermann, Zhixing Xue, Klaus Bengler.

Exploring Children's Attitudes towards Static and Moving Humanoid Robots
Fang-Wu Tung, Tsen-Yao Chang.

Interface Design for Minimizing Loss of Context in In-situ Remote Robot Control
Jong-gil Ahn, Gerard Jounghyun Kim.

Generation of Facial Expression Emphasized with Cartoon Techniques Using a Cellular-phone-type Teleoperated Robot with a Mobile Projector
Yu Tsuruda, Maiya Hori, Hiroki Yoshimura, Yoshio Iwai.

Developing Sophisticated Robot Reactions by Long-term Human Interaction
Hiromi Nagano, Masataka Tokumaru, Miho Harata.

HIMI

Human Interface and the Management of Information

Application in physiological and behavioral research for HCI related field
Chair(s): Kentaro Kotani.

Assessing Mental Workload of In-Vehicle Information Systems by Using Physiological Metrics
Susumu Enokida, Kentaro Kotani, Satoshi Suzuki, Takafumi Asao, Takahiro Ishikawa, Kenji Ishida.

Changes in Posture of the Upper Extremity Through the Use of Various Sizes of Tablets and Characters
Hiroki Maniwa, Kentaro Kotani, Satoshi Suzuki, Takafumi Asao.

Non-contact Measurement of Biological Signals Using Microwave Radar
Hiroki Morodome, Satoshi Suzuki, Takafumi Asao, Kentaro Kotani.

Development of Screening Visual Field Test Application that Use Eye Movement
Makoto Mizutani, Kentaro Kotani, Satoshi Suzuki, Takafumi Asao, Tetsuya Sugiyama, Mari Ueki, Shota Kojima, Maho Shibata, Tsunehiko Ikeda.

Estimation of driver's steering intention by using mechanical impedance
Takafumi Asao, Hiroo Suzuki, Satoshi Suzuki, Kentaro Kotani.

Optimization of GUI on Touchscreen Smartphones Based on Physiological Evaluation Feasibility of Small Button Size and Spacing for Graphical Objects
Shohei Komine, Miwa Nakanishi.

Personalised information spaces
Chair(s): To be announced

Integrating the Anchoring Process with Preference Stability for Interactive Movie Recommendations
I-Chin Wu, Yun-Fang Niu.

The right level of complexity in a banner ad – Roles of construal level and fluency
Chih Tung Kao, Man Ying Wang.

TAGZILLA: Tag-based File Storage and Retrieval
Vikram Nair, Vijayanand Banahatti, Niranjan Pedanekar.

A Study of Customization for Online Business
Vincent Cho, Candy Lau.

Similar or Not Similar: This Is a Parameter Question
Andrey A Masiero, Flavio Tonidandel, Plinio Thomaz Aquino Junior.

I See, Please Tell Me More - Exploring Virtual Agents as Interactive Storytellers
David Lindholm, Eva Petersson Brooks, Tom Nauerby.

Supporting Group and Personal Memory in an Interactive Space for Collaborative Work
Mari Tyllinen, Marko H.T. Nieminen.

Safety-critical applications
Chair(s): To be announced

Using Video Prototyping as a Means to Involve Crisis Communication Personnel in the Design Process: Innovating Crisis Management by Creating a Social Media Awareness Tool
Joel Brynielsson, Fredrik Johansson, Sinna Lindquist.

Supporting Residents Evacuation and Safety Inquiry in case of Disaster
Masahiro Arima, Takuya Ueno, Michitaka Arima.

Knowledge Visualization aiding Decision Making for Alarm Resolution in Electrical Power Systems
Wagesh Kulkarni.

The Study of Surveillance around the Ship II
Tadasuke FURUYA, Takafumi SAITO.

Increasing Situational Awareness of Indoor Emergency Simulation using Multilayered Ontology-Based Floor Plan Representation
Chaianun Damrongrat, Hideaki Kanai, Mitsuru Ikeda.

The Effect of Information Quantity on Cbp Interface in the Advanced Nuclear Power Plant
Min-Chi Hseih, Sheue-Ling Hwang.

FRIDAY 10:30 - 12:30

EPCE

Engineering Psychology and Cognitive Ergonomics

Situated Cognitive Engineering for Citizen's Well-Being
Chair(s): Mark A. Neerincx.

Inclusive design: bridging theory and practice
Anita Cremers, Mark A. Neerincx, Jacomien De Jong.

User requirement analysis of social conventions learning applications for non-natives and low-literates
Dylan G.M. Schouten, Nanja Smets, Marianne Driessen, Marieke Hanekamp, Mark A. Neerincx, Anita Cremers.

Usability an Important Goal for the Design of Therapeutic Games for Older Adults
Anne McLaughlin, Michelle Bryant, John Sprufera, Jason Allaire, Maribeth Gandy.

Aged People's Emotion Elicited by Touching Materials of Armrests
Tyan-Yu Wu, G. E. Pon.

Online single EEG channel based automatic sleep staging
Gary N Garcia-Molina, Michele Bellesi, Sander Pastoor, Stefan Pfundtner, Brady Riedner, Giulio Tononi.

Cognitive Engineering and Emergency Management
Denis A Coelho.

UAHCI

Universal Access in Human-Computer Interaction

Design Access in Ergonomics and Interaction
Chair(s): Fong-Gong Wu.

Universal Conceptual Design Solution for Built-in Orthopaedic Rocker-bar Device
Robert CC Chen.

Design Guidelines for an Integrated PHR System: An Approach for UI Designers to Break Down Individual-Level Barriers to PHR Adoption
Shu-Wen Tzeng, Yuan Zhou.

Evaluating User Interface Design using Hierarchical Requirements Extraction Method (REM)
Toshiki Yamaoka.

Exploration of Picture E-Book Design for App Web
Cheih-Ying Chen, Hung-Chieh Chang.

The Innovative Concept of Icon Display on Elevator's Key Button
Ming-Tang Wang.

GreenSense: Developing Persuasive Service Technology by Integrating Mobile Devices and Social Interaction for Sustainable and Healthy Behavior
Po-Chun Chen, Taysheng Jeng, Yi-Shin Deng, Sheng-Fen Chien.

Developing Story Performing System for Children
Chien-Hsu Chen, Shao Yu Wang, Yi Chia Nina Lee.

Inclusive education
Chair(s): To be announced

Read-Aid – An Assistive Reading Tool for Children with Dyslexia
Suvarna Rekha Chinta, Sai Gollapudi, Harini Sampath, Bipin Indurkhya.

Ysitools: A Set of Generic Tools for the Analysis of Eye-movements Analysis of Dyslexic People
Damien Appert, Philippe Truillet.

Universal Design and Accessibility Standards in Online Learning Objects
Cláudia Mara Scudelari de Macedo, Vania Ribas Ulbricht.

Introducing an Information System for successful support of selective attention in online courses
Martin Ebner, Josef Wachtler, Andreas Holzinger.

Challenges for Inclusive Affective Detection in Educational Scenarios
Olga C. Santos, Alejandro Rodriguez-Ascaso, Jesus Boticario, Sergio Salmeron, Pilar Quiros, Raul Cabestrero.

Towards an Affective Computing Feedback System to Benefit Underserved Individuals: An Example Teaching Social Media Skills
Mohammad Nasser Saadatzi, Karla Conn Welch, Robert Pennington, James Graham.

Handling Structural Models Composed of Objects and Their Mutual Relations in the Spatial Cognition Experiments
Nobuhito Yamamoto, Shoko Shiroma, Tomoyuki Nishioka.

Technologies for Enhancing Universal Access
Chair(s): João Barroso, Leontios Hadjileontiadis.

A Biological and Real-time Framework for Hand Gestures and Head Poses
Mario Saleiro, Miguel Farrajota, Kasim Terzic, João Rodrigues, Hans Du Buf.

Social Media as Online Mentoring Tools for STEM Students with and without Disabilities
Robert Todd.

An Error Tolerant Memory Aid for Reduced Cognitive Load in Number Copying Tasks
Frode Eika Sandnes.

Symbiosis: An innovative human-computer interaction environment for Alzheimer's support
Dimitris Mandiliotis, Konstantinos Toumpas, Katerina Kyprioti, Kiki Kaza, João Barroso, Leontios Hadjileontiadis.

Network For All: A Proposal for an Accessible Social Media Aggregator Solution
Mário Correia, Gonçalo Cruz, Ricardo Rodrigues Nunes, Jose L.B. Martins, Ramiro Gonçalves, Hugo Paredes, Paulo Martins.

Automatically Generating Online Social Network Messages to Combat Social Isolation of People with Disabilities
John J Magee, Margit Betke.

Interaction Design for Robotic Avatars - Does Avatar's Aging Cue Affect the User's Impressions of a Robot?
Angie L. Marin Mejia, Sukhan Lee.

UAHCI

Cutting Edge in Information Display: Recent Advances in Ergonomic Research for the Use of E-papers
Chair(s): Masaru Miyao, Hiromu Ishio.

Effects of Long-Time 3D Viewing on the Eye Function of Accommodation and Convergence
Hiromu Ishio, Takehito Kojima, Takumi Oohashi, Yuki Okada, Hiroki Takada, Masaru Miyao.

Multi-Evaluation Method of Visual Fatigue and Motion Sickness while Viewing 2D/3D Video Clips on A Liquid Crystal Display
Hiroki Takada, Kazuhiro Fujikake, Yasuyuki Matsuura, Masaru Miyao.

Effects of Environmental Illuminance on the Readability of E-books
Tatsuya Koizuka, Takehito Kojima, Shunta Sano, Nobuhiro Ishio, Masaru Miyao.

Verification of the Minimum Illuminance for Comfortable Reading of an E-paper
Takehito Kojima, Shunta Sano, Nobuhiro Ishio, Tatsuya Koizuka, Masaru Miyao.

Aging effects on the readability of characters on e-book terminals
Ranson Paul Lege, Satoshi Hasegawa, Akira Hasegawa, Takehito Kojima, Masaru Miyao.

Effect of Accommodation Training in Foreign Labor
Masumi Takada, Masaru Miyao, Hiroki Takada, Yasuyuki Matsuura.

An Evaluation of the iPod Touch as an Alternative Low-Vision Magnifier for People with Low Vision
Seunghyun «Tina» Lee, Jon Sanford.

VAMR

Virtual, Augmented and Mixed Reality

VR and Ultra Reality
Chair(s): Yasushi Ikei.

Tactile Apparent Motion Presented from Seat Pan Facilitates Racing Experience
Tomohiro Amemiya, Koichi Hirota, Yasushi Ikei.

Human Adaptation, Plasticity and Learning for A New Sensory-Motor World in Virtual Reality
Michiteru Kitazaki.

Virtual body in the Ultra Reality presentation
Yasushi Ikei, Koji Abe, Yujiro Okuya, Yukinori Masuda, Ryo Tanaka, Banri Oda, Tomohiro Amemiya, Koichi Hirota.

Affecting Our Perception of Satiety by Changing The Size of Virtual Dishes Projected with a Tabletop Display
Sho Sakurai, Takuji Narumi, Yuki Ban, Tomohiro Tanikawa, Michitaka Hirose.

Presentation of Odor in Multi-sensory Theater
Koichi Hirota, Yoko Ito, Tomohiro Amemiya, Yasushi Ikei.

High Presence Communication between the Earth and International Space Station
Tetsuro Ogi, Yoshisuke Tateyama, Yosuke Kubota.

CCD

Cross-Cultural Design

Design for Individual Differences
Chair(s): Jia Zhou.

Modality-Independent Interaction Framework for Cross-Disability Accessibility
J. Bern Jordan, Gregg Vanderheiden.

Feature Extraction of Individual Differences for Identification Recognition Based on Resting EEG
Rui Xu, Dong Ming, Yanru Bai, Jing Liu, Hongzhi Qi, Qiang Xu, Peng Zhou, Lixin Zhang, Baikun Wan.

The Application of Consistent User Interface in Common Use Self Service (CUSS)
Horng-Yi Yu, T. K. Philip Hwang, Jisook Han, Tsung-Hsian Wang.

A Qualitative Study of Older Adults' Acceptance of New Functions On Smart Phones and Tablets
Jia Zhou, P. L. Patrick Rau, Gavriel Salvendy.

Reception of Space: Inspiring Design without a Designer
Yihua Huang, Kin Wai Michael Siu.

OCSC

Online Communities and Social Computing

eSociety 2.0 - I
Chair(s): To be announced

Group Recommender Systems as a Voting Problem
George Popescu.

The Influence of Social Networking Sites on Participation in the 2012 Presidential Election
Rachel Adler, William Adler.

Supporting Social Deliberative Skills Online: the Effects of Reflective Scaffolding Tools
Tom Murray, A Lynn Stephens, Beverly Woolf, Leah Wing, Xiaoxi Xu, Natasha Shrikant.

User Generated Content: an Analysis of User Behavior by Mining Political Tweets
Rocio Abascal-Mena, Erick Lopez-Ornelas, J. Sergio Zepeda-Hernandez.

City 2.0 and Tourism Development
Karim Fraoua, Christian Bourret.

Untangling the Web of e-Health: Multiple Sclerosis Patients' Perceptions of Online Health Information, Information Literacy, and the Impact on Treatment Decision Making Decision Making.
Anna Langhorne, Patrick Thomas, Laura Kolaczkowski.

FRIDAY 10:30 - 12:30

AC

Augmented Cognition

Applications of Optical Brain Imaging
Chair(s): Banu Onaral.

Differential Prefrontal Response During Natural and Synthetic Speech Perception: An fNIR Based Neuroergonomics Study
Hasan Ayaz, Paul Crawford, Adrian Curtin, Mashaal Syed, Banu Onaral, Willem Beltman, Patricia Shewokis.

Functional Near-Infrared Spectroscopy in Addiction Treatment: Preliminary Evidence as a Biomarker of Treatment Response
Scott Bunce, Jonathan Harris, Kurtulus Izzetoglu, Hasan Ayaz, Meltem Izzetoglu, Kambiz Pourrezaei, Banu Onaral.

Human Performance Assessment Study in Aviation Using Functional Near Infrared Spectroscopy
Joshua Harrison, Kurtulus Izzetoglu, Hasan Ayaz, Ben Willems, Sehchang Hah, Hyun Woo, Patricia Shewokis, Scott Bunce, Banu Onaral.

Towards a hybrid P300-based BCI using simultaneous fNIR and EEG
Yichuan Liu, Hasan Ayaz, Adrian Curtin, Banu Onaral, Patricia Shewokis.

Brain in the Loop Learning using Functional Near Infrared Spectroscopy
Patricia Shewokis, Hasan Ayaz, Adrian Curtin, Kurtulus Izzetoglu, Banu Onaral.

Relationship Analysis between Subjective Evaluation and NIRS-based Index on Video Content
Shinsuke Mitsui, Atsushi Maki, Toshikazu Kato.

EEG-based Hybrid Control System of a Musical Walkman Using Steady-State Visual Evoked Potential and Motor Imagery
Li-Wei Ko, Yu-Ting Liu.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

Models and simulations in complex human environments
Chair(s): Vincent Duffy.

Combining Motion Capture and Digital Human Modeling for Creating Instructions in Industrial Settings
Ulrike Schmuntzsch, Ulas Yilmaz, Matthias Rötting.

Investigation of an Agent-Based Modeling on Crowd Evacuation and its Application to Real Buildings
Fujio Yamamoto.

Numerical Reconstruction of the Real-Life Fatal Accident at Work: a Case Study
Marcin Milanowicz, Pawel Budziszewski.

Bayesian Affordance-Based Agent Model for Wayfinding Behaviors in Evacuation Problems
Moise Busogi, Namhun Kim, Dongmin Shin, Hokyoung Ryu, ARM Yoo, Dongchul Kim.

Simulating a Walk of Digital Human Model directly in Massive 3D Laser-scanned Point Cloud of Indoor Environments
Tsubasa Maruyama, Satoshi Kanai, Hiroaki Date.

Working with computers: ergonomics, safety and health considerations
Chair(s): Michelle Robertson.

Telework: Experiences of knowledge workers
Michelle Robertson.

Temporal Dependence of Trapezius Muscle Activation during Sustained Eye-lens Accommodation at Near
Hans Richter, Camilla Lodin, Mikael Forsman.

A Knowledge Transfer Process: Establishing Training in New Technology for an Ageing Workforce
Conne Bazley, Denise Brooks.

The Effectiveness of Alternative Keyboards at Reducing Musculoskeletal Symptoms at Work: A Review
Nancy A. Baker.

Evaluating Ergonomics Risks for Digital Radiologists
Alan Hedge.

Hand and Arm Support for Computer Workstation
Ghi-Hwei Kao, T. K. Philip Hwang.

DUXU

Design, User Experience, and Usability

Design, Ergonomics, and Usability - IV
Chair(s): Marcelo Soares, Julie Waldron.

The Design in the Development of Exergames: A New Game for the Contribute to Control Childhood Obesity
Marina Barros, Andre Neves, Walter Correia, Marcelo Soares, Fabio Campos.

Participatory Design for Mobile Application for Academic Management in a Brazilian University
José Guilherme da Silva Santa Rosa, Andrei G. A. Rebouças, Marcel Passos.

Design Methodology for Body Tracking Based Applications - A Kinect Case Study
Felipe B Breyer, Bernardo Reis, Luis A Vasconcelos, Aline Cavalcanti, João Marcelo Teixeira, Judith Kelner.

Luz, Câmera, Libras!: How a Mobile Game Can Improve the Learning of Sign Languages
Guilherme Moura, Luis A Vasconcelos, Aline Cavalcanti, Felipe B Breyer, Daliton Da Silva, João Marcelo Teixeira, Crystian Leão, Judith Kelner.

Design and usability: A Case Study on Selecting Exhibitors for the National Fair of Craftwork – FENEARTE - Recife, PE, Brazil
Tibério Tabosa, Virginia Cavalcanti, Ana Andrade, Erimar Cordeiro, Germannya D´Garcia.

Calculation of Areas of Permanence in Public Spaces, According to Solar Radiation Simulated Conditions
Julie Waldron, Jorge Salazar.

DUXU

Usability Methods and Tools
Chair(s): Jennifer McGinn.

Usability Testing Medical Devices: A Practical Guide to Minimizing Risk and Maximizing Success
Chris Hass, Dan Berlin.

Merging Methodologies: Combining Individual and Group Card Sorting
Bob Thomas, Ian Johnson.

Customer Recruitment: Ethical, Legal & Practical Issues
Kristyn Greenwood, Angela Johnston.

Beyond Satisfaction Questionnaires: «Hacking» the Online Survey
Andrea L. Evans.

Assessing Perceived Experience with Magnitude Estimation
Mick McGee, Misha Vaughan, Joe Dumas.

Automated Real-time Confusability and Scent Analyser for the Web
Raza Habib, Paul Schaik, Mike Lockyer.

DAPI

Distributed, Ambient and Pervasive Interactions

Interaction for Ubiquitous Virtual Reality - II
Chair(s): Woontack Woo.

Experimental Study on Display of Energy-related Information in Smart Homes Using Virtual Reality
Kodai Ito, Michiko Ohkura.

Context-of-Interest driven Trans-Space Convergence for Spatial Co-Presence
Hyeongmook Lee, Taejin Ha, Seungtak Noh, Woontack Woo.

The Association of In-World Avatar Investment With Expectations of Behavioral Change
Jacquelyn Morie, Sin-Hwa Kang, Eric Chance.

Web based Me-centric Resource Management System for Pervasive Environment
Daeil Seo, Sangchul Ahn, Heedong Ko.

An Efficient Motion Graph Searching Algorithm for Augmented Reality Characters
Sukwon Lee, Sung-Hee Lee.

Application of bio-inspired metaheuristics to guillotined cutting processes optimize in an glass industry
Flavio Moreira da Costa, Tiago Vieira Carvalho, Renato Jose Sassi.

HAS

Human Aspects of Information Security, Privacy and Trust

Intent Semantics: New Concept in Trust R&D
Chair(s): Claire Vishik.

Towards Usable Generation and Enforcement of Trust Evidence from Programmer's Intent
Michael R.A. Huth, Jim Huan-Pu Kuo, Angela Sasse, Iacovos Kirlappos.

Cloudopsy: an Autopsy of Data Flows in the Cloud
Angeliki Zavou, Vasilis Pappas, Vasileios P. Kemerlis, Michalis Polychronakis, Georgios Portokalidis, Angelos Keromytis.

Influence of Trust Assurances in Mobile Commerce Applications on the Formation of Online Trust
Martin Hesseler, Gerhard Hartmann, Stefan Karsch.

Increasing Trust Perceptions in the Internet of Things
Trenton W Schulz, Ingvar Tjøstheim.

Supporting Human Decision-Making Online using Information-Trustworthiness Metrics
Jason R.C. Nurse, Sadie Creese, Michael Goldsmith, Syed Sadiqur Rahman.

Addressing User Privacy and Experience in Distributed Long Lifetime Systems
Scott W Cadzow.

Secure and Energy-efficient Life-logging in Wireless Pervasive Environments
Alexandros Fragkiadakis, Ioannis Askoxylakis, Elias Tragos.

HCI

Human-Computer Interaction

FRIDAY 13:30 - 15:30

Interaction Design for Development (ID4D) of Indigenous Communities Chair(s): Daniel O. Ochieng.	Haptics: Towards interacting with the world via touch Chair(s): Chang S. Nam.	UI Prototyping methods and tools Chair(s): To be announced	Motion, Gesture and Expression recognition - II Chair(s): To be announced
Is Mobile phones explosion in the region exacerbating or alleviating poverty? A comparative study of Kenya and South Africa. Margaret Nyambura Ndung'u. **Mobile Money Services in Uganda: Design Gaps and Recommendations** Rehema Baguma. **Addressing the Interface Impediments to Grid Computing Usage Among Researchers in Developing Countries** Elisha T. O. Opiyo, Gyanti Thakur. **ICT4D Interaction Design:What Value can the Capability Approach add?** Samuel Ruhiu, Timothy M. Waema.	**Comparison of Enhanced Visual and Haptic Features in a Virtual Reality-Based Haptic Simulation** Michael Clamann, Wenqi Ma, David Kaber. **Influence of Haptic Feedback on a Pointing Task in a Haptically Enhanced 3D Virtual Environment** Brendan Corbett, Takehiko Yamaguchi, Shijing Liu, Lixiao Huang, Sangwoo Bahn, Chang S. Nam. **Assessing the Effectiveness of Vibrotactile Feedback on a 2D Navigation Task** Woo Jeon, Yueqing Li, Sangwoo Bahn, Chang S. Nam. **Behavioral Characteristics of Users with Visual Impairment in Haptically Enhanced Virtual Environments** Shijing Liu, Sangwoo Bahn, Heesun Choi, Chang S. Nam. **Use of Reference Frame in Haptic Virtual Environments: Implications for Users with Visual Impairments** Ja Young Lee, Sangwoo Bahn, Chang S. Nam. **Magnetic Field Based Near Surface Haptic and Pointing Interface** Kasun Thejitha Karunanayaka, Sanath Siriwardana, Chamari Edirisinghe, Ryohei Nakatsu, Ponnapalam Gopalkrishnakone. **Mapping Texture Phase Diagram of Artificial Haptic Stimuli Generated By Vibrotactile Actuators** Anak Agung Gede Dharma, Kiyoshi Tomimatsu.	**An Interface Prototyper Supporting Free Design Components Specification** Pedro Teixeira-Faria, Javier Rodeiro Iglesias. **Multi-level Communicability Evaluation of a Prototyping Tool** Vinicius Segura, Fabiana P Simões, Gabriel L Sotero, Simone Barbosa. **Established and Innovative Facets of Interactive Prototypes – a Case Study** Sebastian C. Scholz, Dieter Wallach. **EMIL: A Rapid Prototyping Authoring Environment for the Design of Interactive Surface Applications** Johannes Luderschmidt, Nadia Haubner, Simon Lehmann, Ralf Dörner. **An Empirical Study on Immersive Prototyping Dimensions** Samuel Moreira, Rui José, José C Campos. **High-fidelity User Interface Design for Interactive Television Application** Jianmin Wang, Ting Xie, Fang You, Zelong Tang, Hongmei Li.	**Gesture vs. Gesticulation: A Test Protocol** Francesco Carrino, Antonio Ridi, Rolf Ingold, Omar Abou Khaled, Elena Mugellini. **Impact of gesture repetition in recognizing real human in animated hand motion** Manoj kumar Rajagopal. **The Influence of Context Knowledge for Multi-modal Affective Annotation** Ingo Siegert, Ronald Böck, Andreas Wendemuth. **Rebuilding Topology of Online Freehand 3D Object Sketches with Hidden lines** Shuxia Wang, Mantun Gao, Guanfeng Wang, Liling Wang. **Multimodal Mathematical Expressions Recognition: Case of Speech and Handwriting** Sofiane Medjkoune, Harold Mouchere, Simon Petitrenaud, Christian Viard-Gaudin.

HCI

Inclusive Design for HCI
Chair(s): Yong Gu Ji.

Preliminary Design of Haptic Icons from Users
Wonil Hwang, Dongsoo Kim.

Conditions of Applications, Situations and Functions Applicable to Gesture Interface
Taebeum Ryu, Jaehong Lee, Myung Hwan Yun, Ji Hyoun Lim.

Introducing Emotional Interfaces to Healthcare Systems
Rangarajan Parthasarathy, Xiaowen Fang.

User Centered Inclusive Design Process: A 'situationally-induced impairments and disabilities' perspective
Hyung Jun Oh, Hyo Chang Kim, Hwan Hwangbo, Yong Gu Ji.

Search Engine Accessibility for Low-Literate Users
Debora M Modesto, Simone B. Leal Ferreira, Aline S Alves.

The Evaluation of a Voting Web Based Application
Linda Harley, Keith Kline, Jerry B. Ray, Carrie Bell, Andrew Baranak, Chandler Price, Matthew Hung, Brad Fain.

HIMI

Human Interface and the Management of Information

Service engineering and interaction
Chair(s): Sakae Yamamoto, Koji Kimita.

Role of assigned persona for computer supported cooperative work in remote control environment
Yuzo TAKAHASHI.

Interpersonal Service Support Based on Employee's Activity Model
Kentaro Watanabe, Takuichi Nishimura.

Managing HMI quality in embedded system development
Haruhiko Urokohara, Nowky Hirasawa.

A Study on Selection Ability in the 3D Space by theFinger
Junpei Fukaya, Makoto Oka, Ryuta Yamada, Hirohiko Mori.

An Improvement of Disaster Information System for Local Residents
Yuichi Takahashi, Sakae Yamamoto.

Framework for Quantitatively Evaluating the Quality Requirements of Software System
Yuki Terawaki.

Quality of Service Ontology Languages for Web Services Discovery: An overview and Limitations
Furkh Zeshan, Radziah Mohamad, Mohammad Nazir Ahmad.

Human-centered Information Systems and__Applications
Chair(s): Hiroshi Tsuji, Ryosuke Saga.

Basic Investigation into Hand Shape Recognition using Colored Gloves Taking Account of the Peripheral Environment
Takahiro Sugaya, Takayuki Suzuki, Hiromitsu Nishimura, Hiroshi Tanaka.

Window Manager Designed For Cloud Services
Shizuki Yoshino, Tetsuo Tanaka, Kazunori Matsumoto.

Transparent Digital Contents Sharing for Science Teachers
Thongchai Kaewkiriya, Ryosuke Saga, Hiroshi Tsuji.

Word Classification for Sentiment Polarity Estimation Using Neural Network
Hidekazu Yanagimoto, Mika Shimada, Akane Yoshimura.

ArchMatrix: Knowledge Management and Visual Analytics for Archaeologists
Stefano Valtolina, Barbara R Barricelli, Giovanna Bagnasco Gianni, Susanna Bortolotto.

Pros and Cons of Various ICT Tools in Global Collaboration – A Cross-Case Study
Matti A Vartiainen, Olli Jahkola.

Designing complex environments
Chair(s): Farid Shirazi.

Task Analysis of Soft Control Operations using Simulation Data in Nuclear Power Plants
Seung Jun Lee, Wondea Jung.

Migration Tolerant Human Computer Interaction for Air Traffic Controllers
Oliver Ohneiser, Hejar Gürlük.

Strategic Study of Knowledge Management Which Led Into Furniture Design Industry -Taking Example by Taiwan Furniture Industry
Chi-Hsiung Chen, Kang Hua Lan.

Effects of Stimulus Orientation, Grouping and Alignment on Spatial S-R Compatibility
Ngai Hung Tsang, Ken Chan, Alan Chan.

User Interface of Interactive Media Art in Stereoscopic Environment
Youngeun Kim, Migyung Lee, Sanghun Nam, Jinwan Park.

Quantifying the Impact of Standards when Hosting Robotic Simulations in the Cloud
Sekou L Remy.

An Intelligent Interactive Home Care System: An MPLS-Based Community Cloud
Farid Shirazi.

UAHCI

Universal Access in Human-Computer Interaction

FRIDAY 13:30 - 15:30

Non visual smart environments
Chair(s): To be announced

Using Sonification and Haptics to Represent Overlapping Spatial Objects: Effects on Accuracy
Junlei Yu, Kris Lohmann, Christopher Habel.

Multimodal Kinect-supported Interaction for Visually Impaired Users
Richard Gross, Bockholt Ulrich, Ernst Biersack, Arjan Kuijper.

Audio Transportation System for Blind People
Jaime Sanchez, Marcia de Borba Campos.

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

I-Ball: A Programmable Sporting Aid for Children with a Visual Impairment to Play Soccer
Surya P. Singh, Paul Pounds, Hanna Kurniawati.

An Integration Framework for Motion and Visually Impaired Virtual Humans in Interactive Immersive Environments
Frank Sulzmann, Roland Blach, Manfred Dangelmaier.

Robots in everyday life
Chair(s): Hirotada Ueda.

Characteristics of Robots and Virtual Agents as a Persuasive Talker
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
Takanori Komatsu, Haruka Takahashi.

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

Home Robots, Learn by Themselves
Osamu Hasegawa, Daiki Kimura.

Talking-Ally: Toward Persuasive Communication in Everyday Life
Yuki Odahara, Naoki Ohshima, Ravindra S De Silva, Michio Okada.

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

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

Interaction and Education for the Deaf
Chair(s): To be announced

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

Development of The Hearing Communication System in An Individual and The Classroom
Manabu Ishihara, Shin-nosukei Suzuki, Jun Shirataki.

Visual Perception of Deaf Children to Inform Interaction of Tools for Literacy
Juliana Bueno, Cayley Guimarães, André Mendonça, Laura Sánchez García, Rubens Massayuki Suguimoto.

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

Innovation in Learning - the Use of Avatar for Sign Language
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
Marta Angélica Montiel Ferreira, Rodrigo Bonacin.

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

Senior Workforce
Chair(s): Hironobu Takagi, Chieko Asakawa.

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

Age-based Task Specialization for Crowdsourced Proofreading
Masatomo Kobayashi, Tatsuya Ishihara, Toshinari Itoko, Hironobu Takagi, Chieko Asakawa.

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

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

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

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

Breaking Psychological Barrier toward Changes: Two Experiences
Bruno Merlin.

VAMR

Virtual, Augmented and Mixed Reality

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 Wiltshire, 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 Gértrudix Barrio, Charles E Hughes.

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

Cross-Cultural Design

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, Ziying 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.

Knowledge Sharing
Chair(s): Hua Qin.

The Research on Knowledge Diffusion based on Small World Network
Xinxin Feng, Baojiang Chen, Huanzhi Zhu.

Constructing Interaction Scenarios of High-building Interior in Fire
Hua Qin, Linghua Ran, Shaohong Cai.

Study on Aggressive Driving Activities at Crossroads in Beijing
Hua Qin, Huanzhi Zhu, Renwen W Huang.

The Effects of Age, Viewing Distance and Font Type on the Legibility of Chinese Characters
Linghua Ran, Xin Zhang, Xiaoyuan Ren, Huimin Hu.

Research Facing Interface Design of Android System Industrial Control System
Songfeng Gao, Guixue Yang, Linlin Zhao.

AC

Augmented Cognition

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 Gonçalves.

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 Dance! Don't Fall
Paula Alexandra Silva, Francisco Nunes, Ana Vasconcelos, Maureen Kerwin, Ricardo Moutinho, Pedro Teixeira.

Gamification for Measuring Cyber Security Situational Awareness
Barbara Endicott-Popovsky, Glenn Fink, Daniel Best, David Manz, Viatcheslav Popovsky.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

Emerging Technologies in Working Conditions

Chair(s): Elsbeth M. De Korte.

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
Matthijs 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.

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

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

Putting in Perspective Human-machine System Theory and Modeling: from Theoretical Biology to Artifacts Integrative Design and Organization.
Didier Fass.

A Validation Approach for Complex NextGen Air Traffic Control Human Performance Models
Brian F. Gore, Paul Milgram.

Ideal Mode Selection of a Cardiac Pacing System
Dominique Méry, Neeraj Kumar Singh.

Simulating the Impact of Mental Models on Human Automation Interaction in Aviation
Sebastien Mamessier, Karen Feigh.

Causal Attribution and Control: between Consciousness and Psychical Half-Shadow. Application to Flight Operations
Bruno Berberian, Jean-Christophe Sarrazin, Laurent Chaudron.

Cognitive Behavior Modeling of Manual Rendezvous and Docking Based on the ACT-R Cognitive Architecture
Chunhui Wang, Yu Tian, Yanfei Liu, Shanguang Chen, Zhiqiang Tian, Junsong Li.

Evaluation of Drivers Interaction with Assistant Systems using Criticality Driven Guided Simulation
Stefan Puch, Bertram Wortelen, Martin Fränzle, Thomas Peikenkamp.

DUXU

Design, User Experience, and Usability

Design, Ergonomics, and Usability - V

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

Usability Assessment in The Multicultural Approach
Maria Lucia L. R. Okimoto, Cristina Olaverri 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
Dierci 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.

Inclusive and open design

Chair(s): Hua Dong.

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.
Robert Daniel Phillips, Yelena Ford, Karl Sadler, Sarah Silve, Sharon Baurley.

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.

DUXU

Mobile Web & Mobile App Design and Usage
Chair(s): Stephan Böhm.

End-User Development of Mobile Mashups
Cinzia Cappiello, Maristella Matera, Matteo Picozzi.

Towards Medical Cyber-Physical Systems: Multimodal Augmented Reality for Doctors and Knowledge Discovery about Patients
Daniel Sonntag, Sonja Zillner, Christian Schulz, Markus Weber, Takumi Toyama.

Smart Metering with Smartphones: User-centered Design of a Mobile Application in the Context of Energy Efficiency
Stephan Böhm, Lee Szwec.

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

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

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

DAPI

Distributed, Ambient and Pervasive Interactions

Design and development frameworks and methods in Ambient Intelligence
Chair(s): To be announced

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

A Prototyping and Evaluation Framework for Interactive Ubiquitous Systems
Christine Keller, Romina Kuehn, Anton Engelbrecht, Mandy Korzetz, Thomas Schlegel.

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

MIDAS: A Software Framework for Accommodating Heterogeneous Interaction Devices for Cloud Applications
Euijai Ahn, Kangyoon Lim, Gerard Jounghyun Kim.

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

The Mobile Context Framework: Providing Context to Mobile Applications
Luís Oliveira, António Nestor Ribeiro, José C Campos.

HAS

Human Aspects of Information Security, Privacy and Trust

Encouraging an Information Security Culture by addressing Human Behavior
Chair(s): Kerry-Lynn Thomson.

Essential Lessons Still not Learned? Examining the Password Practices of End-users and Service Providers
Nina Bär, Steven Furnell.

Personality's Influence on Facebook's Privacy Settings: A Case of College Students in Taiwan
Tingya Kuo, Hung-Lian Tang.

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

Understanding People's Preferences for Disclosing Contextual Information to Smartphone Apps
Fuming Shih, Julia Boortz.

A Comparison of American and German Folk Models of Home Computer Security
Michaela Kauer, Melanie Volkamer, Sebastian Günther, Daniel Storck.

Relationships between Password Choices, Perceptions of Risk and Σecurity Expertise
Sadie Creese, Duncan D Hodges, Sue Jamison-Powell, Monica Whitty.

HCI

Human-Computer Interaction

Emerging Issues in HCI

Chair(s): To be announced

Semiotics of Interaction: Towards a UI Alphabet
Jan Brejcha, Aaron Marcus.

HCI Education in Brazil: Challenges and Opportunities
Clodis Boscarioli, Silvia A Bim, Milene S Silveira, Raquel Prates, Simone Barbosa.

Confabulation in the Time of Transdisciplinarity: Reflection on HCI Education and a Call for Conversation.
Nicholas W True, Jeroen PA Peeters, Daniel Fallman.

Internet Anxiety: Myth or Reality?
Santosh Kumar Kalwar, Kari Heikkinen, Jari Porras.

UX Design Processes & Evaluation Methods

Chair(s): Esther Jun, Kyungdoh Kim.

Remote Usability Evaluation of Mobile Web Applications
Fabio Paternó, Paolo Burzacca.

An Application of the Ballistic Movement Method for Evaluating Computer Mice
Ray F. Lin, Ching-Wen Chung, Yi-Chien Tsai, Chi-Yu Huang.

Priming Categorization in a Card Sort
Camie Steinhoff, Jeremiah Still.

Analyzing Face and Speech Recognition to Create Automatic Information for Usability Evaluation
Thiago A Coleti, Marcelo Morandini, Fatima de Lourdes dos Santos Nunes.

Ease of Icon Processing Can Predict Icon Appeal
Sine J P McDougall, Irene Reppa.

Design and Usability Analysis of Gesture-based Control for Common Desktop Tasks
Farzin Farhadi-Niaki, S. Ali Etemad, Ali Arya.

Interacting with the web - II

Chair(s): To be announced

A Web-based Interface for a System that Designs Sensor Networks
Lawrence J. Henschen, Julia C. Lee.

Pattern Languages for redesigning the Moodle HCI
Pardis Alizadeh.

'Realness' in Chatbots: Establishing Quantifiable Criteria
Kellie Morrissey, Jurek Kirakowski.

A Color Schemer for Webpage Design Using Interactive Mood Board
Zhenyu Gu, Zhanwei Wu, Jiamin Yu, Jian Lou.

A Page Navigation Technique for Overlooking Content in a Digital Magazine
Yuichiro Kinoshita, Masayuki Sugiyama, Kentaro Go.

Sound to Sight: The Effects of Self-Generated Visualization on Music Sight-Singing as an Alternate Learning Interface for Music Education within a Web-Based Environment
Yu-Ting Huang, Chi-Nung Chu.

HIMI

Human Interface and the Management of Information

Management of interaction

Chair(s): Hirohiko Mori, Sakae Yamamoto.

Kanji Characters in Japan – Remaining Challenges
Toshihiro Enami.

The Relationships between Kansei Scale for Uniqueness on Products and Purchase Motivation
Yusuke Ohta, Keiko Kasamatsu.

Influence of the Safety Margin on Behavior that Violates Rules
Mitsuhiko Karashima, Hiromi Nishiguchi.

Transferring tacit skills of WADAIKO
Makoto Oka, Asahi Mizukoshi, Hirohiko Mori.

Cognitive analysis of drivers behavior with seamless display of back monitor and side view mirror
Naoyuki Susuki, Kenta Takiguchi, Makoto Oka, Hirohiko Mori.

Leaning Origami Using 3D Mixed Reality Technique
Atsushi Nakano, Makoto Oka, Hirohiko Mori.

The Proposition of a Framework to Support the Design of Ecological Systems for the Web
Marcelo Morandini, Tharsis M Novais, Thiago A Coleti, Pedro Correia.

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
Owen Noel Newto Fernando, Vajira Sampath Rathnayake, Santosh Vijaykumar, May O. Lwin, Schubert Foo.

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

EPCE

Engineering Psychology and Cognitive Ergonomics

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-
Atsuo Murata, Saki Kubo, Naoki Hata, Takuma Kanagawa.

A New Behavioral Measure of Cognitive Flexibility
Christian A Gonzalez, Ivonne Figueroa, Brooke G. Bellows, Dustin Rhodes, Robert J Youmans.

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, Kotaro Oishi, Kosuke Uchiyama, Hirotake Ishii, Hiroshi Shimoda.

UAHCI

continues...

Universal Access in Human-Computer Interaction

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 Ishio, Yuki Okada, Tomohiko Yanase, Takehito Kojima, Masaru Miyao.

Evaluating the Legibility of Streoscopic 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
Kazuki Yoshikawa, Hiroki Takada, Masaru Miyao.

Form in Potential Functions while Maintaining Upright Postures during Exposure to Stereoscopic Video Clips
Yasuyuki Matsuura, Masaru Miyao, Hiroki Takada.

A Study of Accommodation Training by Stereoscopic Film Presentation
Masumi Takada, Akihiro Sugiura, Yasuyuki Matsuura, Masaru Miyao, Hiroki Takada.

Effective Usage of Stereoscopic Visualization for the Learning of a Motional Mechanism
Shu Matsuura.

Smart Products and Services
Chair(s): Kevin Tseng.

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

Development of Smart Device-Based Thermostatic Control System Appling 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.

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, Zhi Zheng, Amy Swanson, Julie Davidson, Zachary E Warren, Nilanjan Sarkar.

Project Communicate: Empowering Children with Autism and their Caregivers in India
Ruchir 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.

VAMR

Virtual, Augmented and Mixed Reality

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, Fumihisa Shibata, Hideyuki Tamura.

Optimal Design of a Haptic device for a particular task in a Virtual Environment
Jose San Martin, Loic Corenthy, Luis Pastor, Marcos Garcia.

The Electric Bow Interface
Masasuke Yasumoto, Takashi Ohta.

Exploring complexity through simulation and immersion
Chair(s): Denis Laurendeau.

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

Cross-Cultural Design

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
Hsiu 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
Hsiu Ching Laura Hsieh, Sin Dai Hong.

Developing a Contextual Network for Indigenous Communities in Mexico
Mario Alberto Moreno Rocha, Carlos Alberto Martínez Sandoval, Cuauhtémoc Rivera Loaiza, Ma. Margarita Vírgen 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.

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
Hsuan-Hsuan Ku.

On Class Design using Multi-mouse Quiz by Elementary Schoolteachers
Juan Zhou, Mikihiko Mori, Hajime Kita.

The interaction between human and home service robots on a daily life cycle
Hsiu-Ping Yueh, Weijane LIN.

Discovering the Use of a Home Smart Telephone: A Persona Approach
Weijane 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
Supunmali Ahangama, Danny Poo.

OCSC

Online Communities and Social Computing

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 Shabgahi, 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, Shimpei Matsumoto, Tatsuo Matsutomi.

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.

AC

Augmented Cognition

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 Russell, Robin Thomas.

Modeling Complex Tactical Team Dynamics in Observed Submarine Operations
Tara Smallidge, Eric M Jones, Jerry Lamb, Rachel Feyre, Ronald Steed, Abaigeal Caras.

Ecological Momentary Storytelling: Bringing down Organizational Stress through Qualifying Work Life Stories
Lisbeth H. Kappelgaard, Katja Lund.

DHM

Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management

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 Mastrigt, Rolf Peter Ellegast.

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

Users' involvement, needs and requirements in DUXU

Chair(s): To be announced

User Involvement in Idea Brainstorming of Design Process ： Finding the Effective Strategy in Social Network Service
Chiu Shu-Chuan, Kiyoshi Tomimatsu.

Modelling Human Mental Workload as a Defeasible Phenomenon
Luca Longo.

Prototyping with Experience Workshop
Jussi V Mikkonen, Yi-Ta Hsieh.

A User Centred Approach to Evaluating the Future Demand for Bandwidth from Consumers
Doug L Williams, Andy Gower, Joshan Meenowa, Jon Wakeling.

Eliciting User Requirements and Acceptance for Customizing Mobile Device System Architecture
Katrin Arning, Bianka Trevisan, Martina Ziefle, Eva-Maria Jakobs.

Usability studies

Chair(s): To be announced

Usability Evaluation of Two Chinese Segmentation Methods in Subtitles to Scaffold Chinese Novice
Chih-Kai Chang.

A usability testing of Chinese character writing system for foreign learners
Manlai You, Yu-Jie Xu.

Trial of diagnostic to find preferable job using the visual image information interaction - Prototype development and evaluation in global human resources matching site-
Akira Kondo, Naoko Kondo.

SINGRAR Usability Study
Isabel L. Nunes, Mario Simoes-Marques.

Determining the Effect of Menu Element Size on Usability of Mobile Applications
Shelly K Welch, Si-Jung Kim.

Using Eye-tracking to Test and Improve Website Design
Anna Prisacari, Thomas Holme.

Research Methodology Approach to Improve the Robustness of the Trend Board Method Through Its Formalization
Angela Cadavid Lopez, Jorge Maya.

Design at the Frontier of User-Experience Development

Chair(s): Zelda Harrison.

UltrabooksTM and Windows 8: a touchy UX story
Daria Loi.

Interactive Design and the Human Experience: What Can Industrial Design Teach Us
Neil Matthiessen.

The Dimensions of Positive and Negative User Experiences with Interactive Products
Gabrielle Provost, Jean-Marc Robert.

Design Thinking Methodology for the Design of Interactive Real-Time Applications
Diego Sandino, Luis M. Matey, Gorka Vélez.

A Dependency-Sharing Tool for Global Software Engineering
Douglas Lee, Allen E Milewski, Daniela Rosca.

Designing for resonance by evocative objects: An experiential interaction design method
Chih-Sheng Su, Rung-Huei Liang.

Service innovation and creativity management

Chair(s): Ding-Bang Luh.

Design Process and Knowledge Searching Model based on User Creativity
Chia-Ling Chang, Ding-Bang Luh.

Satisfying Consumers' Needs through Systematic Empathic Design Model
Ming-Hsuan Hsieh, Ding-Bang Luh, Cheng-Yong Huang, Chia-Hsiang Ma.

Innovative Behavioral Intention and Creativity Achievement in Design: Test of an Integrated Model
Chia-Chen Lu, Ding-Bang Luh.

A Design Process for New Concept Development
Ding-Bang Luh, Frank Ming-Hung Chen, Vincent (I-Hsun) Ku.

Conception Pyramid Method for Cultural Product Form Development
Tsai-Lin Yang, Ming-Chyuan Ho.

The Relationship between Preference and Stare Duration on Bicycle
Jin-Han Tseng, Ding-Bang Luh, Zhi-Hong Liang.

Management of Individual and Organizational Design Knowledge
Tz-Ying Lin, Ding-Bang Luh.

Distributed, Ambient and Pervasive Interactions

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
Tobias Grosse-Puppendahl, Sebastian Benchea, Felix Kamieth, Andreas Braun, Christian Schuster.

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-Ohali.

How to Diagram a Dramatic Story
Sabah 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-Ohali.

Interactive Serious Gaming for Children with Auditory Processing Difficulties in the Arabic Language
Arwa Alamoudi, Modhi Almozainy, Rawan Alabdulrahman, Sara Alkoblan, Sarah Drine, Areej Al-Wabil.

AN INVESTIGATION OF MULTMODAL 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
Ohoud Alharbi, Areej Al-Wabil, Noura Alarfaj, Lamya Al-Hathlool, Maha Al-Ghofaily, Dania 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.

Unintelligability of Tokens in Virtual Tourism
Maryam Bakhshaei, Abbas Motamedi, Ali Aminbeidokhti.

Android vs. iOS Interaction Design Study for a Student Multiplatform App
Abimael Barea, Xavier Ferre, Lorenzo Villarroel.

Towards an Emergent and Autopoietic Approach to Adaptative Chord Generation Through Human Interaction
Francisco de P. Barretto, Suzete Venturelli, 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 Pérez-Quiñones.

Gesture Recognition using Commodity RGB-D Sensor for Imitation Learning Platform for Children with Autism
Esubalew T Bekele, Jacob Bumpus, Shuvajit Das, Julie Crittendon, Zachary E Warren, Nilanjan Sarkar.

User Driven Service Design and Innovation Platforms
Birgitta A Bergvall-Kåreborn, 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
Rocío 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.

A HCI/AI 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, Lijing 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, Kihyo 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.

Emotion-Cognition Interaction of Decision Making in the Social Context
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)
Joseph Cohn, Brennan Cox, David Combs, Brian Johnson, Stephen Eggan, Kirsten Carlson, Antonio Anglero, David Rozovski, Elizabeth O'Neill, Gershon Weltman, Amos Freedy Freedy, Timur Chabuk.

Dense Array, Low Field Magnetic Resonance Imaging Devices for Combat Casualty Care
Joseph Cohn, Stephen Eggan, David Combs, Antonio Anglero, Brian Johnson, David Rozovski, Brennan Cox, Kirsten Carlson, Elizabeth O'Neill, Masoud Radparvar.

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)
Joseph Cohn, Theodore Morrison, Donald Chartrand, Gershon Weltman, Brian Johnson, David Rozovski, Kirsten Carlson, Stephen Eggan, Brennan Cox, Antonio Anglero, David Combs, Elizabeth O'Neill, Rollin McCraty.

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 habitation 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.

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
Mirko De Almeida Madeira Clemente, Axel Berndt, Hannes Leitner, Mandy Keck, Ricardo Gaertner, Rainer Groh.

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
Hiroshi Dohi, Hitoshi Iba, Mitsuru 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, Akito Miyazaki, Masaaki Sugiyama, Yoshihiro Tanaka, Mayumi Sawada, Ken Kaneko, Susumu Ouchi, Katsuhiro Kanamori.

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, ChoonKyoung Moon, Pilseung Yang, Seonghoon Kang.

Tabletnet. Using Cloud Services to Improve the Educational Environment
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