Thematic areas
HCI: Human-Computer Interaction
HIMI: Human Interface and the Management of Information

Affiliated conferences
EPCE: 15th International Conference on Engineering Psychology and Cognitive Ergonomics
UAHCI: 12th International Conference on Universal Access in Human-Computer Interaction
VAMR: 10th International Conference on Virtual, Augmented and Mixed Reality
CCD: 10th International Conference on Cross-Cultural Design
SCSM: 10th International Conference on Social Computing and Social Media
AC: 12th International Conference on Augmented Cognition
DHM: 9th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management
DUXU: 7th International Conference on Design, User Experience and Usability
DAPI: 6th International Conference on Distributed, Ambient and Pervasive Interactions
HCIBGO: 5th International Conference on HCI in Business, Government and Organizations
LCT: 5th International Conference on Learning and Collaboration Technologies
ITAP: 4rd International Conference on Human Aspects of IT for the Aged Population

Final Program
15-20 July 2018

Under the auspices of 14 distinguished international boards, of 362 Members from 40 countries

Welcome to LAS VEGAS, Nevada, USA

http://2018.hci.international/
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contacts</td>
<td>2</td>
</tr>
<tr>
<td>Conference at a Glance</td>
<td>3</td>
</tr>
<tr>
<td>Welcome Note</td>
<td>4</td>
</tr>
<tr>
<td>Opening Plenary Session</td>
<td>5</td>
</tr>
<tr>
<td>International Program Boards</td>
<td>6 - 7</td>
</tr>
<tr>
<td>Proceedings</td>
<td>8</td>
</tr>
<tr>
<td>General Information</td>
<td>9</td>
</tr>
<tr>
<td>Conference Exhibition Plan</td>
<td>10</td>
</tr>
<tr>
<td>List of Exhibitors</td>
<td>11</td>
</tr>
<tr>
<td>Student Designs Competition presentations</td>
<td>12</td>
</tr>
<tr>
<td>Tutorials, 15-17 July 2018</td>
<td>13</td>
</tr>
<tr>
<td>Parallel Sessions Overview</td>
<td></td>
</tr>
<tr>
<td>Wednesday, 18 July 2018</td>
<td></td>
</tr>
<tr>
<td>Thursday, 19 July 2018</td>
<td></td>
</tr>
<tr>
<td>Friday, 20 July 2018</td>
<td></td>
</tr>
<tr>
<td>Parallel Sessions</td>
<td></td>
</tr>
<tr>
<td>DAY1: Wednesday, 18 July 2018</td>
<td></td>
</tr>
<tr>
<td>08:00 - 10:00</td>
<td>20</td>
</tr>
<tr>
<td>10:30 - 12:30</td>
<td>25</td>
</tr>
<tr>
<td>13:30 - 15:30</td>
<td>30</td>
</tr>
<tr>
<td>16:00 - 18:00</td>
<td>35</td>
</tr>
<tr>
<td>DAY2: Thursday, 19 July 2018</td>
<td></td>
</tr>
<tr>
<td>08:00 - 10:00</td>
<td>40</td>
</tr>
<tr>
<td>10:30 - 12:30</td>
<td>45</td>
</tr>
<tr>
<td>13:30 - 15:30</td>
<td>50</td>
</tr>
<tr>
<td>16:00 - 18:00</td>
<td>55</td>
</tr>
<tr>
<td>DAY3: Friday, 20 July 2018</td>
<td></td>
</tr>
<tr>
<td>08:00 - 10:00</td>
<td>60</td>
</tr>
<tr>
<td>10:30 - 12:30</td>
<td>65</td>
</tr>
<tr>
<td>13:30 - 15:30</td>
<td>70</td>
</tr>
<tr>
<td>16:00 - 18:00</td>
<td>75</td>
</tr>
<tr>
<td>Posters</td>
<td>80 - 91</td>
</tr>
<tr>
<td>Notes</td>
<td>79</td>
</tr>
<tr>
<td>Ceasars Palace</td>
<td>Backpage</td>
</tr>
</tbody>
</table>
Conference Registration – Secretariat

Conference Registration will take place at the Conference Secretariat, located at Office 4 (Promenade Level), during the following hours:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday, 14 July</td>
<td>16:00 - 18:00</td>
</tr>
<tr>
<td>Sunday, 15 July</td>
<td>08:00 - 17:30</td>
</tr>
<tr>
<td>Monday, 16 July</td>
<td>08:00 - 17:30</td>
</tr>
<tr>
<td>Tuesday, 17 July</td>
<td>08:00 - 17:30</td>
</tr>
<tr>
<td>Wednesday, 18 July</td>
<td>07:30 - 18:00</td>
</tr>
<tr>
<td>Thursday, 19 July</td>
<td>07:30 - 18:00</td>
</tr>
<tr>
<td>Friday, 20 July</td>
<td>07:30 - 18:00</td>
</tr>
</tbody>
</table>

Conference Evaluation

Your opinion and comments are very important for the improvement and future planning of the conference. We kindly ask you to spend a few minutes to fill-in the on-line anonymous survey through the link: https://www.surveymonkey.com/r/HCI2018

or scan the QR-Code on the left

The survey will be available until 14 September 2018

PROGRAM

Sunday
15 July 2018
08:30 - 17:30 Tutorials Day 1 - page 13

Monday
16 July 2018
08:30 - 17:30 Tutorials Day 2 - page 13

Tuesday
17 July 2018
08:30 - 17:30 Tutorials Day 3 - page 13

18:00 Opening Plenary Session - Room: Milano Ballroom

Keynote Speech - page 5

“Technology in Support of Healthy Habits”

by: Mary Czerwinski
Principal Researcher and Research Manager - Visualization and Interaction (VIBE) Research Group - Microsoft Research, US A

19:45 Conference Reception - page 9

Wednesday
18 July 2018
08:00 - 18:00 Parallel paper presentations, Day 1 - page 20
08:00 - 10:00 Student Design Competition presentations - page 12
10:30 - 12:30 Mentoring Session #1 for PhD students offered by Dr James Lewis - page 5
16:00 - 18:00 Mentoring Session #2 for PhD students offered by Professor Gavriel Salvendy - page 5
09:00 - 17:00 Poster presentations, Day 1
Exhibition, Day 1 - page 80
- page 10

Thursday
19 July 2018
08:00 - 18:00 Parallel paper presentations, Day 2 - page 40
09:00 - 17:00 Poster presentations, Day 2
Exhibition, Day 2 - page 80
- page 10

Friday
20 July 2018
08:00 - 18:00 Parallel paper presentations, Day 3 - page 60
09:00 - 16:30 Poster presentations, Day 3
Exhibition, Day 3 - page 80
- page 10
Dear Colleague,

It is with great honor and pleasure that I welcome you to HCI International 2018, the 20th International Conference on Human-Computer Interaction, held in Las Vegas, Nevada, USA, 15 - 20 July, incorporating 14 Affiliated Conferences / Thematic Areas:

- HCI: Human-Computer Interaction Thematic Area
- HIMI: Human Interface and the Management of Information Thematic Area
- EPHC: 15th International Conference on Engineering Psychology and Cognitive Ergonomics
- UAIHC: 12th International Conference on Universal Access in Human-Computer Interaction
- VAMR: 10th International Conference on Virtual, Augmented and Mixed Reality
- CDD: 10th International Conference on Cross-Cultural Design
- SCSM: 10th International Conference on Social Computing and Social Media
- AC: 12th International Conference on Augmented Cognition
- DUXU: 7th International Conference on Design, User Experience and Usability
- DAPI: 6th International Conference on Distributed, Ambient and Pervasive Interactions
- HCIBGO: 5th International Conference on HCI in Business, Government and Organizations
- LCT: 5th International Conference on Learning and Collaboration Technologies
- ITAP: 4th International Conference on Human Aspects of IT for the Aged Population

HCI International is the worldwide renowned international forum for the dissemination and exchange of up-to-date scientific information on theoretical, generic and applied areas of Human-Computer Interaction.

Like its predecessor conferences, HCI International 2018 (HCII 2018) promises to be an unforgettable cluster of high quality international scientific events, and an ideal occasion to come to contact with the rapidly evolving ICT market in the world. HCII 2018 and the Affiliated Conferences/Thematic Areas explore a wide variety of new hot topics which reflect and contribute to a paradigm shift towards ubiquitous interaction, intelligent environments and interactive technologies supporting virtually any aspect of human life and activities in a global and social perspective.

The 30-volume Conference Proceedings are published by Springer in the Lecture Notes in Computer Science (LNCS), Lecture Notes in Artificial Intelligence (LNAI) and Communications in Computer and Information Science (CCIS) series, and are available on-line through the SpringerLink Digital Library (http://www.springer.com/lncs and http://www.springer.com/series/7899), readily accessible by all subscribing libraries around the world. All volumes of the Proceedings in PDF format are also included in a USB Drive provided in your registration bag. They are also available for sale from Springer in soft cover print format.

An impressive number of about 1700 individuals from 74 countries are participating in this truly international in scope event, where the work of the world’s foremost leaders in the field is presented.

We are privileged that Dr. Mary Czerwinski, Principal Researcher and Scientific Advisor, Group, Microsoft Research, USA, has joined us as the keynote speaker at the opening plenary session. Her speech is entitled “Technology in support of healthy habits”.

Dr. James Lewis (IBM Master Inventor with 91 patents issued to date by the US Patent Office) and Prof. Gavriel Salvendy (Major Professor to 67 PhD students) will hold mentoring sessions for PhD students, each with two important topics. The Mentoring Session of James Lewis will be addressing the topics of HCI career trends - past, present and future (in Part #1), and Transition from a PhD student to an industry professional (in Part #2). The Mentoring Session of Gavriel Salvendy will be offered on Wednesday 18 July 2018, from 4pm to 6pm and will be addressing the topics of Development of a PhD Thesis and its dissemination (in Part #1), and Transition from a PhD student to Faculty (in Part #2).

For the first time in the history of the HCII Conference, a Student Design Competition took place. All accepted submissions will be presented during the conference. Three awards will be conferred along with three prizes during the Opening Plenary Session.

As established in previous years, fifteen awards will be conferred during the Opening Plenary Session. The awards, in the form of a plaque and a certificate, will be presented to the author(s) of the Best Paper of each Affiliated Conference/Thematic Area, and of the Best Poster Extended Abstract.

I would like to thank each and every one of you for your valuable contribution towards the success of this Conference, and to wish you a professionally rewarding and socially enjoyable stay in Las Vegas.

Constantine Stephanidis

The 21st International Conference on Human-Computer Interaction, HCI International 2019, will be held jointly with the affiliated conferences in Orlando, FL, USA, at Walt Disney World Swan and Dolphin Resort, 26–31 July 2019.

It will cover a broad spectrum of themes related to Human-Computer Interaction, including theoretical issues, methods, tools, processes, and case studies in HCI design, as well as novel interaction techniques, interfaces, and applications. The proceedings will be published by Springer.

General Chair: Prof. Constantine Stephanidis
University of Crete and ICS-FORTH Heraklion, Crete, Greece
Email: general_chair@hcii2019.org

http://2019.hci.international
Abstract

For several years now, many of us doing research into designing technology for health and wellbeing have leveraged mobile, ambient and wearable devices in order to provide feedback and insight into users’ mental and physical states. We have designed our technology, in partnership with caregivers and clinicians, in order to complement and extend clinical care so that it reaches those that really need it. It seems like a good time to stand back and reflect on what has actually worked in terms of motivating our users to make healthier lifestyle decisions, which in turn steer them towards long-term behavioral change, if needed. Specific to our research domain, emotion sensing has become ubiquitous in the physiological sensing and affective computing communities. While we leverage these methods in our research, we have found that the truly difficult problem is “what you do about it” once you have identified a user’s emotional state. This keynote will describe various lessons learned from several efforts in this space, as well as traps to avoid, if you want to design engaging and life-changing interventions to help users cope positively with stress, depression, diet, exercise, sleep, and productivity.

Mary Czerwinski
Principal Researcher and Research Manager
Visualization and Interaction (VIBE) Research Group
Microsoft Research, USA
https://www.microsoft.com/en-us/research/people/marycz/

Mary’s research focuses primarily on emotion tracking, information worker task management, multitasking, and awareness systems for individuals and groups. Her background is in emotion tracking and awareness, visual attention and multitasking. She holds a Ph.D. in Cognitive Psychology from Indiana University in Bloomington. Mary was awarded the ACM SIGCHI Lifetime Service Award, was inducted into the CHI Academy, became an ACM Distinguished Scientist in 2010 and an ACM Fellow in 2016. She also received the Distinguished Alumni award from Indiana University’s Brain and Psychological Sciences department.

Mentoring Sessions for PhD students offered by Dr. James Lewis and Prof. Gavriel Salvendy at HCII2018 (closed sessions)

James Lewis and Gavriel Salvendy have accepted the conference invitation to hold mentoring sessions for PhD students, each with two important topics.

**Mentoring Session #1 by James Lewis:** Dr James Lewis is IBM Master Inventor with 91 patents issued to date by the US Patent Office. His session will be offered on Wednesday 18 July 2018, from 10:30am to 12:30pm.

Part #1: HCI career trends - past, present and future
Part #2: Transition from a PhD student to an industry professional

**Mentoring Session #2 by Gavriel Salvendy:** Professor Gavriel Salvendy has been Major Professor to 67 PhD students. His session will be offered on Wednesday 18 July 2018, from 4:00pm to 6:00pm.

Part #1: Development of a PhD Thesis and its dissemination
Part #2: Transition from a PhD student to Faculty
International Program Boards

**Human-Computer Interaction**

Program Chair:
Masaaki Kurosu, JAPAN
Jose Abdelnour-Nocera, UK
Mark Apperley, NEW ZEALAND
Sebastiano Bagnara, ITALY
Kaveh Bazargan, IRAN
Nigel Bevan, UK
Michael Craven, UK
Achim Ebert, GERMANY
Xiaowen Fang, USA
Carla Faria Leitão, BRAZIL
Stefano Federici, ITALY
Isabela Gasparini, BRAZIL
Ayako Hashizume, JAPAN
Wonil Hwang, KOREA
Mitsuhiro Karashima, JAPAN
Heidi Krömker, GERMANY
Kun-Pyo Lee, KOREA
Cristiano Maciel, BRAZIL
Paulo Melo, BRAZIL
Naoko Okuzumi, JAPAN
Katsuhiko Onishi, JAPAN
Philippe Palanque, FRANCE
Roberto Pereira, BRAZIL
Denise Pilar, BRAZIL
Alberto Raposo, BRAZIL
Guangfeng Song, USA
Hiroshi Ujita, JAPAN
Michiya Yamamoto, JAPAN
Fan Zhao, USA

**Human Interface and the Management of Information**

Program Chairs:
Sakae Yamamoto, JAPAN
Hirohiko Mori, JAPAN
Yumi Asahi, JAPAN
Linda R. Elliott, USA
Shin’ichi Fukuzumi, JAPAN
Michitaka Hirose, JAPAN
Yasushi Ikei, JAPAN
Yen-Yu Kang, TAIWAN
Keiko Kasamatsu, JAPAN
Daiji Kobayashi, JAPAN
Kentarou Kotani, JAPAN
Hiroyuki Miki, JAPAN
Ryosuke Saka, JAPAN
Katsunori Shimohara, JAPAN
Takahito Tomoto, JAPAN
Kim-Phuong L. Vu, USA
Marcelo Wanderley, CANADA
Tomio Watanabe, JAPAN
Takehiko Yamaguchi, JAPAN

**6th International Conference on Distributed, Ambient and Pervasive Interactions**

Program Chairs:
Norbert Streitz, GERMANY
Shin’ichi Konomi, JAPAN
Andreas Braun, GERMANY
Wei Chen, P.R. CHINA
Alois Ferscha, AUSTRIA
Dimitris Grammenos, GREECE
Nuno Guimarães, PORTUGAL
Jun Hu, NETHERLANDS
Pedro Isailas, AUSTRALIA
Achilles Kameas, GREECE
Kristian Kloockl, USA
Antonio Maria, SPAIN
Takuya Maekawa, JAPAN
Panos Markopoulos, NETHERLANDS
Irene Mavrommati, GREECE
Tatsuo Nakajima, JAPAN
Anton Nijholt, NETHERLANDS
Guochao (Alex) Peng, P.R. CHINA
Carsten Röcker, GERMANY
Tanya Tof, DENMARK
Reiner Wichert, GERMANY
Chui Yin Wong, MALAYSIA
Woontack Woo, KOREA
Xenophon Zabulis, GREECE

**12th International Conference on Universal Access in Human-Computer Interaction**

Program Chairs:
Margherita Antonia, GREECE
Constantine Stephanidis, GREECE
João Barroso, PORTUGAL
Rodrigo Bonacini, BRAZIL
Ingo K. Bosse, GERMANY
Anthony Lewis Brooks, DENMARK
Laura Burgazli, ITALY
Pedro J.S. Cardoso, PORTUGAL
Stefan Carmien, UK
Vagner Figueredo De Santana, BRAZIL
Carlos Duarte, PORTUGAL
Pier Luigi Emiliani, ITALY
Qin Gao, P.R. CHINA
Andrina Granic, CROATIA
Simeon Keates, UK
Georgios Kouropetrouoglou, GREECE
Patrick M. Langdon, UK
Barbara Leporini, ITALY
I. Scott MacKenzie, CANADA
John Magee, USA
Alessandro Marcengo, ITALY
Troy McDaniel, USA
Silvia Mirti, ITALY
Ana Isabel Paraguay, BRAZIL
Hugo Paredes, PORTUGAL
Enrico Pontelli, ITALY
João M.F. Rodrigues, PORTUGAL
Frode Eika Sandnes, NORWAY
Anthony Savidis, GREECE
Jaime Sánchez, CHILE
Volker Sorge, UK
Hiroki Takada, JAPAN
Kevin C. Tseng, TAIWAN
Gerhard Weber, GERMANY

**7th International Conference on Design, User Experience, and Usability**

Program Chairs:
Aaron Marcus, USA
Wentao Wang, P.R. CHINA
Sisira Adikari, AUSTRALIA
Claire Ancient, UK
Jan Brejcha, CZECH REPUBLIC
Silvia De los Rios Perez, SPAIN
Marc Fabi, UK
Chao Liu, P.R. CHINA
Judith A. Moldenhauer, USA
Jingyan Qin, P.R. CHINA
Francisco Rebelo, PORTUGAL
Christine Riedmann-Streitz, GERMANY
Kerem Rizvanoglu, TURKEY
Elizabeth Rosenzweig, USA
Patricia Search, USA
Marcelo Márcio Soares, P.R. CHINA
Carla G. Spinillo, BRAZIL
Manfred Thüring, GERMANY
Xuemei Yuan, P.R. CHINA
Paul Michael Zender, USA

**5th International Conference on HCI in Business, Government and Organizations**

Program Chairs:
Fiona Fui-Hoon Nah, USA
Bo Sophia Xiao, USA
Kaveh Abhari, USA
Miguel Aguime-Urreta, USA
Young Anna Argyris, USA
Andreas Auinger, AUSTRIA
Michel Avital, DENMARK
Denise Baker, USA
Gaurav Bansal, USA
Valerie Bartelt, USA
Philipp Brauner, GERMANY
Langtao Chen, USA
Christy Cheung, HONG KONG
Ben C.F. Choi, AUSTRALIA
Constantinos K. Coursaris, USA
Brenda Eschenbrenner, USA
Jie Mein Goh, CANADA
Margaret Hall, USA
Richard H. Hall, USA
Milena Head, CANADA
Neta Ilavri, FINLAND
Qi Qi Jiang, DENMARK
Mala Kaul, USA
Harald Kindermann, AUSTRIA
Yi-Cheng Ku, TAIWAN
Nanda Kumar, USA
Zach Lee, P.R. CHINA
Gregory Moody, USA
Murad Moqbel, USA
Robbie T. Nakatsu, USA
Natalie Pang, SINGAPORE
Chee Wei Phang, P.R. CHINA
Eran Rubin, USA
Roozmehr Safi, USA
Norman Shaw, CANADA
Austin R. Silva, USA
Martin Stabauer, AUSTRIA
Chee Wei Tan, DENMARK
Horat Treibmaier, AUSTRIA
Dellang Wang, SINGAPORE
Helena Wenninger, UK
Dezhi Wu, USA
I-Chen Wu, TAIWAN
Shuang Xu, USA
Cheng Yi, P.R. CHINA
Mun Yi, KOREA
Dezhi Yin, USA
Jie Yu, P.R. CHINA

**15th International Conference on Engineering Psychology and Cognitive Ergonomics**

Program Chair:
Don Harris, UK

Henning Boje Andersen, DENMARK
Summer L. Brandt, USA
Oliver Carsten, USA
Nicklas Dahlstrom, UNITED ARAB EMIRATES
Shan Fu, P.R. CHINA
Wen-Chin Li, UK
Andreas Luedtke, GERMANY
Jan Noyes, UK
Ling Rothrock, USA
Axel Schulte, GERMANY
Frederic Vanderhaegen, FRANCE
<table>
<thead>
<tr>
<th>Volume</th>
<th>LNCS/LN/AI/CCIS</th>
<th>Title - Conference Name</th>
<th>Editor(s)</th>
<th>ISBN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LNCS 10901</td>
<td>Human-Computer Interaction: Theories, Methods and Human Issues (Part I)</td>
<td>M. Kurosu</td>
<td>978-3-319-91237-0</td>
</tr>
<tr>
<td>2</td>
<td>LNCS 10902</td>
<td>Human-Computer Interaction: Interaction in Context (Part II)</td>
<td>M. Kurosu</td>
<td>978-3-319-91243-1</td>
</tr>
<tr>
<td>3</td>
<td>LNCS 10903</td>
<td>Human-Computer Interaction: Interaction Technologies (Part III)</td>
<td>M. Kurosu</td>
<td>978-3-319-91249-3</td>
</tr>
<tr>
<td>4</td>
<td>LNCS 10904</td>
<td>Human Interface and the Management of Information: Interaction, Visualization and Analytics (Part I)</td>
<td>S. Yamamoto; H. Mori</td>
<td>978-3-319-92042-9</td>
</tr>
<tr>
<td>5</td>
<td>LNCS 10905</td>
<td>Human Interface and the Management of Information: Information in Applications and Services (Part II)</td>
<td>S. Yamamoto; H. Mori</td>
<td>978-3-319-92045-0</td>
</tr>
<tr>
<td>6</td>
<td>LNAI 10906</td>
<td>Engineering Psychology and Cognitive Ergonomics</td>
<td>D. Harris</td>
<td>978-3-319-91121-2</td>
</tr>
<tr>
<td>7</td>
<td>LNCS 10907</td>
<td>Universal Access in Human-Computer Interaction: Methods, Technologies and Users (Part I)</td>
<td>M. Antona; C. Stephanidis</td>
<td>978-3-319-92048-1</td>
</tr>
<tr>
<td>8</td>
<td>LNCS 10908</td>
<td>Universal Access in Human-Computer Interaction: Virtual, Augmented and Intelligent Environments (Part II)</td>
<td>M. Antona; C. Stephanidis</td>
<td>978-3-319-92051-1</td>
</tr>
<tr>
<td>9</td>
<td>LNCS 10909</td>
<td>Virtual, Augmented and Mixed Reality: Interaction, Navigation, Visualization, Embodiment and Simulation (Part I)</td>
<td>J.C. Chen; G. Fragomeni</td>
<td>978-3-319-91580-7</td>
</tr>
<tr>
<td>10</td>
<td>LNCS 10910</td>
<td>Virtual, Augmented and Mixed Reality: Applications in Health, Cultural Heritage and Industry (Part II)</td>
<td>J. C. Chen; G. Fragomeni</td>
<td>978-3-319-91583-8</td>
</tr>
<tr>
<td>11</td>
<td>LNCS 10911</td>
<td>Cross-Cultural Design: Methods, Tools and Users (Part I)</td>
<td>P.L. P. Rau</td>
<td>978-3-319-92140-2</td>
</tr>
<tr>
<td>12</td>
<td>LNCS 10912</td>
<td>Cross-Cultural Design: Applications in Cultural Heritage, Creativity and Social Development (Part II)</td>
<td>P.L. P. Rau</td>
<td>978-3-319-92251-5</td>
</tr>
<tr>
<td>13</td>
<td>LNCS 10913</td>
<td>Social Computing and Social Media: User Experience and Behaviour (Part I)</td>
<td>G. Meiselwitz</td>
<td>978-3-319-91520-3</td>
</tr>
<tr>
<td>14</td>
<td>LNCS 10914</td>
<td>Social Computing and Social Media: Technologies and Analytics (Part II)</td>
<td>G. Meiselwitz</td>
<td>978-3-319-91484-8</td>
</tr>
<tr>
<td>15</td>
<td>LNAI 10915</td>
<td>Augmented Cognition: Intelligent Technologies (Part I)</td>
<td>D. Schmorrow; C. Fidopiastis</td>
<td>978-3-319-91469-5</td>
</tr>
<tr>
<td>16</td>
<td>LNAI 10916</td>
<td>Augmented Cognition: Users and Contexts (Part II)</td>
<td>D. Schmorrow; C. Fidopiastis</td>
<td>978-3-319-91466-4</td>
</tr>
<tr>
<td>17</td>
<td>LNCS 10917</td>
<td>Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management</td>
<td>V. Duffy</td>
<td>978-3-319-91396-4</td>
</tr>
<tr>
<td>18</td>
<td>LNCS 10918</td>
<td>Design, User Experience, and Usability: Theory and Practice (Part I)</td>
<td>A. Marcus; W. Wang</td>
<td>978-3-319-91796-2</td>
</tr>
<tr>
<td>19</td>
<td>LNCS 10919</td>
<td>Design, User Experience, and Usability: Designing Interactions (Part II)</td>
<td>A. Marcus; W. Wang</td>
<td>978-3-319-91802-0</td>
</tr>
<tr>
<td>20</td>
<td>LNCS 10920</td>
<td>Design, User Experience, and Usability: Users, Contexts and Case Studies (Part III)</td>
<td>A. Marcus; W. Wang</td>
<td>978-3-319-91805-1</td>
</tr>
<tr>
<td>21</td>
<td>LNCS 10921</td>
<td>Distributed, Ambient and Pervasive Interactions: Understanding Humans (Part I)</td>
<td>N. Streitz; S. Konomi</td>
<td>978-3-319-91124-3</td>
</tr>
<tr>
<td>22</td>
<td>LNCS 10922</td>
<td>Distributed, Ambient and Pervasive Interactions: Technologies and Contexts (Part II)</td>
<td>N. Streitz; S. Konomi</td>
<td>978-3-319-91130-4</td>
</tr>
<tr>
<td>23</td>
<td>LNCS 10923</td>
<td>HCI in Business, Government and Organizations</td>
<td>F. F. Nah; B. S. Xiao</td>
<td>978-3-319-91715-3</td>
</tr>
<tr>
<td>24</td>
<td>LNCS 10924</td>
<td>Learning and Collaboration Technologies: Design, Development and Technological Innovation (Part I)</td>
<td>P. Zaphiris; A. Ioannou</td>
<td>978-3-319-91742-9</td>
</tr>
<tr>
<td>25</td>
<td>LNCS 10925</td>
<td>Learning and Collaboration Technologies: Learning and Teaching (Part II)</td>
<td>P. Zaphiris; A. Ioannou</td>
<td>978-3-319-91151-9</td>
</tr>
<tr>
<td>26</td>
<td>LNCS 10926</td>
<td>Human Aspects of IT for the Aged Population: Acceptance, Communication and Participation (Part I)</td>
<td>J. Zhou; G. Salvendy</td>
<td>978-3-319-92033-7</td>
</tr>
<tr>
<td>27</td>
<td>LNCS 10927</td>
<td>Human Aspects of IT for the Aged Population: Applications in Health, Assistance and Entertainment (Part II)</td>
<td>J. Zhou; G. Salvendy</td>
<td>978-3-319-92036-8</td>
</tr>
<tr>
<td>28</td>
<td>CCIS 850</td>
<td>HCI International 2018 Posters Proceedings - Part I</td>
<td>C. Stephanidis</td>
<td>978-3-319-92269-0</td>
</tr>
<tr>
<td>29</td>
<td>CCIS 851</td>
<td>HCI International 2018 Posters Proceedings - Part II</td>
<td>C. Stephanidis</td>
<td>978-3-319-92278-2</td>
</tr>
<tr>
<td>30</td>
<td>CCIS 852</td>
<td>HCI International 2018 Posters Proceedings - Part III</td>
<td>C. Stephanidis</td>
<td>978-3-319-92284-3</td>
</tr>
</tbody>
</table>
General Information

Conference Reception

The Conference Reception will take place at 19:45 (right after the Opening Plenary Session) at OCTAVIOUS 12-24 BALLROOM on Tuesday, 17 July 2018.

All Conference participants and accompanying persons, who carry an HCI International 2018 badge, will be permitted entrance.

Extra Conference Reception Tickets will be available from the Conference Secretariat until Tuesday, 17 July 2018, 17:30 hrs.

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

Display Boards and Tables

Display boards and tables are available at the Secretariat area for:

- participants who wish to share or distribute promotional material
- announcements of the Conference Organizers

Coffee and Lunch Breaks

<table>
<thead>
<tr>
<th>Coffee Breaks</th>
<th>Lunch Breaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 – 11:00</td>
<td>Sunday, 15 July</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td>12:30 – 14:00</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td>Monday, 16 July</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td>12:30 – 14:00</td>
</tr>
<tr>
<td>10:00 – 10:30</td>
<td>Tuesday, 17 July</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td>12:30 – 14:00</td>
</tr>
<tr>
<td>10:00 – 10:30</td>
<td>Wednesday, 18 July</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td>12:30 – 13:30</td>
</tr>
<tr>
<td>10:00 – 10:30</td>
<td>Thursday, 19 July</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td>12:30 – 13:30</td>
</tr>
<tr>
<td>10:00 – 10:30</td>
<td>Friday, 20 July</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td>12:30 – 13:30</td>
</tr>
</tbody>
</table>

Offered by HCII2018 Conference

Awards

For each of the Affiliated Conferences / Thematic Areas of HCI International 2018 the Best Paper has been selected to receive an award in the form of a plaque and a certificate in a brief ceremony during the Opening Plenary Session. The Best Poster abstract will also receive an award.

Smoking Policy

HCI International 2018 is a smoke-free Conference. Smoking is allowed in the casino, as well as in the smoking optional hotel rooms. Smoking is prohibited in non-gaming areas of all Nevada casinos, including restaurants and bathrooms.

Mobile Phone Courtesy

HCI International 2018 requests that all mobile phones, pagers and other equipment with audible alarms be turned off in all sessions as a courtesy to the presenters and to the other attendees.

Options for lunch

From celebrity-owned concepts and a world-class buffet to upscale dining and casual fare, Caesars Palace offers the finest restaurants on the Las Vegas Strip. Voted "2015’s Best Variety of Restaurants" by Casino Player magazine, Caesars Palace is the ultimate destination for an eclectic assortment of top chef restaurants and other delectable dining options. More information at: https://www.caesars.com/caesars-palace/restaurants

Participants are kindly asked to make their own arrangements for lunch, during lunch breaks.

HCI International NEWS

HCI International News is a newsletter about Human-Computer Interaction topics, the HCI International Conference Series, and more. The newsletter is distributed through a mailing list and is also available on-line at: http://www.hci.international/news

Subscribe to HCI International News: https://email.hci.international/lists/?p=subscribe

or scan the QR-Code on the right
The Exhibition of HCI International 2018 is hosted in the **OCTAVIUS BALLROOM** (entrance: Octavius 4) of Caesars Palace.

**Entrance to the Exhibition is free of charge for all Conference participants.**

### Timetable

<table>
<thead>
<tr>
<th></th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display set-up</strong></td>
<td>Tuesday, 17 July 10:00 - 17:00</td>
</tr>
<tr>
<td><strong>Opening Hours</strong></td>
<td>Wednesday, 18 July 09:00 - 17:00</td>
</tr>
<tr>
<td></td>
<td>Thursday, 19 July 09:00 - 17:00</td>
</tr>
<tr>
<td></td>
<td>Friday, 20 July 09:00 - 16:30</td>
</tr>
<tr>
<td><strong>Display dismantle</strong></td>
<td>Friday, 20 July 16:30 - 18:30</td>
</tr>
<tr>
<td>Exhibitor</td>
<td>Booth</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>BIOPAC Systems, Inc.</td>
<td>300</td>
</tr>
<tr>
<td>SR Research Ltd</td>
<td>303</td>
</tr>
<tr>
<td>ERGONEERS</td>
<td>103</td>
</tr>
<tr>
<td>3dMD</td>
<td>302</td>
</tr>
<tr>
<td>g.tec neurotechnology USA, Inc.</td>
<td>200, 201</td>
</tr>
<tr>
<td>Smart Eye AB</td>
<td>301</td>
</tr>
<tr>
<td>ERGONEERS FROM SCIENCE TO INNOVATION</td>
<td></td>
</tr>
<tr>
<td>Wearable Sensing</td>
<td>304</td>
</tr>
<tr>
<td>Taylor &amp; Francis Group – Journals</td>
<td>100</td>
</tr>
<tr>
<td>Broadleaf Co., Ltd</td>
<td>101</td>
</tr>
<tr>
<td>ICS-FORTH / HCI Laboratory</td>
<td>400</td>
</tr>
<tr>
<td>ICS-FORTH / Ambient Intelligence Programme</td>
<td>401</td>
</tr>
<tr>
<td>g.tec neurotechnology USA, Inc.</td>
<td>200, 201</td>
</tr>
<tr>
<td>Smart Eye AB</td>
<td>301</td>
</tr>
<tr>
<td>3dMD</td>
<td>302</td>
</tr>
<tr>
<td>g.tec neurotechnology USA, Inc.</td>
<td>200, 201</td>
</tr>
<tr>
<td>Smart Eye AB</td>
<td>301</td>
</tr>
<tr>
<td>3dMD</td>
<td>302</td>
</tr>
</tbody>
</table>
In the context of the HCII2018 Student Design Competition, nineteen (19) video submissions have been accepted for presentation at the conference:

- **Wednesday, 18 July, 08:00 - 10:00** (room: Milano IV)
- **Wednesday, 18 July - Friday, 20 July**, within the Exhibition area

- **An ontological knowledge-base to assist machine-level comprehension of emotions for patient-computer interaction**
  Rebecca Lin, Muhammad Amith, Chen Liang, Rui Duan, Yong Chen, Cui Tao, United States

- **Clothes With Great Dreams**
  Jiali Zhang, Honglei Wang, Chenyue Sun, Xiaolin Jia, Yan Qin, Kexin Yang, Jiaxin Liu, P.R. China

- **A Haptic-Gripper Fine Motor Training System for Children with Autism**
  Huan Zhao, United States

- **We Care: Integrated Helping System for people with physical limitations**
  Shreepriya Shreepriya, Andrea Bottia, Yaoji Du, Italy

- **WYRED Platform, the ecosystem for the young people**
  Alicia García-Holgado, Spain

- **Let’s Go Outside -- a telecommunication assistant system for people with inconveniences**
  Minghao Cai, Japan

- **A New Virtual Keyboard with Finger Gesture Recognition for AR/VR devices**
  Tae-Ho Lee, Hyuk-Jae Lee, Korea

- **How Much is too Much Monitoring for a Single Air Traffic Controller Performing Multiple Remote Tower Operations**
  Peter Kearney, Ireland

- **TSEiA - The Story Envisioning Agent**
  Qiang Zhang, Japan

- **Augmented Reality Based Driving Training**
  Xin Lei, P.R. China

- **iNurse: AR-Based Medication Assistance for the Older Adults**
  Xingchen Zhou, Raphaël Maas, Christian Oertel, Paula Machado, Ehsan Taheri, Supisa Chuensiwa, P.R. China

- **Teaching multimodal behaviors for a humanoid robot using immersive teleoperation**
  Duc-Canh Nguyen, Gérard Bailly, Frédéric Elisei, France

- **tac.tic: Tactile design language for indoor-outdoor navigation**
  Chirag Murthy, India

- **AR-based Mobile Application for Exposure Therapy**
  Bryan McQuade, United States

- **Smart TV for Older Adults: A Comparative Study of the Mega Menu and Tiled Menu**
  Xiwen Ouyang, Jia Zhou, P.R. China

- **Drivers Companion -A Brand New Interactive Steering Wheel**
  Jia Yu, Cheng Hung Yang, P.R. China

- **Motivations to Join Fitness Communities on Facebook: Which Gratifications are Sought and Obtained?**
  Aylin Ilhan, Germany

- **Promoting Cultural Heritage using Virtual Reality**
  Giannis Drossis, Greece

- **A Cooperative Automation Design for Manned-Unmanned Teaming in Future Military Helicopter Missions**
  Yannick Brand, Fabian Schmitt, Axel Schulte, Germany
### coffee breaks:

**Sunday, 15 July 2018**

<table>
<thead>
<tr>
<th>T01</th>
<th>Supersmart Storytelling: How Best to Inform and Persuade in Short “Elevator Pitch” Presentations?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aaron Marcus</td>
</tr>
<tr>
<td>T02</td>
<td>Speech-based Interaction: Myths, Challenges and Opportunities</td>
</tr>
<tr>
<td></td>
<td>Cosmin Munteanu, Gerald Penn</td>
</tr>
<tr>
<td>T03</td>
<td>Conversational UX Design</td>
</tr>
<tr>
<td></td>
<td>Robert J. Moore</td>
</tr>
<tr>
<td>T04</td>
<td>HCI/UX in Science-Fiction Movies/TV: What can We Learn from the Past 100 Years of the Future?</td>
</tr>
<tr>
<td></td>
<td>Aaron Marcus</td>
</tr>
<tr>
<td>T05</td>
<td>Overview of Human Information Processing for HCI</td>
</tr>
<tr>
<td></td>
<td>Kim-Phuong Vu, Robert Proctor</td>
</tr>
<tr>
<td>T06</td>
<td>Interactive Visual Data Mining and Knowledge Discovery</td>
</tr>
<tr>
<td></td>
<td>Boris Kovalechuk</td>
</tr>
<tr>
<td>T07</td>
<td>Human Computer Interaction and Cyber-Security</td>
</tr>
<tr>
<td></td>
<td>Abbas Moallem</td>
</tr>
</tbody>
</table>

**Monday, 16 July 2018**

| T08 | How to Design User-Friendly Dashboards                                                            |
|     | Abbas Moallem                                                                                     |
| T09 | Usability and UX: An integrated approach to design and evaluation                                 |
|     | Nigel Bevan                                                                                       |
| T10 | User interaction with intelligent systems                                                          |
|     | Martin Maguire                                                                                    |
| T11 | Brain neural computer interfaces and novel medical applications                                   |
|     | Günter Edlinger, Brendan Allison                                                                 |
| T12 | Design for Social Change                                                                          |
|     | Panayiotis Zaphiris, Andreas Papallas                                                              |
| T13 | IBM Design Thinking Workshop                                                                       |
|     | Camillo Sassano, Paula Besterman                                                                 |
| T14 | Principles for Designing Interfaces Compatible with Human Cognition                                |
|     | Robert Proctor, Kim-Phuong Vu                                                                     |
| T15 | Effective Design Reviews: How to give and receive meaningful, actionable design feedback          |
|     | Everett McKay                                                                                     |

**Tuesday, 17 July 2018**

<p>| T16 | Introduction to Usability Testing                                                                  |
|     | James Lewis                                                                                       |
| T17 | 3DUX: HCI User Experience Design for Immersive Systems and 3D Environments                        |
|     | Amy Banic                                                                                         |
| T18 | Identifying Product Features that Optimize the User Experience                                    |
|     | Nigel Bevan                                                                                       |
| T19 | Designing new technologies for Universal Access                                                    |
|     | Simeon Keates                                                                                     |
| T20 | Using the System Usability Scale                                                                   |
|     | James Lewis                                                                                       |
| T21 | Organizing an effective Design Sprint                                                              |
|     | Panayiotis Zaphiris, Andreas Papallas                                                              |
| T22 | Theory and Practice of Digital Storytelling                                                        |
|     | David Kaufman, Simone Hausknecht                                                                  |
| T23 | Social Media Analysis for the Masses: Extracting and Analyzing Data from Facebook, Twitter, and Co.|
|     | Margeret Hall                                                                                     |</p>
<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Session Code</th>
<th>Session Title</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCI</td>
<td>S001</td>
<td>HCI &amp; Mobility</td>
<td>NEOPOLITAN I</td>
</tr>
<tr>
<td></td>
<td>S002</td>
<td>Towards an integrated approach to technology-mediated social behavior</td>
<td>NEOPOLITAN II</td>
</tr>
<tr>
<td></td>
<td>S003</td>
<td>Images and Vision in HCI</td>
<td>NEOPOLITAN III</td>
</tr>
<tr>
<td></td>
<td>S004</td>
<td>Embodied Interaction and Communication</td>
<td>MILANO I</td>
</tr>
<tr>
<td></td>
<td>S005</td>
<td>Human Autonomy Teaming in Reduced Crew Operations</td>
<td>MILANO II</td>
</tr>
<tr>
<td></td>
<td>S006</td>
<td>Aviation Safety and Human Factors</td>
<td>OCTAVIUS 7</td>
</tr>
<tr>
<td></td>
<td>S007</td>
<td>Future Technology and Universal Access</td>
<td>MILANO III</td>
</tr>
<tr>
<td></td>
<td>S008</td>
<td>Virtual and Augmented Reality for Education and Training</td>
<td>MILANO IV</td>
</tr>
<tr>
<td></td>
<td>S009</td>
<td>From SAD to CHEER (I): Theories</td>
<td>NEOPOLITAN IV</td>
</tr>
<tr>
<td></td>
<td>S010</td>
<td>Social Live Streaming Services: Investigating the New Human Information Behavior</td>
<td>OCTAVIUS 7</td>
</tr>
<tr>
<td></td>
<td>S011</td>
<td>Human Factors in Information Visualization and Decision Support Systems</td>
<td>OCTAVIUS 8</td>
</tr>
<tr>
<td></td>
<td>S012</td>
<td>Ergonomics in Usability and User Experience</td>
<td>MILANO V</td>
</tr>
<tr>
<td></td>
<td>S013</td>
<td>Information Design and UX</td>
<td>MILANO VII</td>
</tr>
<tr>
<td></td>
<td>S014</td>
<td>New Approaches of User Experience Research - I</td>
<td>MILANO VI</td>
</tr>
<tr>
<td></td>
<td>S015</td>
<td>Understanding Human &amp; Animal Behavior</td>
<td>OCTAVIUS 10</td>
</tr>
<tr>
<td></td>
<td>S016</td>
<td>HCI andEmergent Technologies</td>
<td>SORRENTO</td>
</tr>
<tr>
<td></td>
<td>S017</td>
<td>Usability-Accessibility-Assessment</td>
<td>MILANO VIII</td>
</tr>
<tr>
<td></td>
<td>S018</td>
<td>Inclusive Design for Diverse User Populations</td>
<td>OCTAVIUS 9</td>
</tr>
<tr>
<td></td>
<td>S019</td>
<td>Design and Application for Medical Navigation and Simulation</td>
<td>NEOPOLITAN I</td>
</tr>
<tr>
<td></td>
<td>S020</td>
<td>Research on personalised HCI</td>
<td>NEOPOLITAN II</td>
</tr>
<tr>
<td></td>
<td>S021</td>
<td>VR2.0 and Digital Museum</td>
<td>MILANO I</td>
</tr>
<tr>
<td></td>
<td>S022</td>
<td>Information in aviation</td>
<td>MILANO II</td>
</tr>
<tr>
<td></td>
<td>S023</td>
<td>Remote Tower Operations and ATM</td>
<td>OCTAVIUS 7</td>
</tr>
<tr>
<td></td>
<td>S024</td>
<td>Inclusive design and Intent prediction in Automotive, Aerospace and Further Application Areas</td>
<td>MILANO III</td>
</tr>
<tr>
<td></td>
<td>S025</td>
<td>Extended reality technologies for clinically driven and self-guided health and wellness applications</td>
<td>MILANO VII</td>
</tr>
<tr>
<td></td>
<td>S026</td>
<td>Improving User Experience</td>
<td>NEOPOLITAN III</td>
</tr>
<tr>
<td></td>
<td>S027</td>
<td>From SAD to CHEER (II): Applications</td>
<td>NEOPOLITAN IV</td>
</tr>
<tr>
<td></td>
<td>S028</td>
<td>Opinion Forming, Fake News, and Social Bots</td>
<td>OCTAVIUS 12</td>
</tr>
<tr>
<td></td>
<td>S029</td>
<td>Brain interfaces and electroencephalography</td>
<td>MILANO IV</td>
</tr>
<tr>
<td></td>
<td>S030</td>
<td>Design-Cognitive Sciences-Health Sciences Cooperations: contributions to human perception and well being</td>
<td>OCTAVIUS 8</td>
</tr>
<tr>
<td></td>
<td>S031</td>
<td>Design, User Experience and Usability for mobile devices</td>
<td>MILANO V</td>
</tr>
<tr>
<td></td>
<td>S032</td>
<td>New Approaches of User Experience Research - II</td>
<td>MILANO VI</td>
</tr>
<tr>
<td></td>
<td>S033</td>
<td>Ambient and Civic Computing</td>
<td>OCTAVIUS 10</td>
</tr>
<tr>
<td></td>
<td>S034</td>
<td>User Experience Research in Enterprise</td>
<td>SORRENTO</td>
</tr>
<tr>
<td></td>
<td>S035</td>
<td>Gamification-Robotics</td>
<td>MILANO VIII</td>
</tr>
<tr>
<td></td>
<td>S036</td>
<td>Development of future services for healthy and active aging</td>
<td>OCTAVIUS 9</td>
</tr>
</tbody>
</table>
# Sessions DAY 1

**Wednesday, 18 July 2018**

<table>
<thead>
<tr>
<th>13:30 – 15:30 (page 30 - 34)</th>
<th>16:00 – 18:00 (page 35 - 39)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thematic Area</strong></td>
<td><strong>Session Title</strong></td>
</tr>
<tr>
<td><strong>Session Code</strong></td>
<td><strong>Room</strong></td>
</tr>
<tr>
<td><strong>HCl</strong></td>
<td>Gesture-based Interaction</td>
</tr>
<tr>
<td><strong>HCl</strong></td>
<td>Speech-based Interaction</td>
</tr>
<tr>
<td><strong>HCl</strong></td>
<td>HCI, personal informatics, motivation, persuasion and well-being</td>
</tr>
<tr>
<td><strong>HIMI</strong></td>
<td>Data, Semantics and Interaction</td>
</tr>
<tr>
<td><strong>HIMI</strong></td>
<td>Information and Visual Perception</td>
</tr>
<tr>
<td><strong>EPCE</strong></td>
<td>Flight Deck Design and Human-Computer Interactions</td>
</tr>
<tr>
<td><strong>UAHCI</strong></td>
<td>Web Accessibility in Higher Education</td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td>Puppeteering: Human Tracking in Virtual Space</td>
</tr>
<tr>
<td><strong>CCD</strong></td>
<td>From SAD to CHEER (III): Case Studies - I</td>
</tr>
<tr>
<td><strong>SCSM</strong></td>
<td>Cognitive Engineering Aspects of Social Systems</td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td>Adaptive Instruction as an Augmentation Technology for Enhancing Human Performance</td>
</tr>
<tr>
<td><strong>DHM</strong></td>
<td>Advanced technologies and models in healthcare and surgery</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Artificial Intelligence and User Experience - I</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Designing behaviours, behaving design - I</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Designing and Evaluating User Experience (UX) in Interactive Systems</td>
</tr>
<tr>
<td><strong>DAPI</strong></td>
<td>Social Internet of Things</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>Service Design and User Experience</td>
</tr>
<tr>
<td><strong>LCT</strong></td>
<td>Educational Assessment and TEL</td>
</tr>
<tr>
<td><strong>ITAP</strong></td>
<td>Digital Gaming Among Older Populations</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>Human Aspects of Information Systems</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>Human Aspects of Information Security, Privacy, and Trust</td>
</tr>
<tr>
<td><strong>EPC</strong></td>
<td>Evidence Based Design and UX for Design Process</td>
</tr>
<tr>
<td><strong>UAHCI</strong></td>
<td>Data Mining and Intelligent Systems</td>
</tr>
<tr>
<td><strong>DHM</strong></td>
<td>Decision Making with Displayed Information</td>
</tr>
<tr>
<td><strong>UAHCI</strong></td>
<td>Sensors and Mobile Applications for Human–Computer Interaction</td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td>Virtual Reality Video Games</td>
</tr>
<tr>
<td><strong>CCD</strong></td>
<td>From SAD to CHEER (IV): Case Studies -II</td>
</tr>
<tr>
<td><strong>SCSM</strong></td>
<td>Fitness, Health, and Wearables - Activity Trackers in the Everyday Life</td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td>Applications of Augmented Cognition</td>
</tr>
<tr>
<td><strong>DHM</strong></td>
<td>Creative Interaction: Cross-disciplinary HCI toward Convergence</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Design Case Studies</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Artificial Intelligence and User Experience - II</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Designing behaviours, behaving design - II</td>
</tr>
<tr>
<td><strong>DAPI</strong></td>
<td>AR, VR and Digital Media</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>Mobile and privacy</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>HCl and Social Computing</td>
</tr>
<tr>
<td><strong>LCT</strong></td>
<td>Interaction Design in Collaborative and Learning Environments</td>
</tr>
<tr>
<td><strong>ITAP</strong></td>
<td>Intergenerational use of new media</td>
</tr>
</tbody>
</table>

- **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
- **HCIBGO** HCI in Business, Government and Organizations
- **LCT** Learning and Collaboration Technologies
- **ITAP** Human Aspects of IT for the Aged Population

**WEDNESDAY, 18 JULY 2018**

**HCI International 2018** • 15
## Parallel Sessions Overview

### Thursday, 19 July 2018

#### Morning

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Session Title</th>
<th>Session Code</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HCI</strong></td>
<td>User Interface Design and Multimodal Interaction</td>
<td>S075</td>
<td>NEOPOLITAN I</td>
</tr>
<tr>
<td></td>
<td>Quality in interaction</td>
<td>S076</td>
<td>NEOPOLITAN II</td>
</tr>
<tr>
<td></td>
<td>Usability and User Experience Evaluation</td>
<td>S077</td>
<td>NEOPOLITAN III</td>
</tr>
<tr>
<td><strong>HIMI</strong></td>
<td>Wearable multisensory displays: Theory and practice</td>
<td>S078</td>
<td>MILANO I</td>
</tr>
<tr>
<td></td>
<td>Representational approaches for intelligent systems</td>
<td>S079</td>
<td>MILANO II</td>
</tr>
<tr>
<td><strong>EPCE</strong></td>
<td>Human Systems Integration</td>
<td>S080</td>
<td>OCTAVIUS 7</td>
</tr>
<tr>
<td><strong>UAHCI</strong></td>
<td>Technology for Inclusion and Participation</td>
<td>S081</td>
<td>MILANO III</td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td>Intelligent Systems and Virtual, Augmented and Mixed Reality</td>
<td>S082</td>
<td>MILANO I</td>
</tr>
<tr>
<td><strong>CCD</strong></td>
<td>HCI Research and Practice in the Arab World</td>
<td>S083</td>
<td>NEOPOLITAN IV</td>
</tr>
<tr>
<td><strong>SCSM</strong></td>
<td>Innovative Social Media and Computing Technologies for Aging Societies</td>
<td>S084</td>
<td>OCTAVIUS 12</td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td>Meta-Cognition: Thinking About Thought</td>
<td>S085</td>
<td>MILANO IV</td>
</tr>
<tr>
<td><strong>DHM</strong></td>
<td>Human modeling for nursing and medical art</td>
<td>S086</td>
<td>OCTAVIUS 8</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Design Thinking and Product Design</td>
<td>S087</td>
<td>MILANO V</td>
</tr>
<tr>
<td></td>
<td>Urban Media Design</td>
<td>S088</td>
<td>MILANO VI</td>
</tr>
<tr>
<td></td>
<td>The Experience of New Media Art</td>
<td>S089</td>
<td>MILANO VII</td>
</tr>
<tr>
<td><strong>DAPI</strong></td>
<td>Playful and Humorous Interactions in Smart Environments</td>
<td>S090</td>
<td>OCTAVIUS 10</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>Intelligent Data Analysis</td>
<td>S091</td>
<td>SORRENTO</td>
</tr>
<tr>
<td><strong>LCT</strong></td>
<td>Social Computing for Social Change - I</td>
<td>S092</td>
<td>MILANO VIII</td>
</tr>
<tr>
<td><strong>ITAP</strong></td>
<td>New Media in the Everyday Life of Older People - I</td>
<td>S093</td>
<td>OCTAVIUS 9</td>
</tr>
</tbody>
</table>

### Afternoon

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Session Title</th>
<th>Session Code</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UAHCI</strong></td>
<td>Design Access in Ergonomics and Interaction</td>
<td>S094</td>
<td>NEOPOLITAN I</td>
</tr>
<tr>
<td><strong>EPCE</strong></td>
<td>Relationality Design and Relationality-oriented Systems</td>
<td>S095</td>
<td>MILANO I</td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td>Interacting with data and information</td>
<td>S096</td>
<td>MILANO II</td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td>Human Factors and Ergonomics in Safety-Critical Systems</td>
<td>S097</td>
<td>NEOPOLITAN II</td>
</tr>
<tr>
<td><strong>UAHCI</strong></td>
<td>Novel approaches in Universal Access</td>
<td>S098</td>
<td>MILANO III</td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td>Training, collaboration and simulation in VR</td>
<td>S099</td>
<td>SALERNO</td>
</tr>
<tr>
<td><strong>SCSM</strong></td>
<td>Design for All: Cross-Cultural User Experience</td>
<td>S100</td>
<td>NEOPOLITAN IV</td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td>Frontiers in Social Media</td>
<td>S101</td>
<td>OCTAVIUS 12</td>
</tr>
<tr>
<td><strong>DHM</strong></td>
<td>Adaptation Strategies and Adaptation Management</td>
<td>S102</td>
<td>MILANO IV</td>
</tr>
<tr>
<td><strong>DHM</strong></td>
<td>Smart Service System Design</td>
<td>S103</td>
<td>NEOPOLITAN III</td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td>Hedonic and Pragmatic Aspects of User Experience - I</td>
<td>S104</td>
<td>MILANO V</td>
</tr>
<tr>
<td></td>
<td>Experience Design and Gamification</td>
<td>S105</td>
<td>MILANO VI</td>
</tr>
<tr>
<td></td>
<td>UX in the Digital Age</td>
<td>S106</td>
<td>MILANO VII</td>
</tr>
<tr>
<td><strong>DAPI</strong></td>
<td>Emotion and Ambient Computing</td>
<td>S107</td>
<td>OCTAVIUS 10</td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td>Human Computer Interaction in Multichannel Commerce and Online Marketing</td>
<td>S108</td>
<td>SORRENTO</td>
</tr>
<tr>
<td><strong>LCT</strong></td>
<td>Social Computing for Social Change - II</td>
<td>S109</td>
<td>MILANO VIII</td>
</tr>
<tr>
<td><strong>ITAP</strong></td>
<td>New Media in the Everyday Life of Older People - II</td>
<td>S110</td>
<td>OCTAVIUS 9</td>
</tr>
<tr>
<td></td>
<td>Aging in a digitized world</td>
<td>S111</td>
<td>OCTAVIUS 8</td>
</tr>
<tr>
<td></td>
<td>Aging and Technology Acceptance - I</td>
<td>S112</td>
<td>OCTAVIUS 7</td>
</tr>
</tbody>
</table>
### Sessions DAY 2

**Thursday, 19 July 2018**  
**Afternoon**

<table>
<thead>
<tr>
<th>13:30 – 15:30 (page 50 - 54)</th>
<th>16:00 – 18:00 (page 55 - 59)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session Title</strong></td>
<td><strong>Session Title</strong></td>
</tr>
<tr>
<td><strong>Thematic Area</strong></td>
<td><strong>session code</strong></td>
</tr>
</tbody>
</table>
| **HCl** | S113 Gamification and HCI  
ROOM: NEOPOLITAN I | S132 Myth or reality? The impact of culture on the user experience  
ROOM: NEOPOLITAN I |
| | S133 New horizon of HCI studies  
ROOM: NEOPOLITAN II | |
| **HIMI** | S114 Human-centered Systems, Services, and their Applications  
ROOM: MILANO I  
Bigdata, IoT, and AI for HCI  
ROOM: MILANO II | S134 Haptics in VR  
ROOM: MILANO I |
| | S135 Service-Oriented Interaction  
ROOM: MILANO II | |
| **EPCE** | S116 Harmonized Human-Machine Connection  
ROOM: NEOPOLITAN II | |
| **UAHCI** | S117 Interaction techniques and technologies supporting user diversity  
ROOM: MILANO III | S119 Design for All methods, techniques and tools  
ROOM: MILANO III |
| | S118 Design Access Technologies for Inclusion and Participation  
ROOM: SORRENTO | S137 Spatial User Interaction Beyond the Mouse  
ROOM: SORRENTO |
| | S136 ICT in Health and in Active Ageing  
ROOM: SALERNO | S138 Innovative Product Design and Development: Smart Products and Services  
ROOM: SALERNO |
| **VAMR** | S120 The impact of Bi-Directional Communication on Performance of Human-Intelligent Agent Team  
ROOM: NEOPOLITAN III | S139 Virtual Reality in Psychotherapy and Mental Health  
ROOM: NEOPOLITAN III |
| **CCD** | S121 Cross-Cultural Behavior and Attitude Studies  
ROOM: NEOPOLITAN IV | S140 Designing New Life-space Ecosystem Towards Sustainability  
ROOM: NEOPOLITAN IV |
| **SCSM** | S122 Natural Language Processing for Social Media  
ROOM: OCTAVIUS 12 | S141 Data Based Social Signal Processing  
ROOM: OCTAVIUS 12 |
| **AC** | S123 Assessment Types and Implementation  
ROOM: MILANO IV | S142 Augmented Cognition through Immersive User Experiences  
ROOM: MILANO IV |
| **DHM** | S124 Dynamic Interactions for Driving Safety  
ROOM: OCTAVIUS 8 | |
| **DUXU** | S125 Traditional Chinese Handicraft and Industrial design in the Internet Age (Industrial design, Jewelry, 3D printing, ceramics, fiber, lacquer) - I  
ROOM: MILANO V | S143 Design Education & Research for Intelligence in China  
ROOM: MILANO V |
| | S126 Hedonic and Pragmatic Aspects of User Experience - II  
ROOM: MILANO V | S144 Traditional Chinese Handicraft and Industrial design in the Internet Age (Industrial design, Jewelry, 3D printing, ceramics, fiber, lacquer) - II  
ROOM: MILANO VI |
| | S127 Design and software development  
ROOM: MILANO VII | S145 Usability and user experience evaluation methods and techniques  
ROOM: MILANO VII |
| **DAPI** | S128 Augmented Human in Ubiquitous Virtual Reality and Augmented Reality  
ROOM: OCTAVIUS 10 | S146 Pervasive Learning in Super-Aging Societies  
ROOM: OCTAVIUS 10 |
| **HCIBGO** | S129 HCI in Business and Organizations  
ROOM: OCTAVIUS 7 | S147 Online Trust, Security and Privacy  
ROOM: OCTAVIUS 7 |
| **LCT** | S130 Innovative Collaborative Methodologies and Applications  
ROOM: MILANO VIII | S148 Active Learning to Build Competencies in Higher Education  
ROOM: MILANO VIII |
| **ITAP** | S131 Aging and Technology Acceptance - II  
ROOM: OCTAVIUS 9 | S149 Sustainability and Usability of technologies for ageing-in-place for community dwelling seniors  
ROOM: OCTAVIUS 9 |
| | S150 Senior Cloud and Active Aging  
ROOM: OCTAVIUS 8 | |

- **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  
- **HCIBGO** HCI in Business, Government and Organizations  
- **LCT** Learning and Collaboration Technologies  
- **ITAP** Human Aspects of IT for the Aged Population

---

**Sessions Overview**

**Sessions DAY 2**

**13:30 – 15:30** (page 50 - 54)

**16:00 – 18:00** (page 55 - 59)
## Parallel Sessions Overview

**Friday, 20 July 2018**  
**Morning**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Session Title</th>
<th>Room</th>
</tr>
</thead>
</table>
| 08:00 – 10:00 (page 60 - 64) | **HCI**  
S151 Emotion Recognition  
ROOM: NEOPOLITAN I  
S152 Input Techniques and Devices  
ROOM: NEOPOLITAN II  
S153 Mobile user experience  
ROOM: NEOPOLITAN III  

**HIMI**  
S154 Improvement in Learning and Educational Environments using ICT  
ROOM: NEOPOLITAN I  

**EPCE**  
S155 Humans and Autonomy Working in Teams  
ROOM: OCTAVIUS 7  

**UAHCI**  
S156 Human Computer Interaction in Video Games for Health: Design, User Experience and Usability  
ROOM: MILANO III  
S157 Design for ASD  
ROOM: SALERNO  

**VAMR**  
S158 Alternative Controls for VMAR  
ROOM: MILANO II  

**CCD**  
S159 Design for human city and social innovation  
ROOM: NEOPOLITAN IV  

**SCSM**  
S160 Customer eXperience and Behavior  
ROOM: MILANO VII  

**AC**  
S161 Mastering Cyberpower: Cognitive Sciences and The Human Factor in Civilian and Military Cyber Security  
ROOM: MILANO IV  

**DHM**  
S162 Human-Computer Interaction and Occupational Safety and Health  
ROOM: OCTAVIUS 8  

**DUXU**  
S163 Fostering UX Thinking and Doing through Interaction Design Practice - I  
ROOM: MILANO V  
S164 Ergonomics in design  
ROOM: MILANO VI  

**DAPI**  
S165 Smart Homes and Working Environments  
ROOM: OCTAVIUS 10  

**HCIBGO**  
S166 Digital competences development and testing  
ROOM: SORRENTO  
S167 Learner-centered technologies  
ROOM: MILANO VIII  

**LCT**  
S168 Design Empowerment and Ambient Assisted Living  
ROOM: OCTAVIUS 9  

**ITAP**  
S169 HCI and Art  
ROOM: NEOPOLITAN I  
S170 Design Methods, Techniques and Tools  
ROOM: NEOPOLITAN II  

S171 The Potential for Virtual Reality in Cognitive Rehabilitation and Assessment for early dementia, and MCI  
ROOM: MILANO I  

S172 Cognitive workload, situation awareness and metacognition  
ROOM: OCTAVIUS 7  

S173 Virtual reality in design and industrial applications  
ROOM: SALERNO  
S174 Psychological and Health Issues in VR  
ROOM: MILANO III  

S175 Design, User Experience and Usability in New Technology  
ROOM: NEOPOLITAN III  
S176 Education, Communication and Information Sharing  
ROOM: NEOPOLITAN IV  
S177 Cultural dimensions of social media and social computing  
ROOM: MILANO VII  
S178 Augmented Cognition for Mindfulness & Workforce Effectiveness & Wellness  
ROOM: MILANO IV  

S179 Human Modeling for High Quality Nursing and Medical Care  
ROOM: OCTAVIUS 8  

S180 Developments in DUXU: Contributions for the Context of Technological Environments  
ROOM: MILANO VI  
S181 Fostering UX Thinking and Doing through Interaction Design Practice - II  
ROOM: MILANO V  
S182 Challenges for Large-Scale Deployment of Smart IoT technologies  
ROOM: OCTAVIUS 10  

S183 Cyber-facilitated Influence  
ROOM: SORRENTO  

S184 Designing collaborative learning experiences in formal and informal settings  
ROOM: MILANO VIII  
S185 Smart Eldercare in China  
ROOM: OCTAVIUS 9  

---

**Thematic Areas**  
**HCI** Human-Computer Interaction  
**HIMI** Human Interface and the Management of Information  
**EPCE** Engineering Psychology and Cognitive Ergonomics  
**UAHCI** Universal Access in Human-Computer Interaction  
**VAMR** Virtual, Augmented and Mixed Reality  
**CCD** Cross-Cultural Design  
**SCSM** Social Computing and Social Media  
**AC** Augmented Cognition
Sessions DAY 3

Friday, 20 July 2018

<table>
<thead>
<tr>
<th>13:30 – 15:30 (page 70 - 74)</th>
<th>16:00 – 18:00 (page 75 - 78)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thematic Area</strong></td>
<td><strong>Session Title</strong></td>
</tr>
<tr>
<td><strong>session code</strong></td>
<td><strong>session code</strong></td>
</tr>
<tr>
<td><strong>Session Title</strong></td>
<td><strong>Session Title</strong></td>
</tr>
<tr>
<td><strong>ROOM</strong></td>
<td><strong>ROOM</strong></td>
</tr>
<tr>
<td><strong>HCIBGO</strong></td>
<td><strong>UAHCI</strong></td>
</tr>
<tr>
<td><strong>S186</strong> Motion-based interaction</td>
<td><strong>S189</strong> Cutting Edge in Biosignals for Automatic Control Systems, Virtual Reality and the Education</td>
</tr>
<tr>
<td><strong>ROOM: NEOPOLITAN I</strong></td>
<td><strong>ROOM: MILANO III</strong></td>
</tr>
<tr>
<td><strong>HIMI</strong></td>
<td><strong>S190</strong> Virtual Reality in Universal Access</td>
</tr>
<tr>
<td><strong>S187</strong> Information in Complex Environments</td>
<td><strong>ROOM: MILANO I</strong></td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td><strong>S191</strong> Universal Access to learning and education</td>
</tr>
<tr>
<td><strong>S192</strong> Interaction in Virtual Reality</td>
<td><strong>ROOM: MILANO II</strong></td>
</tr>
<tr>
<td><strong>VAMR</strong></td>
<td><strong>S194</strong> Cross-Cultural Perspectives and Practices on Service Design</td>
</tr>
<tr>
<td><strong>S195</strong> Exploring the Impacts of Social Media and Virtual Worlds: Education, Training and Online Interaction</td>
<td><strong>ROOM: MILANO VII</strong></td>
</tr>
<tr>
<td><strong>S197</strong> Augmented Reality Applications for Evolving Casualty Care</td>
<td><strong>ROOM: MILANO IV</strong></td>
</tr>
<tr>
<td><strong>AC</strong></td>
<td><strong>S198</strong> Anthropometry and Motion Analysis</td>
</tr>
<tr>
<td><strong>S199</strong> Design Frameworks, Methods and Tools - I</td>
<td><strong>ROOM: MILANO V</strong></td>
</tr>
<tr>
<td><strong>DUXU</strong></td>
<td><strong>S200</strong> Various Applications in Cyber-Physical Social Systems</td>
</tr>
<tr>
<td><strong>S201</strong> Neuro Business/IS</td>
<td><strong>ROOM: OCTAVIUS 9</strong></td>
</tr>
<tr>
<td><strong>HCT</strong></td>
<td><strong>S202</strong> Novel Learning Technologies</td>
</tr>
<tr>
<td><strong>S203</strong> Intergenerational Communication and Collaboration: Advancing Knowledge about Smart Ageing</td>
<td><strong>ROOM: MILANO VIII</strong></td>
</tr>
<tr>
<td><strong>ITAP</strong></td>
<td><strong>S204</strong> Models, ontologies, visual languages and reasoning in HCI</td>
</tr>
<tr>
<td><strong>S205</strong> Quo Vadis &quot;Interaction Design and Children, Older and Disabled Users&quot;</td>
<td><strong>ROOM: MILANO II</strong></td>
</tr>
<tr>
<td><strong>Visualization and Narration in VR</strong></td>
<td><strong>ROOM: SALERNO</strong></td>
</tr>
<tr>
<td><strong>Virtual Reality and Game Design</strong></td>
<td><strong>ROOM: NEOPOLITAN IV</strong></td>
</tr>
<tr>
<td><strong>Intelligence service and interaction experience design in different cultures</strong></td>
<td><strong>ROOM: NEOPOLITAN IV</strong></td>
</tr>
<tr>
<td><strong>Data Science for Human Behavior in Marketing</strong></td>
<td><strong>ROOM: MILANO VII</strong></td>
</tr>
<tr>
<td><strong>Innovating Social Computing and Social Media</strong></td>
<td><strong>ROOM: OCTAVIUS 7</strong></td>
</tr>
<tr>
<td><strong>Artificial Intelligence for Advanced Human-Machine Symbiosis</strong></td>
<td><strong>ROOM: MILANO III</strong></td>
</tr>
<tr>
<td><strong>Designing intelligent environments</strong></td>
<td><strong>ROOM: MILANO IV</strong></td>
</tr>
<tr>
<td><strong>DHHM</strong></td>
<td><strong>S203</strong> Designing intelligent environments</td>
</tr>
<tr>
<td><strong>S204</strong> DHM in ergonomics, mobility and rehabilitation</td>
<td><strong>ROOM: OCTAVIUS 8</strong></td>
</tr>
<tr>
<td><strong>S205</strong> Design Frameworks, Methods and Tools - II</td>
<td><strong>ROOM: MILANO V</strong></td>
</tr>
<tr>
<td><strong>S206</strong> Designing intelligent environments</td>
<td></td>
</tr>
<tr>
<td><strong>ROOM: OCTAVIUS 10</strong></td>
<td><strong>ROOM: OCTAVIUS 10</strong></td>
</tr>
</tbody>
</table>

- **DHHM** Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management
- **DUXU** Design, User Experience and Usability
- **DAFI** Distributed, Ambient and Pervasive Interactions
- **HCIBGO** HCI in Business, Government and Organizations
- **LCT** Learning and Collaboration Technologies
- **ITAP** Human Aspects of IT for the Aged Population
<table>
<thead>
<tr>
<th>HCI S001</th>
<th>S002</th>
<th>S003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HCI &amp; Mobility</strong>&lt;br&gt;Chair(s): Heidi Krömker, Germany.</td>
<td><strong>Towards an integrated approach to technology-mediated social behavior</strong>&lt;br&gt;Chair(s): Mike Z. Yao, United States.</td>
<td><strong>Images and Vision in HCI</strong>&lt;br&gt;Chair(s): Xiaowen Fang, United States.</td>
</tr>
<tr>
<td><strong>Room:</strong> NEOPOLITAN I</td>
<td><strong>Room:</strong> NEOPOLITAN II</td>
<td><strong>Room:</strong> NEOPOLITAN III</td>
</tr>
<tr>
<td>Experience Maps for Mobility&lt;br&gt;Tobias Wienken, Heidi Krömker, Germany.</td>
<td>Towards an integrated approach to studying virtual reality-mediated social behaviors&lt;br&gt;Jeffrey C. F. Ho, Hong Kong</td>
<td><strong>Impact of the size of Chinese Characters on the Visual Search Performance Under Vibration</strong>&lt;br&gt;Lifen Tan, Chunhui Wang, Hongting Li, P.R. China</td>
</tr>
<tr>
<td><strong>Mobility as a Service (MaaS) Based on Intermodal Electronic Platforms in Public Transport</strong>&lt;br&gt;Ulrike Stopka, René Pessier, Christian Günther, Germany</td>
<td><strong>Reading Machine-Written News: Effect of Machine Heuristic and Novelty on Hostile Media Perception</strong>&lt;br&gt;Bingjie Liu, Lewen Wei, United States</td>
<td>Courting the Visual Image: The Ability of Digital Graphics and Interfaces to Alter the Memory and Behaviour of the Viewer&lt;br&gt;Damian Schofield, United States</td>
</tr>
<tr>
<td><strong>Interactive Public Displays for Paperless Mobility Stations</strong>&lt;br&gt;Cindy Mayas, Tobias Steinert, Heidi Krömker, Germany</td>
<td><strong>Cognitive Offloading and the Extended Digital Self</strong>&lt;br&gt;Kristy A. Hamilton, Mike Z. Yao, United States</td>
<td><strong>Image Blurring Method for Enhancing Digital Content Viewing Experience</strong>&lt;br&gt;Hiroaki Yamaura, Masayuki Tamura, Satoshi Nakamura, Japan</td>
</tr>
<tr>
<td>From HMI to HRI: Human-Vehicle Interaction Design for Smart Cockpit&lt;br&gt;Xiaohua Sun, Honggao Chen, Jintian Shi, Weiwei Guo, Jingcheng Li, P.R. China</td>
<td><strong>Expressing Mixed Emotions via Gradient Color: An Interactive Online Chat Interface Design Based on Affective Recognition</strong>&lt;br&gt;Ning Tang, Zhanxun Dong, Lu Liu, P.R. China</td>
<td>Analyzing gaze Behavior Prior to Interacting with a Multimedia Interface in a Car&lt;br&gt;Bastian Hinterleitner, Thomas Hammer, Stefan Mayer, Frederik Naujoks, Nadja Schoemig, Germany</td>
</tr>
<tr>
<td>Characterizing the EEG Features of Inspiring Designers with Functional Terms&lt;br&gt;Qian Zhang, Jia Hao, Qing Xue, Yu Yan, P.R. China.</td>
<td><strong>Sports IT and Digital Wellness: Three waves of digital transformation in sports and training.</strong>&lt;br&gt;Charlotte Wiberg, Sweden</td>
<td><strong>Deconaby: Animations for Improving Understandability of Web Images</strong>&lt;br&gt;Kazuyuki Hikawa, Kouhei Matsuda, Satoshi Nakamura, Japan</td>
</tr>
<tr>
<td><strong>User performance for vehicle recognition with visual and infrared sensors from an unmanned aerial vehicle</strong>&lt;br&gt;Patrik Lif, Fredrik Näsström, Fredrik Bissmarck, Jonas Allvar, Sweden</td>
<td><strong>Research of a m-Health App Design for Information Management of MDTMs</strong>&lt;br&gt;Qiong Peng, P.R. China.</td>
<td><strong>Animacy Perception Based on One-Dimensional Movement of a Single Dot</strong>&lt;br&gt;Hidekazu Fukui, Kazunori Terada, Manabu Hamaguchi, Japan</td>
</tr>
<tr>
<td><strong>Hands-Free Interface Using Breath Residual Heat</strong>&lt;br&gt;Kang Hoon Lee, Sang Hwa Lee, Jong-Il Park, Korea</td>
<td><strong>Embodied Interaction and Communication</strong>&lt;br&gt;Chair(s): Tomio Watanabe, Japan.</td>
<td><strong>Effectiveness of Visual Non-verbal Information on Feeling and Degree of Transmission in Face-to-Face Communication</strong>&lt;br&gt;Masashi Okubo, Akeo Terada, Japan</td>
</tr>
<tr>
<td><strong>A Video Communication System with a Virtual Pupil CG Superimposed on the Partner’s Pupil</strong>&lt;br&gt;Yoshihiro Sejima, Ryosuke Maeda, Daichi Hasegawa, Yoichi Sato, Tomio Watanabe, Japan</td>
<td><strong>Experimental Observation of Nodding Motion in Remote Communication using ARM-COMS</strong>&lt;br&gt;Teruaki Ito, Hiroki Kimachi, Tomio Watanabe, Japan</td>
<td><strong>Development of a Pair Ski Jump System Focusing on Improvement of Experience of Video Content</strong>&lt;br&gt;Ken Minamide, Satoshi Fukumori, Saizo Aoyagi, Michiya Yamamoto, Japan</td>
</tr>
<tr>
<td><strong>Deconaby: Animations for Improving Understandability of Web Images</strong>&lt;br&gt;Kazuyuki Hikawa, Kouhei Matsuda, Satoshi Nakamura, Japan</td>
<td><strong>Animacy Perception Based on One-Dimensional Movement of a Single Dot</strong>&lt;br&gt;Hidekazu Fukui, Kazunori Terada, Manabu Hamaguchi, Japan</td>
<td><strong>Hands-Free Interface Using Breath Residual Heat</strong>&lt;br&gt;Kang Hoon Lee, Sang Hwa Lee, Jong-Il Park, Korea</td>
</tr>
</tbody>
</table>
### WEDNESDAY 8:00 - 10:00

#### EPCE S006
**Aviation Safety and Human Factors**
Chair(s): Wen-Chin Li, United Kingdom; Jingyu Zhang, P.R. China.

- **Using Distributed Simulation to Investigate Human-Autonomy Teaming**
  Michael Matessa, Kim-Phuong L. Vu, Thomas Z. Strybel, Vernol Battiste, Thomas Schnell, Mathew Cover, United States

- **Analysis of Airline Pilots Subjective Feedback to Human Autonomy Teaming in a Reduced Crew Environment**
  Mathew Cover, Chris Reichlen, Michael Matessa, Thomas Schnell, United States

- **Effectiveness of Human Autonomy Teaming in Cockpit Applications**
  Thomas Z. Strybel, Jillian Keeler, Vanui Barakezyan, Armando Alvarez, Natassia Mattoo, Kim-Phuong L. Vu, Vernol Battiste, United States

- **Human Automation Teaming: Lessons Learned and Future Directions**
  Vernol Battiste, Joel Lachter, Summer L. Brandt, Armando Alvarez, Thomas Z. Strybel, Kim-Phuong L. Vu, United States

- **Testing Human-Autonomy Teaming Concepts on a Global Positioning System Interface**
  Ricky Russell, United States

- **Measuring the Effects of a Cognitive Aid in Deep Space Network Operations**
  Edward Barraza, Alexandra Holloway, Krys Blackwood, Michael J. Gutenson, Kim-Phuong L. Vu, United States

#### UAHCI S007
**Future Technology and Universal Access**
Chair(s): Simeon Keates, United Kingdom

- **When Universal Access does not go to plan: Lessons to be learned**
  Simeon Keates, United Kingdom

- **Universal Design of ICT for Emergency Management: A Systematic Literature Review**
  Terje Gjøsaeter, Jazair Radianti, Weiqin Chen, Norway

- **A Strategy on introducing inclusive design philosophy to non-design background undergraduates**
  Shishun Wang, Ting Zhang, Guoying Lu, Yinyun Wu, P.R. China

- **Micro-internships on the Margins**
  Margret Hall, Michelle Friend, United States; Markus Krause, Spain

- **Creativity and Ambient Urbanizing at the Intersection of the Internet of Things and People in Smart Cities**
  H. Patricia McKenna, Canada

- **Understanding the Questions Asked by Care Staff while Eliciting Life Stories from Older Adults for AAC System Design**
  Haruka Kanetsuku, Tetsumi Hirotomi, Sachiko Hara, Japan

### WEDNESDAY 8:00 - 10:00

#### VAMR S008
**Virtual and Augmented Reality for Education and Training**
Chair(s): Jorge Martín-Gutiérrez, Spain; Leticia Neira-Tovar, Mexico.

- **Reconstruction by low cost software based on photogrammetry as a reverse engineering process**
  Dolores Parras, Francisco Cavas-Martínez, José Nieto, Francisco J.F. Cañavate, Daniel García Fernández-Pacheco, Spain

- **Examination of Effectiveness of a Performed Procedural Task using Low-Cost Peripheral Devices in VR**
  Damian Grajewski, Pawel Bun, Filip Gorski, Poland

- **The use of Virtual and Augmented Reality to Prevent the Physical Effects Caused by Diabetes Mellitus Type 2: An Integrative Review**
  Leticia Neira-Tovar, Mexico; Ivan Castilla Rodriguez, Spain

- **Determining which Touch Gestures are Commonly Used when Visualizing Physics Problems in Augmented Reality**
  Marta Del Río Guerra, Mexico; Jorge Martín-Gutiérrez, Spain; Raúl Vargas-Lázarraga, Israel Garza-Bernal, Mexico

- **Guiding or Exploring? Finding the Right Way to Teach Students**
  Structural Analysis with Augmented Reality
  Rafael Radkowski, Aliye Karabulut-Ijigu, Yelda Turkan, Amir Behzadan, An Chen, United States

- **To Speak or To Text: Effects of Display Type and I/O style on Mobile Virtual Humans Nurse Training**
  Justin Loyd, Toni Pence, Amy Banic, United States
Cross-Cultural Design

**CCD S009**

**From SAD to CHEER (I): Theories**
Chair(s): John Kreifeldt, United States; Rungtai Lin, Taiwan.

Room: **NEOPOLITAN IV**

Cross-cultural Communication in Design Collaboration
Rungtai Lin, Hong-lin Li, Taiwan; Jun Wu, Wei Bi, P.R. China

Representation of Memory in Design for Humanity
Hsien-Fu Lo, I-Wen Wu, Chien-Chih Ni, Taiwan

Applying Storyboards to Fashion Design for Empathy
Chien-Chih Ni, I-Ting Wang, Hsien-Fu Lo, Taiwan

Case Studies of Designing for Ecology: Branding EVEN
I-Wen Wu, Hsien-Fu Lo, I-Ting Wang, Taiwan

Research Model for Traditional Board game Renaissance
Erik Armayuda, Indonesia; Po-Hsien Lin, Tanzania; Rungtai Lin, Taiwan

S.A.D in Education and CHEER in Practice: A Case Study of DTIT Program at NTUA
John Kreifeldt, United States; Hong-Lin Li, Ming-Xean Sun, Taiwan; Wei Bi, P.R. China; Rungtai Lin, Taiwan

Social Computing and Social Media

**SCSM S010**

**Social Live Streaming Services: Investigating the New Human Information Behavior**
Chair(s): Kaja J. Fietkiewicz, Germany.

Room: **OCTAVIUS 12**

A Model for Information Behavior Research on Social Live Streaming Services (SLSSs)
Franziska Zimmer, Katrin Scheibe, Wolfgang G. Stock, Germany

Dreaming of Stardom and Money: Micro-celebrities and Influencers on Live Streaming Services
Kaja J. Fietkiewicz, Isabelle Dorsch, Katrin Scheibe, Franziska Zimmer, Wolfgang G. Stock, Germany

Interactions of Twitch Users and Their Usage Behavior
Daniel Gros, Anna Hackenholt, Piotr Zawadzki, Brigitta Wanner, Germany

Does Age Influence the Way People Interact with Social Live Streaming Services?
Thomas Kasakowskij, Germany

The Impact of Gamification in Social Live Streaming Services
Katrin Scheibe, Germany

A Content Analysis of Social Live Streaming Services
Franziska Zimmer, Germany

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

**DHM S011**

**Human Factors in Information Visualization and Decision Support Systems**
Chair(s): André Calero Valdez, Germany.

Room: **OCTAVIUS 8**

Privacy Pirates - The key role of user diversity in V2X-technology
Teresa Brell, Ralf Philipsen, Martina Ziefle, Germany

Safety Performance Evaluation for Civil Aviation Maintenance Department
Yijie Sun, Yuan Zhang, Rong Zhao, Yanqiu Chen, P.R. China

Improving Computerized Charting in an Intensive Care Unit
Ben Smith, Sivamanoj Sreramakavacham, Jung Hyup Kim, Laurel Despins, United States

Design, User Experience, and Usability

**DUXX S012**

**Ergonomics in Usability and User Experience**
Chair(s): Francisco Rebelo, Portugal.

Room: **MILANO V**

Little big choices: customization in online user experience
Marco Neves, Maria Reis, Portugal

Comparing Human against Computer Generated Designs: New Possibilities for Design Activity within Agile Projects
Farley Fernandes, Ernesto Filgueiras, Portugal; Andre Neves, Brazil

Tourism and Virtual Reality: User experience evaluation of a virtual environment prototype
Yanick Trindade, Francisco Rebelo, Paulo Noriega, Portugal

Expected User Acceptance of an Augmented Reality Service for a Smart City
Francisco Rebelo, Paulo Noriega, Tiago Oliveira, Daniela Santos, Portugal; Sabrina Oliveira, Brazil

Three Column Website Layout vs. Grid Website Layout: An Eye Tracking Study
Abdallah Namoun, Saudi Arabia
<table>
<thead>
<tr>
<th>Room: MILANO VII</th>
<th>MILANO VI</th>
<th>OCTAVIUS 10</th>
<th>SORRENTO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Semiotics of Space and Time in Interaction Design</strong>&lt;br&gt;Patricia Search, United States</td>
<td><strong>Extraction of Key Factors and Its Interrelationship Critical to Determining the Satisfaction Degree of User Experience in Taxi Passenger Service Using DEMATEL</strong>&lt;br&gt;Chunrong Liu, Yi Jin, Xu Zhu, P.R. China</td>
<td><strong>Survey on Vision-based Path Prediction</strong>&lt;br&gt;Tsubasa Hirakawa, Takayoshi Yamashita, Toru Tamaki, Hironobu Fujiyoshi, Japan</td>
<td><strong>The Role of Actor Capability in (Re)Defining Technology Affordances: The Case of Open Innovation Platform</strong>&lt;br&gt;Kaveh Abhari, Bo Sophia Xiao, Elizabeth Davidson, United States</td>
</tr>
<tr>
<td><strong>The role of dialogue user data in the information interaction design of conversational systems</strong>&lt;br&gt;Heloisa Candello, Claudio Pinhanecz, Brazil</td>
<td><strong>Study of Chinese City “Portrait” Based on Data Visualization: Take City Dashboard for Example</strong>&lt;br&gt;Xueting Tong, Zhanwei Wu, P.R. China</td>
<td><strong>Understanding animal behavior using their trajectories: a case study of gender specific trajectory trends</strong>&lt;br&gt;Ilya Ardakani, Koichi Hashimoto, Ken Yoda, Japan</td>
<td><strong>Why blogger Sells: An Approach from the Attachment Theory</strong>&lt;br&gt;Wei Yang, Choon Ling Sia, Hong Kong</td>
</tr>
<tr>
<td><strong>Educational Digital Games: a Theoretical Framework about Design Models, Learning Theories and User Experience</strong>&lt;br&gt;Michele Pereira de Aguiar, Brazil; Brian Winn, United States; Matheus Cezarotto, André Luiz Battaiola, Pérciles Varella Gomes, Brazil</td>
<td><strong>Factor Model for Passenger Experience in the Aircraft Cabin Design</strong>&lt;br&gt;Siyu Ren, Xinyi Tao, Ting Han, P.R. China</td>
<td><strong>Easy-to-install Methods for Indoor Context Recognition Using Wi-Fi Signals</strong>&lt;br&gt;Kazuya Ohara, Takuya Maekawa, Japan</td>
<td><strong>Effect of Gamification on Intrinsic Motivation</strong>&lt;br&gt;Edna Chan, Singapore; Fiona Fui-Hoon Nah, United States; Qizhang Liu, Singapore; Zhiwei Lu, United States</td>
</tr>
<tr>
<td><strong>Interaction and Animation in Health Infographics: a Study of Graphic Presentation and Content Comprehension</strong>&lt;br&gt;Rafael De Castro Andrade, Carla G. Spinillo, Brazil</td>
<td><strong>Exploration of New-Generation Human Computer Interface based on Participatory Design Strategy</strong>&lt;br&gt;Danni Chang, P.R. China; Carman Lee, Hong Kong: Lo Kwk Leung, P.R. China</td>
<td><strong>Neural Mechanisms of Animal Navigation</strong>&lt;br&gt;Koutarou D. Kimura, Masaaki Sato, Midori Sakura, Japan</td>
<td><strong>Short Paper: Psychosocial Aspects of New Technology Implementation</strong>&lt;br&gt;Dennis Jones, United States</td>
</tr>
<tr>
<td><strong>The Design of the saiteBooker: an Authoring Tool for E-books for Health Distance Learning Courses in Brazil</strong>&lt;br&gt;Carla G. Spinillo, Claudio H. Silva, Ana Emilia F. Oliveira, Dilson José L. Rabelo Jr., Aldrea M. O. Rabelo, Brazil</td>
<td><strong>Exploring potential user experience design for traditional Chinese service station: a case study in Guangzhou, China</strong>&lt;br&gt;Zhen Liu, Yifan Meng, Di Xu, Jun-en He, Xiusheng Gu, Lijun Jiang, Xiaohua Li, Shaolin Wu, Zhengguan Li, P.R. China</td>
<td><strong>Finding Discriminative Animal Behaviors from Sequential Bio-logging Trajectory Data</strong>&lt;br&gt;Takuto Sakuma, Kazuya Nishi, Shuhel J. Yamazaki, Koutarou D. Kimura, Sakiko Matsumoto, Ken Yoda, Ichiro Takeuchi, Japan</td>
<td><strong>Information Visualization and Responsiveness as Digital Capabilities to Improve Digital Business Performance</strong>&lt;br&gt;Jose Carlos Da Silva Freitas Junior, Antonio Carlos Gastañd Macada, Brazil; Jie Mein Goh, Canada</td>
</tr>
<tr>
<td><strong>Research on Information Recommendation Optimization Mechanism Based on Emotional Expression and Cognition</strong>&lt;br&gt;Ke Zhong, Lijun Zhang, Xiaolei Guan, P.R. China</td>
<td><strong>Practical and Numerical Investigation on a Minimal Design Navigation System of Bats</strong>&lt;br&gt;Yasufrumi Yamada, Kentaro Ito, Ryo Kobayashi, Shizuko Hiryu, Yoshiaki@nbnsp;Watanabe, Japan</td>
<td><strong>The Effects of 360-degree VR Videos on Audience Engagement: Evidence from The New York Times</strong>&lt;br&gt;Guang Wang, Wenying Gu, Ayoung Suh, Hong Kong</td>
<td></td>
</tr>
</tbody>
</table>
### Learning and Collaboration Technologies (LCT) S017

**Usability-Accessibility-Assessment**
Chair(s): David Fonseca, Spain.

Room: **MILANO VIII**

Factors Affecting Usability of Interactive 3D Holographic Projection System for Experiential Learning
Hsinfu Huang, Chin-wei Chen, Yuan-wei Hsieh, Taiwan

Assessing the Usability of Urdu Learning Mobile Apps for Children
Noor Hussain, Zahid Hussain, Baqar Ali, Pakistan

Usability test of WYRED platform
Francisco J. García Peñalvo, Alicia García-Holgado, Andrea Vázquez Ingelmo, Antonio M. Secoane-Pardo, Spain

Accessibility in Software Engineering: Pursuing the Mainstream from a Classroom
João Silva, Ramiro Gonçalves, José Luís Bandeira Rodrigues Martins, Frederico Branco, António Pereira, Portugal

Human interaction in learning ecosystems based on Open Source solutions
Alicia García-Holgado, Francisco J. García Peñalvo, Spain

An Analysis on the Recommendation Engine of a Course Introduction Module
Toshikazu Iitaka, Japan

Application of Domain Engineering to Generate Customized Information Dashboards
Andrea Vázquez Ingelmo, Francisco J. García Peñalvo, Roberto Therón, Spain

### Human Aspects of IT for the Aged Population (ITAP) S018

**Inclusive Design for Diverse User Populations**
Chair(s): Wang-Chin Tsai, Taiwan.

Room: **OCTAVIUS 9**

An Evaluation of User Experience of Web Main Menu on Different Mobile Devices
Kuo-Liang Huang, Hsuan Lin, Chia-Chen Lu, Taiwan

Viewing angle, depth and directionality of 2D and 3D icons
Hsuan Lin, Kuo-Liang Huang, Wei Lin, Taiwan

Semantic Understanding and Task-Oriented for Image Assessment
Cheng-Min Tsai, Shin-Shen Guan, Wang-Chin Tsai, Zhi-hua Zhang, Taiwan

Acoustical Evaluation for the Renovation of Multipurpose Performance Hall
Wei Lin, Hsuan Lin, Kung-Huang Huang, Chung-Tsung Wu, Taiwan

Evaluation and Analysis of the Features and Applications of 3D Model Platforms
Chia-Ling Chang, Siou-Wen Wang, Taiwan

---
### HCI S019

**Design and Application for Medical Navigation and Simulation**

Chair(s): Katsuhiko Onishi, Japan.

Room: NEOPOLITAN I

**Calibration Experiences of Multiple RGB/Depth Visions for Capturing a Surgical Area**

Katsuhiko Onishi, Yuichiho Tanaka, Kimitori Mizushino, Katsunori Tachibana, Kaoru Watanabe, Hiroshi Noborio, Japan

**A Useful Robotic-Mechanical System for Measuring a Surgical Area without Obstructing Surgical Operations by Some Surgeon**

Masahiro Nonaka, Yuya Chikayama, Masatoshi Kayaki, Masanana Koeda, Katsunori Tachibana, Hiroshi Noborio, Japan

**A Novel Liver Surgical Navigation System Using Polyhedrons with STL-format**

Satoshi Numata, Daiki Yano, Masanao Koeda, Katsuhiko Onishi, Kaoru Watanabe, Hiroshi Noborio, Hirotaka Uoi, Japan

**Development of Wireless Surgical Knife Attachment with Proximity Indicators Using ArUco Marker**

Masanao Koeda, Daiki Yano, Naoki Shintaku, Katsuhiko Onishi, Hiroshi Noborio, Japan

**Accurate Evaluation of Rotational Angle and Translation Movement of Our Organ-following Algorithm based on Depth-Depth Matching**

Hiroshi Noborio, Saki Kiri, Masatoshi Kayaki, Masanana Koeda, Katsuhiko Onishi, Japan

**Laparoscopic Forceps with Force Feedback**

Atsuro Sawada, Jin Kono, Atsushi Sengiku, Naoto Kume, Junichi Fukuda, Toshinari Yamasaki, Osamu Ogawa, Japan

### HCI S020

**Research on personalised HCI**

Chair(s): Yi Ji, P.R. China.

Room: NEOPOLITAN II

**Study on Children’s Toy Design Based on Perceptual Evaluation**

Bin Jiang, Haoran Ni, Yingying Miao, P.R. China

**Research on Personalized Learning Pattern in Traditional Handicraft using Augmented Reality: A Case Study of Cantonese Porcelain**

Yi Ji, Peng Tan, P.R. China; Henry Been-Lim Duh, Australia

**Research on Office Chair based on Modern Office Posture**

Xinxin Sun, Xiaoyan Lan, Di Zhou, Bin Jiang, P.R. China

**From Interpretation to Deduction: A Study on the Experience Design Method of Digitized Communication of Cultural Heritage**

Zhigang Chen, Jing Ma, P.R. China

**Developing Female Clothing Coordination Generation System Using Eye Tracking Information**

Minatsu Fujitaki, Hiroshi Takenouchi, Masataka Tokumaru, Japan

### HIMI S021

**VR2.0 and Digital Museum**

Chair(s): Michitaka Hirose, Japan.

Room: MILANO I

**Can I talk to a squid? The origin of visual communication through the behavioral ecology of cephalopod**

Ryuta Nakajima, United States

**Airflow for Body Motion Virtual Reality**

Masato Kurosawa, Yasushi Ikei, Yujin Suzuki, Tomohiro Amemiya, Koichi Hirota, Michiteru Kitazaki, Japan

**Basic study on creating VR exhibition content archived under adverse conditions**

Naoya Mizuguchi, Isamu Ohashi, Takeshi Narumi, Tomohiro Tanikawa, Michitaka Hirose, Japan

**Short Paper: Haptic interface technologies using perceptual illusions**

Tomohiro Amemiya, Japan

**A Fingertip Glove with Motor Rotational Acceleration Enables Stiffness Perception When Grasping a Virtual Object**

Vibol Yem, Cambodia; Hiroyuki Kajimoto, Japan


Hyerim Park, Eunsoek Kim, Hyun Kim, Jae-eun Shin, Junki Kim, Kihong Kim, Woontack Woo, Korea

**Designing Augmented Sports: merging physical sports and virtual world game concept**

Takaya Nojima, Kadri Rebane, Ryota Shijo, Tim Schewe, Shota Azuma, Yo Inoue, Takahiro Kai, Naoki Endo, Yohei Yanase, Japan

**Emotion Hacking VR: Amplifying Scary VR Experience by Accelerating Actual Heart Rate**

Ryoko Ueoka, Ali AlMutawa, Japan

### HIMI S022

**Information in aviation**

Chair(s): Peter Stütz, Germany.

Room: MILANO II

**Gestural Transmission of Tasking Information to an Airborne UAV**

Alexander Schelle, Peter Stütz, Germany

**Integration of an Exocentric Orthogonal Coplanar 360 Degree Top View in a Head Worn see-through Display supporting Obstacle Awareness for Helicopter Operations**

Lars Ebrecht, Johannes M. Ernst, Hans-Ullrich Döhler, Sven Schmerrwitz, Germany

**Discussion on the Application of Active Side Stick on Civil Aircraft**

James Hing, Kyle Hart, Ari Goodman, United States

**Towards Autonomous Weapons Movement on an Aircraft Carrier: Autonomous Swarm Parking**

Wenjie Li, Hao Li, Haiyan Liu, P.R. China

**Effects of Background Noise and Visual Training on 3D Audio**

Christian Niermann, Germany

---

**Human Interface and the Management of Information (HIMI)**

Room: NEOPOLITAN III

**Heart Rate Accelerating Actual VR Experience by VR: Amplifying Scary Emotion Hacking**

Naoki Endo, Yohei Yanase, Japan

**VR: Amplifying Scary Emotion Hacking**

Azuma, Yo Inoue, Takahiro Kai, Ryota Shijo, Tim Schewe, Shota Azuma, Yo Inoue, Takahiro Kai, Naoki Endo, Yohei Yanase, Japan

**A Mobile AR Experience When Grasping a Virtual Object**

Vibol Yem, Cambodia; Hiroyuki Kajimoto, Japan


Hyerim Park, Eunsoek Kim, Hyun Kim, Jae-eun Shin, Junki Kim, Kihong Kim, Woontack Woo, Korea

**Designing Augmented Sports: merging physical sports and virtual world game concept**

Takaya Nojima, Kadri Rebane, Ryota Shijo, Tim Schewe, Shota Azuma, Yo Inoue, Takahiro Kai, Naoki Endo, Yohei Yanase, Japan

**Emotion Hacking VR: Amplifying Scary VR Experience by Accelerating Actual Heart Rate**

Ryoko Ueoka, Ali AlMutawa, Japan

---

**Room:** WEDNESDAY 10:30 - 12:30

**Chair(s):**

- Katsuhiko Onishi, Japan.
- Yi Ji, P.R. China.
- Michitaka Hirose, Japan.
- Peter Stütz, Germany.
VAMR S025

Extended reality technologies for clinically driven and self-guided health and wellness applications
Chair(s): Mark R. Costa, United States
Room: SALERNO

The message effect of augmented health messages on body
Soyoung Jung, United States

Immersion in Virtual Reality can Increase Exercise Motivation and Physical Performance
Gyoung Kim, Frank Biocca, United States

xr-based Systems for Mindfulness Based Training in Clinical Settings
Mark R. Costa, Dessa Bergen-Cico, United States; Rocio Herrero, Jessica Navarro, Spain; Rachel Razza, Qiu Wang, United States

A Case Study: Chronic Pain Patients’ Preferences for Virtual Reality Games for Pain Distraction
Xin Tong, Weina Jin, Kathryn Cruz, Diane Gromala, Bernie Garrett, Tamia Taverner, Canada

The Effect of Multimodal Feedback on Perceived Exertion on a VR Exercise Setting
Jon Ram Bruun-Pedersen, Morten G. Andersen, Mathias M. Clemmensen, Mads K. Didriksen, Emil J. Wittendorff, Stefania Serafin, Denmark

VAIR Field – Multiple Mobile VR Shooting Sports
Masasuke Yasumoto, Takehiro Teraoka, Japan

UAHCI S024

Inclusive design and Intent prediction in Automotive, Aerospace and Further Application Areas
Chair(s): Patrick M. Langdon, United Kingdom
Room: MILANO III

Stabilising Touch Interactions in Cockpits, Aerospace, and Vibrating Environments
Bashar Ahmad, Patrick M. Langdon, Simon J. Godsill, United Kingdom

A Method for Analyzing Mobility Issues for People with Physical Disabilities in the Context of Developing Countries
Leticia Maria de Oliveira Camenar, Diego de Faria Do Nascimento, Leonelo Dell Anhol Almeida, Brazil

Ultrasound Waves to Support Human Echolocation
Florian Von Zabiersky, Michael Kreutzer, Diethelm Bienhaus, Germany

Wayfinding Board Design for the Visually Impaired based on Service Design Theory
Wanru Wang, Xinxiong Liu, P.R. China

EPCE S023

Remote Tower Operations and ATM
Chair(s): Wen-Chin Li, United Kingdom; Lei Wang, P.R. China.
Room: OCTAVIUS 7

Augmented Reality in a Remote Tower Environment based on VS/IR Fusion and Optical Tracking
Maria Hagl, Maik Friedrich, Anne Papernuss, Norbert Scherer- Negenborn, Jörn Jakobi, Tim Rambau, Markus Schmidt, Germany

Human Performance Assessment of Multiple Remote Tower Operations Simultaneous Take-off and Landing at Two Airports
Peter Kearney, Ireland; Wen-Chin Li, Graham Braithwaite, United Kingdom

Effect of Fatigue and Nervousness of Tower Controller on the Control Efficiency
Xingjian Zhang, Peng Bai, Xinglong Wang, Yifei Zhao, P.R. China

Inter-sector Backup Behaviors in Parallel Approach ATC: the Effect of Job Satisfaction
Yazhe Li, Xiaotian E, Han Qiao, Xinglong Wang, Chenhui Ly, Lin Xiong, Xiangqun Sun, Jingyu Zhang, P.R. China

Playbook for UAS: UX of Goal-Oriented Planning & Execution
Jack Gale, John Karasinski, Steve Hillenius, United States

CCD S026

Cross-Cultural Design
Chair(s): Na Chen, P.R. China; Giannis Drossis, Greece.
Room: NEOPOLITAN III

Influence of Different Types of Auxiliary Sensors on the Behaviors of Right turn and Right Changes of Lane
Jitao Li, Hua Qin, Linghua Ran, P.R. China

A Study for the Elderly-Oriented Public Rest Facility Design Based on User’s Demands and Perceptual Cognition
Hao Yang, Yueran Wang, P.R. China

Three Dimensional Head Modeling based on Direct Free Form Deformation
Haixiao Liu, Yanling Zheng, Xia Wang, Taijie Liu, Linghua Ran, Jianwei Niu, P.R. China
<table>
<thead>
<tr>
<th>CCD S027</th>
<th>SCSM S028</th>
<th>AC S029</th>
<th>DHM S030</th>
</tr>
</thead>
</table>
| From SAD to CHEER (II): Applications  
Chair(s): Rungtai Lin, Taiwan; John Kreifeldt, United States.  
Room: NEOPOLITAN IV |
| Opinion Forming, Fake News, and Social Bots  
Chair(s): André Calero Valdez, Germany.  
Room: OCTAVIUS 12 |
| Brain interfaces and electroencephalography  
Chair(s): Chris Crawford, United States.  
Room: MILANO IV |
| Design—Cognitive Sciences—Health Sciences  
Cooperations: contributions to human perception and well being  
Chair(s): Rachel Zuanon, Brazil.  
Room: OCTAVIUS 8 |

### CCD S027: From SAD to CHEER (II): Applications
- **Chair(s):** Rungtai Lin, Taiwan; John Kreifeldt, United States.
- **Room:** NEOPOLITAN IV

#### Social Computing and Media

**A Cheerful Journey or a Depressive Process? A Study of the Integrated Cultural and Creative Design Curriculum**
Shu Hui Huang, Chun-Liang Chen, Taiwan; Po-Hsien Lin, Tanzania

**Integration of Communication Matrix for Evaluating Microfilm**
Jun Wu, Yang Gao, P.R. China; Sandy Lee, Taiwan

**Constructing and Analyzing a Measurement Model of Product Emotional Design**
Hui-Yun Yen, Taiwan

**The Construction of Cultural Impressions for the Idea of Cultural Products**
Po-Hsien Lin, Tanzania; Mo-Li Yeh, Taiwan

**A Survey Website Designed for The Older People — A Case Study of Happy Life Survey**
Yimeng Xiao, Hsien-Hui Tang, Taiwan

**New Approach to Design in Cultural Society from ABCDE to FGHIJ**
Wei-Ko Chiu, Taiwan; Erik Armayuda, Indonesia; Yang Gao, P.R. China; Rungtai Lin, Taiwan

#### Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management

**Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management**
Gilbertto Prado, Brazil

**A Cross-Brain Interaction Platform based on Neurofeedback using Electroencephalogram**
Rongrong Zhang, Xiaojie Zhao, P.R. China

**Classification Procedure for Motor Imagery EEG Data**
Elton Sales Barros, Nelson Neto, Brazil

**Deep Convolutional Neural Networks and Power Spectral Density Features for Motor Imagery Classification of EEG Signals**
Andres F. Perez-Zapata, Andres F. Cardona-Escobar, Jorge A. Jaramillo-Garzón, Gloria M. Díaz, Colombia

**M.I.N.D. Brain Sensor Caps: Coupling Precise Brain Imaging to Virtual Reality Head-Mounted Displays**
Gyoung Kim, United States; Joon Hyun Jeon, Korea; Frank Biocca, United States

**Single-Channel EEG Sleep Stage Classification Based On K-SVD Algorithm**
Shigang Zuo, Xiaojie Zhao, P.R. China

**WebBCI: An Electroencephalography Toolkit Built on Modern Web Technologies**
Pierce Stegman, Chris Crawford, Jeff Gray, United States

---

**From Hörspiel to Audio Fiction: Sound Design Perspectives for Blind and Visually Impaired People**
Andréa Catropa, Sergio Nesteriuk, Gilberto Prado, Brazil
### Design, User Experience, and Usability

**Room:** MILANO V

#### DUXU S031

- **Design, User Experience and Usability for mobile devices**
  Chair(s): Maria Uther, United Kingdom.

#### S032

- **New Approaches of User Experience Research - II**
  Chair(s): Liqun Zhang, P.R. China.

#### DAPI S033

- **Ambient and Civic Computing**
  Chair(s): Tatsuo Nakajima, Japan.

- **Providing Daily Casual Information through Eye Contact with Emotional Creatures**
  Hina Akasaki, Kota Gushima, Tatsuo Nakajima, Japan

- **Opportunistic Data Exchange Algorithm for Animal Wearable Device through Active Behavior against External Stimuli**
  Keijiro Nakagawa, Atsuya Makita, Miho Nagasawa, Takefumi Kikusui, Kaoru Sezaki, Hiroki Kobayashi, Japan

- **Planning Placement of Distributed Sensor Nodes to Achieve Efficient Measurement**
  Yuichi Nakamura, Masaki Ito, Kaoru Sezaki, Japan

- **Collecting Bus Locations by Users: A Crowdsourcing Model to Estimate Operation Status of Bus Transit Service**
  Kenro Aihara, Piao Bin, Hajime Imura, Atsuhiro Takasu, Yuzuru Tanaka, Japan

- **A Novel Interaction Design Approach for Accessing Daily Casual Information through a Virtual Creature**
  Kota Gushima, Hina Akasaki, Tatsuo Nakajima, Japan

- **Study on Innovative Design of Urban Intelligent Lighting Appliance (UILA) based on Kansei Engineering**
  Jianxin Cheng, Junnan Ye, Chaoxiang Yang, Lingyun Yao, Zhenzhen Ma, Tengye Li, P.R. China

### HCI in Business, Government and Organizations

**Room:** SORRENTO

#### HCIBGO S034

- **User Experience Research in Enterprise**
  Chair(s): Shuang Xu, United States.

- **Conducting Cost-effective User Research in China Remotely**
  Shuang Liu, Shuang Xu, United States

- **Evaluating the Two-Speed IT Concept for Digitalization**
  Christian Remfert, Jan Stockhinger, Germany

- **Contracting Customer-focused IT Services in Service Level Agreements**
  Christian Remfert, Alexander Teubner, Germany

- **Activity Simulation for Experiential Learning in Cybersecurity Workforce Development**
  John Burris, Wesley Deneke, Brandon Maulding, United States

- **Head-Mounted Displays in Industrial AR-Applications: Ready for Prime Time?**
  Hitosh Dhiman, Sascha Martinetz, Volker Paelke, Carsten Röcker, Germany
### LCT S035
**Gamification-Robotics**
Chair(s): Francisco J. García Peñalvo, Spain.

Room: MILANO VIII

**Gamification as Learning Scenario in Programming Course of Higher Education**
Arturo Rojas-López, Elvira G. Rincón-Flores, Mexico

**Classroom Gamification:**
Merging Game Design Theory and Behavior Analysis for Increased Engagement
Jay Dee Johns III, Aleshia Hayes, Laura Grant, Dylan Caldwell, United States

**Warm Robot Classroom:**
Using wearable technology as a Gateway to Culturally Responsive Teaching
Aqua Chuan-Yu Chen, Yu-Cheng Lin, Taiwan

**Programming virtual interactions for gamified educational proposes of urban spaces**
Xavier Calvo, David Fonseca, Mónica Sánchez-Sepúlveda, Daniel Amo, Josep Llorca, Ernest Redondo, Spain

**Use BCI to Generate Attention-based Metadata for the Assessment of Effective Learning Duration**
Yang Ting Shen, Xin Mao Chen, Pei Wen Lu, Ju Chuan Wu, Taiwan

**Learning in Doing: A Model of Design and Assessment for Using New Interaction in Educational Game**
Yun Zhou, Tao Xu, Zhixin Zhu, Zi Wang, P.R. China

**Study on the attitude of young people towards technology**
Sandra Huedo-Martínez, Rafael Molina-Carmona, Faraón Llorens-Largo, Spain

### ITAP S036
**Development of future services for healthy and active aging**
Chair(s): Marie Sjölinder, Sweden.

Room: OCTAVIUS 9

**Perspectives on Design of Sensor based Exergames Targeted Towards Older Adults**
Marie Sjölinder, Anneli Avatare Nöu, Ella Kolkowska, Lars-Åke Johansson, Anna Ridderstolpe, Isabella Scandurra, Sweden

**Is Co-Creation Superior to User Centred Design? Preliminary Results from User Interface Design for Inclusive Public Transport**
Maurice Rekrut, Johannes Tröger, Jan Alexandersson, Daniel Bieber, Kathleen Schwarz, Germany

**A User-centred Ethical Assessment of Welfare Technologies for Elderly**
Ella Kolkowska, Isabella Scandurra, Anneli Avatare Nöu, Marie Sjölinder, Mevludin Memedi, Sweden

**Privacy and Future Consent in Smart Homes as Assisted Living Technologies**
Erik Thorstensen, Norway

**The Perception of Aging and Use of Robots**
Yvonne Eriksson, Sweden

**Interpersonal Distancing in Cooperation - Effect of Confederate’s Interpersonal Distance Preferences**
Yosuke Kinoe, Japan
### HCI S037
**Gesture-based Interaction**
Chair(s): George Margetis, Greece.

Room: **NEOPOLITAN I**

Orientation Correction for a 3D Hand Motion Tracking Interface using Inertial Measurement Units
Nonnarat O-larnnithipong, Armando Barreto, Sudarat Tangnimitchuk, Neeranut Ratchatanantakit, United States

Shopping Together: A Remote Co-shopping System Utilizing Spatial Gesture Interaction
Minghao Cai, Soh Masuko, Jiro Tanaka, Japan

A New Virtual Keyboard with Finger Gesture Recognition for AR/VR Devices
Tae-Ho Lee, Hyuk-Jae Lee, Korea

A Gesture-Based Interaction Technique for a Passive RFID Card with an Acceleration Sensor
Kazuya Ochara, Buntarou Shizuki, Shin Takahashi, Japan

A Novel Hand Written Technique Using Touch-Less Finger Gesture Movement for Human Computer Interaction
Y.A. Joarder, Md Bipul Hossain, Md Jashim Uddin, Md Zahidul Islam, Bangladesh

### HCI S038
**Speech-based Interaction**
Chair(s): Ayako Hashizume, Japan.

Room: **NEOPOLITAN II**

Lucida: Enhancing the Creation of Photography through Semantic, Sympathetic, Augmented, Voice Agent Interaction
Brad Wroblewski, Alexander Ivanov, Eric Eidelberg, Katayoon Etemad, Denis Gadbois, Christian Jacob, Canada

An Adaptive Speech Interface for Assistance in Maintenance and Changeover Procedures
Frieder Loch, Julia Czerniak, Germany; Valeria Villani, Lorenzo Sabattini, Cesare Fantuzzi, Italy; Alexander Mertens, Birgit Vogel-Heuser, Germany

Comparing cascaded LSTM architectures for generating head motion from speech in task-oriented dialogs
Duc-Canh Nguyen, Gérard Bailly, Frédéric Elisei, France

Voice User Interface Interaction Design Research Based on User Mental Model in Autonomous Vehicle
Yuemeng Du, Jingyan Qin, Shujing Zhang, Sha Cao, Jinhua Dou, P.R. China

Speech Emotion Recognition Integrating Paralinguistic Features and Auto-encoders in a Deep Learning Model
Ruben D. Fonnegra, Gloria M. Diaz, Colombia

### HCI S039
**HCI, personal informatics, motivation, persuasion and well-being**
Chair(s): Walter Ritter, Austria.

Room: **NEOPOLITAN III**

Social Robotics and Human Computer Interaction for Promoting Wellbeing in the Contemporary City
Nimish Biloria, Dimitra Dritsa, Australia

Healthy Hankerings: Motivating Adolescents to Combat Obesity with a Mobile Application
Farzana Rahman, Paul Henninger, David Kegley, Keegan Sullivan, James Yoo, United States

A Study of Applying Slow Technology on Wearable Devices
Meng-Dar Shieh, Shu-hui Meng, Tzu Yu Chuang, Fang-Chen Hsu, Chih-Chieh Yang, Taiwan

A Lifelog Viewer System Supporting Multiple Memory Cues
Jiaming Zhang, Jie Liang, Jiro Tanaka, Japan

Bringing nature into our lives - Using biophilic design and calm computing principles to improve well-being and performance
Carla Barreiros, Eduardo Veas, Viktoria Pammer, Austria

### HIMI S040
**Data, Semantics and Interaction**
Chair(s): Yumi Asahi, Japan.

Room: **MILANO I**

Analysis of Trends of Purchasers of Motorcycles in Latin America
Rintaro Tanabe, Yumi Asahi, Japan

Credit Risk Analysis of Auto Loan in Latin America
Yukiya Suzuki, Yumi Asahi, Japan

Analysis and consideration of the relationship between audience rating and purchasing behaviors of TV programs
Saya Yamada, Yumi Asahi, Japan

Charactaristic Analysis of Each Store in Japanese Hair Salon
Nanase Amemiya, Remi Terada, Yumi Asahi, Japan

Career that tend to be unpaid for motorcycles sales loans
Mari Atsuki, Yumi Asahi, Japan

Factor Analysis of the Batting Average
Hiroki Yamato, Yumi Asahi, Japan

Analysis of factor of scoring of Japanese professional football league
Taijyu Suda, Yumi Asahi, Japan
## Wednesday, 18 July 13:30 - 15:30

### HMI S041
**Information and Visual Perception**  
Chair(s): Makoto Oka, Japan.  
Room: MILANO II

- **A Study for Correlation Identification in Human-Computer Interface Based on HSB color Model**  
  Yi Kang Dai, Chengqi Xue, Qi Guo, P.R. China
- **Visual Guidance to Find the Right Spot in Parameter Space**  
  Alexander Brakowski, Sebastian Maier, Arjan Kuijper, Germany
- **Trade-Off between Mental Map and Aesthetic Criteria in Simulated Annealing based Graph Layout Algorithms**  
  Armin Jörg Slopek, Carsten Winkelholz, Germany; Margaret Varga, United Kingdom
- **Evaluating User Interfaces Supporting Change Detection in Aerial Images and Aerial Image Sequences**  
  Jutta Hild, Günter Saur, Patrick Petersen, Michael Vort, Elisabeth Peisipp-Byma, Jürgen Beyerer, Germany
- **Investigating Effects of Users’ Background in Analyzing Long-Term Images from a Stationary Camera**  
  Koshi Ikegawa, Akira Ishii, Kazunori Okamura, Buntarou Shizuki, Shin Takahashi, Japan

### EPCE S042
**Flight Deck Design and Human-Computer Interactions**  
Chair(s): Wen-Chin Li, United Kingdom; Ruishan Sun, P.R. China.  
Room: OCTAVIUS 7

- **Psycho-Physiological Evaluation of the Pilot: a Study Conducted with Pilots of the French Air Force**  
  Vincent Ferrari, France; Jean-François Gagnon, Canada; Cyril Camachon, Maelle Kopf, France
- **Flight Safety: ESL flight Crew Member Use of Crew Alerting and Information Systems**  
  Djujuan Sevillian, United States
- **CONTACT: a Human Centered Approach of Multimodal Flight Deck Design and Evaluation**  
  Anne-Claire Large, Cedric Bach, Guillaume Calvet, France
- **Now you see it, now you don’t: A Change Blindness Assessment of Flight Display Complexity and Pilot Performance**  
  Claire McDermott Ealding, Alex Stedmon, United Kingdom
- **Tablet-based Information System for Commercial Aircraft: Onboard Context-Sensitive Information System (OCSIS)**  
  Wei Tan, P.R. China; Guy A. Boy, France
- **Human-Centered Design of Flight Mode Annunciation for Instantaneous Mode Awareness**  
  Andreas Horn, Wen-Chin Li, Graham Braithwaite, United Kingdom
- **Network Re-Analysis of Boeing 737 Accident at Kegworth Using Different Potential Crewing Configurations for a Single Pilot Commercial Aircraft**  
  Don Harris, United Kingdom

### UAHCI S043
**Web Accessibility in Higher Education**  
Chair(s): Gian Wild, United States.  
Room: MILANO III

- **State of Accessibility in U.S. Higher Ed Institutions**  
  Jiayyan Chen, United States
- **Institutional Accessibility Awareness**  
  Brent Whiting, United States
- **Teaching About Universal Design and Accessibility in Higher Education**  
  Howard Kramer, United States; Gian Wild, Australia
- **Report A Barrier: Creating and Implementing a Pan-University Accessibility Reporting System**  
  Lori Kressin, United States

### VAMR S044
**Puppeteering: Human Tracking in Virtual Space**  
Chair(s): Tami Griffith, United States.  
Room: SALERNO

- **Real-time Motion Capture on a Budget**  
  Tami Griffith, Tabitha Dwyer, Jennie Ablanedo, United States
- **Is this Person Real? Avatar Stylization and its Influence on Human Perception in a Counseling Training Environment**  
  Jennie Ablanedo, Elaine Fairchild, Tami Griffith, Christopher Rodeheffer, United States
- **3Lateral’s RigLogic® and Volumetric Capture, Enabling Real-time Interaction with Lifelike Digital Humans**  
  Relja Ljubobratovic, Serbia and Montenegro
- **Extending Embodied Interactions in Mixed Reality Environments**  
  Mohamed Handoosa, United States; Hendrik Shube, Austria; Denis Gračanin, Matthew Tucker, Mark Manuel, United States
- **Augmented, Mixed, and Virtual Reality Enabling of Robot Deixis**  
  Tom Williams, Nhan Tran, Josh Rands, Neil T. Dantam, United States

---

**Engineering Psychology and Cognitive Ergonomics**

**Flight Deck Design and Human-Computer Interactions**

**Universal Access in Human-Computer Interaction**

**Human-Computer Interaction and Cognitive Ergonomics**
<table>
<thead>
<tr>
<th>Room: <strong>NEOPOLITAN IV</strong></th>
<th>Room: <strong>OCTAVIUS 12</strong></th>
<th>Room: <strong>MILANO IV</strong></th>
<th>Room: <strong>OCTAVIUS 8</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CCD S045</strong></td>
<td><strong>SCSM S046</strong></td>
<td><strong>AC S047</strong></td>
<td><strong>DHM S048</strong></td>
</tr>
<tr>
<td>From SAD to CHEER (III): Case Studies - I</td>
<td>Cognitive Engineering Aspects of Social Systems</td>
<td>Adaptive Instruction as an Augmentation Technology for Enhancing Human Performance</td>
<td>Advanced technologies and models in healthcare and surgery</td>
</tr>
<tr>
<td>Chair(s): Rungtai Lin, Taiwan; Po-Hsien Lin, Tanzania.</td>
<td>Chair(s): Shotaro Miwa, Hidenori Fujino, Japan.</td>
<td>Chair(s): Robert Sotliare, United States.</td>
<td>Chair(s): Jung Hyup Kim, United States.</td>
</tr>
<tr>
<td><strong>Influence of Song</strong></td>
<td><strong>Experimental Verification of Sightseeing Information as a Weak Trigger to Affect Tourist Behavior</strong></td>
<td><strong>Leveraging Cognitive Psychology Principles to Enhance Adaptive Instruction</strong></td>
<td><strong>Pedicle Screw Insertion Surgical Simulator</strong></td>
</tr>
<tr>
<td>Porcelain Aesthetics on Modern Product Design Xiao Song, Zhaoqi Wu, Li Ouyang, Jie Ling, P.R. China</td>
<td>Yuuki Hiraishi, Takayoshi Kitamura, Tomoko Izumi, Yoshio Nakatani, Japan</td>
<td><strong>Experiential Intelligent Tutoring: Using the Environment to Contextualize the Didactic</strong></td>
<td><strong>A Proposal for Combining Ultrasound, Magnetic Resonance Imaging and Force Feedback Technology, during the Pregnancy, to Physically Feel the Fetus</strong></td>
</tr>
<tr>
<td><strong>Design Method and Application of DNA in the Design of Cultural Creative Products</strong> Yi Li, Jin Li, Qiu Yan, P.R. China</td>
<td>Evaluation of high precision map creation system with evaluation items unique to each feature type Masashi Watarabe, Takeo Sakairi, Ken Shimazaki, Japan</td>
<td><strong>Mitigating Skill Decay in Military Instruction and Enemy Analysis via GIFT</strong></td>
<td><strong>Definition of Strategies for the Reduction of Operational Inefficiencies in a Stroke Unit</strong></td>
</tr>
<tr>
<td>From Traditional Culture to Lifestyle - A Case Study on Local Specialties in the Lingnan Area Zhaoqi Wu, Xiao Song, Jie Shen, Jie Tang, P.R. China</td>
<td><strong>Development of Methods to Enhance Staff Members' Chats in Refresh Areas in Workplaces for Encouraging Their Knowledge Sharing</strong> Hidenori Fujino, Motoki Urayama, Takayoshi Kitamura, Hirotaka Ishii, Hiroshi Shimoda, Kyoko Iizuka, Ryo Shimano, Misato Tanemoto, Misaki Maeda, Manabu Goto, Masaki Kanayama, Japan</td>
<td><strong>Developing Accelerated Learning Models in GIFT for Medical Military and Civilian Training</strong> Jeanine A. DeFalco, R. Stanley Hum, Michael Wilhelm, United States</td>
<td><strong>Miguel Ortiz-Barios, Dionicio Nieira-Rodado, Genett Jimenez, Colombia; Sally McLean, United Kingdom; Osvaldo Lara, Colombia</strong></td>
</tr>
<tr>
<td>Research on the Professional Quality of Product Designers in the Context of the Intelligent Era Yonghu Min, Jin Li, P.R. China</td>
<td>The proposal of cognitive support for driver by voice guide using soliloquy expression Takuya Yamawaki, Takayoshi Kitamura, Tomoko Izumi, Yoshio Nakatani, Japan</td>
<td><strong>Adaptive, Policy-Driven, After Action Review in the Generalized Intelligent Framework for Tutoring</strong> Keith Brawer, Alan Carlin, Evan Oster, Chris Nucci, Diane Kramer, United States</td>
<td><strong>Optimization of Proton Therapy based on Service Design Theory</strong> Xinlong Liu, Wanru Wang, P.R. China</td>
</tr>
<tr>
<td>Teaching Thoughts and Cases Analysis of the Innovative Design of Lacquer Art Products in the Multi-Disciplinary and Trans-Boundary Historical Background Jin Li, Yonghu Min, P.R. China</td>
<td><strong>A Study on the Differences in the Expressions of Emotional Cognition between Bloggers and Users Based on the “Cloud Pet Keeping ” Phenomenon</strong> Chen Tang, Ke Zhong, Liqun Zhang, P.R. China</td>
<td><strong>Effect of Patient Acuity of Illness and Nurse Experience on EMR works in Intensive Care Unit</strong> Sivamanoh Seeramakavacharn, Jung Hyup Kim, Laurel Despins, Megan Sommerfeldt, Natalie Bessette, United States</td>
<td><strong>Effect of Patient Acuity of Illness and Nurse Experience on EMR works in Intensive Care Unit</strong></td>
</tr>
</tbody>
</table>
### DUXU S049
**Artificial Intelligence and User Experience - I**  
Chair(s): Jingyan Qin, P.R. China  
Room: MILANO V

**Research on Interaction Design of Somatosensory Games Based on User Experience - A Case Study of Cervical Spine Health Somatosensory Games**  
Zhi Wang, Yangshuo Zheng, P.R. China

**HRI Design Research for Intelligent Household Service Robots: Teler as a Case Study**  
Shujing Zhang, Jingyan Qin, Sha Cao, Jinhua Dou, P.R. China

**Interaction Design of Autonomous Vehicle Based on Human Mobility**  
Jingyan Qin, Zeyu Hao, Shujing Zhang, P.R. China

### DUXU S050
**Designing behaviours, behaving design - I**  
Chair(s): Luisa Paraguai, Brazil  
Room: MILANO VI

**Do You Eat This? Changing Behavior through Gamification, Crowdsourcing and Civic Engagement**  
Rejane Spitz, Francisco Queiroz, Clorival Pereira Jr., Leonardo Cardarelli Leite, Marcelo P. Ferranti, Peter Dam, Brazil

**Designing Behaviors to Interactively Interface Natural Language Processing, Text to Speech Procedures and Algorithmic Images**  
Tania Fraga, Brazil

**Metacity: Design, Data e Urbanity**  
Nelson Urssi, Brazil

**Conformed thought: consolidating traces of memories**  
Silvia Laurentiz, Brazil

**Artelligent: a framework for developing interactive computer artwork using artificial intelligent agents**  
Francisco De Paula Barreto, Suzete Venturelli, Brazil

**Fables – Exploring Natural Ways of Expressing Behavior to Create Digital Simulations**  
Andrea Valente, Emanuela Marchetti, Denmark

### DUXU S051
**Designing and Evaluating User Experience (UX) in Interactive Systems**  
Chair(s): Claudia Maria del Pilar Zapata Del Rio, Peru  
Room: MILANO VII

**Peruvian Public Universities and the accessibility of their websites**  
Fanny Dolores Benites Alfaro, Claudia Maria del Pilar Zapata Del Rio, Peru

**A proposal of usability heuristics oriented to E-Banking websites**  
Gloria Baños, Claudia Maria del Pilar Zapata Del Rio, Peru

**Design process of a Mobile Cloud Public Transport Application for Bus Passengers in Lima City**  
Juan José Ramírez, Juan Arenas, Freddy Paz, Peru

**Co-Design of a Virtual Training Tool with Emergency Management Stakeholders for Extreme Weather Response**  
Jazizar Radiant, Santiago Gil Martinez, Bjørn Erik Munkvold, Morgan Konnestad, Norway

**Short Paper: How do People Choose a Means for Communication in Disaster Situations? -Surveys after the Great East Japan Earthquake and the Kumamoto Earthquake**  
Masayuki Ishara, Hiroshi Watanabe, Japan

**Investigation on the Correlation Model between Display Height and Tilt Angle**  
Hui-min Hu, Yahui Bai, Chaoyi Zhao, Yinxia Li, Na Lin, Zhongtian Wang, P.R. China

### DUXU S052
**Social Internet of Things**  
Chair(s): Jun Hu, Netherlands  
Room: OCTAVIUS 10

**HCI Design for People with Visual Disability in Social Interaction**  
Shi Qiu, Netherlands; Ting Han, P.R. China; Hirotaka Osawa, Japan; Matthias Rauterberg, Jun Hu, Netherlands

**Design for Fetal Heartbeat Detection and Monitoring in Pregnancy Care**  
Biyong Zhang, P.R. China; Iuliia Lebedeva, Netherlands; Haiqiang Zhang, P.R. China; Jun Hu, Netherlands

**VisHair: A Wearable Fashion Hair Lighting Interaction System**  
Cheng Yao, Bing Li, Fangtian Ying, Ting Zhang, Yijun Zhao, LIJUAN LIU, P.R. China

**An Interactive Smart Music Toy Design for Children**  
Shijian Luo, Yun Wang, Na Xiong, Ping Shan, Yexing Zhou, P.R. China

**UMA-P: Smart Bike Interaction that Adapts to Environment, User Habits and Companions**  
Jiachun Du, Ran Luo, Min Zou, Yuebo Shen, Ying Yang, P.R. China

---

**Do You Eat This? Changing Behavior through Gamification, Crowdsourcing and Civic Engagement**

**Research on Interaction Design of Somatosensory Games Based on User Experience - A Case Study of Cervical Spine Health Somatosensory Games**

**HRI Design Research for Intelligent Household Service Robots: Teler as a Case Study**

**Interaction Design of Autonomous Vehicle Based on Human Mobility**

---

**Peruvian Public Universities and the accessibility of their websites**

**A proposal of usability heuristics oriented to E-Banking websites**

**Design process of a Mobile Cloud Public Transport Application for Bus Passengers in Lima City**

**Co-Design of a Virtual Training Tool with Emergency Management Stakeholders for Extreme Weather Response**

**Short Paper: How do People Choose a Means for Communication in Disaster Situations? -Surveys after the Great East Japan Earthquake and the Kumamoto Earthquake**

**Investigation on the Correlation Model between Display Height and Tilt Angle**
Wednesday, 18 July 13:30 - 15:30

**HCI in Business, Government and Organizations**

**HCIBGO S053**

**Service Design and User Experience**
Chair(s): Yi-Cheng Ku, Taiwan.

Room: SORRENTO

Are You Worried about Personalized Service? An Empirical Study of the Personalization-Privacy Paradox
Yi-Cheng Ku, Peng Yu Li, Yi-Lin Lee, Taiwan

The Service Design of Material Traceability System in the Smart Manufacturing Theme
Rich C. Lee, Taiwan

A Structure-Behavior Coalescence Method For Human-Computer Interaction System Requirements Specification
Yu-Chen Yang, Cheng-Ta Tsai, William S. Chao, Taiwan

Evaluating Service Level Agreements for Business IT Services – The Case of a German University
Christian Remfert, Germany

User-Centered Research for Public Safety Communications Technology
Yee-Yin Choong, Shaneé Dawkins, Kristen Greene, Mary Theofanos, Susanne Furman, Michelle Steves, Sandra Spickard Prettyman, United States

**Learning and Collaboration Technologies**

**LCT S054**

**Educational Assessment and TEL**
Chair(s): David Fonseca, Spain.

Room: MILANO VIII

Supporting Trust and Engagement in Personalized Learning
Erina Kondratova, Heather Molynaux, Helene Fournier, Canada

Exploring New Ways to Increase Engagement in Full-Path MOOC Programs
Rocael Hernández Rizzardini, Héctor R. Amado-Salvatierra, Guatemala

Micro Flip Teaching with Collective Intelligence
Angel Fidalgo-Blanco, María Luisa Sein-Echaluce, Francisco J. García Peñalvo, Spain

Measuring Teamwork Competence Development in a Multidisciplinary Project based Learning Environment
Francisco J. Rodriguez-Sedano, Miguel Ángel Conde, Camino Fernández Llamas, Spain

A Deep-Learning-based proposal to aid users in Quantum Computing programming
Juan Cruz-Benito, Ismael Faro, Francisco Martín-Fernández, United States; Roberto Thérin, Francisco J. García Peñalvo, Spain

Go/No Go Criteria in Formative E-Rubrics
Pedro Company, Spain; Jeffrey Otey, United States; María Jesús Agost, Manuel Contero, Spain; Jorge D. Camba, United States

Effects of low-level development on learning to program
Francisco J. Gallego-Durán, Carlos J. Villagrán-Arnedo, Rosana Satorre-Cuerda, Patricia Compañ-Rosique, Faradon Llorens-Largo, Spain

**Digital Gaming Among Older Populations**
Chair(s): Eugene Loos, Netherlands; Julie A. Brown, United States.

Room: OCTAVIUS 9

Gen X and Digital Games: Looking Back to Look Forward
Julie A. Brown, United States; Hannah R. Marston, United Kingdom

Positive Impact of Exergaming on Older Adults’ Mental and Social Well-being: In Search of Evidence
Eugene Loos, Netherlands; David Kaufman, Canada

Creating an Online Escape Room Game for Older Adults: Needs Assessment, Design Process, and Usability Testing
Amir Doroudian, Simone Hausknecht, David Kaufman, Canada

Attitudes and Perceptions of Older Chinese People in Hong Kong towards Silver Gaming
Rita W.L. Yu, Lu Peng, Alan H.S. Chan, Hong Kong; Pei Lee Teh, Malaysia; Lydia Y.C. Lam, Hong Kong

**Human Aspects of IT for the Aged Population**

**ITAP S055**

**NOTEs**
<table>
<thead>
<tr>
<th>Room</th>
<th>Title</th>
<th>Chair(s)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEOPOLITAN I</td>
<td>Human Aspects of Information Security, Privacy, and Trust</td>
<td>Lakshmidevi Kawaiwa, Sreeamadreddy, Abby Moallem, United States</td>
<td>Room: NEOPOLITAN I</td>
</tr>
<tr>
<td></td>
<td>Towards Collecting and Linking Personal Information for Complete Personal Online Identity</td>
<td>Frans F. Blauw, Sebastiaan H. Von Solms, South Africa</td>
<td>Room: NEOPOLITAN II</td>
</tr>
<tr>
<td></td>
<td>Why Users Ignore Privacy Policies – A Survey and Intention Model for Explaining User Privacy Behavior</td>
<td>Manuel Rudolph, Denis Feth, Svenja Polst, Germany</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Towards Collecting and Linking Personal Information for Complete Personal Online Identity</td>
<td>Frans F. Blauw, Sebastiaan H. Von Solms, South Africa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PassHue: Introducing Analog Authentication</td>
<td>Jonathan Gurary, United States</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Digital Breadcrumbs: A Lack of Data Privacy and What People are Doing About It</td>
<td>Carley Ward, Dana Ellis, Lisa D’Ambrosio, Joseph F. Coughlin, United States</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Hand Gesture-Based Method for Biometric Authentication</td>
<td>Satoru Imura, Hiroshi Hosobe, Japan</td>
<td></td>
</tr>
<tr>
<td>MILANO I</td>
<td>Evidence Based Design and UX for Design Process</td>
<td>Keiko Kasamatsu, Takeo Ainoya, Japan</td>
<td>Room: MILANO I</td>
</tr>
<tr>
<td></td>
<td>User Interfaces for Personal Vehicle on Water: MINAMO</td>
<td>Shunnosuke Naruoka, Naoyuki Takesue, Japan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study on Process for Product Design Applying User Experience</td>
<td>Luya Chen, Keiko Kasamatsu, Takeo Ainoya, Japan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MyStudentScope: A Web Portal for Parental Management of their Children’s Educational Information</td>
<td>Theresa Matthews, Jinjuan Heidi Feng, Ying Zheng, Zhijiang Chen, United States</td>
<td></td>
</tr>
</tbody>
</table>

**HCI Patterns for Cryptographically Equipped Cloud Services**
- Thomas Länger, Switzerland; Ala Alaqra, Simone Fischer-Hübner, Erik Frammer, John Sören Pettersson, Sweden; Katrin Reimer, Austria

**Supporting Collaboration in Human-Machine Crisis Management Networks**
- Ida Maria Haugstvet, Marita Skjuve, Norway

**HCI International 2018**
<table>
<thead>
<tr>
<th>Room</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCTAVIUS 7</td>
<td>Engineering Psychology and Cognitive Ergonomics</td>
</tr>
<tr>
<td>MILANO III</td>
<td>Sensors and Mobile Applications for Human–Computer Interaction</td>
</tr>
<tr>
<td>SALERNO</td>
<td>Virtual Reality Video Games</td>
</tr>
<tr>
<td>NEOPOLITAN IV</td>
<td>From SAD to CHEER (IV): Case Studies -II</td>
</tr>
<tr>
<td></td>
<td><strong>Decision Making with Displayed Information</strong></td>
</tr>
<tr>
<td></td>
<td>Chair(s): Summer L. Brandt, United States</td>
</tr>
<tr>
<td></td>
<td><strong>Sensors and Mobile Applications for Human–Computer Interaction</strong></td>
</tr>
<tr>
<td></td>
<td>Chair(s): João M.F. Rodrigues, Pedro J.S. Cardoso, Portugal.</td>
</tr>
<tr>
<td></td>
<td><strong>Virtual Reality Video Games</strong></td>
</tr>
<tr>
<td></td>
<td>Chair(s): Lal ‘Lila’ Bozgeyikli, Evren Bozgeyikli, United States.</td>
</tr>
<tr>
<td></td>
<td><strong>From SAD to CHEER (IV): Case Studies -II</strong></td>
</tr>
<tr>
<td></td>
<td>Chair(s): Po-Hsien Lin, Tanzania; Rungtai Lin, Taiwan.</td>
</tr>
</tbody>
</table>

**Engineering Psychology and Cognitive Ergonomics**

- **Accent and Gender Bias in Perceptions of Interactive Voice Systems**
  Chair(s): Sabrina Moran, Ezekiel Skovron, Matthew Nare, Kim-Phuong L. Vu, United States
- **Population Stereotypes for Color Associations**
  Yuting Sun, Kim-Phuong L. Vu, United States
- **Comparison of Intellectus Statistics and Statistical Package for the Social Sciences - Differences in User Performance based on Presentation of Statistical Data**
  Allen C. Chen, Sabrina Moran, Yuting Sun, Kim-Phuong L. Vu, United States
- **Comparative Study of Laptops and Touch-Screen PCs for Searching on the Web**
  Nicolas Debue, Cécile Van De Leempt, Belgium; Anish Pradhan, Robert Atkinson, United States
- **A User Study Comparing Permissions Interfaces of Android 5.0 and Android 6.0**
  Scott Moore, Huangyi Ge, Ninghui Li, Robert W. Proctor, United States
- **Mobile Augmented Reality Framework - MIRAR**
  João M.F. Rodrigues, Ricardo J.M. Veiga, Roman Bajireanu, Roberto Lam, João A.R. Pereira, João D.P. Sardo, Pedro J.S. Cardoso, Paulo Bica, Portugal
- **VR Evaluation of Motion Sickness Solution in Automated Driving**
  Quinane Chioma Themede-Steinke, Prashanth Halady, Gerrit Meixner, Michael Weber, Germany
- **Following the White Rabbit - The Virtual Reality for Games**
  Paulo Carvalho, Brazil
- **Virtual Reality Training to Enhance Motor Skills**
  Matt Dombrowski, Ryan Buyssens, Peter A. Smith, United States
- **Walking with Angst: Subjective Measures for Subjective Evaluation in a Walking Simulator**
  Wilson Prata, Juan Oliveira, Paulo Melo, Brazil
**Wednesday, 18 July  16:00 - 18:00**

**SCSM S064**  
**Fitness, Health, and Wearables - Activity Trackers in the Everyday Life**  
Chair(s): Aylin Ilhan, Germany.

Room: **OCTAVIUS 12**  
**Rewarding Fitness Tracking – the Communication and Promotion of Health Insurers’ Bonus Programs and the Use of Self-Tracking Data**  
Maria Henkel, Germany; Tamara Heck, Australia; Julia Göretz, Germany

**Privacy Protecting Fitness Trackers: An Oxymoron or Soon to be Reality?**  
Kaja J. Fietkiewicz, Maria Henkel, Germany

**Stay Connected and Keep Motivated: Modeling Activity Level of Exercise in an Online Fitness Community**  
Li Zeng, Zack W. Almquist, Emma S. Spiro, United States

**Motivations to Join Fitness Communities on Facebook: Which Gratifications are Sought and Obtained?**  
Aylin Ilhan, Germany

**AC S065**  
**Applications of Augmented Cognition**  
Chair(s): Martha E. Crosby, Randall K. Minas, United States.

Room: **MILANO IV**  
**Measuring Focused Attention Using Fixation Inner-Density**  
Wen Liu, Soussan DJamasbi, Andrew C. Trapp, Mina Shojaieizadeh, United States

**Automatically Unaware: using Data Analytics to Detect Physiological Markers of Cybercrime**  
Nancy Mogire, Randall K. Minas, Martha E. Crosby, United States

**Forget the Password: Password Memory and Security Applications of Augmented Cognition**  
Nancy Mogire, Michael-Brian Ogawa, Randall K. Minas, Brent Auernheimer, Martha E. Crosby, United States

**Cognition and Predictors of Password Selection and Usability**  
Lila A. Loos, Martha E. Crosby, United States

**Design, User Experience, and Usability**  
Hubert K. Brumback, United States

**Do Not Disturb: Psychophysiological Correlates of Boredom, Flow and Frustration during VR Gaming**  
Klaas Bomebeke, Aranka Van Dongen, Wouter Durnez, Alessandra Anzolin, Hannes Almgren, Anissa Ali, Jan Van Looy, Lieven De Marez, Daniele Marinazzo, Elena Patricia Núñez Castellas, Belgium

**SCSM S067**  
**Social Computing and Social Media**  
Chair(s): Aylin Ilhan, Germany.

Room: **NEOPOLITAN III**

**Rewarding Fitness Tracking — the Communication and Promotion of Health Insurers’ Bonus Programs and the Use of Self-Tracking Data**  
Maria Henkel, Germany; Tamara Heck, Australia; Julia Göretz, Germany

**Privacy Protecting Fitness Trackers: An Oxymoron or Soon to be Reality?**  
Kaja J. Fietkiewicz, Maria Henkel, Germany

**Stay Connected and Keep Motivated: Modeling Activity Level of Exercise in an Online Fitness Community**  
Li Zeng, Zack W. Almquist, Emma S. Spiro, United States

**Motivations to Join Fitness Communities on Facebook: Which Gratifications are Sought and Obtained?**  
Aylin Ilhan, Germany

**SCSM S065**  
**Applications of Augmented Cognition**  
Chair(s): Martha E. Crosby, Randall K. Minas, United States.

Room: **MILANO IV**  
**Measuring Focused Attention Using Fixation Inner-Density**  
Wen Liu, Soussan DJamasbi, Andrew C. Trapp, Mina Shojaieizadeh, United States

**Automatically Unaware: using Data Analytics to Detect Physiological Markers of Cybercrime**  
Nancy Mogire, Randall K. Minas, Martha E. Crosby, United States

**Forget the Password: Password Memory and Security Applications of Augmented Cognition**  
Nancy Mogire, Michael-Brian Ogawa, Randall K. Minas, Brent Auernheimer, Martha E. Crosby, United States

**Cognition and Predictors of Password Selection and Usability**  
Lila A. Loos, Martha E. Crosby, United States

**Design, User Experience, and Usability**  
Hubert K. Brumback, United States

**Do Not Disturb: Psychophysiological Correlates of Boredom, Flow and Frustration during VR Gaming**  
Klaas Bomebeke, Aranka Van Dongen, Wouter Durnez, Alessandra Anzolin, Hannes Almgren, Anissa Ali, Jan Van Looy, Lieven De Marez, Daniele Marinazzo, Elena Patricia Núñez Castellas, Belgium

**SCSM S066**  
**Creative Interaction: Cross-disciplinary HCI toward Convergence**  
Chair(s): Kun Lee, Korea.

Room: **MILANO VII**  
**Interactive Car Parking Simulation Based on On-line Trajectory Optimization**  
Jungsub Lim, Hyejin Kim, Daseong Han, Korea

**Pedagogy of Programming Education for Higher Education using Block based Programming Environment**  
Daehoon Kim, Jaewoong Choi, InHo Jung, Chang-Beom Choi, Korea

**Crack-free Isosurface of Volumetric Scattered Data**  
Han Sol Shin, Jee Ho Song, Tae Jun Yu, Kun Lee, Korea

**Hierarchical Modeling Framework for ICT Application to Measure the User Experience**  
HyunJae Jo, Chang-Beom Choi, Korea

**Color Matching Research Based on Octree-LSD Method and Kansei Engineering: A Case Study of Typical Images of The Grain Rain**  
Meiyu Lv, Hequn Qu, P.R. China

**Affordable Eye Tracking for Informed Web Design**  
Jarrett W. Clark, A. Lucas Stephane, United States

**SCSM S067**  
**Social Computing and Social Media**  
Chair(s): Aylin Ilhan, Germany.

Room: **NEOPOLITAN III**

**Rewarding Fitness Tracking — the Communication and Promotion of Health Insurers’ Bonus Programs and the Use of Self-Tracking Data**  
Maria Henkel, Germany; Tamara Heck, Australia; Julia Göretz, Germany

**Privacy Protecting Fitness Trackers: An Oxymoron or Soon to be Reality?**  
Kaja J. Fietkiewicz, Maria Henkel, Germany

**Stay Connected and Keep Motivated: Modeling Activity Level of Exercise in an Online Fitness Community**  
Li Zeng, Zack W. Almquist, Emma S. Spiro, United States

**Motivations to Join Fitness Communities on Facebook: Which Gratifications are Sought and Obtained?**  
Aylin Ilhan, Germany

**SCSM S066**  
**Creative Interaction: Cross-disciplinary HCI toward Convergence**  
Chair(s): Kun Lee, Korea.

Room: **MILANO VII**  
**Interactive Car Parking Simulation Based on On-line Trajectory Optimization**  
Jungsub Lim, Hyejin Kim, Daseong Han, Korea

**Pedagogy of Programming Education for Higher Education using Block based Programming Environment**  
Daehoon Kim, Jaewoong Choi, InHo Jung, Chang-Beom Choi, Korea

**Crack-free Isosurface of Volumetric Scattered Data**  
Han Sol Shin, Jee Ho Song, Tae Jun Yu, Kun Lee, Korea

**Hierarchical Modeling Framework for ICT Application to Measure the User Experience**  
HyunJae Jo, Chang-Beom Choi, Korea

**Color Matching Research Based on Octree-LSD Method and Kansei Engineering: A Case Study of Typical Images of The Grain Rain**  
Meiyu Lv, Hequn Qu, P.R. China

**Affordable Eye Tracking for Informed Web Design**  
Jarrett W. Clark, A. Lucas Stephane, United States

**Design Case Studies**  
Chair(s): Salomao David, Mozambique.

Room: **NEOPOLITAN III**

**Persona Design for Just-in-time Adaptive and Persuasive Interfaces in Menopause Self-care**  
Amaury Trujillo, Caterina Senette, Maria Claudia Buzzi, Italy

**Co-design with Raspberry Pi: Developing and hosting sustainable community application**  
Salomao David, Esperança Muchave, Mozambique

**Lessons Learned in Designing a Digital Therapeutic Game to Support the Treatment and Well-Being of Children with Cancer**  
Kamila R.H. Rodrigues, Daniel B.F. Conrado, Vanja P.A. Neris, Brazil

**Travel Navigation Design and Innovative Operation Mode**  
Chia-Chieh Lee, Fong-Gong Wu, Taiwan

**An Interactive Recommender System for Group Holiday Decision-making**  
Lanyun Zhang, Xu Sun, P.R. China
**DUXU S068**

*Artificial Intelligence and User Experience - II*
Chair(s): Jingyan Qin, P.R. China.

*Experience Design of the Immersive Film: Panoramic View and Interactive Narratives*
Feng Ye, P.R. China

*Smart Information Service Design based on Autonomous Vehicles*
Qiong Wu, Long Qin, Yin Shuai Zhang, Jie Chen, P.R. China

*User Interaction for Guided Learning Supporting Object Recognition in Service Robots*
Jan Dornig, Yunjing Zhao, Xiaohua Sun, P.R. China

*How to include Users in the Design and Development of Cyberinfrastructures?*
Hashim Iqbal Chunpis, Germany

Room: **MILANO V**

**S069**

*Are Game Design and User Research Guidelines Specific to Virtual Reality Effective in Creating A More Optimal Player Experience? Yes, VR PLAY*
Heather Desurvire, Max Kreminski, United States

*Player behavior influence by visualizing the game sound landscape*
Daniel Paz De Araujo, Renan Bonin, Brazil

*Designing a Generative Pictographic Language*
Haytham Nawar, Egypt

*The Inmobility Project: Modes of Textualities and Unpredictable Visualities of Everyday Life*
Luisa Paraguai, Brazil

*The Influence of Short Text Ad. on Consumer Purchase Intention: An Empirical Study*
Jia Qu, Can Huang, P.R. China

*Investigating the Effect of Different Autonomy Levels on User Acceptance and User Experience in Self-Driving Cars with a VR Driving Simulator*
Jana Helgath, Philip Braun, Andreas Pritschet, Maximilian Schubert, Patricia Böhm, Daniel Isemann, Germany

Room: **MILANO VI**

**DAPI S070**

*AR, VR and Digital Media*
Chair(s): Jun Hu, Netherlands.

*Flavor Explore: Rapid Prototyping and Evaluation of User Interfaces*
Shi Qiu, Netherlands; Liangyi Du, Ting Han, P.R. China; Jun Hu, Netherlands

*A Study on the Virtual Reality of Folk Dance And Print Art - Taking White Crane Dance for Example*
Jia-Ming Day, Der-lor Way, Ke-Jiuan Chen, Weng-Kei Lau, Su-Chu Hsu, Taiwan

*VR Games and the Dissemination of Cultural Heritage*
Lie Zhang, Weying Qi, Kun Zhao, Liang Wang, Xingdong Tan, Lin Jiao, P.R. China

*Study on the Digital Expansion of Chinese Static Works of Art*
Jin Sheng, Ziqiao Wang, P.R. China

*Thinking Transformation of Traditional Animation Creation Based on the Virtual Reality Presentation*
Yue Zhou, Yunpeng Xu, P.R. China

*Behavior Mapping of Sketching in VR Space with Physical Tablet Interface*
Wenjie Xu, Defu Bao, Qifei Wu, Yi Zhou, Xuning Wu, Fangtian Yang, Cheng Yao, P.R. China

Room: **OCTAVIUS 10**

**HICIBGO S071**

*Mobile and privacy*
Chair(s): Norman Shaw, Canada.

*Health Belief Model and Organizational Employee Computer Abuse*
Mario Silic, Mato Njavro, Switzerland; Dario Silic, Goran Oblakovic, Croatia

*Computers May Not Make Mistakes but Many Consumers Do*
David Lewis, Canada

*Helping the Local Community with Crypto-Currency: a Case Study*
Norman Shaw, Canada

*The Application of IS Success Model on Continuous Intention and Information Sharing for Caller ID Apps Usage*
Cho-Fan Lin, Yen-Jung Chang, Taiwan

Room: **SORRENTO**
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Chair(s)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HCI and Social Computing</strong></td>
<td><strong>HCI International 2018</strong></td>
<td>Kaveh Abhari, United States.</td>
<td><strong>OCTAVIUS 8</strong></td>
</tr>
<tr>
<td><strong>LCT</strong></td>
<td><strong>Interaction Design in Collaborative and Learning Environments</strong></td>
<td>Habib M. Fardoun, Saudi Arabia; Kenneth Y T Lim, Singapore.</td>
<td><strong>MILANO VIII</strong></td>
</tr>
<tr>
<td><strong>ITAP</strong></td>
<td><strong>Intergenerational use of new media</strong></td>
<td>Eugene Loos, Netherlands.</td>
<td><strong>OCTAVIUS 9</strong></td>
</tr>
</tbody>
</table>

**HCI and Social Computing**

**Theory and Practice of Social Innovation to Support Open ICT Ecosystems for Improved User Experience: The Case of UDRC**

Kaveh Bazargan, Ali Rezaeian, Mohammad Taheri, Iran

**Effect of Social Media Product Reviews on Buying Decision When Presented in Augmented Reality**

Prateek Jain, Adrienne Hall-Phillips, Soussan Djamasbi, United States

**Implementing Connectivist Teaching Strategies in Traditional K-12 Classrooms**

Robyn Rice, United States

**Factors That Drive Successful Electronic Health Record Implementation Among Aging Nurses**

Candice Mullings, Ojelanki Ngwenyama, Canada

**User-centered Taxonomy for Urban Transportation Applications**

Jeremy Bowes, Sara Diamond, Manpreet Juneja, Marcus Gordon, Carl Skelton, Manik Gunatilleke, Michael Carnevale, Minsheng Davidson Zheng, Canada

**The Impact of Usability, Functionality and Sociability Factors on User Shopping Behavior in Social Commerce Design**

Zhao Huang, P.R. China

**LCT**

**Towards a framework definition to increase collaboration and achieve group cognition**

Vanessa Agredo-Delgado, Pablo H. Ruiz, Cesar A. Collazos, Colombia; Daniyal M. Alghazzawi, Habib M. Fardoun, Saudi Arabia

**Architecture models for inclusive computational applications, in the treatment of autistic spectrum disorder - ASD**

Gustavo Eduardo Constain Moreno, Cesar A. Collazos, Colombia; Habib M. Fardoun, Daniyal M. Alghazzawi, Saudi Arabia

**Graphical User Interface Design Guide for Mobile Applications Aimed at Deaf Children**

Leidi J. Enriquez Muñoz, Edilson Y. Noguera Zúñiga, Leandro Flórez Aristizábal, Cesar A. Collazos, Gloria Daza, Sandra Cano, Colombia; Daniyal M. Alghazzawi, Habib M. Fardoun, Saudi Arabia

**Redstone jammin’: exploring Minecraft as an environment for collaborative music making**

Kenneth Y T Lim, Lionel Lim, Estelle Lee, Singapore

**Electronic Story Book Display Method and Kindergartener Reading Behavior: An Eye-Tracking Investigation**

Chia-Ning Liao, Yu-Ching Huang, Yao-Ting Sung, Kuo-En Chang, Hsueh Chin Chen, Tzu-Chien Liu, Yen-Hua Chang, Wen-Chung Kao, Chin-Chung Tsai, Ming-Da Wu, Taiwan

**ITAP**

**Intergenerational Play between Young People and Old Family Members: Patterns, Benefits, and Challenges**

Fan Zhang, Canada

**Play it Again, Grandma: Effect of Intergenerational Video Gaming on Family Closeness**

Loretta L. Pecchioni, Sanela Osmanovic, United States

**The Big Meaning of Small Messages: The Use of WhatsApp in Intergenerational Family Communication**

Sakari Taipale, Finland; Manuela Farinosi, Italy

**Technology: a Bridge or a Wall? The Inter(intra)generational Use of ICTs among Italian Grandmothers**

Simone Carlo, Italy; Catarina Rebelo, Portugal

**NOTES**

WEDNESDAY 16:00 - 18:00
**Thursday, 19 July  08:00 - 10:00**

### HCI S075
**User Interface Design and Multimodal Interaction**
Chair(s): Tor-Morten Grønli, Norway.

Room: **NEOPOLITAN I**

- “I’m not stupid” - Attitudes Towards Adaptation Among People with Dyslexia
  Gerd Berget, Siri Fagernes, Norway
- Navigation for Visually Impaired Using Haptic Feedback
  Siri Fagernes, Tor-Morten Grønli, Norway
- Towards Encouraging a Healthier Lifestyle and Increased Physical Activity – an App incorporating Persuasive Design Principles
  Sunny Ladwa, United Kingdom; Tor-Morten Grønli, Norway; Georgia Ghiine, United Kingdom
- Evaluating Effects of Hand Pointing by an Image-based Avatar of a Navigation System
  Michiko Inoue, Aya Shiraiwa, Hiroki Yoshimura, Masashi Nishiya, Yoshio Iwai, Japan
- Exploring Technology Use in Dance Performances
  Klaudia Carcani, Veronica Wachek Hansen, Harald Maartmann-Moe, Norway
- Can People Sense Their Personalities Only by Watching the Movements of Their Skeleton in Street Dancing Performances?
  Hikaru Saito, Yoshiki Maki, Shunki Tsuchiya, Satoshi Nakamura, Japan

### HCI S076
**Quality in interaction**
Chair(s): Stefano Federici, Italy; Simone Borsci, United Kingdom; Maria Laura Mele, Antonio Opromolla, Italy

Room: **NEOPOLITAN II**

- Exploration of Behavioral Markers to Support Adaptive Learning
  Adam Wearne, Robert Wray, United States
- Sencogi Spatio-Temporal Saliency: a New Metric for Predicting Subjective Video Quality on Mobile Devices
  Maria Laura Mele, Italy; Damon Miller, United Kingdom; Christaan Erik Rijnders, Italy
- From Design Fiction to Design Fact: developing future user experiences with proto-tools
  Alessio Malizia, Alan Chamberlain, Ian Willcock, United Kingdom
- Chatbot in a Campus Environment: Design of LISA, a Virtual Assistant to Help Students in their University Life
  Massimiliano Dibitonto, Katarzyna Leszcynska, Federica Tazzi, Carlo M. Medaglia, Italy
- Improving Quality of Interaction with the Mobility Services through the Gamification Approach
  Valentina Volpi, Giovanni Andrea Parente, Guido Pifferi, Antonio Opromolla, Carlo M. Medaglia, Italy
- UX Evaluation Design of UTAssistant: A New Usability Testing Support Tool for Italian Public Administrations
  Stefano Federici, Maria Laura Mele, Rosa Lanzilotti, Giuseppe Desolada, Marco Bracalenti, Fabio Meloni, Giancarlo Gaudino, Antonello Cocco, Massimo Amendola, Italy
- A Landscape of Design: Interaction, Interpretation and the Development of Experimental Expressive Interfaces
  Alan Chamberlain, United Kingdom; Mads Badker, Denmark; David De Roure, Pip Willcox, Ian Emsley, Alessio Malizia, United Kingdom

### HCI S077
**Usability and User Experience Evaluation**
Chair(s): Charlotte Wiberg, Sweden

Room: **NEOPOLITAN III**

- Improving Mobile User Experience of New Features through Remote Tests and Evaluation
  Licia Satiko Nomiso, Eduardo Hideki Tanaka, Raquel Pignateli Silva, Brazil
- Don’t Leave Me Alone: Retrospective Think Aloud supported by Real-time Monitoring of Participant’s Physiology
  Alexandros Liapis, Christos Katsanos, Michail Xenos, Greece
- Evaluation of Visualization Heuristics
  Ryan Williams, Jean Scholtz, Leslie M. Blaha, Lyndsey Franklin, Zhuanyi Huang, United States
- A Framework for the Assessment of Enjoyment in Video Games
  Elizabeth Matthews, Geoffrey Matthews, Juan E. Gilbert, United States

### HIMI S078
**Wearable multisensory displays: Theory and practice**
Chair(s): Linda R. Elliott, United States

Room: **MILANO I**

- Smart Interaction Device for Advanced Human Robotic Interface (SID)
  Rodger A. Pettitt, Glenn Taylor, Linda R. Elliott, United States
- Assessing Multimodal Interactions with Mixed-Initiative Teams
  Daniel Barber, United States
- Multisensory Cueing for Pilots In Degraded Visual Environments
  David Durbin, Gina Hartnett, United States
- A study of perception using mobile device for Multi-Haptic Feedback
  Shuo-Fang Liu, Hsiang-Sheng Cheng, Ching-Fen Chang, Po-Yen Lin, Taiwan

---

**HCI International 2018**

**PARALLEL SESSIONS**
HIMI S079
Representational approaches for intelligent systems
Chair(s): Ryan A. Kirk, United States.

Room: MILANO II

EPCE S080
Human Systems Integration
Chair(s): Nirit Gavish, Israel.

Room: OCTAVIUS 7

UAHCI S081
Technology for Inclusion and Participation
Chair(s): Ingo K. Bosse, Christoph Kaleta, Germany.

Room: MILANO III

VAMR S082
Intelligent Systems and Virtual, Augmented and Mixed Reality
Chair(s): Maria Olinda Rodas, United States.

Room: SALERNO

**HIMI S079**

**On Measuring Cognition and Cognitive Augmentation**
Ron Fulbright, United States

**The Divergency Model: UX Research For and With Stigmatized and Idiosyncratic Populations**
Troy D. Abel, Debra Satterfield, United States

**Discovering Significant Co-Occurrences to Characterize Network Behaviors**
Kristine Arthur-Durett, Thomas E. Carroll, Satish Chikkagoudar, United States

**A Topological Approach to Representational Data Models**
Emilie Purvine, Sinan Aksoy, Cliff Joslyn, Kathleen Nowak, Brenda Praggastis, Michael Robinson, United States

**Evaluating the Effectiveness of Personal Cognitive Augmentation: Utterance/Intent Relationships, Britteness and Personal Cognitive Agents**
Grover Walters, United States

**EPCE S080**

**Computerized training to avoid under-exploration tendency in Theory of Mind**
Nirit Gavish, Doron Faran, Mark Berman, Israel

**HSI implementation in complex system design**
Yakir Yaniv, Israel

**Robotics in Handling Hazardous Materials**
Yael Ungar, Gilad Einy, Nirit Gavish, Israel

**The Effects of Risk and Role on Users’ Anticipated Emotions in Safety-Critical Systems**
Yusuf Albayram, Mohammad Maifi Hasan Khan, Theodore Jensen, Ross Buck, Emil Coman, United States

**Mental Workload Estimation from EEG Signals using Machine Learning Algorithms**
Baljeet Singh Cheema, Shabnam Samima, Monalisa Sarma, Debasis Samanta, India

**UAHCI S081**

**Assistive Technologies for People with Cognitive Impairments - Which Factors Influence Technology Acceptance?**
Susanne Dirks, Christian Bühler, Germany

**Culture and Technology Use - Relevant determinants for the development process**
Andre Posenau, Germany

**Copy Here, Paste There? On the Challenges of Scaling Inclusive Social Innovations**
Jennifer Eckhardt, Christoph Kaletka, Bastian Pelka, Germany

**SELFMADE – Self-determination and Communication through inclusive MakerSpaces**
Ingo K. Bosse, Hanna Linke, Bastian Pelka, Germany

**Technology-based communication tools - Opportunities for inclusion and user-orientation by the example of mechanically ventilated patients**
Lea Abdel Ghani, Germany

**VAMR S082**

**Command and Control Collaboration Sand Table (C2-CST)**
Bryan L. Croft, Crisrael Lucero, David Neumberger, Fred Greene, Allen Qiu, Roni Higgins, Eric Gustafson, United States

**Augmented Reality and Mixed Reality Prototypes for Enhanced Mission Command / Battle Management Command and Control (BMC2) Execution**
Michael Jenkins, Arthur Wollock, Alessandro Negri, Ted Fichtl, United States

**Sensor Data Fusion Framework to Improve Holographic Object Registration Accuracy for a Shared Augmented Reality Mission Planning Scenario**
Simon Su, Vincent Perry, Qiang Guan, Andrew Durkee, Alexis R. Neigel, Sue Kase, United States

**Usability Evaluation for Drone Mission Planning in Virtual Reality**
Yifei Liu, Nancy Yang, Alyssa Li, Jesse Paterson, David McPherson, Tom Cheng, Allen Yang, United States

**Element Selection of Three Dimensional Objects in Virtual Reality**
Dylan Fox, Sophie So Yeon Park, Amol Borcar, Anna Brewer, Joshua Yang, United States

**Human-Agent Collaborative Decision-Making Framework for Naval Systems**
Maria Olinda Rodas, Jeff Waters, Cheryl Putnam, United States
### Parallel Sessions Thursday, 19 July 08:00 - 10:00

#### CCD S083
**HCI Research and Practice in the Arab World**
Chair(s): Areej Al-Wabil, Saudi Arabia.

Room: NEOPOLITAN IV

**HCI Practices in Software-Development Environments in Saudi Arabia**
Khalid Majrashi, Areej Al-Wabil, Saudi Arabia

**Assessing the Effectiveness of an Augmented Reality Application for the Literacy Development of Arabic Children with Hearing Impairments**
Shiroq Al-Megren, Aziza Almutairi, Saudi Arabia

**Automatic Assessment of Personality Traits Using Non-verbal Cues in a Saudi Sample**
Sharifa Alghowinem, Basmah Alkadh, Saudi Arabia

**Human-Centered Design for Sustainable Cities: Insights from the Sustainable Cities Think-Tank with a Focus on an Arab Region**
Roudaina Alkhani, Nuha Eltinay, United Kingdom; Haifa Alhababi, Saudi Arabia; Sumeyah Alsolaiman, Saint Vincent and the Grenadines; Neoua Hansen, Tala Baksh, United Kingdom; Razan Simbawa, Dina Alnahdy, Saudi Arabia; Kinda Ayoub, United Kingdom; Effat Fadag, Khadijah Fatani, Dina Alnahdy, Saudi Arabia; Kevin Hussey, United States; Areej Al-Wabil, Saudi Arabia

**Cross-Cultural User Experience Design for the Arabic Version of NASA’s Eyesh on the Earth**
Amal Alabdulkarim, Lamees Alsuhabani, Saudi Arabia; Kevin Hussey, United States; Areej Al-Wabil, Saudi Arabia

#### SCSM S084
**Innovative Social Media and Computing Technologies for Aging Societies**
Chair(s): Han Yu, Singapore.

Room: OCTAVIUS 12

**Opportunistic Work-Rest Scheduling for Productive Aging**
Han Yu, Chunyan Miao, Singapore; Lizhen Cui, Yiqiang Chen, P.R. China; Simon Fauvel, Singapore; Qiang Yang, Hong Kong

**Usability Analysis of the Novel Functions to Assist the Senior Customers in Online Shopping**
Xinjia Yu, Lei Meng, Xiaohai Tian, Simon Fauvel, Bo Huang, Yunqing Guan, Zhiqi Shen, Chunyan Miao, Cyril Leung, Singapore

**Personalized Emotion-Aware Video Streaming for the Elderly**
Yi Dong, Han Hu, Yonggang Wen, Han Yu, Chunyan Miao, Singapore

**A Middle-aged Social Internet with a Millennial Exodus? Changes in Identifications with Online Communities between 2009 and 2017 in Finland**
Aki Koivula, Teo Keipi, Ilkka Koiranen, Pekka Räsänen, Finland

#### AC S085
**Meta-Cognition: Thinking About Thought**
Chair(s): Monte Hancock, United States.

Room: MILANO IV

**Parole Board Personality and Decision Making using Bias-Based Reasoning**
Katy Hancock, Payton Brown, Antoinette Hadjis, United States; Markus Hollander, Germany; Michael Shrider, United States

**Feature Extraction from Social Media Posts for Psychometric Typing of Participants**
Charles Li, Monte Hancock, Ben Bowles, Olivia Hancock, Lesley Perg, Payton Brown, Asher Burrell, Giannella Frank, Frankie Stiers, Shana Marshall, Gale Mercado, United States; Alexis-Walid Ahmed, France; Phillip Beckelheimer, Samuel Williamson, Rodney Wade, United States

**Intermediate Information Grouping in Cluster Recognition**
Chloe Chun-Wing Lo, Hong Kong; Markus Hollander, Germany; Freda Wan, Hong Kong; Alexis-Walid Ahmed, France; Nikki Bernobic, Croatia; Nick Nuon, Michael Shrider, United States

**Using Bots in Strategizing Group Compositions to Improve Decision Making Processes**
Shai Neumann, Suraj Sood, United States; Markus Hollander, Germany; Freda Wan, Hong Kong; Alexis-Walid Ahmed, France; Monte Hancock, United States

**Long Term Use Effects of a P300-based Spelling Application**
Cristian-Cezar Postelnicu, Florin Gribac, Octavian Machidon, Gheorghe-Daniel Voinea, Romania

#### DHM S086
**Human modeling for nursing and medical art**
Chair(s): Akihiko Goto, Hiromi Nakagawa, Shizuko Hayashi, Japan.

Room: OCTAVIUS 8

**The Effect of Ankle Exercise on Cerebral Blood Oxygenation during and after Postural Change**
Sachiko Nagaya, Hisae Hayashi, Japan

**Study of Factors that Lead to Falls during Body Position Change from a Dorsal Position to a Seated Position by Nursing Students**
Hiromi Nakagawa, Masahiro Tukamoto, Kazuaki Yamashiro, Akihiko Goto, Japan

**Construct of Learning Model for Laparoscopic Surgery**
Kazuaki Yamashiro, Akihiko Goto, Hisanori Shiomi, Koichir Murakami, Japan

**Characteristics of Eye Movement and Clinical judgment in Nurses during the Sterile Glove Application**
Shizuko Hayashi, Asumi Sugaik, Akino Ienaka, Rieko Terai, Naoko Maruoka, Japan

**Increasing Safety for Assisted Motion during Caregiving: Comparative Analysis of a Critical Care Nurse and a Care Worker Transferring a Simulated Care-receiver**
Yasuko Kitajima, Ken Ikuhisa, Japan; Porakoch Sirisawan, Thailand; Akihiko Goto, Hiroyuki Hamada, Japan

**Motion Analysis of Simulated Patients during Bed-to-Wheelchair Transfer by Nursing Students and Skill Acquisition based on the Analysis**
Hiromi Nakagawa, Masahiro Tukamoto, Kazuaki Yamashiro, Akihiko Goto, Japan

---

42 • HCI International 2018
### DUXU S087
**Design Thinking and Product Design**
Chair(s): Yue (Lilian) Yuan, United States.

Room: **MILANO V**
- Rethink Product Design of Automotive in New Era
  - Jian Wen Chi, P.R. China
- Designing with machine intelligence
  - Max Kessler, United States
- The Collaboration Learning in the Interdisciplinary Workshop based on Design Thinking: A Learning Outcome Perspective
  - Jun Xu, Gang Liu, Sicong Liu, Raoshan Xu, P.R. China
- Comparing User Experience in Interactions with Different Types of Digital Products
  - Lemeng Xu, Dede Ma, Pengyi Zhang, P.R. China

### S088
**Urban Media Design**
Chair(s): Lifeng Ren, Yanlin Liu, P.R. China.

Room: **MILANO VI**
- Formation and Influence of New Media Art Form in Public Space
  - Lili Zhang, Yunqiao Su, P.R. China
- Rethink of Urban Arts: AR Technology with Participatory Experience of New Urban Arts
  - Ziyang Li, Hao He, Xiangdong Cheng, P.R. China
- The Application of Human-computer Interaction in Smart City Planning and Design
  - Yanlin Liu, P.R. China
  - A design for a Public Transport Information Service in China
    - Dandan Yu, MuRong Ding, Cong Wang, P.R. China
  - Acceptance and Effectiveness of Collision Avoidance System in Public Transportation
    - Xiaonan Yang, Jung Hyup Kim, United States

### S089
**The Experience of New Media Art**
Chair(s): Qunye Gu, P.R. China.

Room: **MILANO VII**
- Research on application of Gesture Recognition Technology in Traditional Puppet Show
  - Mu Zhang, Zhanjun Dong, P.R. China
- Study on Introducing Digitalization in Folk Art -- Taking Beautiful ! Chinese New Year Paintings as an example
  - Song Lu, P.R. China
- Analysis on Dimensional Design and Its Application
  - Qunye Gu, Guangshuai Zhang, P.R. China
- The Integration of New Media Art and Chinese Traditional Culture
  - Yunqiao Su, P.R. China
- The "Living State" Research of China Non-material Cultural Heritage on Digital Age ——Taking the Nanjing Jinling Sutra Office as an example
  - Xiaoxian Wang, Hao Liu, P.R. China
- Conceptual Framework for Supporting the Creation of Virtual Museums with focus on Natural User Interfaces
  - Guilherme Corredato Guerino, Breno Guerra Zancan, Tatiany Xavier De Godoi, Daniela Freitas Guilhemino, José Reinaldo Merlin, Ederson Marcos Sgarbi, Carlos Eduardo Ribeiro, Tércio Wesley Sant’Anna de Paula Lima, Brazil

### DAPI S090
**Playful and Humorous Interactions in Smart Environments**
Chair(s): Anton Nijholt, Netherlands.

Room: **OCTAVIUS 10**
- Plug and Play for a Transferrable Sense of Humour
  - Tony Veale, Ireland
- Humor Facilitation of Polarized Events
  - Alessandro Valitutti, Italy
- Automatic Joke Generation: Learning Humor from Examples
  - Thomas Winters, Vincent Nys, Daniel De Schreye, Belgium
- Comparing jokes with NLP: how far can joke vectors take us?
  - Xiaonan Jing, Chinmay Talekar, Julia Taylor Rayz, United States
- Designing Humour in Interaction: A Design Experience
  - Andreea I. Niculescu, Bimlesh Wadhwa, Singapore; Anton Nijholt, Netherlands
- Robotic Stand-up Comedy: State-of-the-Art
  - Anton Nijholt, Netherlands
### Thursday, 19 July 08:00 - 10:00

<table>
<thead>
<tr>
<th>HCIBGO S091</th>
<th>LCT S092</th>
<th>ITAP S093</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intelligent Data Analysis</strong>&lt;br&gt;Chair(s): I-Chin Wu, Taiwan; Langtao Chen, United States.</td>
<td><strong>Social Computing for Social Change - I</strong>&lt;br&gt;Chair(s): Andri Ioannou, Antigoni Parmaxi, Andreas Papallas, Panayiotis Zaphiris, Cyprus.</td>
<td><strong>New Media in the Everyday Life of Older People - I</strong>&lt;br&gt;Chair(s): Eugene Loos, Netherlands.</td>
</tr>
<tr>
<td>Room: SORRENTO</td>
<td>Room: MILANO VIII</td>
<td>Room: OCTAVIUS 9</td>
</tr>
<tr>
<td><strong>Relation Extraction in Knowledge Base</strong>&lt;br&gt;<strong>Question Answering: from General-Domain to the Catering Industry</strong>&lt;br&gt;Hung-Chen Chen, Zi-Yuan Chen, Sin-Yi Huang, Lun-Wei Ku, Yu-Shian Chiu, Wei-Jen Yang, Taiwan</td>
<td><strong>Quiz-R-Us — Re-Conceptualizing Quizzes to Enrich Blended Learning in Occupational Therapy Study Lines</strong>&lt;br&gt;Emanuela Marchetti, Andrea Valente, Denmark</td>
<td><strong>Promising Practices in Collaborative Digital Literacy and Digital Media-Making with Older Adults</strong>&lt;br&gt;Constance Lafontaine, Kim Sawchuk, Canada</td>
</tr>
<tr>
<td><strong>Operationalizing Analytics - A Composite Application Model</strong>&lt;br&gt;Neetu Singh, United States</td>
<td><strong>Lessons Learned: Engaging Older Adults in Generative Design Sessions for a Digital Messaging System</strong>&lt;br&gt;Abena Edugyan, Andreas Papallas, Panayiotis Zaphiris, Cyprus</td>
<td><strong>The Role of New Media in Communicating and Shaping Older Adult Stories</strong>&lt;br&gt;Simone Hausknecht, Canada</td>
</tr>
<tr>
<td><strong>Social Network Analysis: A Tool to Explore Intelligent Patterns of Commercial Data</strong>&lt;br&gt;Chien-Hsiang Liao, Taiwan</td>
<td><strong>Virtual Reality Rehabilitation based on Neurologic Music Therapy: A Qualitative Preliminary Clinical Study</strong>&lt;br&gt;Evangelia Baka, Switzerland; Mike Kentros, George Papagiannakis, Greece; Nadia Magenat-Thalmann, Switzerland</td>
<td><strong>Overcoming the Vulnerability of Older Adults in Contemporary Media Ecosystem (International Policies and Bulgarian Survey)</strong>&lt;br&gt;Lilia Raycheva, Nadezda Miteva, Dobrinka Peicheva, Bulgaria</td>
</tr>
<tr>
<td><strong>How Do They Tag? Senior Adults’ Tagging Behavior in Cultural Heritage</strong>&lt;br&gt;Ling-Ling Lai, Taiwan</td>
<td><strong>Social Learning and Social Design using iPads and Groupware Technologies</strong>&lt;br&gt;Aekaterini Mavri, Andrei Ioannou, Cyprus; Fernando Loizides, United Kingdom; Nicos Souleles, Cyprus</td>
<td><strong>How Do Older Adults View Online Health Webpages? Preliminary Results from Eye Tracking Data</strong>&lt;br&gt;Anushia Inthiran, New Zealand; Robert D. Macredie, United Kingdom</td>
</tr>
<tr>
<td><strong>Mining Patent Big Data to Forecast Enterprise Performance</strong>&lt;br&gt;Yu-Jing Chiu, Taiwan</td>
<td><strong>Evaluating the Use of Groupware Technologies in Support of Collaborative Learning in an ESP Tertiary Education Course</strong>&lt;br&gt;Aekaterini Mavri, Stavroulla Hadjiconstantinou, Cyprus</td>
<td><strong>Augmented Reality in Tablets for the Yerkes Test for Older Adults</strong>&lt;br&gt;Ana Georgina Guerrero Huerta, Erika Hernández Rubio, Amilcar Meneses Viveros, Mexico</td>
</tr>
<tr>
<td><strong>Visualization of Zoomable 2D Projections on the Web</strong>&lt;br&gt;Michael Maus, Tobias Ruppert, Arjan Kuijper, Germany</td>
<td><strong>An E-Learning System Using Gamification to Support Preliminary Learning for Job Hunting</strong>&lt;br&gt;Naomi Nagata, Tomofumi Uetake, Japan</td>
<td></td>
</tr>
</tbody>
</table>
### Thursday, 19 July 10:30 - 12:30

<table>
<thead>
<tr>
<th>Room: NEOPOLITAN I</th>
<th>Room: MILANO I</th>
<th>Room: MILANO II</th>
<th>Room: NEOPOLITAN II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HCI S094</strong></td>
<td><strong>HIMI S095</strong></td>
<td><strong>S096</strong></td>
<td><strong>EPCE S097</strong></td>
</tr>
<tr>
<td>Design Access in Ergonomics and Interaction Chair(s): Fong-Gong Wu, Taiwan.</td>
<td>Relationality Design and Relationally-oriented Systems Chair(s): Katsunori Shimohara, Japan.</td>
<td>Interacting with data and information Chair(s): Shin’ichi Fukuzumi, Japan.</td>
<td>Human Factors and Ergonomics in Safety-Critical Systems Chair(s): Qin Gao, P.R. China.</td>
</tr>
<tr>
<td>Assessing Patient Needs for the Enhancement of Stroke Rehabilitation Services: A Customer Value Perspective Yu-Hsiu Hung, Yu-Ching Lin, Wan-Zi Lin, Pin-Ju Chen, Taiwan Interactive stress-free toy design for students studying overseas Robert Chen, Tse-Ming Chuang, United Kingdom Research on Sticker Cognition for Older Adult Using Instant Messaging Chieh-Ying Chen, Taiwan Investigating the Behavior of Sequence Typing on the Mobile Devices Hsi-Jen Chen, Chia-Ming Kuo, Yung-Chueh Cheng, Taiwan An Innovative Mattress Design to Improve Sleep Quality and Thermal Comfort Fong-Gong Wu, Tsu-Yu Shen, Su-Huey Tan, Taiwan Employing Shortcut Setting and Subbitizing Effect for Improving UI of Multi Media Kiosks T. K. Philip Hwang, Pin-Chieh Kuo, Guan-Jun Ding, Ting-Ju Kuo, Ting-Huan Ko, Po-Chi Weng, Taiwan</td>
<td>Generating Learning Environments Derived from Found Solutions by Adding Sub-goals toward the Creative Learning Support Takato Okudo, Tomohiro Yamaguchi, Keiki Takadama, Japan Correcting Wrongly Determined Opinions of Agents in Opinion Sharing Model Eiki Kitajima, Caili Zhang, Haruyuki Ishii, Fumiito Uwano, Keiki Takadama, Japan Prediction of standing ovation of TED technology talks Shohei Maeno, Tetsuya Maeshiro, Japan A System to Visualize Location Information and Relationship Integradely for Resident-centered Community Design Koya Kimura, Yurika Shiozu, Kosuke Ogita, Ivan Taney, Katsunori Shimohara, Japan Effects of group size on performance and member satisfaction Noniko Suzuki, Mayuka Imashiro, Haruka Shoda, Noniko Ito, Mamiko Sakata, Michiya Yamamoto, Japan A system description model to integrate multiple facets with quantitative relationships among elements Tetsuya Maeshiro, Yuri Ozawa, Japan; Midori Maeshiro, Brazil Case Study on Motivation to Participate in Private Provision of Local Public Goods and Time Spent in the Region Measured using GPS Yurika Shiozu, Koya Kimura, Katsunori Shimohara, Katsuhiko Yonezaki, Japan</td>
<td>Impact of Menu Complexity upon User Behavior and Satisfaction in Information Search Svetaina S. Bodrunova, Alexander Yakunin, Russia The Importance of Online Transaction Textual Labels for Making a Purchasing Decision – An Experimental Study of Consumers’ Brain Waves Pei-Hsuan Hsieh, Taiwan Information Design for Purposeless Information Searching based on Optimum Stimulation Level Theory Miwa Nakanishi, Motoya Takahashii, Japan Issues of indexing User Experience Shin’ichi Fukuzumi, Yukiko Tanikawa, Japan Research on the Fuzziness in the Design of Big Data Visualization Tian Lei, Qiuemg Zhu, Nan Ni, Xin He, P.R. China Web-based Visualization Component for Geo-information Ralf Gutbell, Lars Pandikow, Arjan Kulpjer, Germany</td>
<td>Presentation of Personal Health Information for Consumers: An Experimental Comparison of Four Visualization Formats Da Tao, Juan Yuan, Xingda Qu, Tieyan Wang, Xingyu Chen, P.R. China Ergonomic Evaluation Study of Occupant Function Allocation for Riot Vehicle Based on Task Load Qin Wang, Fang Xie, Runing Lin, Xiaoping Jin, Xue Shi, P.R. China Research on test of Anti-G suits airbag pressure Ding Yi, Zhaowei Zhu, Wang Yadong, Zhang Zhongji, Song Kaiyu, Ding Li, P.R. China The Influence of Culture on Vigilance Performance and Subjective Experience Qin Gao, Man Wu, Bin Zhu, P.R. China Effect of Different Information Push Mechanism on Driver’s Situation Awareness Bowen Zheng, Xiaoping Jin, Zhenghe Song, Yeqing Pei, Xuechao Ma, P.R. China Short Paper: Damage Mechanism and Risk Control on Kid’s Sunglasses Xia Liu, Binsong Liu, Bao Liu, Youyu Xiao, Yongnan Li, P.R. China</td>
</tr>
<tr>
<td>Session</td>
<td>Room</td>
<td>Title</td>
<td>Chair(s)</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>UAHCI  S098</td>
<td>MILANO III</td>
<td>Novel approaches in Universal Access</td>
<td>Vagner Figueredo De Santana, Brazil</td>
</tr>
<tr>
<td>VAMR  S099</td>
<td>SALERNO</td>
<td>Training, collaboration and simulation in VR</td>
<td>Joseph B. Lyons, United States</td>
</tr>
<tr>
<td>CCD  S100</td>
<td>NEOPOLITAN IV</td>
<td>Design for All: Cross-Cultural User Experience</td>
<td>Ke Chen, P.R. China</td>
</tr>
<tr>
<td>SCSM  S101</td>
<td>OCTAVIUS 12</td>
<td>Frontiers in Social Media</td>
<td>Christian W. Scheiner, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brain Controlled Interface Log Analysis in Real Time Strategy Games</td>
<td>Maria S. Achtert, The Netherlands</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interaction of Distant and Local Users in a Collaborative Virtual Environment</td>
<td>Adrian H. Hoppe, Roland Reeb, Florian Van de Camp, Rainer Stiefelhagen, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Virtual Reality based Space Operations – A study of ESA’s Potential for VR based Training and Simulation</td>
<td>Manuel Olbrich, Holger Graf, Jens Keil, Rüdiger Gad, Steffen Bamfaste, Frank Nicolini, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A Taxonomy for Website Evaluation Tools Grounded on Semiotic Framework</td>
<td>Vagner Figueredo De Santana, M. Cecilia C. Baranauskas, Brazil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multimodal Paradigm for Emotion Recognition based on EEG signals</td>
<td>Naveen Masood, Humera Farooq, Pakistan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A Robot-based Cognitive Assessment Model based on Visual Working Memory and Attention Level</td>
<td>Ali Sharifara, Ashwin Ramesh Babu, Akilesh Rajavenkatarayan, Christopher Collander, Fillia Makedon, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brain Controlled Interface Log Analysis in Real Time Strategy Games</td>
<td>Maria S. Achtert, The Netherlands</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interaction of Distant and Local Users in a Collaborative Virtual Environment</td>
<td>Adrian H. Hoppe, Roland Reeb, Florian Van de Camp, Rainer Stiefelhagen, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Virtual Reality based Space Operations – A study of ESA’s Potential for VR based Training and Simulation</td>
<td>Manuel Olbrich, Holger Graf, Jens Keil, Rüdiger Gad, Steffen Bamfaste, Frank Nicolini, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A Taxonomy for Website Evaluation Tools Grounded on Semiotic Framework</td>
<td>Vagner Figueredo De Santana, M. Cecilia C. Baranauskas, Brazil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multimodal Paradigm for Emotion Recognition based on EEG signals</td>
<td>Naveen Masood, Humera Farooq, Pakistan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A Robot-based Cognitive Assessment Model based on Visual Working Memory and Attention Level</td>
<td>Ali Sharifara, Ashwin Ramesh Babu, Akilesh Rajavenkatarayan, Christopher Collander, Fillia Makedon, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brain Controlled Interface Log Analysis in Real Time Strategy Games</td>
<td>Maria S. Achtert, The Netherlands</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interaction of Distant and Local Users in a Collaborative Virtual Environment</td>
<td>Adrian H. Hoppe, Roland Reeb, Florian Van de Camp, Rainer Stiefelhagen, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Virtual Reality based Space Operations – A study of ESA’s Potential for VR based Training and Simulation</td>
<td>Manuel Olbrich, Holger Graf, Jens Keil, Rüdiger Gad, Steffen Bamfaste, Frank Nicolini, Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A 3D Head Model Fitting Method Using Chinese Head Anthropometric Data</td>
<td>Haining Wang, Wanrong Chen, Yi Li, Yang Yu, Wenxiu Yang, P.R. China; Roger Ball, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>User-oriented Research on Perceivable Indicators of Smartphone</td>
<td>Naveen Masood, Humera Farooq, Pakistan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trust in Autonomous Systems for Threat Analysis: A Simulation Methodology</td>
<td>Gerald Matthews, April Rose Panganiban, Rachel Bailey, Jinchao Lin, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cyber vulnerability: An attentional dilemma</td>
<td>Joseph B. Lyons, Mark A. Roebke, Phil Bobko, Craig A. Cox, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trust in Autonomous Systems for Threat Analysis: A Simulation Methodology</td>
<td>Gerald Matthews, April Rose Panganiban, Rachel Bailey, Jinchao Lin, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cyber vulnerability: An attentional dilemma</td>
<td>Joseph B. Lyons, Mark A. Roebke, Phil Bobko, Craig A. Cox, United States</td>
</tr>
</tbody>
</table>

**Additional Sessions:**

- **SCSM S101**
  - Social Computing and Social Media
  - Chair(s): Christian W. Scheiner, Germany
  - Room: OCTAVIUS 12
  - This is how we do it: Untangling Patterns of Super Successful Social Media Activities
    - Tobias Eismann, Timm F. Wagner, Christian V. Baccarella, Kai-Ingo Voigt, Germany
  - Workplace Sexual Harassment on Social Media
    - Jennifer Wohlert, Germany
  - Moral Disengagement in Social Media Generated Big Data
    - Markus Beckmann, Christian W. Scheiner, Germany; Anica Zeyen, United Kingdom
  - Effective Social Media Marketing Planning – How to Develop a Digital Marketing Plan
    - Marc Oliver Opresnik, Germany
  - CyberActivist: Tool for Raising Awareness on Privacy and Security of Social Media Use for Activists
    - Borislav Tadic, Markus Rohde, Volker Wulf, Germany
### DHM S103

#### Smart Service System Design

**Chair(s):** Vincent G. Duffy, United States.

**Room:** NEOPOLITAN III

- **3D Human Head Shape Variation by Using Principal Component Analysis**
  - Yanling Zheng, Haixiao Liu, Jianwei Niu, Linghua Ran, Taijie Liu, P.R. China

- **Research on Ergonomics Design of the Height and Operation Force for Furniture Lockset**
  - Hui-min Hu, Yahui Bai, Yinxia Li, Haimei Wu, Ling Luo, Rui Wang, Pu Hong, P.R. China

- **Assessment of Types of Prototyping in Human-Centered Product Design**
  - Salman Ahmed, Jianfu Zhang, Onan Demirel, United States

- **Passenger Experience and the Factors of Aircraft Cabin Design**
  - Xinyi Tao, Siyu Ren, Ting Han, P.R. China

### DUXU S104

#### Hedonic and Pragmatic Aspects of User Experience - I

**Chair(s):** Christine Riedmann-Streitz, Manfred Thüring, Michael Burmester, Germany.

**Room:** MILANO V

- **Can we Distinguish Pragmatic from Hedonic user Experience Qualities with Implicit Measures?**
  - Kathrin Pollmann, Victoria Sinram, Nora Fronemann, Mathias Vukelić, Germany

- **Assessing User Experience in Virtual Reality – A comparison of different Measurements**
  - Carolin Wienrich, Nina Döllinger, Simon Kock, Kristina Schindler, Ole Traupe, Germany

- **The meCUE Questionnaire (2.0): Meeting Five Basic Requirements for Lean and Standardized UX Assessment**
  - Michael Minge, Manfred Thüring, Germany

- **What Does the System Usability Scale (SUS) Measure? Validation Using Think Aloud Verbalization and Behavioral Metrics**
  - Mandy R. Drew, Brooke Falcone, Wendy L. Baccus, United States

### DUXU S105

#### Experience Design and Gamification

**Chair(s):** Shi Huang, P.R. China.

**Room:** MILANO VI

- **A UX-Driven Design Method for Building Gamification System**
  - Bing Ning, P.R. China

- **How Animation Improve Children’s Cognition in User Interface: A Study of the Kids VOD Application**
  - Wei Li, Xuan Zhang, Yi Shen Zhang, P.R. China

- **A Study on Application of AR Three-Dimensional Touch Interaction in Children Education**
  - Yu-Yi Ding, Jing-Hua Han, Qi Cao, Chao Liu, P.R. China

- **Song of Red Pine Woods - Design and Study of Digital Picture Books for Preschool Children on iPad**
  - Qi Cao, Jing-Hua Han, Yu-Yi Ding, Shi Huang, Chao Liu, P.R. China

- **A Method of Evaluating User Visual Attention to Moving Objects in Head Mounted Virtual Reality**
  - Shi Huang, P.R. China

- **An Interactive Digital Storytelling to Identify Emotions and Consequences in the Elementary School Child**
  - Erick Lopez-Ornelas, Rocío Abascal-Mena, Mexico
**HCIBGO S108**

**Room:** OCTAVIUS 10

**Human Computer Interaction in Multichannel Commerce and Online Marketing**

Chair(s): Andreas Auringer, Harald Kindermann, Martin Stabauer, Austria.

**Initial Trust in Mobile Apps based on Landing Page Information: Results of an Online Experiment**

Thomas Fischer, Anja Obermüller, Andreas Auringer, Harald Kindermann, René Riedl, Austria

**The Impact of UI on Privacy Awareness - Connecting Online Polls and Social Media**

Martin Stabauer, Austria

**Emotions and Feelings: Some Aspects for the HCI-Community – A Work in Progress Paper**

Harald Kindermann, Franz Auringer, Austria

**Towards Measuring the Potential for Semantically Enriched Texts in Knowledge Working Environments**

Gerald Petz, Dietmar Niedba, Werner Wetzlinger, Austria

**System Response Time as a Stressor in a Digital World: Literature Review and Theoretical Model**

René Riedl, Thomas Fischer, Austria

**The Effect of LOGO Location in Navigation Bar on Web Brand Recognition Based on Event-related Potential**

Yingying Dong, Chengqi Xue, Ningyue Peng, Yafeng Niu, P.R. China

**Towards Measuring the Potential for Semantically Enriched Texts in Knowledge Working Environments**

Gerald Petz, Dietmar Niedba, Werner Wetzlinger, Austria

**System Response Time as a Stressor in a Digital World: Literature Review and Theoretical Model**

René Riedl, Thomas Fischer, Austria

**The Effect of LOGO Location in Navigation Bar on Web Brand Recognition Based on Event-related Potential**

Yingying Dong, Chengqi Xue, Ningyue Peng, Yafeng Niu, P.R. China

**UX in the Digital Age**

Chair(s): Ian O’Bara, Sarah Swierenga, United States.

**Emotion and Ambient Computing**

Chair(s): Yasmine Abbas, United States.

**On Interdependent Metabolic Structures: The Case of Cyborg Garden**

Zenovia Toloudi, United States; Spyridon Ampanavos, Greece

**Touch: Communication of Emotion through Computational Textile Expression**

Felecia Davis, United States

**Computing Atmospheres**

Yasmine Abbas, United States

**Collaborative Music Composition based on Sonic Interaction Design**

Mauro Amazonas, Victor Vasconcelos, Adriano Brandão, Gustavo Kienem, Thais Castro, Bruno Gadelha, Hugo Fuks, Brazil

**Bridging the digital divide: One smartphone at a time**

Kathryn Summers, Noel Alton, Anna Haraseyko, Rachel Sherard, United States

**Empowering Lesbian, Gay, Bisexual, and Transgender (LGBT) People with Codesign: a Critical Evaluation through the Lens of Simplicity**

Guilherme C. Pereira, M. Cecilia C. Baranauskas, Brazil

**Blue-collars/Tough Designs: UX within Fire Service Occupational Safety and Health Programs**

Timothy R. Amidon, Tiffany Lipsey, United States

**Bridging the Gulfs: Modifying an Educational Augmented Reality App to account for Target Users’ Age Differences**

Hannah Kladtke, John Bell, Daniel Freer, Cui Cheng, William Cain, United States

**Evaluating the Benefit of Accordance Web Elements for Low Literacy Populations**

Shannon Tucker, Kathryn Summers, Timothy McGowan, Chris Klimas, United States

**The Importance of User-Centered Design in Performing Background Checks in Child Care**

Fuad Abujarad, Allissa Desloge, Kristina Carlson, Sarah Swierenga, United States

**Empowering Lesbian, Gay, Bisexual, and Transgender (LGBT) People with Codesign: a Critical Evaluation through the Lens of Simplicity**

Guilherme C. Pereira, M. Cecilia C. Baranauskas, Brazil

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

---

**LCT S109**

**Room:** MÓLINO VIII

**Social Computing for Social Change II**

Chair(s): Andri Ioannou, Antigoni Parmaxi, Andreas Papallas, Panayiotis Zaphiris, Cyprus.

**Towards the Use of Social Computing for Social Inclusion: An Overview of the Literature**

Vaso Constantinou, Panagiotis Kosmas, Antigoni Parmaxi, Andri Ioannou, Cyprus; Iosif Klironomos, Margherita Antona, Constantine Stephanidis, Greece; Panayiotis Zaphiris, Cyprus

**Usability Evaluation of a Mobile Graphing Calculator Application using Eye Tracking**

Melanie Tomaschko, Markus Hohenwarter, Austria

**An Analytical Investigation on Ecological Strategy Based on “Edu +AR” Education Cloud Platform**

Ying Luo, Yajie Wang, P.R. China; Younghwan Pan, Korea

**Exploring Sociocultural Theory Application in Online Language Courses**

Jennifer Dobberfuhl-Quinlan, United States

**The Use of Digital Game Based Learning in Manufacturing Education – A Case Study**

Stefano Perini, Italy; Manuel Oliveira, Norway; Maria Margoudi, United Kingdom; Marco Taisch, Italy
### Thursday, 19 July 10:30 - 12:30

<table>
<thead>
<tr>
<th>ITAP</th>
<th>Room</th>
<th>Session Title</th>
<th>Chair(s)</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>S110</td>
<td>OCTAVIUS 9</td>
<td>New Media in the Everyday Life of Older People - II</td>
<td>Eugene Loos, Netherlands</td>
<td></td>
</tr>
<tr>
<td>S111</td>
<td>OCTAVIUS 8</td>
<td>Aging in a digitized world</td>
<td>Martina Ziefle, Germany</td>
<td></td>
</tr>
<tr>
<td>S112</td>
<td>OCTAVIUS 7</td>
<td>Aging and Technology Acceptance - I</td>
<td>Jia Zhou, P.R. China</td>
<td></td>
</tr>
</tbody>
</table>

#### Human Aspects of IT for the Aged Population

- **New Media in the Everyday Life of Older People - II**
  - Chair(s): Eugene Loos, Netherlands
  - Room: OCTAVIUS 9

- **Aging in a digitized world**
  - Chair(s): Martina Ziefle, Germany
  - Room: OCTAVIUS 8

- **Aging and Technology Acceptance - I**
  - Chair(s): Jia Zhou, P.R. China
  - Room: OCTAVIUS 7

#### Long-Term Appropriation of Smartwatches among a Group of Older People
- Andrea Rouse, Mireia Fernández-Ardévol, Núria Ferran-Ferrer, Spain

#### Gendering Old Age: The Role of Mobile Phones in the Experience of Aging for Women
- Carla Ganito, Portugal

#### New Media, New Commodification, New Consumption for Older People
- Karine Berthelot-Guiet, France

#### Optimal Data Entry Designs in Mobile Web Surveys for Older Adults
- Erica Olmsted-Hawala, Elizabeth Nichols, Brian Falcone, Ivonne J. Figueroa, Chris Antoun, Lin Wang, United States

#### Eye Movements and Reading Behavior of Younger and Older Users: An Exploratory Eye-Tacking Study
- Mina Shojaeizadeh, Soussan Djamasi, United States

#### Obstacles of Utilizing a Self-management APP for Taiwanese Type II Diabetes Patients
- Meng-Fan Li, Taiwan; Aaron Hagedorn, United States; Li-Chien Pan, Taiwan; Hsinyi Hsiao, Iris Chi, Shinyi Wu, United States

#### Long-Term Appropriation of Smartwatches among a Group of Older People
- Andrea Rouse, Mireia Fernández-Ardévol, Núria Ferran-Ferrer, Spain

#### Keeping in Touch: Mobile Apps Use by Older Adults
- Dalit Levy, Elena Simonovsky, Israel

#### Interoperability and Convergence for Welfare Technology
- Michela Cozza, Sweden

#### The Old People Using Intelligent Mobile Equipment Influence Extent
- Ming-Hong Wang, Shuo-Fang Liu, Taiwan

#### Pilot study of Piano Learning with AR Smart glasses Considering Both Single and Paired Play
- Honghu Pan, Xingxi He, Hong Zeng, Jia Zhou, Sai Tang, P.R. China

#### Senior Citizens Usage Towards and Perception of Modern Technology in India
- J. Antony William, Ramaswami Murugesh, India
<table>
<thead>
<tr>
<th>Room: <strong>NEOPOLITAN I</strong></th>
<th>Room: <strong>MILANO I</strong></th>
<th>Room: <strong>MILANO II</strong></th>
<th>Room: <strong>NEOPOLITAN II</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HCI S113</strong></td>
<td><strong>HIMI S114</strong></td>
<td><strong>S115</strong></td>
<td><strong>EPCE S116</strong></td>
</tr>
<tr>
<td><strong>Gamification and HCI</strong></td>
<td><strong>Human-centered Systems, Services, and their Applications</strong></td>
<td><strong>Bigdata, IoT, and AI for HCI</strong></td>
<td><strong>Harmonized Human-Machine Connection</strong></td>
</tr>
<tr>
<td>Chair(s): Isabela Gasparini, Marcelo S. Pimenta, Brazil.</td>
<td>Chair(s): Ryosuke Saga, Japan.</td>
<td>Chair(s): Jahwan Koo, Korea.</td>
<td>Chair(s): Shan Fu, P.R. China.</td>
</tr>
<tr>
<td><strong>Gamification Framework: Using Lexical Approach on Social Media Application Online Reviews</strong></td>
<td><strong>Analyzing reading pattern of simple C source code consisting of only assignment and arithmetic operations based on data dependency relationship by using eye movement</strong></td>
<td><strong>Reducing Power Consumption of Mobile Watermarking Application with Energy Refactoring</strong></td>
<td><strong>A Multidimensional Workload Assessment Method for Power Grid Dispatcher</strong></td>
</tr>
<tr>
<td>Abdulah Azhari, Xiaowen Fang, United States</td>
<td>Shimpei Matsumoto, Ryo Hanafusa, Yusuke Hayashi, Tsukasa Hirashima, Japan</td>
<td>SeongBo Kim, Jahwan Koo, YoonHo Kim, UngMo Kim, Korea</td>
<td>Bingbing Song, Zhen Wang, Yanyu Lu, Xiaobi Teng, Xinyi Chen, Yi Zhou, Hai Ye, Shan Fu, P.R. China</td>
</tr>
<tr>
<td><strong>Application of Gamification to Website Design for the Improvement of Effective Communication</strong></td>
<td><strong>Investigation of sign language recognition performance by integration of multiple feature elements and classifiers</strong></td>
<td><strong>Exploring the Cognitive, Affective, and Behavioral Responses of Korean Consumers toward Mobile Payment Services: A Text Mining Approach</strong></td>
<td><strong>The Identification of Human Errors in the Power Dispatching based on the TRACer Method</strong></td>
</tr>
<tr>
<td>Hsiu Ching Laura Hsieh, Taiwan</td>
<td>Tatsunori Ozawa, Yuna Okayasu, Japan; MaiTai Dahlan, Thailand; Hiromitsu Nishimura, Hiroshi Tanaka, Japan</td>
<td>Minji Jung, Yu Lim Lee, Chae Min Yoo, Ji Won Kim, Jae Eun Chung, Korea</td>
<td>Xiaobi Teng, Yanyu Lu, Zhen Wang, Bingbing Song, Hai Ye, Yi Zhou, Shan Fu, P.R. China</td>
</tr>
<tr>
<td><strong>Competitively Versus Cooperatively? An Analysis of the Effect of Gameplay on Human Emotions and Behaviors</strong></td>
<td><strong>User-friendly Information Sharing System for Producers</strong></td>
<td><strong>How Consumers Perceive Home IoT Services for Control, Saving, and Security</strong></td>
<td><strong>Modeling and Simulating Astronaut’s Performance in a Three-level Architecture</strong></td>
</tr>
<tr>
<td>Kenneth Clark, Lusene Donzo, Joon Suk Lee, United States</td>
<td>Tomoko Kashima, Takashi Hatsuke, Shimpei Matsumoto, Japan</td>
<td>Hyesun Hwang, JaeHye Suk, Kee Ok Kim, JiHyung Hong, Korea</td>
<td>Chunhui Wang, Shuangquan Chen, Yuqing Liu, Dongmei Wang, Shoupeng Huang, Yu Tian, P.R. China</td>
</tr>
<tr>
<td><strong>Eudaimonic Gamification to Engage Cancer Patients in Positive Coping Strategies</strong></td>
<td><strong>VisUML: a live UML visualization to help developers in their programming task</strong></td>
<td><strong>The Impact of Perceived Privacy Benefit and Risk on Consumer’s Desire to Use Internet of Things Technology</strong></td>
<td><strong>The Mapping between Hand Motion States Induced by Arm Operation and Surface Electromyography</strong></td>
</tr>
<tr>
<td>João Ventura, Sandy Ingram, Maurizio Caon, Maya Zunshine-Shaha, Omar Abou Khaled, Elena Mugellini, Switzerland</td>
<td>Mikeael Duruisseaux, Jean-Claude Tarby, Xavier Le Pallec, Sbastien Gérard, France</td>
<td>Seonglim Lee, Hee Ra Ha, Ji Hyei Oh, Naenun Park, Korea</td>
<td>Tingting Hou, Chen Qian, Yanyu Lu, Shan Fu, P.R. China</td>
</tr>
<tr>
<td><strong>Towards a Better Understanding of Chess Players’ Personalities: A Study Using Virtual Chess Players</strong></td>
<td><strong>Classification Method of Rubbing Haptic Information Using Convolutional Neural Network</strong></td>
<td><strong>The Lessons of Google Glass: Aligning Key benefits and Sociability</strong></td>
<td><strong>Computer-Based Neuropsychological Assessment: a Validation of Structured Examination of Executive Functions and Emotion</strong></td>
</tr>
<tr>
<td>Khaledoon Dhou, United States</td>
<td>Shotaro Agatsuma, Shinji Nakagawa, Tomoyoshi Ono, Satoshi Saga, Simona Vaslache, Shin Takahashi, Japan</td>
<td>Leo Kim, Korea</td>
<td>Gilberto Galindo-Aldana, Victoria Meza-Kubo, Gustavo Castillo-Medina, Israel Ledesma-Amaya, Javier Galarraga-Del-Angel, Alfredo Padilla-López, Alberto L. Morán, Mexico</td>
</tr>
<tr>
<td>Room: MILANO III</td>
<td>Room: SORRENTO</td>
<td>Room: SALERNO</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td><strong>UAHCI S117</strong></td>
<td><strong>S118</strong></td>
<td><strong>S136</strong></td>
<td></td>
</tr>
<tr>
<td>Interaction techniques and technologies supporting user diversity</td>
<td>Design Access Technologies for Inclusion and Participation</td>
<td>ICT in Health and in Active Ageing</td>
<td></td>
</tr>
<tr>
<td>Chair(s): Frode Eika Sandnes, Norway.</td>
<td>Chair(s): Jorge Martín-Gutiérrez, Spain.</td>
<td>Chair(s): João Barroso, Portugal; Leontios Hadjileontiadis, Greece.</td>
<td></td>
</tr>
<tr>
<td><strong>Remarks:</strong> Changes in Mining Media and Social Storytelling</td>
<td><strong>Remarks:</strong> Improving Resource Discovery and Access through User-Controlled Adaptation: Exploring the Role of Library Metadata</td>
<td><strong>Remarks:</strong> A proposal for a remote interactive class system with sign language interpretation</td>
<td></td>
</tr>
<tr>
<td><strong>Participatory Design Approach to Internet of Things: Co-Designing a Smart Shower for and with People with Disabilities</strong></td>
<td><strong>MyoSL: A Framework for Measuring Usability of Two-Arm Gestural Electromyography for Sign Language</strong></td>
<td><strong>Low-Cost Smart Surveillance System for Smart Cities</strong></td>
<td></td>
</tr>
<tr>
<td>Mexhif Ferati, Ayesha Babar, Kanani Carine, Ali Hamidi, Christina Mörthberg, Sweden</td>
<td>Jordan Aiko Deja, Patrick Arceo, Darren Goldwin David, Patrick Lawrence Gan, Ryan Christopher Roque, Philippines</td>
<td>Rubén Pereira, Diogo Correia, Luis Mendes, Carlos Rabadão, João Barroso, António Pereira, Portugal</td>
<td></td>
</tr>
<tr>
<td>Frode Eika Sandnes, Evelyn Eika, Norway; Fausto Orsi Medola, Brazil</td>
<td>Agebson Rocha Façanha, Maria da Conceição Carneiro Araújo, Windsor Viana, Brazil; Jaime Sánchez, Chile</td>
<td>Renata De Podestá Gaspar, Rodrigo Bonacini, Vinicius P. Gonçalves, Brazil</td>
<td></td>
</tr>
<tr>
<td><strong>Designing a 2×2 Spatial Vibrotactile Interface for Tactile Letter Reading on a Smartphone</strong></td>
<td><strong>An Interactive Cognitive-Motor Training System for Children with Intellectual Disability</strong></td>
<td><strong>Ambient Assisted Living and Digital Inclusion: Overview of Projects, Services and Interfaces</strong></td>
<td></td>
</tr>
<tr>
<td>Shaowei Chu, Mei Peng, P.R. China</td>
<td>Caterina Senette, Amaury Trujillo, Érico Pereone, Stefania Bargagna, Maria Claudiauzzi, MarinaBuzzi, Barbara Leporini, Alice Elena Piatti, Italy</td>
<td>Alessandro Andreadis, Riccardo TheronTrout, JamesSchaffer, WilliamHaynes, AmarR. Marathe, JasonSMetcalfe, UnitedStates</td>
<td></td>
</tr>
<tr>
<td>Frode Eika Sandnes, Evelyn Eika, Norway; Fausto Orsi Medola, Brazil</td>
<td>Ronald Meyer, Rudolf Graf von Spee, Eugen Altdorfer, Frank Flemisch, Germany</td>
<td>Jonroy D. Canady, Amar R. Marathe, David H. Herman, Benjamin T. Files, United States</td>
<td></td>
</tr>
<tr>
<td><strong>Overview of Projects, Experiments, and Digital Inclusion: A systematic study of Participatory Design, Persons and Semiotics</strong></td>
<td><strong>Low-Cost Smart Surveillance System for Smart Cities</strong></td>
<td><strong>The Role of Psychophysiological Measures as Implicit Communication within Mixed-Initiative Teams</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kim Drnic, Greg Gremillion, Daniel Donavanik, Jonroy D. Canady, Corey Atwater, Evan Carter, Ben A. Haynes, Amar R. Marathe, Jason S. Metcalfe, United States</td>
<td></td>
</tr>
<tr>
<td><strong>Room:</strong> NEOPOLITAN III</td>
<td><strong>Community</strong>, <strong>Communication</strong>, <strong>Teaming</strong></td>
<td><strong>MxR Framework for Uncertainty Based Explanation for Uncovering Adversarial Behavior</strong></td>
<td></td>
</tr>
<tr>
<td><strong>VAMR S120</strong></td>
<td><strong>Virtual, Augmented and Mixed Reality</strong></td>
<td>AdrienneRaglin, JamesMichaelis, MarkDennison, AndreHarrison, TheronTrout, JamesSchaffer, UnitedStates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DavidNovick, MahbokhtAfraji, AdrianaCamacho, UnitedStates</td>
<td></td>
</tr>
</tbody>
</table>
Cross-Cultural Design
Room: NEOPOLITAN IV

- Modeling and Analyzing Information Preparation Behaviors in Cross-Device Search
  Dani Wu, Jing Dong, Yuan Tang, P.R. China
- Designing an application for Learning Chinese
  Vu Thu Thi Hien, Ganta Murali, Nguyen Khanh Linh, Nguyen Hai Yen, Nguyen Thi Thu Hien, Aymen Saleh Abu zad, Zhe Chen, Lin Ma, P.R. China; Lin Wang, Korea
- International Users’ Experience of Social Media: a Comparison between Facebook and WeChat
  Hanjing Huang, P.R. China; Hengameh Akbarian, Iran; Nina Aief, Denmark; Phairoj Liukitithara, Thailand; Monica Marazzi, Italy; Bastian Verhaelen, P.R. China; Gina Chi-Lan Yang, Taiwan; Pei-Luen Patrick Rau, P.R. China

Natural Language Processing for Social Media
Room: OCTAVIUS 12

- Identifying Communities in Social Media with Deep Learning
  Pedro Barros, Isasadora Cardoso-Pereira, Keila Barbosa, Alejandro C. Frey, Brazil; Hector Allende-Cid, Chile; Ivan Martins, Heitor S. Ramos, Brazil
- Early tracking of people’s reaction in Twitter for fast reporting of damages in the Mercalli scale
  Marcelo Mendoza, Barbara Poblete, Ignacio Valderrama, Chile
- Forecasting the Chilean electoral year: Using Twitter to predict the presidential elections of 2017
  Sebastian Rodriguez, Hector Allende-Cid, Wenceslao Palma, Rodrigo Alfaro, Cristian Gonzalez, Claudio Elortegui, Pedro Santander, Chile
- A Text Analysis based Method for Obtaining Credibility Assessment of Chinese Microblog Users
  Zhaoyi Ma, Qin Gao, P.R. China
- Product Sentiment Trend Predictor
  Vatsal Gala, Varad Deshpande, India; Ibthul Ferwana, Saudi Arabia; Mariofanna Milanova, United States

Assessment Types and Implementation
Room: MILANO IV

- The Motivational Assessment Tool (MAT) Development and Validation Study
  Elizabeth Lamieier, Lauren Reinerman-Jones, Gerald Matthews, Elizabeth Biddle, Michael W. Boyce, United States
- A Workflow for Network Analysis-Based Structure Discovery in the Assessment Community
  Grace Teo, Lauren Reinerman-Jones, Mark E. Riecken, Joseph McDonnell, Scott Gallant, Maartje Hidalgo, Clayton W. Burford, United States
- Assessing Operator Psychological States and Performance in UAS Operations
  Jinhao Lin, Gerald Matthews, Lauren Reinerman-Jones, Ryan Wohleber, United States
- Assessment of Wearable Tactile System: Perception, Learning, and Recall
  Linda R. Elliott, Robert E. Wooldridge, United States
- Using Scenarios to Validate Requirements through the use of Eye-Tracking in Prototyping
  Tia Larsen-Calcano, Omar Ochoa, Richard Simonson, United States
- Designing and Evaluating Reporting Systems in the Context of New Assessments
  Diego Zapata-Rivera, Priya Kannan, Carolyn Forsyth, Stephanie Peters, Andrew D. Bryant, Enruo Guo, Rodolfo Long, United States
- Understanding Behaviors in Different Domains: The Role of Machine Learning Techniques and Network Science
  Grace Teo, Lauren Reinerman-Jones, Joseph McDonnell, Hayden J. Trainor, Rainier A. Porras, Jacob G. Feuerman, United States
- A Workload Comparison during Anatomical Training with a Physical or Virtual Model
  Andrew Wismer, Lauren Reinerman-Jones, Grace Teo, Sasha Willis, Keley McCracken, Matthew Hackett, United States

Dynamic Interactions for Driving Safety
Room: OCTAVIUS 8

- An International Survey on Automated and Electric Vehicles: Austria, Germany, South Korea, and USA
  Myounghoon Jeon, United States; Andreas Rienier, Germany; Jason Sterkenburg, United States; Ju-Hwan Lee, Korea; Bruce N. Walker, Ignacio Alvarez, United States
- Driver Behavior at Simulated Railroad Crossings
  Steven Landry, Yuguang Wang, Pasi Lautala, David Nelson, Myounghoon Jeon, United States
- Auditory Displays for Take-over in Semi-Automated Vehicles
  Erin Richie, Thomas Offer-Westort, Raghavendra Shankar, Myounghoon Jeon, United States
- The Research on Layout and Simulation of Human-machine Interface In Vehicle
  Nina Liu, P.R. China
- Indicating Severity of Vehicle Accidents Using Pupil Diameter in a Driving Simulator Environment
  Rui Tang, Jung Hyup Kim, Rebecca Parker, United States; Yoo Joo Jeong, Korea
ThurSDAY  13:30 - 15:30

**DUXU S125**
Traditional Chinese Handicraft and Industrial design in the Internet Age (Industrial design, Jewelry, 3D printing, ceramics, fiber, lacquer) - I  
Chair(s): Chao Liu, Qianhe Man, P.R. China.
Room: MILANO VI
Study on optimal parameter setting of word size and word spacing in Chinese text of desktop-computer touch screen  
Yue Qiu, Qian Gong, Xiaodong Gong, P.R. China
The Research on the Practice of Traditional Handicraft Entering into College Quality Education Class  
Qianhe Man, P.R. China
The advantage of implementation of Raku class in elective courses at comprehensive university in China  
Bin Zhao, P.R. China
Research on the Adaptability of Undergraduate Soft Guidance and Culture Based on Memorability  
Yang Du, Chao Liu, Ye Zhang, P.R. China
Elementary Introduction to traditional Chinese Plant Dyeing Art and its Inheritance in modern times  
Fang Tang, P.R. China

**S126**
Hedonic and Pragmatic Aspects of User Experience - II  
Chair(s): Christine Riedmann-Streitz, Manfred Thüring, Michael Burmester, Germany.
Room: MILANO V
Redefining the Customer Centricity Approach in the Digital Age  
Christine Riedmann-Streitz, Germany
Skewomorph versus Flat Design: User Experience and Age-Related Preferences  
Nils Backhaus, Anna Katharina Trapp, Manfred Thüring, Germany
Impact of Display Clutter on User Experience  
Svetlana Ognjanovic, Switzerland
A Platform to Connect Swiss Consumers of Fair Trade Products with Producers in Developing Countries: Needs and Motivations  
Julia Klammer, Fred Van den Anker, Switzerland
Experience Categories in Specific Contexts – Creating Positive Experiences in Smart Kitchens  
Katharina M. Zeiner, Julian Henschel, Katharina Schippert, Kristin Haasler, Magdalena Laib, Michael Burmester, Germany
PosiTec – How to adopt a positive, need-based design approach  
Kathrin Pollmann, Nora Fronemann, Anne Elisabeth Krüger, Matthias Peissner, Germany

**S127**
Design and software development  
Chair(s): Dieter Wallach, Germany.
Room: MILANO VII
Merging the Cultures of Design and Engineering: A Case Study  
Julie Baca, Daniel Carruth, Eli Davis, Daniel Waddell, United States
The Use of Design Thinking in Agile Software Requirements Survey: A Case Study  
Edna Dias Canedo, Ruyther Parente Da Costa, Brazil
Toward Applying Online Privacy Patterns Based on the Design Problem: A Systematic Review  
Maha Aljohani, James Blustein, Kirstie Hawkey, Canada
A Roadmap for User Interface Design of Interactive Systems: an Approach based on a Triad of Patterns  
Alexandra Ruiz, William J. Giraldo, Colombia; David Geerts, Belgium; Jose L. Arciniegas, Colombia
ANTETYPE-PM: An Integrated Approach to Model-based Evaluation of Interactive Prototypes  
Dieter Wallach, Sven Fackert, Jan Conrad, Germany; Toni Steinme, Switzerland

**DAPI S128**
Augmented Human in Ubiquitous Virtual Reality and Augmented Reality  
Chair(s): Woontack Woo, Korea; Si Jung Kim, United States
Room: OCTAVIUS 10
Short Paper: The AR Strip: A City Incorporated Augmented Reality Educational Curriculum  
Si Jung Kim, United States; Su Jin Park, Korea; Yun Hwan Jeong, Jehoshua Josue, Mary Valdez, United States
Case Study of AR Field Museum for activating local communities  
Tomohiro Tanikawa, Junichi Nakano, Takuji Narumi, Michitaka Hirose, Japan
Holistic Quantified Self Framework for Augmented Human  
Juyoung Lee, Eunseok Kim, Jeongmin Yu, Junki Kim, Woontack Woo, Korea
An Intuitive and Personal Projection Interface for Enhanced Self-Management  
Doreen Scheller, Benjamin Bauer, Andrea Krajewski, Claudius Coenen, Dirk Siegmund, Andreas Braun, Germany
LIVEJACKET : Wearable Music Experience Device with Multiple Speakers  
Satoshi Hashizume, Shinti Sakamoto, Kenta Suzuki, Yoichi Ochiai, Japan
### HCI in Business and Organizations

**Chair(s):** Fiona Fui-Hoon Nah, United States.

#### Room: OCTAVIUS 7

**Role of Social Media in Public Accounting Firms**
Brenda Eschenbrenner, Fiona Fui-Hoon Nah, Zhiwei Lu, United States

**Internet Use and Happiness: A Replication and Extension**
Richard H. Hall, United States

**Risk and Information Disclosure in Google Drive Sharing of Tax Data**
Craig C. Claybaugh, Langtao Chen, Peter Haried, Dale Zhou, United States

**An Assessment of Users’ Cyber Security Risk Tolerance in Reward-based Exchange**
Xinhui Zhan, Fiona Fui-Hoon Nah, Maggie X. Cheng, United States

**Deception detection in online automated job interviews**
Nathan W. Twyman, Steven J. Pentland, Lee Spitzley, United States

**E-commerce Flow Management in Fulfillment Centers through Data Visualization**
Amith Tarigonda, Bruce Hymes, Alexei Nikonovich-Kahn, United States

### Innovative Collaborative Methodologies and Applications

**Chair(s):** Jan Stelovsky, Martha E. Crosby, United States.

#### Room: MILANO VIII

**Slayers vs Slackers: An Examination of Users’ Competitive Differences in Gamified IT Platforms based on Hedonic Motivation System Model**
Mohsen M. Jozani, Michele Maasberg, Emmanuel Ayaburi, United States

**Applying Studio-Based Learning Methodology in Computer Science Education to Improve 21st Century Skills**
Blanca J. Polo, United States; Paula Alexandra Silva, Portugal; Martha E. Crosby, United States

**“Flip-Flop” Learning by Teaching Methodologies: “Peer Improvement”, “Agile Tooltip”, Support Technology, and Next Steps**
Jan Stelovsky, Branden Ogata, Umida Stelovska, United States

**Evaluation of Flip-Flop Learning Methodology**
Michael-Brian Ogawa, United States

**Discovering a Profile for Protect and Defenders: Penetration Testing**
Morgan A. Zantua, Viacheslav Popovsky, Barbara Endicott-Popovsky, Fred B. Holt, United States

**Applications of Distributed Socio-Technical Synthetic Intelligent (SI) Systems Using Hybrid “Compensating Controls” Architectures**
Barbara Endicott-Popovsky, United States

### Aging and Technology Acceptance - II

**Chair(s):** Jia Zhou, P.R. China.

#### Room: OCTAVIUS 9

**Mobile Digital Storytelling in a Brazilian Care Home**
Ana Raquel Abrahão, Paula Fernanda Carlos Da Silva, Brazil; David M. Frolich, Theti Chrysanthaki, United Kingdom; Aline Gratão, Paula Castro, Brazil

**Smart TV for Older Adults: A Comparative Study of the Mega Menu and Tiled Menu**
Xiwen Ouyang, Jia Zhou, P.R. China

**Needs and Attitudes of Friendly Chinese Restaurant among Older Adults: Results from a Pilot Study**
Wang-Chin Tsai, Jui-Yang Kao, Cheng-Min Tsai, Taiwan

**Assistive Technology and Emotions of Older People – Adopting a Positive and Integrated Design Approach**
Ke Chen, P.R. China

**A Study on the Behavior of Using Intelligent Television among the Elderly in New Urban Areas**
Cuiping Wu, Xiaoping Hu, P.R. China
**Thursday, 19 July 16:00 - 18:00**

### HCI S132
**Myth or reality? The impact of culture on the user experience**
Chair(s): Denise Pilar, Brazil.

**Room: NEOPOLITAN I**

**UCD: influenced by an organizational culture and its maturity**
Lara da Costa Brito, Maria Manuela Rupp Quaresma, Brazil.

**What's the Impact of Local Cultures on the User Experience of Software Solutions?**
Denise Pilar, Cecilia Henriques, Brazil.

**Pink Stinks - at least for men - how minimal gender cues affect the evaluation of smartphones**
Astrid Carolus, Catharina Schmidt, Ricardo Muench, Lena Mayer, Florian Schneider, Germany.

**How is User Research Essential in making E-Government Accessible to All?**
Emmanuelle Savart, United Kingdom.

---

### HCI S133
**New horizon of HCI studies**
Chair(s): Masaaki Kurosu, Japan.

**Room: NEOPOLITAN II**

**User Experience Evaluation by ERM: Experience Recollection Method**
Masaaki Kurosu, Ayako Hashizume, Yuuki Ueno, Japan.

**TrackMaze: A Comparison of Head-tracking, Eye-tracking and Tilt as Input Methods for Mobile Games**
Mahdieh Abbassadehgan, Sohrab Yaghoubi, I. Scott MacKenzie, Canada.

**Evaluating Tap-And-Drag: A single-handed zooming method**
Manoel Farhad, I. Scott MacKenzie, Canada.

**A New Japanese Input Method for Virtual Reality Applications**
Kosuke Komiya, Tatsuo Nakajima, Japan.

**Character Input by Gesture Performed with Grasping both ends of Tablet PC**
Toshimitsu Tanaka, Takuya Mano, Yuuya Tanaka, Kohei Akita, Yuji Sagawa, Japan.

**A Mobile Command Input Through Vowel Lip Shape Recognition**
Yuto Koguchi, Kazuya Ohara, Yuki Takagi, Yoshiki Sawada, Buntaro Shizuki, Shin Takahashi, Japan.

---

### HIMI S134
**Haptics in VR**
Chair(s): Kentaro Kotani, Japan.

**Room: MILANO I**

**Development of an End Effector Capable of Intuitive Grasp Operation for SPIDAR-W**
Kanata Nozawa, Ryuki Tsukikawa, Takehiko Yamaguchi, Makoto Sato, Tetsuya Harada, Japan.

**Construction of Experimental System SPIDAR-HS for Designing VR Guidelines Based on Physiological Behavior Measurement**

**Study of Virtual Reality Performance Based on Sense of Agency**
Daiji Kobayashi, Yusuke Shinya, Japan.

**Comparison of Electromyogram during Ball Catching Task in Haptic VR and Real Environment**
Issei Ohashi, Kentaro Kotani, Satoshi Suzuki, Takafumi Asao, Tetsuya Harada, Japan.

**The Nature of Difference in User Behavior between Real and Virtual Environment: A Preliminary Study**
Takehiko Yamaguchi, Hiroki Iwadare, Kazuya Kornji, Daiji Kobayashi, Tetsuya Harada, Makoto Sato, Sakae Yamamoto, Japan.

**Risk Reduction in Texting While Walking with an Umbrella-typed Device for Smartphone**
Soichiro Mori, Makoto Oka, Japan.

---

### HIMI S135
**Service-Oriented Interaction**
Chair(s): Hirohiko Mori, Hiroyuki Mori, Japan.

**Room: MILANO II**

**Interactive Point System Supporting Point Classification and Spatial Visualization**
Boyang Liu, Soh Masuko, Jiro Tanaka, Japan.

**Realizing Multi-Touch-Like Gestures in 3D Space**
Chunmeng Lu, Li Zhou, Jiro Tanaka, Japan.

**Investigation of Learning Process with TUI and GUI based on COCOM**
Natsumi Sei, Makoto Oka, Hirohiko Mori, Japan.

**Proposal of Interaction using breath on tablet device**
Makoto Oka, Hirohiko Mori, Japan.

**Development of Frame for SPIDAR tablet on Windows and Evaluation of System-presented Geographical Information**
Yuki Tasaka, Kazukiyo Yamada, Yasuna Kubo, Masanobu Saeki, Sakae Yamamoto, Takehiko Yamaguchi, Makoto Sato, Tetsuya Harada, Japan.

**Evaluation of Discomfort Degree Estimation System with Pupil Variation in Partial 3D Images**

---

**PARALLEL SESSIONS**

HCI International 2018 • 55
Thursday, 19 July 16:00 - 18:00

**UAHCI 119**

**Design for All methods, techniques and tools**

Chair(s): Margherita Antonia, Greece.

Room: MILANO III

**Comparison of Feedback Modes for the Visually Impaired: Vibration vs. Audio**

Sibu Varghese Jacob, I. Scott Mackenzie, Canada

**Nateq Reading Arabic Text for Visually Impaired People**

Omaimah Bamassag, Muna Tayeb, Maha Alsaggaf, Fatimah Shams, Saudi Arabia

**Haptic Information Access using Touchscreen devices: Design guidelines for accurate perception of angular magnitude and line orientation**

Hari Prasath Palani, G. Bernard Giudice, Nicholas A. Giudice, United States

**Cognitive Impact Evaluation of Multimodal Interfaces for Blind People: Towards a Systematic Review**

Lara Mesquita, Brazil; Jaime Sánchez, Chile; Rossana M.C. Andrade, Brazil

---

**S137**

**Spatial User Interaction Beyond the Mouse**

Chair(s): Armando Barreto, Francisco R. Ortega, United States.

Room: SORRENTO

**Towards Multi-Modal Interaction with Interactive Paint**

Nicholas Torres, Francisco R. Ortega, Jonathan Bernal, Armando Barreto, Naphati D. Rishe, United States

**3D Spatial Gaming Interaction to Broad CS Participation**

Santiago Bolivar, Francisco R. Ortega, Maia Zock-Obregon, Naphati D. Rishe, United States

**Evaluating Devices for Object Rotation in 3D**

Sean DeLong, I. Scott, MacKenzie, Canada

**Real-Time Implementation of Orientation Correction Algorithm for 3D Hand Motion Tracking Interface**

Nnonnairt O-larnnithipong, Armando Barreto, Neeranut Ratchatanantak, Sudarat Tangnimitchok, Francisco R. Ortega, United States

**Use of 3D Human-Computer Interaction for Teaching in the Architectural, Engineering and Construction Fields**

Shahin Vassigh, Francisco R. Ortega, Armando Barreto, Katherine Tarre, Jose Maldonado, United States

---

**S138**

**Innovative Product Design and Development: Smart Products and Services**

Chair(s): Kevin C. Tseng, Tsai-Hsuan Tsai, Taiwan.

Room: SALERNO

**The Formulation of Hybrid Reality: Pokémon Go Mania**

Chih-yuan Wang, Chen-li Kuo, Taiwan

**Emerging Social Media and Social Networks Analysis Transforms the Tourism Industry: Living Green Smart Tourism Ecosystem**

Tsai-Hsuan Tsai, Hsien-Tsung Chang, Yu-Wen Lin, Ming-Chun Yu, Pei-Jung Lien, Wei-Cheng Yan, Wei-Ling Ho, Taiwan

**A personal emotion-based recipe recommendation mobile social platform: Mood Canteen**

Tsai-Hsuan Tsai, Hsien-Tsung Chang, Chia-Yu Hsu, Shu-Yu Lin, Wei-Cheng Yan, Yi-Cheng Tan, Taiwan

**A Scoping Study on the Development of an Interactive Upper-limb Rehabilitation System Framework for Patients with Stroke**

Kevin C. Tseng, Alice M.K. Wong, Chung-Yu Wu, Tian-Sheuan Chang, Yu-Cheng Pei, Jean-Lon Chen, Taipei

**Categorization framework for usability issues of smartwatches and pedometers for the older adults**

Jayden Khakurel, Antti Knutas, Helinä Melkas, Finland; Birgit Penzenstadler, Bo Fu, United States; Jari Porras, Finland

---

**VAMR S139**

**Virtual Reality in Psychotherapy and Mental Health**

Chair(s): Tom Williams, United States.

Room: NEOPOLITAN III

**Reducing Fear or Anxiety by Simulating Breathing Movements as Physical Contact with an Unrelated Person**

Shunsuke Yanaka, Motofumi Hattori, Takayuki Kosaka, Japan

**Scenes Design in Virtual Reality for Depression Assessment**

Dan Liao, Lin Shu, Yanping Huang, Jiong Yang, Xiangmin Xu, P.R. China

**Design of Virtual Reality Scenes with Variable Levels of Fear Evocation**

Dan Liao, Yanping Huang, Zhizhen Tan, Jiong Yang, Xiangmin Xu, P.R. China

**Virtual-Reality Videos to Relieve Depression**

Syed Ali Hussain, Taiwoo Park, Irem Yildirim, Zihan Xiang, Farha Abbasi, United States

**A Mixed Reality Based Social Interactions Testbed: A Game Theory Approach**

Arch Dasgupta, Nicole Buckingham, Denis Gračanin, Mohamed Handosa, Reza Tasooji, United States
### Cross-Cultural Design (CCD) Session S140

**Designing New Life-space Ecosystem Towards Sustainability**  
Chair(s): Yongqi Lou, P.R. China; Jarmo Suominen, Finland.  
Room: **NEOPOLITAN IV**

- **Transforming a neighborhood into a living laboratory for urban social innovation:**  
  A comparative case study of Urban Living Labs  
  Eun Ji Cho, P.R. China

- **Cities as Sustainable Service Platforms:**  
  A Framework for Institutional Service Delivery in the Urban Context  
  Jarmo Suominen, Finland

- **The Transition to a New University Campus as an Opportunity for the Urban Regeneration of the Former Milan Expo 2015 Areas**  
  Paola Trapani, Luisa Collina, Barbara Camocini, Laura Daglio, Martina Mazzarello, Italy

- **The Co-regulation of Tv-white spaces:**  
  The Southern Africa Development Community approach  
  Salomao David, Américo Muchanga, Mozambique; Marco Zennaro, Italy

- **The Literature Review of Human Factors Research in Unmanned Aerial Vehicle in China - What Chinese Researcher Need to Do Next?**  
  Xin Zhang, Guozhu Jia, Zhe Chen, P.R. China

### Social Computing and Social Media (SCSM) Session S141

**Data Based Social Signal Processing**  
Chair(s): Hung-Hsuan Huang, Japan.  
Room: **OCTAVIUS 12**

- **Conversation Envisioning to Train Inter-Cultural Interactions**  
  Maryam Sadat Mirzaei, Qiang Zhang, Tuyoaki Nishida, Japan

- **Automatically Generating Head Nods with Linguistic Information**  
  Ryo Ishii, Ryuichiro Higashinaka, Kyoosuke Nishida, Taichi Katayama, Nozomi Kobayashi, Junji Tomita, Japan

- **Pointing estimation for human-robot interaction using hand pose, verbal cues, and confidence heuristics**  
  Andrew Showers, Mei Si, United States

- **Estimating Speaker’s Engagement from Nonverbal Features based on an Active Listening Corpus**  
  Lei Zhang, Hung-Hsuan Huang, Kazuhiro Kuwabara, Japan

- **Multimodal negative-attitude recognition toward automatic conflict-scene detection in negotiation dialog**  
  Shogo Okada, Akihiro Matsuda, Katsumi Nitta, Japan

- **Reducing Interactions in Social Media: A Mathematical Approach**  
  Erick López Ornelas, Mexico

### Augmented Cognition (AC) Session S142

**Augmented Cognition through Immersive User Experiences**  
Chair(s): Christian Wagner, Ayoungh Suh, Hong Kong.  
Room: **MILANO IV**

- **Enhancing Bicycle Safety through Immersive Experiences using Virtual Reality Technologies**  
  Hiroki Tsuboi, Shuma Toyama, Tatsuo Nakajima, Japan

- **Visualizing of Network Security Data by Haptic**  
  Manabu Ishihara, Taiki Kanayama, Japan

- **Identifying Affordance Features in Virtual Reality: How Do Virtual Reality Games Reinforce User Experience?**  
  Jumin Lee, Jounghae Bang, Hyunju Suh, Korea

- **Cultivating Environmental Awareness: Modeling Air Quality Data Via Augmented Reality Miniature Trees**  
  Jane Prophet, United Kingdom; Yong Ming Kow, Hong Kong; Mark Hurry, Australia

- **Immersion versus Embodiment: Embodied Cognition for Immersive Analytics in Mixed Reality Environments**  
  Denis Gračanin, United States

- **Enhancing Audience Engagement through Immersive 360-degree Videos: An Experimental Study**  
  Ayoungh Suh, Guan Wang, Wenying Gu, Christian Wagner, Hong Kong

### Design Education & Research for Intelligence in China (DUXU) Session S143

**Design Education & Research for Intelligence in China**  
Chair: Jianjun Liu, P.R. China.  
Room: **MILANO V**

- **Applying context awareness model in interaction design process**  
  Jian Sun, Jianming Yang, P.R. China

- **The Analysis of Visual Communication Design of Commonweal**  
  Information through Interactive Design Thinking- Public commonweal

- **Research on the Influence of Multidimensional Display for Users’ Concerns**  
  Yingying Miao, Weiying Pan, Bin Jiang, P.R. China
Thursday, 19 July  16:00 - 18:00

**DUXU S144**

Traditional Chinese Handicraft and Industrial design in the Internet Age (Industrial design, Jewelry, 3D printing, ceramics, fiber, lacquer) - II
Chair(s): Chao Liu, Qianhe Man, P.R. China.
Room: **MILANO VI**

A Method of Car Styling Evaluation Based on Eye Tracking
Zhao Liu, Shaobing Xu, Bo Cheng, P.R. China

Establishment of Design Strategies and Design Models of Human Computer Interaction Interface Based on User Experience
Chao Gong, Yue Qiu, Bin Zhao, P.R. China

Design of Smartphone 9-Key Keyboard based on Spelling Rule of Pinyin
Xiaodong Gong, Maoqi Liu, P.R. China

Internet AI Technology and its Impact on China’s High Education
Chao Liu, Chao Zhao, Wentao Wang, P.R. China

**S145**

Usability and user experience evaluation methods and techniques
Chair(s): Martin Maguire, United Kingdom.
Room: **MILANO VII**

Improving Usability Evaluation by Automating a Standardized Usability Questionnaire
Priscilla Gonçalves da Silva e Souza, Edna Dias Canedo, Brazil

Considering Users' Different Knowledge about Products to Improve a UX Evaluation Method based on Mental Models
Stefano Filippi, Daniela Barattin, Italy

Usability Evaluation with Heuristics. New Proposal from Integrating Two Trusted Sources
Toni Granollers, Spain

Towards a Conceptual Framework for the Objective Evaluation of User Experience
Carolina Rico-Olarte, Diego M. López, Colombia; Sara Kepplinger, Germany

Subjective Preferences towards Various Conditions of Self-Administered Questionnaires: AHP and Conjoint Analyses
Rafal Michalski, Marta Stanioł, Poland

A Comparison of User Testing and Heuristic Evaluation Methods for identifying Website Usability Problems
Martin Maguire, Paul Isherwood, United Kingdom

**DAPI S146**

Pervasive Learning in Super-Aging Societies
Chair(s): Shin’ichi Konomi, Japan.
Room: **OCTAVIUS 10**

Towards Supporting Multigenerational Co-Creation and Social Activities: Extending Learning Analytics Platforms and Beyond
Shin’ichi Konomi, Kohei Hatano, Miyuki Inaba, Misato Oi, Tsuyoshi Okamoto, Fumiya Okubo, Atsushi Shimada, Jingyun Wang, Masanori Yamada, Yuki Yamada, Japan

Effective learning environment design for aging well: A review
Masanori Yamada, Misato Oi, Shin’ichi Konomi, Japan

Potential of Wearable Technology for Super-Aging Societies
Atsushi Shimada, Japan

Can Machine Learning Techniques Provide Better Learning Support for Elderly People?
Kohei Hatano, Japan

Evaluating Learning Style-based Grouping Strategies in Real-world Collaborative Learning Environment
Yuta Taniguchi, Japan; Yiduo Gao, P.R. China; Kentaro Kojima, Shin’ichi Konomi, Japan

**HCIBGO S147**

Online Trust, Security and Privacy
Chair(s): Gaurav Bansal, United States.
Room: **OCTAVIUS 7**

Data Breaches & Trust Rebuilding: Moderating Impact of Signaling of Corporate Social Responsibility
Gaurav Bansal, United States

Trust and the Flow Experience on Facebook: What Motivates Social Network Usage?
Soo Il Shin, Dianne J. Hall, United States

Improving of User Trust in Machine Learning Recommender-Based Business Applications through UI Design: A Case Study
Emily Mai JingWen, Benjamin Yap, Steven Fu, Singapore

Measuring the Influence of User Experience on Banking Customers’ Trust
Andrea Müller, Selina Anke, Sabrina Herrmann, Pia Katz, Christina Leuchte, Christina Mclau, Sandra Wörner, Oliver Korn, Germany
Thursday, 19 July   16:00 - 18:00

**LCT**

**S148**

**Active Learning to Build Competencies in Higher Education**
Chair(s): Jorge Martín-Gutiérrez, Carlos Efren Mora, Spain.

Room: **MILANO VIII**

**Experiences of the SICAP research seeding in the development of soft skills**
Karen Lemmel-Vélez, Saúl Emilio Rivero-Mejía, Carlos Alberto Ocampo-Quintero, Colombia

**Improving the Professional Competencies of Architect Students**
Juan Alejandro Melián-Melián, Jorge Martín-Gutiérrez, Spain

**Project-Oriented Problem-Based Learning for an Entrepreneurial Vision in Engineering Education**
Javier Machado-Toledo, Beatriz Alfaro-Díaz, Antonio González-Marrero, Jorge Martín-Gutiérrez, Carlos Efren Mora, Spain

**User Skill Assessment using Informative Interfaces for Personalized Robot-Assisted Training**
Konstantinos Tsiakas, Maher Abujelala, Akilesh Rajavenkatarayanan, Fillia Makedon, United States

**Improving Engineering Education using Augmented Reality Environment**
Wenbin Guo, United States

**ITAP**

**S149**

**Sustainability and Usability of technologies for ageing-in-place for community dwelling seniors**
Chair(s): Hwee Pink Tan, Singapore.

Room: **OCTAVIUS 9**

**Identifying Elderlies at Risk of Becoming More Depressed with Internet-of-Things**
Jiajue Ou, Huiguang Liang, Hwee Xian Tan, Singapore

**Technology-Enabled Medication Adherence for Seniors Living in the Community: Experiences, Lessons, and The Road Ahead**
Hwee Xian Tan, Hwee Pink Tan, Huiguang Liang, Singapore

**Unobtrusive detection of frailty in older adults**
Nadee Goonawardene, Hwee Pink Tan, Lee Buay Tan, Singapore

**A Framework for Pervasive & Ubiquitous Geriatric Monitoring**
Ramesh Balaji, Karan Bhavsar, Brojeshwar Bhowmick, Mitun BS, Kingshu Chakravarty, Debatri Chatterjee, Avik Ghose, Puneet Gupta, Dibyanshu Jaswal, Sanjay Kimbahune, Kartik Muralidharan, Arpan Pal, Aniruddha Sinha, Shrivasa Raghavan Venkatachari, India

**Pumpkin Garden: A Mobile Game Platform for Monitoring Parkinson’s Disease Symptoms**
Siyuan Liu, Chunyan Miao, Singapore; Martin J. McKeown, Canada; Jun Ji, Zhiqi Shen, Cyril Leung, Singapore

**Kinecting Frailty: A Pilot Study on Frailty**
Ipek Caliskanelli, Samia Nefti-Meziani, Anthony Hodgson, United Kingdom

**NOTES**

---

**S15**

**Senior Cloud and Active Aging**
Chair(s): Masatomo Kobayashi, Japan.

Room: **OCTAVIUS 8**

**Evaluating a Smartphone-based Social Participation App for the Elderly**
Nina Lee, Taiwan; Katie Seaborn, Atsushi Hiyama, Masahiko Inami, Michitaka Hirose, Japan

**Online Learning for Long-Query Reduction in Interactive Search for Experienced Workers**
Kaoru Shinkawa, Toshinari Itoko, Masatomo Kobayashi, Japan

**Innovative game concepts for Alzheimer patients**
Christian Eichhorn, David A. Plecher, Gudrun Klinker, Martin L urz, Nadja Leipold, Markus Böhm, Helmut Krcmar, Angela Ott, Dorothyte Volkert, Germany; Atsushi Hiyama, Japan

**Reflections on the effectiveness of a high density ambient sensor deployment for monitoring Healthy Aging**
Susann M. Keohane, Scott N. Gerard, Aliza Heching, Sam S. Adams, Peri Tarr, United States

**Acceptance and practical use of assistive technologies for frail seniors and caregivers: Interview surveys on nursing homes**
Akihiko Kamesawa, Reina Yoshizaki, Shiko Hirose, Nana Shinozaki, Ken Komatsu, Satomi Kitamura, Ou Fu, Ningjia Yang, Ayako Ishii, Yuka Sumikawa, Talyu Okatani, Kazuki Kaneko, Yoshiyuki Nakagawa, Taichi Goto, Takahiro Miura, Taketoshi Mori, Tohru Ifukube, Junichiro Okat, Japan

**AR-PETS: Development of an Augmented Reality Supported Pressing Evaluation Training System**
Alexander Plopski, Ryosuke Mori, Takafumi Taketomi, Christian Sandor, Hirokazu Kato, Japan

---

**PARALLEL SESSIONS**

HCI International 2018 • 59
<table>
<thead>
<tr>
<th>Room: NEOPOLITAN I</th>
</tr>
</thead>
<tbody>
<tr>
<td>A System for Non-Intrusive Affective Assessment in the Circumplex Model from Pupil Diameter and Facial Expression Monitoring</td>
</tr>
<tr>
<td>Sudarot Tangnimitthok, Nonnarit O-larnmithipong, Neeranut Ratchhatanantakit, Armando Barreto, Francisco R. Ortega, Naphtali D. Rishe, United States</td>
</tr>
<tr>
<td>Experimental Induction and Measurement of Negative Affect Induced by Interacting with In-vehicle Information Systems</td>
</tr>
<tr>
<td>Nadja Schoemig, Frederik Naujoks, Thomas Hammer, Markus Tomzig, Bastian Hinterleitner, Stefan Mayer, Germany</td>
</tr>
<tr>
<td>A Flexible, Low Power, Compact, Mobile Sensor for Emotion Monitoring in Human Computer Interaction</td>
</tr>
<tr>
<td>Lawrence Lam, Austen Szypula, United States</td>
</tr>
<tr>
<td>Deep Learning based Video Spatio-Temporal Modeling for Emotion Recognition</td>
</tr>
<tr>
<td>Ruben D. Fonsegra, Gloria M. Diaz, Colombia</td>
</tr>
<tr>
<td>Measurement of JND Thresholds and Riemannian Geometry in Facial Expression Space</td>
</tr>
<tr>
<td>Runa Sumiya, Japan; Reiner Lenz, Sweden; Jinhui Chao, China</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room: HUMAN INTERACTION S152</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Techniques and Devices</td>
</tr>
<tr>
<td>Chair(s): Giannis Drossis, Greece</td>
</tr>
<tr>
<td>An Interactive Cat Toy Interfacing Owner PC Operations</td>
</tr>
<tr>
<td>Rina Sasaki, Yu Suzuki, Japan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room: HUMAN INTERACTION S153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile user experience</td>
</tr>
<tr>
<td>Chair(s): Ardjon Beldad, Netherlands</td>
</tr>
<tr>
<td>Analyzing Impact Factors for Smartphone Sharing Decisions Using Decision Tree</td>
</tr>
<tr>
<td>Tao Xu, Yun Zhou, P.R. China; Alexander Raake, Germany; Yuxun Zhang, New Zealand</td>
</tr>
<tr>
<td>Application of Logistic Regression Analysis of Smartphone Speech Interaction Usage in China: A Questionnaire-Based Study of 622 Adults</td>
</tr>
<tr>
<td>Wen-jun Hou, Xiao-lin Chen, P.R. China</td>
</tr>
<tr>
<td>Are People Polite to Smartphones? How Evaluations of Smartphones Depend on Who Is Asking</td>
</tr>
<tr>
<td>Omar Asiri, Carl K. Chang, United States</td>
</tr>
<tr>
<td>What Drives the Perceived Credibility of Mobile Websites: Classical or Expressive Aesthetics?</td>
</tr>
<tr>
<td>Kiemente Oyibo, Nigeria; Ifeoma Adaji, Rita Orji, Julita Vassileva, Canada</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room: MILANO I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement in Learning and Educational Environments using ICT</td>
</tr>
<tr>
<td>Chair(s): Takahito Tomoto, Yusuke Kometani, Takako Akakura, Japan</td>
</tr>
<tr>
<td>Analysis of Students’ Activity in a Virtual Seminar Using a Seminar Management System</td>
</tr>
<tr>
<td>Yusuke Kometani, Masanori Yatagai, Keizo Nagaoka, Japan</td>
</tr>
<tr>
<td>Proposal for Writing Authentication Method Using Tablet PC and Online Information in e-Testing</td>
</tr>
<tr>
<td>Daisuke Hayashi, Takako Akakura, Japan</td>
</tr>
<tr>
<td>Development of an Asynchronous E-Learning System in Which Students Can Add and Share Comments on an Image of a Blackboard</td>
</tr>
<tr>
<td>Kazashi Fujita, Takako Akakura, Japan</td>
</tr>
<tr>
<td>Adaptive Interface That Provides Modeling, Coaching and Fading to Improve Revision Skill in Academic Writing</td>
</tr>
<tr>
<td>Harriet Nyanchama Ocharo, Shinobu Hasegawa, Japan</td>
</tr>
<tr>
<td>Development of a Blended Learning System for Engineering Students Studying Intellectual Property Law and Access Log Analysis of the System</td>
</tr>
<tr>
<td>Takako Akakura, Takahito Tomoto, Koichi Kato, Japan</td>
</tr>
<tr>
<td>Development of a Mathematical Solution Environment to Understand Symbolic Expressions in Mathematics</td>
</tr>
<tr>
<td>Kai Kurokawa, Takahito Tomoto, Tomoya Horiguchi, Hiroshima, Japan</td>
</tr>
<tr>
<td>Proposal of a Framework for a Stepwise Task Sequence in Programming</td>
</tr>
<tr>
<td>Kento Koike, Takahito Tomoto, Tomoya Horiguchi, Hiroshima, Japan</td>
</tr>
</tbody>
</table>
EPCE S155

Humans and Autonomy Working in Teams
Chair(s): Axel Schulte, Germany.
Room: OCTAVIUS 7

Experimental Evaluation of a Scalable Mixed-Initiative Planning Associate for Future Military Helicopter Missions
Fabian Schmitt, Axel Schulte, Germany.

Design and Evaluation of a Workload-adaptive Associate System for Cockpit Crews
Yannick Brand, Axel Schulte, Germany.

A Heterarchical Urgency-Based Design Pattern for Human Automation Interaction
Axel Schulte, Diana Donath, Germany; Douglas S. Lange, Robert S. Gutzwiller, United States.

Displaced Interactions in Human-Automation Relationships: Transparency over Time
Christopher A. Miller, United States.

Crew Resource Management for Automated Teammates (CRM-A)
Robert J. Shively, Joel Lachter, Robert Koteskey, Summer L. Brandt, United States.

Using Perceptual and Cognitive Explanations for Enhanced Human-Agent Team Performance
Mark A. Neerincx, Jasper Van der Waal, Frank Kaptein, Jurriaan Van Diggelen, Netherlands.

Tracking Provenance in Decision Making Between the Human and Autonomy
Crisrael Lucero, Braulio Coronado, Eric Gustafson, Douglas S. Lange, United States.

UAHCI S156

Human Computer Interaction in Video Games for Health: Design, User Experience and Usability
Chair(s): Federica Pallavicini, Italy.
Room: MILANO III

Virtual Reality for Pain Management among Children and Adolescents: Applicability in Clinical Settings and Limitations
Barbara Atzori, Laura Vagnoli, Andrea Messeri, Rosapia Lauro Grotto, Italy.

Effectiveness of Virtual Reality Survival Horror Games for the Emotional Elicitation: Preliminary Insights using Resident Evil 7: Biohazard
Federica Pallavicini, Ambra Ferrari, Alessandro Pepe, Giacomo Garcea, Andrea Zanacchi, Fabrizia Mantovani, Italy.

Using Immersive Virtual Reality Serious Games for Vocational Rehabilitation of Individuals with Physical Disability

A Collaborative Virtual Game to Support Activity and Social Engagement for Older Adults
Jing Fan, Linda Beuscher, Paul Newhouse, Lorraine C. Mion, Nilanjana Sarkar, United States.

S157

Design for ASD
Chair(s): Valdecir Becker, Brazil.
Room: MILANO III

A Data-Driven Mobile Application for Efficient, Engaging, and Accurate Screening of ASD in Toddlers
Arpan Sarkar, Joshua Wade, Amy Swanson, Amy Weltlauf, Zachary Warren, Nilanjana Sarkar, United States.

Research on the Interactive Design of Wearable Devices for Autistic Children
Minggang Yang, Xuemei Li, P.R. China.

ICT to Support Dental Care of Children with Autism: an Exploratory Study
Mariana Bondioli, Maria Claudia Buzzi, Marina Buzzi, Susanna Pelagatti, Caterina Senette, Italy.

Design of an Assistive Avatar in Improving Eye Gaze Perception in Children with ASD during Virtual Interaction
Ashwaq Zaini Amat, Amy Swanson, Amy Weltlauf, Zachary Warren, Nilanjana Sarkar, United States.

Assisting, not Training, Autistic Children to recognize and Share Each Other’s Emotions via Automatic Face-Tracking in a Collaborative Play Environment
Pinata Winoto, Tiffany Y. Tang, Xiaoyang Qiu, Aonan Guan, P.R. China.

Using Body Movements for Running in Realistic 3D Map
Adhi Yudana Svarajati, Indonesia; Jiro Tanaka, Japan.
### CCD S159
**Design for human city and social innovation**
Chair(s): Zhiyong Fu, Huan Wang, P.R. China.

**Room:** NEOPOLITAN IV

**The Research and Co-creation Model for Urban Interaction Design and Practices**
Yuyao Zhou, Nan Jiang, P.R. China

**Bridge the Physical and Virtual Design for Hutongs - Creative Design supports Hutongs Community Participation**
Huan Wang, Zhiyong Fu, P.R. China

**Driverless Vehicle-Based Urban Slow Transportation Service Platform**
Jintian Shi, Xiaohua Sun, P.R. China

**Sociability from the Perspective of Cultural Diversity in Virtual Communities of Practice**
Tatiani Xavier De Godoi, Bruno Guerra Zancan, Daniela Freitas Guilhermino, Eduardo Filgueiras Damasceno, José Renaldo Merlin, Thiago Adriano Coleti, André Menolli, Ederson Marcos Sgarbi, Brazil

### SCSM S160
**Customer eXperience and Behavior**
Chair(s): Cristian Rusu, Chile.

**Room:** MILANO VII

**Evaluating Online Travel Agencies’ Usability: What Heuristics Should We Use?**
Cristian Rusu, Virginica Rusu, Daniela Quiñones, Silvana Roncagliolo, Virginia Zaraza Rusu, Chile

**An Online Travel Agency Comparative Study: Heuristic Evaluators Perception**
Cristian Rusu, Chile; Federico Botella, Spain; Virginica Rusu, Silvana Roncagliolo, Daniela Quiñones, Chile

**Approaches on User Experience Assessment: User Tests, Communicability and Psychometrics**
Virginia Zaraza Rusu, Daniela Quiñones, Cristian Rusu, Pablo Caceres, Virginica Rusu, Silvana Roncagliolo, Chile

**A Framework to Simplify Usability Analysis of Constraint Solvers**
Broderick Crawford, Ricardo Soto, Franklin Johnson, Chile

**Teaching Communication Strategies in Social Media Networks for Computer Science Students**
Pamela Hermosilla, Nicole Boye, Silvana Roncagliolo, Chile

### AC S161
**Mastering Cyberpower: Cognitive Sciences and The Human Factor in Civilian and Military Cyber Security**
Chair(s): Stefan Sütterlin, Ricardo G. Lugo, Benjamin J. Knox, Øyvind Jaso, Odd Sveinung Hareide, Norway.

**Room:** MILANO IV

**A Human Perspective on Maritime Autonomy**
Tore Relling, Margareta Lützhöft, Runar Ostnes, Hans Petter Hildre, Norway

**Validation of a Maritime Usability Study with Eye Tracking Data**
Odd Sveinung Hareide, Runar Ostnes, Norway

**Development and application of The Hybrid Space app for measuring cognitive focus in hybrid contexts**
Øyvind Jaso, Mathias Hedberg, Benjamin J. Knox, Kirsi Helkala, Stefan Sütterlin, Ricardo G. Lugo, Norway

### DHM S162
**Human-Computer Interaction and Occupational Safety and Health**
Chair(s): Peter Nickel, Germany.

**Room:** OCTAVIUS 8

**Improving Occupational Safety and Health (OSH) in Human-System Interaction (HSI) through Applications in Virtual Environments**
Peter Nickel, Andy Lungfiel, Germany

**Similarities and Differences in Posture during Simulated Order Picking in Real Life and Virtual Reality**
Daniel Friemert, Florian Saala, Ulrich Hartmann, Rolf Elleegast, Germany

**Monitors vs. Smart Glasses: A Study on Cognitive Workload of Digital Information Systems on Forklift Trucks**
Benno Gross, Michael Bretschneider-Hagemes, Andreas Stefan, Jörg Rissler, Germany

**Evaluation of an Intelligent Collision Warning System for Forklift Truck Drivers in Industry**
Armin Lang, Germany

**Modelling the Process of Controlling an Automated Steering Maneuver**
Luis Kalb, Klaus Bengler, Germany

**The Role of Standardization for Occupational Safety and Health (OSH) and the Design of Safe and Healthy Human-Computer Interaction (HCI)**
Michael Bretschneider-Hagemes, Sebastian Korfmarcher, Katharina Von Rymon Lipinski, Germany
**Friday, 20 July 08:00 - 10:00**

**DUUX S163**  
**Fostering UX Thinking and Doing through Interaction Design Practice - I**  
Chair(s): Wei Liu, P.R. China.  
Room: MILANO V

**S164**  
**Ergonomics in design**  
Chair(s): Marcelo Márcio Soares, P.R. China.  
Room: MILANO VI

**DAPI S165**  
**Smart Homes and Working Environments**  
Chair(s): Yujia Cao, Czech Republic.  
Room: OCTAVIUS 10

**LCT S166**  
**Digital competences development and testing**  
Chair(s): Birgy Lorenz, Estonia.  
Room: SORRENTO

---

**Expanding Design Thinking with Methods from Futures Studies. Reflections on a Workshop with Chinese User Experience Students**  
Ellen De Vos, Belgium; Xin Xin, P.R. China; Marina Emmanouil, Belgium

**Speech Communication through the Skin: Design of Learning Protocols and Initial Findings**  
Jaeong Jung, Yang Jiao, Frederico M. Severgnini, Hong Z. Tan, Charlotte M. Reed, Ali Israr, Frances Lau, Freddy Abnousi, United States

**Evaluating Tangible and Embodied Interactions for Intercontinental Educators, Researchers, and Designers**  
Wei Liu, P.R. China

**Design of Human-Machine Interface System in Inverter Spot Welding**  
Yancong Zhu, Wei Zhou, P.R. China

**Virtual Reality as a Tool for Teaching Architecture**  
Guilherme Valle Loures Brandão, Willian Daniel Henriques do Amaral, Caio Augusto Rabite de Almeida, José Alberto Barroso Castaño, Brazil

**Scanner for Visually Impaired People**  
Juan Felipe Almada, Regina De Oliveira Heidrich, Ana Paula Steigleder, Brazil

**My Best Shirt with the Right Pants: Improving the Outfits of Visually Impaired people with QR Codes and NFC tags**  
Silvio José Vieira Gatis Filho, Jefte De Assumpção Macedo, Marilia Moraes Saraiva, Jean Elder Araújo Souza, Felipe Borba Breyer, Judith Kellner, Brazil

**Generating an Album with the Best Media Using Computer Vision**  
Tancredo Souza, João Paulo Lima, Veronica Teichrieb, Carla Nascimento, Fabio Q. B. Da Silva, Andre L.M. Santos, Helder Pinho, Brazil

**SAFE CULTURE – THE NEW AVIATION**  
Edgard Martins, Isnard Thomas Martins, Brazil; Marcelo Márcio Soares, P.R. China

**Below the Interface: Evaluation of PLM Software Usability and User Self-Efficacy**  
Michael Saenz, United States; Marlen Promann, Estonia; Alaina Creager, Nancy Rasche, United States

---

**Design towards AI-powered workplace of the future**  
Yujia Cao, Jiri Vasek, Matej Dusik, Czech Republic

**Evaluating User Experience in Smart Home Contexts: a Methodological Framework**  
Peter Mechant, Anissa All, Lieven De Marez, Belgium

**The Reconfigurable Wall System: Designing a Responsive Structure Reactive to Socio-Environmental Conditions**  
Mostafa Alani, Arash Soleimani, Evan Murray, Anthony Bath, Adam Leight, Salman Sajwani, United States

**Home Automation Internet of Things: Adopted or diffused?**  
Badar H. Al Lawati, Xiaowen Fang, United States

**Hybrid Connected Spaces: Mediating user activities in physical and digital space**  
Carla Farina, Italy; Sotirios D. Kotsopoulos, Federico Casalegno, United States

---

**Stenmap: Framework for Evaluating Cybersecurity-Related Skills Based on Computer Simulations**  
Sten Máses, Lina Randmann, Olaf Maennel, Birgy Lorenz, Estonia

**Development of Children’s Cyber Security Competencies in Estonia**  
Birgy Lorenz, Kaido Kikkas, Kairi Osula, Estonia

**Art and Automation of Teaching Malware Reverse Engineering**  
Toomas Lepik, Kaie Maennel, Margus Ernits, Olaf Maennel, Estonia

**Digital Literacy in Higher Education: A Survey on Students’ Self-Assessment**  
Paula Miranda, Portugal; Pedro Isaías, Australia; Sara Pifano, Portugal

**Digital Natives and Digital Immigrants Revisited: a Case of CALL**  
Maria Zenios, Eleni Ioannou, Cyprus

**Hierarchies of Understanding: Preparing for A.I.**  
Scott A. Carpenter, Catherine Liu, United States; Weixun Cao, P.R. China; Allen Yao, United States
<table>
<thead>
<tr>
<th>Room</th>
<th>Session Title</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILANO VIII</td>
<td><strong>Designing and Validating Learner-Centered Experiences</strong></td>
<td>Angela Payne, John Sadauskas, Quincy Conley, Dan Shapera, United States</td>
</tr>
<tr>
<td>MILANO VIII</td>
<td><strong>Uniqueness Profile of Mobile Applications for Learning</strong></td>
<td>Yuval Shafriri, Dalit Levy, Israel</td>
</tr>
<tr>
<td>MILANO VIII</td>
<td><strong>Understanding User Engagement in Digital Education</strong></td>
<td>Isuru Balasooriya, Enric Mor, M. Elena Rodriguez, Spain</td>
</tr>
<tr>
<td>MILANO VIII</td>
<td><strong>A Framework for Interactive Exploratory Learning Analytics</strong></td>
<td>Mohammad Javad Mahzoon, Mary Lou Maher, Omar Eltayeby, Wenwen Dou, United States; Kazjon Grace, Australia</td>
</tr>
<tr>
<td>OCTAVIUS 9</td>
<td><strong>Privacy at Home: an Inquiry into Sensors and Robots for the Stay at Home Elderly</strong></td>
<td>Trenton Schulz, Jo Herstad, Harald Holone, Norway</td>
</tr>
<tr>
<td>OCTAVIUS 9</td>
<td><strong>An Experimental Study on Intelligent Kitchen Appliances’ Interface Information Preference Based on Visual Characteristics of the Elderly</strong></td>
<td>Tian-yu Wu, Yi-qian Zhao, Ya-jun Li, P.R. China</td>
</tr>
<tr>
<td>OCTAVIUS 9</td>
<td><strong>Methods to Design Home Support for Elders</strong></td>
<td>Elena Elias, Marc-Eric Bobillier Chaumon, Michel Vacher, France</td>
</tr>
<tr>
<td>OCTAVIUS 9</td>
<td><strong>Design Empowerment for Older Adults</strong></td>
<td>Yumei Dong, Hua Dong, P.R. China</td>
</tr>
</tbody>
</table>
**HCI S169**

**HCI and Art**
Chair(s): Salah Uddin Ahmed, Norway.

Room: **NEOPOLITAN I**

- An Essay about the impact of the Digital Revolution on Higher Education in Art and Design
  Hendrik Wahl, United Arab Emirates
- Interaction and Interactivity: in the context of digital interactive art installation
  Salah Uddin Ahmed, Norway
- InterArt: Learning Human-Computer Interaction Through the Making of Interactive Art
  Emanuel Felipe Duarte, M. Cecilia C. Baranauskas, Brazil
- Bias in Perception of Art Produced by Artificial Intelligence
  Joo-Wha Hong, United States

**HCI S170**

**Design Methods, Techniques and Tools**
Chair(s): Mikael Wiberg, Sweden.

Room: **NEOPOLITAN II**

- What are User Requirements? Developing an ISO Standard
  Nigel Bevan, United Kingdom; Jim Carter, Canada; Jonathan Earthy, United Kingdom; Thomas Geis, Germany; Susan Harker, United Kingdom
- Towards Cross-Generational System Design
  Maurizio Caon, Switzerland
- The Development of Individuals’ Competencies as a Meaningful Process of the Audiovisual Design Methodology
  Daniel Gambaro, Valdecir Becker, Thais Saraiva Ramos, Rafael Toscano, Brazil
- Addressing IoT – Towards Material-Centered Interaction Design
  Mikael Wiberg, Sweden
- Approaches to Interface Icon Classification
  Teemu Korpilahti, Finland

**HIMI S171**

**The Potential for Virtual Reality in Cognitive Rehabilitation and Assessment for early dementia, and MCI**
Chair(s): Takehiko Yamaguchi, Japan.

Room: **MILANO I**

- A Virtual Kitchen for Cognitive Rehabilitation of Alzheimer Patients
  Paul Richard, Déborah Foloppe, Philippe Allain, France
- A Mobile Augmented Reality Game to Encourage Hydration in the Elderly
  Sarah Lehman, Jenna Graves, Carlene Mcaleer, Tania Giovannetti, Chiu C. Tan, United States
- Interaction techniques and pointing task: a preliminary analysis to understand how to characterize the user abilities in virtual environment
  Eulalie Verhulst, France; Frédéric Banville, Canada; Paul Richard, Philippe Allain, France
- Validation of a Sorting Task Implemented in the Virtual Multitasking Task-2 and Effect of Aging
  Frédéric Banville, Claudia Lussier, Edith Massicotte, Canada; Eulalie Verhulst, France; Jean-François Couture, Canada; Philippe Allain, Paul Richard, France

**EPCE S172**

**Cognitive workload, situation awareness and metacognition**
Chair(s): Jung Hyup Kim, United States.

Room: **OCTAVIUS 7**

- The Impact of Metacognitive Monitoring Feedback on Mental Workload and Situational Awareness
  Jung Hyup Kim, United States
- An Integrated After Action Review (IAAR) Approach: Conducting AARs for Scenario-Based Training Across Multiple and Distinct Skill Areas
  Lisa Townsend, Joan Johnston, William Ross, Laura Milham, Dawn Riddle, Henry Phillips, United States
- How Shared Screen Affected Team Collaboration Task, A Case Study of Ergonomics
  Xu Wu, Chuanyan Feng, Xiaoru Wanyan, Shuang Liu, Lin Ding, Chongchong Miao, Yuhui Wang, Xueli He, P.R. China
- Cyber Officer Profiles and Performance Factors
  Ricardo G. Lugo, Stefan Sütterlin, Norway
<table>
<thead>
<tr>
<th>Room: SALERNO</th>
<th>Room: MILANO III</th>
<th>Room: NEOPOLITAN III</th>
<th>Room: NEOPOLITAN IV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VAMR S173</strong></td>
<td><strong>S174</strong></td>
<td><strong>S175</strong></td>
<td><strong>S176</strong></td>
</tr>
<tr>
<td><strong>Virtual reality in design and industrial applications</strong>&lt;br&gt;Chair(s): Holger Graf, Germany.</td>
<td><strong>Psychological and Health Issues in VR</strong>&lt;br&gt;Chair(s): To be announced.</td>
<td><strong>Design, User Experience and Usability in New Technology</strong>&lt;br&gt;Chair(s): Hanjing Huang, P.R. China.</td>
<td><strong>Education, Communication and Information Sharing</strong>&lt;br&gt;Chair(s): Xingchen Zhou, P.R. China.</td>
</tr>
<tr>
<td><strong>360 Degree Mixed Reality Environment to Evaluate Interaction Design for Industrial Vehicles including Head-up and Head-down Displays</strong>&lt;br&gt;Markus Wallmyr, Daniel Kade, Sweden; Tobias Holstein, Germany.</td>
<td><strong>Get well soon! Human Factors’ Influence on Cybersickness after Redirected Walking Exposure in Virtual Reality</strong>&lt;br&gt;Julian Hildebrandt, Patric Schmitz, André Calero Valdez, Leif Kobelt, Martina Ziefle, Germany.</td>
<td><strong>User Defined Eye Movement-based Interaction for Virtual Reality</strong>&lt;br&gt;Wen-jun Hou, Kai-xiang Chen, Hao Li, Hu Zhou, P.R. China.</td>
<td><strong>Effect of Illumination on Reading Performance and Affect in a Virtual Environment</strong>&lt;br&gt;Xingchen Zhou, Pei-Luen Patrick Rau, P.R. China.</td>
</tr>
<tr>
<td><strong>Assembly Training: Comparing the Effects of Head-Mounted Displays and Face-to-Face Training</strong>&lt;br&gt;Stefan Werlich, Carolin Lorber, Phuc-Anh Nguyen, Germany; Carlos Emilio Franco Yanez, Mexico; Gunther Notni, Germany.</td>
<td><strong>Visually Empathetic?: Examining the Effects of Virtual Reality Storytelling on Empathy</strong>&lt;br&gt;EunSeo Bang, Caglar Yildirim, United States.</td>
<td><strong>Status Effects on Attributions for Online Knowledge Sharing Failures: A Comparison between Chinese and Korean Cultures</strong>&lt;br&gt;Nan Qie, Pei-Luen Patrick Rau, Jun Liu, P.R. China.</td>
<td><strong>Designing Craft Learning Experience for Rural Children: A Case Study on Huayao Cross-Stitch in Southwest China</strong>&lt;br&gt;Duoduo Zhang, Yuanyuan Yang, Tie Ji, Huiling Xie, Yuwei He, P.R. China.</td>
</tr>
<tr>
<td><strong>Augmented Reality Views: Discussing the Utility of Visual Elements by Mediation Means in Industrial AR from a Design Perspective</strong>&lt;br&gt;Jens Kel, Florian Schmitt, Timo Engelke, Holger Graf, Manuel Olbrich, Germany.</td>
<td><strong>A Novel Way of Estimating a User’s Focus of Attention in a Virtual Environment</strong>&lt;br&gt;Xuanchao He, Zhejun Liu, P.R. China.</td>
<td><strong>Influence of Rebound Effect on Energy Saving in Smart Homes</strong>&lt;br&gt;Chenhan Jiang, Yongqi Lou, P.R. China.</td>
<td><strong>Integrated Strategies of Participatory Design and PBL Towards Collaboration Quality</strong>&lt;br&gt;Chenhan Jiang, Yongqi Lou, P.R. China.</td>
</tr>
<tr>
<td><strong>CAE/VR Integration – A Qualitative Assessment of Advanced Visualization for Interactive Conceptual Simulations (ICS) in Industrial Use</strong>&lt;br&gt;Holger Graf, André Stork, Germany.</td>
<td><strong>The Impact of Augmented Reality on Art Engagement: Liking, Impression of Learning, and Distraction</strong>&lt;br&gt;Tanja Altamurto, Jean-Baptiste Boin, Kaipeng Chen, Ahmed Cherif, Skanda Shridhar, United States.</td>
<td><strong>Innovation Design of Rural Tourism Based On Service Design Methods --- A Case Study of Beijing Lingshui Village</strong>&lt;br&gt;Yanfei Zhu, Zhiheng Zhang, Chengqi Xue, Tianyang Zhu, Jie Shen, P.R. China.</td>
<td><strong>“Which Country Are You From?”: A Cross-Cultural Study on Greeting Interaction Design for Social Robots</strong>&lt;br&gt;Mohammad Shidujaman, Haipeng Mi, P.R. China.</td>
</tr>
<tr>
<td>Room: MILANO II</td>
<td>Social Computing and Social Media</td>
<td>Research, Design and Technology for Life Tomorrow&lt;br&gt;Chair(s): Pei Lee Teh, Malaysia.</td>
<td>Facilitating Gerontechnology&lt;br&gt;Adoption: Observational Learning with Live Models&lt;br&gt;Lu Peng, Hong Kong; Qi Ma, P.R. China; Rita W.L. Yu, Alan H.S. Chan, Hong Kong; Pei Lee Teh, Malaysia; Ka Kit So, Hong Kong&lt;br&gt;HEDI: an online platform for healthcare engineering design and innovation&lt;br&gt;Long Liu, Weiyu Zhang, Jinhua Li, Hua Dong, P.R. China&lt;br&gt;Augmenting Food Experience While Traveling Abroad by Using Mobile Augmented Reality Application&lt;br&gt;Yue (Lilian) Yuan, United States&lt;br&gt;Cross-Cultural Design for Employability: Mobile Support for Health Care Professionals&lt;br&gt;Nataliya Berbyuk Lindstrom, Sweden</td>
</tr>
<tr>
<td>Room: MILANO VII</td>
<td>Discussion Forums</td>
<td>Cultural dimensions of social media and social computing&lt;br&gt;Chair(s): Simona Vasiache, Japan.</td>
<td>Paths Toward Social Construction of Knowledge: Examining Social Networks in Online Discussion Forums&lt;br&gt;David Raul Gomez Jaimies, United States; Maria del Rosario Hernandez Castaneda, Mexico&lt;br&gt;Investigating the Generation- and Gender-Dependent Differences in Social Media Use: A Cross-cultural Study in Germany, Poland and South Africa&lt;br&gt;Kaja J. Fietkiewicz, Elmar Lins, Germany; Adheesh Budree, South Africa&lt;br&gt;Using Tiny Viral Messages on Social Networks to Spread Information About Science and Technology: Elements of a Theory of Nanovirals&lt;br&gt;Nick V. Flor, United States&lt;br&gt;An experience of textual evaluation using the MALTU methodology&lt;br&gt;Marilisa S. Mendes, Elizabeth Furtado, Brazil</td>
</tr>
<tr>
<td>Room: MILANO IV</td>
<td>Augmented Cognition</td>
<td>Augmented Cognition for Mindfulness &amp; Workforce Effectiveness &amp; Wellness&lt;br&gt;Chair(s): Melissa Walwanis, Rolanda Findlay, United States.</td>
<td>Improving Understanding of Mindfulness Concepts &amp; Test Methods&lt;br&gt;Melissa Walwanis, Derek Bryan, United States&lt;br&gt;Optimizing Team Performance when Resilience Falters: An Integrated Training Approach&lt;br&gt;Debbie Patton, Lisa Townsend, Laura Mihail, Joan Johnston, Dawn Riddle, Amanda R. Start, Amy B. Adler, Karen Costello, United States&lt;br&gt;Strengthening Health and Improving Emotional Defenses (SHIELD)&lt;br&gt;Seth Elkin-Frankston, Arthur Wollocko, James Niehaus, United States&lt;br&gt;A Multi-Sensor Approach to Linking Behavior to Job Performance&lt;br&gt;Alison M. Perez, Amanda E. Kraft, Raquel Galvan-Garza, Matthew Pava, Amanda Barkan, William D. Casebeer, Matthias D. Ziegler, United States&lt;br&gt;Guided Mindfulness: Optimizing Experiential Learning of Complex Interpersonal Competencies&lt;br&gt;Richard L. Griffith, Lisa A. Steelman, Nicholas Moon, United States; Sherif Al-Qallawi, Egypt; Nisha Quraishi, United States&lt;br&gt;Curriculum for Accelerated Learning through Mindfulness (CALM)&lt;br&gt;Anna Skinner, Cali M. Fidopiastis, Sebastian Pascarelle, Howard Reichel, United States</td>
</tr>
<tr>
<td>Room: OCTAVIUS 8</td>
<td>Augmented Cognition</td>
<td>Human Modeling for High Quality Nursing and Medical Care&lt;br&gt;Chair(s): Yasuko Kitajima, Japan.</td>
<td>Indirect Evaluation of Nurse’s Transfer Skill through the Measurement of Patient Satisfaction&lt;br&gt;Chingszu Lin, Japan; Zhifeng Huang, P.R. China; Masako Kanai Pak, Jukai Maeda, Yasuko Kitajima, Mitsuhiro Nakamura, Noriaki Kuwahara, Taiki Ogata, Jun Ota, Japan&lt;br&gt;Log4Care:Unified Event Logging Service for Personalized Care&lt;br&gt;Haruhisa Maeda, Sachio Saiki, Masahide Nakamura, Kiyoshi Yasuda, Japan&lt;br&gt;Developing Face Emotion Tracker for Quantitative Evaluation of Care Effects&lt;br&gt;Arashi Sako, Sachio Saiki, Masahide Nakamura, Kiyoshi Yasuda, Japan&lt;br&gt;Generating Personalized Virtual Agent in Speech Dialogue System for People with Dementia&lt;br&gt;Shota Nakatanri, Sachio Saiki, Masahide Nakamura, Kiyoshi Yasuda, Japan&lt;br&gt;Development of Safety Testing Technologies of Defection Assist Devices – Bibliographic Survey and Development of a Rectum Model Sheet&lt;br&gt;Keiko Homma, Kiyoshi Fujitara, Isamu Kajitani, Takuya Ogure, Japan&lt;br&gt;Whole-Body Robotic Simulator of the Elderly for Evaluating Robotic Devices for Nursing Care&lt;br&gt;Kunihiro Ogata, Yoshio Matsumoto, Isamu Kajitani, Keiko Homma, Yujin Wakita, Japan&lt;br&gt;Study of Improving a Welfare Workplace by Surveying Good Standing Companies of Employment of People with Disabilities&lt;br&gt;Kanako Konno, Noriaki Kuwahara, Japan</td>
</tr>
<tr>
<td>Time</td>
<td>Day</td>
<td>Room</td>
<td>Session Design, User Experience, and Usability</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>----------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Friday, 20 July   10:30 - 12:30</td>
<td><strong>DUXU S180</strong></td>
<td>MILANO VI</td>
<td>Developments in DUXU: Contributions for the Context of Technological Environments Chair(s): Freddy Paz, Peru.</td>
</tr>
<tr>
<td></td>
<td><strong>S181</strong></td>
<td>MILANO V</td>
<td>Fostering UX Thinking and Doing through Interaction Design Practice - II Chair(s): Wei Liu, P.R. China.</td>
</tr>
<tr>
<td></td>
<td><strong>DAPI S182</strong></td>
<td>OCTAVIUS 10</td>
<td>Challenges for Large-Scale Deployment of Smart IoT technologies Chair(s): Guochao (Alex) Peng, P.R. China.</td>
</tr>
<tr>
<td></td>
<td><strong>HCIBGO S183</strong></td>
<td>SORRENTO</td>
<td>Cyber-facilitated Influence Chair(s): Margeret Hall, United States.</td>
</tr>
</tbody>
</table>

**Design, User Experience, and Usability**

- **A New Software Development Model: Innovation through Mobile Application with UCD**
  Jorge Espinoza, Pamela Loarte, Carlos Espinoza, Freddy Paz, Juan Arenas, Peru.

- **Heuristic Evaluation and Usability Testing as Complementary Methods: A Case Study**
  Braulio Murillo, José Pow Sang, Freddy Paz, Peru.

- **Design of graphical user interfaces to implement new features in an ATM system of a financial bank**
  Roy Meléndez, Freddy Paz, Peru.

- **A Web System and Mobile App to improve the performance of the Usability Testing based on Metrics of the ISO/IEC 9126 and Emocards**
  César Olivera Cokan, Freddy Paz, Peru.

- **Application of Agile Development Methodology and User-Centered Design for the Interdisciplinary Project Zuku**
  Max Vilcapoma, Freddy Paz, Peru.

- **Quantifying the Usability through a Variant of the Traditional Heuristic Evaluation Process**
  Freddy Paz, Freddy A. Paz, Manuel Sánchez, Arturo Moquillaza, Luis Collantes, Peru.
<table>
<thead>
<tr>
<th><strong>LCT</strong> S184</th>
<th><strong>ITAP</strong> S185</th>
<th><strong>NOTES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Designing collaborative learning experiences in formal and informal settings</strong></td>
<td><strong>Smart Eldercare in China</strong></td>
<td></td>
</tr>
<tr>
<td>Chair(s): Patricia B. Scherer Bassani, Brazil.</td>
<td>Chair(s): Ning An, Jiaoyun Yang, P.R. China.</td>
<td></td>
</tr>
<tr>
<td>Room: <strong>MILANO VIII</strong></td>
<td>Room: <strong>OCTAVIUS 9</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Collaborative Learning with Virtual Entities</strong></td>
<td><strong>Detecting Parkinson's Disease Using Gait Analysis with Particle Swarm Optimization</strong></td>
<td></td>
</tr>
<tr>
<td>Liane M.R. Tarouco, Clovis Silveira, Alane L. Krassmann, Brazil</td>
<td>Xu Chen, Xiaohui Yao, Chen Tang, Yining Sun, Xun Wang, Xi Wu, P.R. China</td>
<td></td>
</tr>
<tr>
<td><strong>Designing a Collaborative Learning Hub for Virtual Mobility Skills - Insights from the European Project Open Virtual Mobility</strong></td>
<td><strong>The Effect of Hypertension Health Management (HHM) using IT for the Elderly: A Case Study in an Underdeveloped Area of China</strong></td>
<td></td>
</tr>
<tr>
<td>Ilona Buchem, Johannes Konert, Germany; Chiara Carlino, Italy; Gerard Casanova, France; Kamakshi Rajagopal, Olga Firsova, Netherlands; Diana Andone, Romania</td>
<td>Zhikai Zhu, Jinlei Li, Yunhua Jie, Yuanli Liu, P.R. China</td>
<td></td>
</tr>
<tr>
<td><strong>Mapping Teaching Authorship and Learning Practices in Higher Education Settings: First Step in Creating a Knowledge Base Through Sharing</strong></td>
<td><strong>A Knowledge Graph for Eldercare: Constructing a Domain Entity Graph with Guidelines</strong></td>
<td></td>
</tr>
<tr>
<td>Cláudio Felipe Kolling da Rocha, Cristina Ennes da Silva, Guilherme Thiesen Schneider, Inajara Vargas Ramos, Luis Henrique Rauber, Marshal Becon Lauer, Patrícia B. Scherer Bassani, Brazil</td>
<td>You Duan, Pin Ji, Liuqi Jin, Anning Zou, Jiaoyun Yang, Hong Xie, Ning An, P.R. China</td>
<td></td>
</tr>
<tr>
<td><strong>Gamification with Lego in Higher Education: Experience in the Course of Logistic Distribution</strong></td>
<td><strong>Usability Assessment of a Web-based Self-Directed Learning (SDL) System for Chinese Dementia Caregivers</strong></td>
<td></td>
</tr>
<tr>
<td>Rafael Vescovi Bassani, Brazil</td>
<td>Lingling Zhang, Jie Yang Shair, United States; Yong Wang, Rongcan Li, P.R. China; Hongtu Chen, United States</td>
<td></td>
</tr>
<tr>
<td><strong>Designing for Authorship: Students as Content Creators Using Mobile Devices in Educational Settings</strong></td>
<td><strong>Monitoring Thermal Comfort with IoT Technologies: A Pilot Study in Chinese Eldercare Centers</strong></td>
<td></td>
</tr>
<tr>
<td>Patrícia B. Scherer Bassani, Débora Nice Ferrari Barbosa, Brazil</td>
<td>Md Tanbir Hassan, Bangladesh; Jingyu Yu, Wenji Zhu, Fei Liu, Jinjun Liu, Ning An, P.R. China</td>
<td></td>
</tr>
<tr>
<td><strong>Building an Ontology for Eldercare Service in China with a Hierarchical Clustering Method</strong></td>
<td><strong>NOTES</strong></td>
<td></td>
</tr>
<tr>
<td>Ning An, Yue Yin, Huisheng Shi, Peng Han, Shi Cheng, Lian Li, P.R. China</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**HCI S186**

**Motion-based interaction**

Chair(s): Zhi Zheng, United States.

Room: **NEOPOLITAN I**

Non-Invasive Gaze Direction Estimation from Head Orientation for Human-Machine Interaction

Zhi Zheng, Yuguang Wang, Jaclyn Barnes, Xingliang Li, Chung Hyuk Park, Myounghoon Jeon, United States

Daily activity recognition based on acceleration of both wrists

Junyan Li, Takeshi Umezawa, Noritaka Osawa, Japan

Intuitive 3D Model Prototyping with Leap Motion and Microsoft Hololens

Poonsin Jailungka, Siam Charoenseang, Thailand

Development of Holographic Environment for Multi-User Virtual Robot Training System

Chaowvitl Inthamattino, Siam Charoenseang, Thailand

Using Convolutional Neural Networks for Assembly Activity Recognition in Robot Assisted Manual Production

Henning Pettruck, Alexander Mertens, Germany

---

**HIMI S187**

**Information in Complex Environments**

Chair(s): George Margetis, Greece.

Room: **MILANO I**

Framework to Develop Artificial Intelligent Autonomous Operating System for Nuclear Power Plants

Jae Min Kim, Seung Jun Lee, Korea

bRIGHT – Workstations of the Future and Leveraging Contextual Models

Rukman Senanayake, Grit Denker, Patrick Lincoln, United States

Embodyment Support Systems: Extending the DEAR Causal Inference Framework through Application to Naturalistic Environments and Inclusion within a Decision Support System

Ryan A. Kirk, Dave A. Kirk, United States

The "Watch" Support System for Ship Navigation

Masaki Kondo, Ruri Shoji, Koichi Miyake, Japan; Ting Zhang, P.R. China; Tadasuke Furuya, Kohta Ohshima, Masaaki Inaishi, Masaki Nakagawa, Japan

Monitor System for Remotely Small Vessel Navigating

Masaki Kondo, Ruri Shoji, Koichi Miyake, Tadasuke Furuya, Kohta Ohshima, Etsuro Shimizu, Masaaki Inaishi, Masaki Nakagawa, Japan

Segmented Time-Series Plot: A New Design Technique for Visualization of Industrial Data

Tian Lei, Nan Ni, Ken Chen, Xin He, P.R. China

---

**EPCE S188**

**Cognition and Interaction**

Chair(s): Akihiro Maehigashi, Japan.

Room: **MILANO VI**

A pilot Study on Gaze-based Control of a Virtual Camera using 360°-Video Data

Jutta Hild, Edmund Klaus, Jan-Hendrik Hammer, Manuel Martin, Michael Voit, Elisabeth Peinsipp-Byma, Jürgen Beyerer, Germany

Micro and Macro predictions: Using SGOMS to predict phone app game playing and Emergency Operations Centre responses

Robert West, Lawrence Ward, Kate Dudzik, Nathan Nagy, Freydon Karimi, Canada

Natural Interaction in Video Image Investigation and its Evaluation

Yan Zheng, Guozhen Zhao, P.R. China

Investigation of Factors Affecting the Usability Evaluation of an Adaptive Cruise Control System

Akiihro Maehigashi, Kazuhsia Miwa, Hirofumi Aoki, Tatsuya Suzuki, Japan

Efficiency and User Experience of Gaze Interaction in an Automotive Environment

Benedikt Lux, Daniel Schmidl, Maximilian Eibl, Bastian Hinterleithner, Patricia Böhm, Daniel Isemann, Germany

An Experiment Study on the Cognitive Schema of Trajectory in Dynamic Visualization

Xiaozhou Zhou, Chengqi Xue, Congzhe Chen, Haiyan Wang, P.R. China

---

**UAHCI S189**

**Cutting Edge in Biosignals for Automatic Control Systems, Virtual Reality and the Education**

Chair(s): Hiroki Takada, Japan.

Room: **MILANO III**

Development of Thought using a Humanoid Robot in an Elementary School Classroom

Reika Omokawa, Shu Matsuura, Japan

Power Assist Control based on Learning Database of Joint Angle of Powered Exoskeleton suitable for Wearer’s Posture

Katsuya Sahashi, Shota Murai, Yasutake Takahashi, Japan

Analysis of Human Motion and Cognition Ability with Virtual Reality System - Basic Mechanism of Human Response -

Kouki Nagamune, Keisuke Takata, Japan

Effect of Controlled Consciousness on Sense of Presence and Visually Induced Motion Sickness while Viewing Stereoscopic Movies

Akiihiro Sugiuara, Kunihiko Tanaka, Kazuki Ohta, Kazuki Kitamura, Saki Morisaki, Hiroki Takada, Japan

Analysis of Electrogastrograms during Exercise Loads

Fumiya Kinoshita, Kosuke Fujita, Kazuya Miyanaga, Hideaki Touyama, Masumi Takada, Hiroki Takada, Japan

Analysis of the body sway while/after viewing visual target movement synchronized with background motion

Nao Amano, Hiroki Takada, Yusuke Jono, Toru Tanimura, Fumiya Kinoshita, Masaru Miyao, Masumi Takada, Japan
<table>
<thead>
<tr>
<th>Room</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>SORRENTO</td>
<td>Virtual Reality in Universal Access</td>
</tr>
<tr>
<td></td>
<td>Chair(s): Amy Swanson, United States</td>
</tr>
<tr>
<td>SALERNO</td>
<td>Universal Access to learning and education</td>
</tr>
<tr>
<td></td>
<td>Chair(s): Evelyn Eika, Norway</td>
</tr>
<tr>
<td>MILANO II</td>
<td>Interaction in Virtual Reality</td>
</tr>
<tr>
<td></td>
<td>Chair(s): Tony Morelli, United States</td>
</tr>
<tr>
<td>NEOPOLITAN IV</td>
<td>Cross-Cultural Perspectives and Practices on Service Design</td>
</tr>
<tr>
<td></td>
<td>Chair(s): Cheng-Hung Lo, P.R. China</td>
</tr>
</tbody>
</table>

**Virtual Reality in Universal Access**

- Evren Bozgeyikli, Lal "Lila" Bozgeyikli, Redwan Alqasemi, Andrew Raij, Srinivas Katkoori, Rajiv Dubey, United States

**Exploring Virtual Reality to Enable Deaf or Hard of Hearing Accessibility in Live Theaters: a Case Study**

- Mauro Teófilo, Álvaro Lourenço, Juliana Postal, Vicente F. Lucena Jr., Brazil

**The Utility of the Virtual Reality in Autistic Disorder Treatment**

- Sicong Liu, Yan Xi, Hu Wang, P.R. China

**Accessibility Guidelines for Virtual Environments**

- Breno Guerra Zancan, Guilherme Corredato Guerino, Tatiany Xavier De Godoi, Daniela Freitas Guilhermino, José Reinaldo Merlin, Ederson Marcos Sgarbi, Carlos Eduardo Ribeiro, Brazil

**Evaluation of an English Word Look-Up Tool for Web-Browsing with Sign Language Video for Deaf Readers**

- Dhananjai Hariharan, Sedeeq Alkhazraj, Matt Huenerfauth, United States

**Keyboard and Screen Reader Accessibility in Complex Interactive Science Simulations: Design Challenges and Elegant Solutions**

- Emily B. Moore, Taleisn L. Smith, Jesse Greenberg, United States

**Evaluating the Accessibility of Scratch for Children with Cognitive Impairments**

- Misbah S. Zubair, David Brown, Thomas Hughes-Roberts, Matthew Bates, United Kingdom

**Teaching Concepts with Wearable Technology: Learning Internal Body Organs**

- Ersin Kara, Mustafa Güleç, Kursat Cagiltay, Turkey

**Information Design on the Adaptation of Evaluation Processes’ Images to People with Visual Impairment**

- Fernanda Domingues, Emilia Christie Picelli Sanches, Claudia Mara Scudelari De Macedo, Brazil

**An AAC System Designed for Improving Behaviors and Attitudes in Communication Between Children with CCN and Their Peers**

- Tetsuya Hirotomi, Japan

**Dynamic Keypad – Digit Shuffling for Secure PIN Entry in a Virtual World**

- Andrew Holland, Tony Morelli, United States

**Helmet-mounted Displays to Support Off-Axis Pilot Spatial Orientation**

- Stephanie Kane, Ryan M. Kilgore, United States

**VRowser: A Virtual Reality Parallel Web Browser**

- Shuma Toyama, Mohammed Al Sada, Tatsuo Nakajima, Japan

**Interaction in Virtual Environments - How to control the environment by using VR-Glasses in the most immersive way**

- Barbara Streppel, Dorothea Pantförder, Birgit Vogel-Heuser, Germany

**Chinese Sociocultural perspectives and Creativity: Design Practices in the Public Transport sector**

- Sara E. Sterling, Bingjian Liu, P.R. China

**Modern Service Design Thinking on Traditional Culture-Based Services: A Case Study of the Service Businesses in Suzhou Old Town Areas**

- Xin Shen, Cheng-Hung Lo, P.R. China

**Experiences-based design for overcoming language barriers in healthcare service: a case study**

- Ding-Hau Huang, Chun Ming Yang, Taiwan; Gia Hue On, Viet Nam

**Beijing Opera Cultural Heritage: A Service Design Perspective**

- Lu Wang, P.R. China
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Location</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S195</td>
<td>Exploring the Impacts of Social Media and Virtual Worlds: Education, Training and Online Interaction</td>
<td>MILANO VII</td>
<td>James Braman, Giovanni Vincenti, Yuanqiong (Kathy) Wang, United States</td>
</tr>
<tr>
<td>S196</td>
<td>Social Media Users</td>
<td>OCTAVIUS 7</td>
<td>Joon Lee, United States</td>
</tr>
<tr>
<td>AC S197</td>
<td>Augmented Reality Applications for Evolving Casualty Care</td>
<td>MILANO IV</td>
<td>Robert Hubal, United States</td>
</tr>
<tr>
<td>DHM S198</td>
<td>Anthropometry and Motion Analysis</td>
<td>OCTAVIUS 8</td>
<td>Damien Chablat, France</td>
</tr>
</tbody>
</table>

### SCSM S195
**Exploring the Impacts of Social Media and Virtual Worlds: Education, Training and Online Interaction**

Chair(s): James Braman, Giovanni Vincenti, Yuanqiong (Kathy) Wang, United States.

Room: MILANO VII

**Describing Training Mechanism for the Elderly to Use Social Media Mobile Apps – A Research Proposal**

Abdulrahman Hafez, Yuanqiong (Kathy) Wang, United States.

**Towards the Design of a Forensic Tool for Mobile Data Visualization**

Karen Kemp, Subrata Acharya, United States.

**Designing SADD: A Social Media Agent for the Detection of the Deceased**

James Braman, Alfreda Dudley, Giovanni Vincenti, United States.

**Speed dating and self-image: Revisiting old data with new eyes**

Eleonora Peruffo, Sophia Bobko, Brian Looney, Bernadette Murphy, Ireland; Margaret Hall, Quinn Nelson, United States; Simon Caton, Ireland.

**Social Media Policies in UK Higher Education Institutions – an Overview**

Rebecca Lees, United Kingdom.

### SCSM S196
**Social Media Users**

Chair(s): Joon Lee, United States.

Room: OCTAVIUS 7

**Co-Designing for Co-listening: Conceptualizing Young People's Social and Music-Listening Practices**

Michael Stewart, Javier Tibau, Deborah Tatar, Steve Harrison, United States.

**Application of Social Network Analytics to Assessing Different Care Coordination Metrics**

Ahmed F. Abdelzaher, Preetam Ghosh, United States; Ahmad Al Musawi, Iraq; Ju Wang, United States.

**Because it’s Good for my Feeling of Self-Worth: Testing the Expanded Theory of Planned Behavior to Predict Greek Users’ Intention to Review Mobile Apps**

Charalampos Voutsas, Ardion Beldad, Mark Tempelman, Netherlands.

**Posting Content, Collecting Points, Staying Anonymous - An Evaluation of Jodel**

Philipp Nowak, Karoline Jüttner, Katsiaryna S. Baran, Germany.

**MiGua! App for user awareness prior to adopting dogs in urban areas**

Gerardo Real Flores, Rocio Abascal-Mena, Mexico.

### AC S197
**Augmented Reality Applications for Evolving Casualty Care**

Chair(s): Robert Hubal, United States.

Room: MILANO IV

**Augmenting Clinical Performance in Combat Casualty Care: Telemedicine to Automation**

Jeremy C. Pamplin, Ronald Yeaw, Gary R. Gilbert, Konrad L. Davis, Elizabeth Mann-Salinas, Jose Salinas, Daniel Kral, Loretta Schlachta-Fairchild, United States.

**The Wide Area Virtual Environment: A New Paradigm for Medical Team Training**

Alan Liu, Eric Acosta, Jamie Cope, Valerie Henry, Fernando Reyes, Joseph Bradascio, Wesley Meek, United States.

**Augmented Reality for Tactical Combat Casualty Care Training**

Glenn Taylor, Anthony Deschamps, Alyssa Tanaka, Denise Nicholson, Gerd Bruder, Gregory Welch, Francisco Guido-Sanz, United States.

**Augmented Reality and Telestrated Surgical Support for Point of Injury Combat Casualty Care: A Feasibility Study**

Geoffrey T. Miller, Tyler Harris, Y. Sammy Choi, Stephen M. DeLellis, Kenneth Nelson, J. Harvey Magee, United States.

### DHM S198
**Anthropometry and Motion Analysis**

Chair(s): Damien Chablat, France.

Room: OCTAVIUS 8

**Using 3D Scan to Determine Human Body Segment Mass in OpenSim Model**

Jing Chang, Damien Chablat, Fouad Bennis, France; Liang Ma, P.R. China.

**Research on Motor Function of the Elderly in Guangzhou Based on Anthropometry**

Fenghong Wang, Zhenwen Zeng, Lin Lin, P.R. China.

**A quaternion-based method to IMU-to-Body alignment for gait analysis**

Fabián Narváez, Fernando Árbito, Ricardo Xavier Proaño, Ecuador.

**A Study on the Differences of Male Youth Physical Characteristics between South China and Northwest China**

Jiahui Xu, Xiaoping Hu, P.R. China.


**Wednesday, 18 July 08:00 - 10:00**

**Friday, 20 July 10:30 - 12:30**

**Friday, 20 July 13:30 - 15:30**

---

**DUUX**

$199

**Design Frameworks, Methods and Tools - I**

Chair(s): Manuel Oliveira, Norway.

Room: **MILANO V**

**A Canvas Method to Foster Interdisciplinary Discussions on Digital Assistance Systems**

Holger Fischer, Björn Senft, Florian Rittmeier, Stefan Sauer, Germany

**Human-Computer Interaction to Human-Computer-Context Interaction: Towards a Conceptual Framework for Conducting User Studies for Shifting Interfaces**

Stephanie Van Hove, Jolien De Letter, Olivia De Ruyck, Peter Conрадie, Anissa Ali, Jelle Saldien, Lieven De Marez, Belgium

**Conceptual Framework for Affective and Cognitive Product Design**

Sol Hee Yoon, Young Woo Kim, Yong Gu Ji, Korea

**Design theory and methodology in HCI: Applying CPM/PDD to UCD**

Jan Conrad, Christian Koehler, Dieter Wallach, Tobias Ludeke, Germany

---

**DAPI**

$200

**Various Applications in Cyber-Physical Social Systems**

Chair(s): Atsushi Shimada, Japan.

Room: **OCTAVIUS 10**

**Design and Evaluation of Seamless Learning Analytics**

Kousuke Mouri, Noriko Uosaki, Atsushi Shimada, Japan

**Simulation of energy management by controlling crowd behavior**

Maya Hori, Keita Nakayama, Atsushi Shimada, Rin-ichiro Taniguchi, Japan

**Sensing, Perception and Decision for deep learning based Autonomous Driving**

Takayoshi Yamashita, Japan

**Visualization of Real World Activity on Group Work**

Daisuke Deguchi, Kazuaki Kondo, Atsushi Shimada, Japan

**Designing a Mobile Behavior Sampling Tool for Spatial Analytics**

Shin’ichi Konomi, Tomoyo Sasao, Japan

**Visualization of Farm Field Information Based on Farm Worker Activity Sensing**

Daisaku Arita, Yoshiki Hashimoto, Atsushi Shimada, Hideaki Uchiyama, Rin-ichiro Taniguchi, Japan

---

**HCIBGO**

$201

**Neuro Business/IS**

Chair(s): Roozmehr Safi, Fiona Fuji-Nah, United States.

Room: **NEOPOLITAN II**


Caroline Juanéda, Sylvain Senecal, Pierre-Majorique Léger, Canada

**In AI We Trust: Characteristics Influencing Assortment Planners’ Perceptions of AI based Recommendation Agents**

Emilie Bigras, Marc-Antoine Jutras, Sylvain Senecal, Pierre-Majorique Léger, Chrystel Black, Nicolas Robitaille, Karine Grande, Christian Hudon, Canada

**Testing the Convergent Validity of Continuous Self-Perceived Measurement Systems: An Exploratory Study**

Sebastien Lourties, Pierre-Majorique Léger, Sylvain Senecal, Marc Fredette, Shang-Lin Chen, Canada

**Biometrics & Business Information Visualization: Research Review, Agenda & Opportunities**

Dinko Bačić, United States

**Keep Calm and Read the Instructions: Factors for Successful User Equipment Setup**

Benjamin Maunier, Juliana Alvarez, Pierre-Majorique Léger, Sylvain Senecal, Elise Labonté-LeMoine, Shang-Lin Chen, Sylvie Lachize, Julie Gagné, Canada

**A Study of App User Behaviours: Transitions from Freemium to Premium**

Christopher Mulligan, Carlito Vera Cruz, Donagh Healy, David Murphy, Ireland; Margeret Hall, Quinn Nelson, United States; Simon Caton, Ireland

---

**LCT**

$202

**Novel Learning Technologies**

Chair(s): Michael Leitner, Austria.

Room: **MILANO VIII**

**An Online Environment to Compare Students’ and Expert Solutions to Ill-structured Problems**

Vishrant K. Gupta, Philippe J. Giabbanelli, Andrew A. Tawfik, United States

**Reading Multiple Documents on Tablet: Effects of Applications and Strategic Guidance on Performance and Acceptance**

Jordan Lombard, Franck Amaudie, France; Ivar Bråten, Norway; Cécile Van De Leemput, Belgium

**The NEON Evaluation Framework for Educational Technologies**

Michael Leitner, Philipp Hann, Michael D. Kickmeier-Rust, Austria

**The Design of Music Hearing Training System in Building Mental Model with Image Stimulus Fading Strategy**

Yu-Ting Hwang, Chi-Nung Chu, Taiwan

**Training Evaluation in a Learning Organization and Online Training Through the E-booklet Contribution of Game Theory and Shapley Value**

Karim Ela Fraoua, Boreut Bouret, France
Intergenerational Communication and Collaboration: Advancing Knowledge about Smart Ageing
Chair(s): Yuxiang Zhao, P.R. China
Room: OCTAVIUS 9

Impact of Online Social Media Communication and Offline Geographical Distance on Elder Users' Intergenerational Isolation: From Technology Affordance Perspective
Xiaolun Wang, Jie Gu, Anan Hu, Hong Ling, P.R. China

A Qualitative Investigation on Chinese Middle-aged People's ICT Adoption and Use
Shijie Song, Jianjun Sun, Bin Geng, Yuxiang Zhao, P.R. China

Gamified Design for the Intergenerational Learning: A Preliminary Experiment on the Use of Smartphones by the Elderly
Weihan Xu, Xiao Liu, P.R. China

The Comparative Study of Emotional Interaction Design of Empty Nesters in Urban and Rural Areas in China
Xinghui Xu, Xiaoping Hu, P.R. China

Study on the current situation of urban empty nest elderly of community home care and innovation strategy
Ruiqi Li, Ya-jun Li, Xingxing Gao, P.R. China
<table>
<thead>
<tr>
<th>HCI S204</th>
<th>UAHCI S205</th>
<th>VAMR S206</th>
<th>CCD S207</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Models, ontologies, visual languages and reasoning in HCI</strong>&lt;br&gt;Chair(s): Fan Zhang, P.R. China.</td>
<td><strong>Quo Vadis &quot;Interaction Design and Children, Older and Disabled Users&quot;</strong>&lt;br&gt;Chair(s): Francisco V. Cipolla Facarra, Spain</td>
<td><strong>Visualization and Narration in VR</strong>&lt;br&gt;Chair(s): Brandon Mechtley, United States.</td>
<td><strong>Virtual Reality and Game Design</strong>&lt;br&gt;Chair(s): Bingcheng Wang, P.R. China.</td>
</tr>
<tr>
<td>Room: NEOPOLITAN I</td>
<td>Room: MILANO II</td>
<td>Room: SALERNO</td>
<td>Room: NEOPOLITAN III</td>
</tr>
<tr>
<td>Tool-mediated HCI Modeling Instruction in a Campus-based Software Quality Course&lt;br&gt;Christos Katsanos, Michail Xenos, Nikolas Tselios, Greece</td>
<td>Quo Vadis &quot;Interaction Design and Children, Older and Disabled Users&quot; in America and Europe?&lt;br&gt;Francisco V. Cipolla Facarra, Maria V. Facarra, Spain; Eugenia Mendoza, Argentina; Miguel Cipolla Facarra, Spain</td>
<td><strong>Immercity: a Curation Content Application in Virtual and Augmented Reality</strong>&lt;br&gt;Jean-Daniel Taupiac, Nancy Rodriguez, Olivier Strauss, France</td>
<td><strong>An Exploratory Study on Design and Implement an Emotional Karaoke Robot (EKR)</strong>&lt;br&gt;Yi-Lun Zheng, Taiwan; Pei-Luen Patrick Rau, P.R. China; Hsiao-Ping Yueh, Pin-Hsuan Chen, Taiwan; Ding-Long Huang, P.R. China</td>
</tr>
<tr>
<td><strong>Defining a Model for Development of Tactile Interfaces on Smartphones</strong>&lt;br&gt;Fan Zhang, Shaowei Chu, Naye Ji, Ruifang Pan, P.R. China</td>
<td><strong>Focus on New Technologies, Editorial and Business Publishing for International User</strong>&lt;br&gt;Francisco V. Cipolla Facarra, Spain; Alejandra Quiroga, Argentina; Maria V. Facarra, Spain</td>
<td><strong>Visualizing Software Architectures in Virtual Reality with an Island Metaphor</strong>&lt;br&gt;Andreas Schreiber, Martin Misiak, Germany</td>
<td><strong>Can Virtual Reality Help Children Learn Mathematics Better?</strong>&lt;br&gt;The Application of VR Headset in Children's Discipline Education&lt;br&gt;Xin Lei, Andong Zhang, Bingcheng Wang, Pei-Luen Patrick Rau, P.R. China</td>
</tr>
<tr>
<td><strong>CoRgI: Cognitive Reasoning Interface</strong>&lt;br&gt;Vinicius Segura, Juliana Jansen Ferreira, Ana Fucs, Marco Ferreira Moreno, Rogério De Paula, Renato Cerqueira, Brazil</td>
<td><strong>Acquisition, Representation and Retrieval of 3D Dynamic Objects</strong>&lt;br&gt;Andreas Kratky, United States</td>
<td><strong>Surface Prediction for Spatial Augmented Reality</strong>&lt;br&gt;Adam Gomes, Keegan Fernandes, David Wang, Canada</td>
<td><strong>What makes for successful game storytelling? A model for evaluating game-adaptability of stories in China</strong>&lt;br&gt;Yun Gong, Bingcheng Wang, Pei-Luen Patrick Rau, Ding-Long Huang, P.R. China</td>
</tr>
<tr>
<td><strong>Implementing Node-Link Interface into a Block-Based Visual Programming Language</strong>&lt;br&gt;Ryo Suzuki, Takaiki Takahashi, Kenta Masuda, Ikuro Choh, Japan</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Friday, 20 July 16:00 - 18:00**

**CCD S208**

**Intelligence service and interaction experience design in different cultures**
Chair(s): Hao Tan, Qingshu Zeng, P.R. China.

Room: **NEOPOLITAN IV**

**Responsive Web Design for Chinese Head and Facial Database**
Haining Wang, Yang Yu, Wannong Chen, Wenxiu Yang, P.R. China; Roger Ball, United States

**Story Board Tools and Methods for User-Knowledge-Based Automotive Human-Machine Interface Design**
Qingshu Zeng, Mingxiang Shi, P.R. China

**Study on the Application of Peak-End Rule in the Design of App Blank Pages**
Canqun He, Zhangyu Ji, P.R. China

**Research on The Usability of Bicycle-Sharing Application Interface**
Miao Huang, Taiwan

---

**SCSM S209**

**Data Science for Human Behavior in Marketing**
Chair(s): Kohei Otake, Takashi Namatame, Japan.

Room: **MILANO VII**

**Proposal of Learning Support SNS Utilizing Gamification**
Syun Usami, Kohei Otake, Takashi Namatame, Japan

**Evaluation of Network Structure Using Similarity of Posts on Twitter**
Yusuke Sato, Kohei Otake, Takashi Namatame, Japan

**Evaluation of Store Layout Using Eye Tracking Data in Fashion Brand Store**
Naoya Saijo, Taiki Tosu, Kei Morimura, Kohei Otake, Takashi Namatame, Japan

**Consumer Behavior of Foreign Residents in Japan for Service Industry**
Zhen Wang, P.R. China; Noriyuki Suyama, Japan

**Use of Personal Color and Purchasing Patterns for Distinguishing Fashion Sensitivity**
Takanobu Nakahara, Japan

---

**S210**

**Innovating Social Computing and Social Media**
Chair(s): Hoang D. Nguyen, Singapore.

Room: **OCTAVIUS 7**

**Gamification Design Framework for Mobile Health: Designing a Home-Based Self-Management Programme for Patients with Chronic Heart Failure**
Hoang D. Nguyen, Ying Jiang, Singapore; Øystein Eiring, Norway; Danny Chiang Choon Poo, Wenru Wang, Singapore

**BrewFinder - An Interactive Flavor Map Informed by Users**
Chandler Price, United States

**The Changing Dynamics of Social Interaction in Gaming Communities: Insights from a Case Study of Gaming Communities in Saudi Arabia**
Raghad Almousa, Dalal Al-Aloula, Bashar Alharthi, Alanoud Bin Masaoud, Safaa Alshairri, Hissah Alsudais, Aljohara Alkhafad, Areej Al-Wabil, Saudi Arabia

**Personality Based Recipe Recommendation Using Recipe Network Graphs**
Iféoma Adaji, Czarina Sharmaine, Simone Debrownney, Canada; Kiemute Oyibo, Nigeria; Julita Vassileva, Canada

---

**AC S211**

**Artificial Intelligence for Advanced Human-Machine Symbiosis**
Chair(s): Scott S. Grigsby, United States

Room: **MILANO III**

**Human Performance Augmentation in Context: Using Artificial Intelligence to Deal with Variability—An Example from Narrative Influence**
William D. Casebeer, Matthias D. Ziegler, Amanda E. Kraft, Jason Poleski, Bartlett Russell, United States

**Trust in Sensing Technologies and Human Wingmen: Analogies for Human-Machine Teams**
Joseph B. Lyons, Nhut T. Ho, Lauren C. Hoffman, Garrett G. Sadler, Anna Lee Van Abel, Mark Wilkins, United States

**A Wearable Multisensory, Multiagent Approach for Detection and Mitigation of Acute Cognitive Strain: Phase I - Vocalization analysis**
Anil Raj, Brooke Roberts, Kristy Hollingshead, Neil McDonald, Melissa Poquette, Wald Soussou, United States

**Human-Machine Teaming and Cyberspace**
Fernando J. Maymi, Robert Thomson, United States
**Friday, 20 July 16:00 - 18:00**

**AC S212**

**Human/Computer Teaming in Streaming Data Environments**
Chair(s): Leslie M. Blaha, Corey K. Fallon, United States.

Room: **MILANO IV**

**DHM S213**

**DHM in ergonomics, mobility and re habilitation**
Chair(s): Onan Demirel, United States.

Room: **OCTAVIUS 8**

**UXU S214**

**Design Frameworks, Methods and Tools - II**
Chair(s): Joon Suk Lee, United States.

Room: **MILANO V**

**DAPI S215**

**Designing intelligent environments**
Chair(s): Lawrence Henschen, United States.

Room: **OCTAVIUS 10**

**Human Machine Interactions: Velocity Considerations**
Joseph Cottam, Leslie M. Blaha, Kris Cook, Mark Whiting, United States

**Human Augmentation of UAV Cyber-Attack Detection**
Haibei Zhu, Mahmoud Elfar, Miroslav Pajic, Ziyao Wang, Missy Cummings, United States

**Improving Automation Transparency: Addressing Some of Machine Learning’s Unique Challenges**
Corey K. Fallon, Leslie M. Blaha, United States

**Multi-modal Interruptions on Primary Task Performance**
Pooya P. Bovard, Kelly A. Sprehn, Meredith G. Cunha, Jaemin Chun, SeungJun Kim, Jana L. Schwartz, Sara K. Garver, Anind K. Dey, United States

**Perception of Floor Slipperiness Before and After a Walk**
Caijun Zhao, P.R. China; Kai-Way Li, Taiwan

**4 DOF Exoskeleton Robotic Arm System for Rehabilitation and Training**
Siam Charoenseang, Sarut Panjan, Thailand

**A Novel Approach for Assessing Power Wheelchair Users’ Mobility by Using Curve Fitting**
Jicheng Fu, Fang Li, Marcus Ong, Tyler Cook, Gang Qian, Yan Daniel Zhao, United States

**A growth study of Chinese ears using 3D scanning**
Fang Fu, Yan Luximon, Parth Shah, Hong Kong

**Exploring the Referral and Usage of Science-Fiction in HCI Literature**
Philipp Jordan, United States; Omar Mubin, Australia; Mohammad Olaid, Sweden; Paula Alexandra Silva, Portugal

**A Design Provocation for Humble Designers and Empowered Users**
Joon Suk Lee, Margaret Dickey-Kurdziolek, Stacy Branham, United States

**Assist Users to Straightaway Suggest and Describe Experienced Problems**
Björn Senft, Holger Fischer, Simon Oberthur, Nitish Patkar, Germany

**SocioCon: A Social Circle for Your Interactive Devices**
Ngoc Thi Nguyen, Hyowon Lee, Singapore

**A Semiotics Analysis of Icons in Open Data Portals**
Arwa Alsaati, Furat Aljishi, Aljohara Alfayez, Areej Al-Wabil, Saudi Arabia

**The Use of Live-Prototypes as Proxy Technology in Smart City Living Lab Pilots**
Michelle Boonen, Bram Lievens, Belgium

**Automatic Generation of Human-Computer Interfaces from BACnet Descriptions**
Lawrence Henschen, Julia Lee, Ries Guthmann, United States
LCT S216

HCI and Learning in Higher and Academic Education
Chair(s): Christophe Kolski, France.

From Persona to Living Persona, Preliminary Data from a Pilot Study in HCI Education
Christophe Kolski, Bruno Warin, France

The Digital Transformation of Teaching in Higher Education from an Academic’s Point of View: An Explorative Study
Anne Thoring, Dominik Rudolph, Raimund Vogl, Germany

Hierarchy Design of Online Education in Colleges and Universities
Xumin Wu, Danni Su, P.R. China

Integrating MOOCs in Regular Higher Education: Challenges and Opportunities from a Scandinavian Perspective
Fisnik Dalipi, Mexhid Ferati, Arianit Kurti, Sweden

EUREKA: Engineering Usability Research
Empirical Knowledge and Artifacts - An Experience-based Expansive Learning Approach
Panagiotis Germanakos, Ludwig Fichte, Germany

Learning in Marketing Simulation
Cristóbal Fernández Robin, Chile; Scott McCoy, United States; Diego Yanez, Chile

ITAP S217

Aging and interaction
Chair(s): Alexandra Voinescu, United Kingdom

It still matters: Preference in visual appearance of stimuli among people in the late stages of dementia
Wei-Ying Chou, P. John Clarkson, United Kingdom; Christine Waszynski, United States

A Study on Haptic Feedback Awareness of Senior Citizens
Shuo-Fang Liu, Yu-Tzu Yang, Ching-Fen Chang, Po-Yen Lin, Hsiang-Sheng Cheng, Taiwan

A Review of Age-related Characteristics for Touch-based Performance and Experience
Jing Liao, Jianan Lou, Qifei Wu, Min Zou, Linfeng Zheng, Danni Shen, P.R. China

Confronting Common Assumptions About the Psychomotor Abilities of Older Adults Interacting With Touchscreens
Suhas Govind Joshi, Norway

Cognitive aging and in-car system operations: A proposal for an age-friendly system using a cognitive model-based approach
Miki Matsumuro, Kazuhisa Miwa, Japan

Investigating Older Adults’ Preferences for Functions within a Human-Machine Interface Designed for Fully Autonomous Vehicles
Alexandra Voinescu, Phillip L. Morgan, Chris Alford, Praminda Caleb-Solly, United Kingdom

NOTES

FRIDAY 16:00 - 18:00
001. Use of the Augmented Reality Sandtable (ARES) to Enhance Army CBRN Training
Julian Abich IV, Morgan Eudy, Jennifer Murphy, Christopher Garneau, Yasmina Raby, Charles Amburn, United States

002. Comparative Evaluation of Accessibility and Learnability of Learning Management systems: Case of Fronter and Canvas
Faizan Ahmad, Wondwossen Beyene, George Anthony Giannoumis, Norway

003. An Unsafe Act Autodetection Methodology in Nuclear Power Plant Operations
Jeeyea Ahn, Jae Min Kim, Seung Jun Lee, Korea

004. CLIP 4 Robotics: A Click-Based Programming Language
Ali Al-Bayaty, Christopher Martinez, United States

005. Complex system HCI as a Triangle of Interface, Content, and Person Interaction
Michael Albers, United States

006. Investigating the Effect of Different Operational Definitions of Fixation on Fixation Duration Metric: A Preliminary Study
Amin Alhashim, Ziho Kang, United States

007. Behavioral Archetypes for Stroke Rehabilitation Technologies
Bushra Alkadhi, Areej Al-Wabil, Saudi Arabia

008. VEO-Engine: Interfacing and reasoning with an emotion ontology for device visual expression
Muhammad Amith, Rebecca Lin, Chen Liang, Yang Gong, Cui Tao, United States

009. Using Multiple Research Methods to Inform Transformation of a Software Application into a Web Survey for Businesses
Amy Anderson Riemer, United States

010. MobileDNA: Relating Physiological Stress Measurements to Smartphone Usage to Assess the Effect of a Digital Detox
Sarah Anrijs, Klaas Bombeke, Wouter Durnez, Kristin Van Damme, Bart Vanhaevelyn, Peter Conradi, Elena Smets, Jan Cornelis, Walter De Raedt, Koen Ponnet, Lieven De Marez, Belgium

Suzan Anwar, Mariofanna Milanova, United States; Shereen Abdullah, Iraq; Zvetomira Svetleff, United States

012. Complementary Learning Assist System: Guitar Performance Assist by Haptic Presentation
Kazushige Ashimori, Hiroshi Igarashi, Japan

013. Towards Human Affect Modeling: A Comparative Analysis of Discrete Affect and Valence-Arousal Labeling
Sinem Aslan, Eda Okur, Nese Alyuz, Asli Arslan Esme, Ryan S. Baker, United States

014. Automation and Complacency: Insights from a Planning Task in the Transportation Domain
Eugénie Avril, Jordan Navarro, Lién Wioland, Benoît Valery, Virginie Govaere, Didier Gourc, Koosha Khademi, France; Christos Dimopoulos, Cyprus; Elisabeth Dargent, Nathalie Renaudeau, Julien Cegarra, France

015. Instruvis: Play Music Virtually and Visualize the Data
Ismail Ayaz, Elumalai Monisha, United States

016. Interactive Narratives, Counterfactual Thinking and Personality in Video Games
Catherine Bacos, Michael McCreery, Jeffrey Laferriere, United States

017. Developing an Synthetic Binaural Interactive Soundscape based on user 3D space displacement using OpenCV and Pure Data
Isaac Batista, Francisco De Paula Barretto, Brazil

018. Multi-dimensional echo chambers: language and sentiment structure of Twitter discussions on the Charlie Hebdo case

---

019. Posters
Wednesday 18, 09:00-17:00 | Thursday 19, 09:00-17:00 | Friday 20, 09:00-16:30
019. Learning to code with Minescratch: or combining an educational coding program (Scratch) with a popular game (Minecraft)
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

020. Learning to program a humanoid robot: Impacts on students with special needs
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

021. The Educational Impacts of Minecraft: an exploratory study
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

022. Cross-cultural empathy: learning about diverse users in Design Thinking Process
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

023. Post-Correction of OCR Errors using PyEnchant Spelling Suggestions Selected through a Modified Needleman–Wunsch Algorithm
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

024. A Fundamental Study Toward Development of a New Brain Computer Interface Using a Checker-Board Pattern Reversal Stimulation
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

025. The Research on the Application of Incentive Mechanism in Interactive Design of Rehabilitation products for Elderly Stroke Patients
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

026. An Emotion Management System via Face Tracking, Data Management, and Visualization
Svetlana S. Bodrunova, Ivan S. Blekanov, Mikhail Kukarkin, Russia

027. The Research of Applying Interactive Design for a New Experience into Taiwan Traditional Matsu Culture
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

028. Is web navigation with tablet more difficult than with laptop?
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

029. Stress-Mentor: Linking gamification and behavior change theory in a stress management application
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

031. A Human Recognition System for Pedestrian Crosswalk
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

032. Interaction with Immersive Cultural Heritage Environments using Virtual Reality Technologies
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

033. Enriching mixed reality systems with mobile applications
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

034. Supporting Audiography: Design of a System for Sentimental Sound Recording, Classification and Playback
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China

035. Enhancing the experience of visiting outdoor heritage sites using handheld AR
Jie Chen, Xiaoyang Qiu, Pinata Winoto, P.R. China
<table>
<thead>
<tr>
<th>Posters</th>
<th>Wednesday 18, 09:00-17:00</th>
<th>Thursday 19, 09:00-17:00</th>
<th>Friday 20, 09:00-16:30</th>
</tr>
</thead>
<tbody>
<tr>
<td>037. Validating Self-reported Trends Using WiFi Tracking</td>
<td>Daniel Ebeling, Zach Luker, Seth Pacheco, Angela Payne, United States; Nikki Rae, United Kingdom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>038. Design Guidelines for the Implementation of an Interactive Virtual Reality Application that Supports the Rehabilitation of Amputees of Lower Limbs Patients with Post-Traumatic Stress Disorder (PTSD)</td>
<td>Roberto Encarnación Mosquera, Colombia; Habib M. Fardoun, Daniyal M. Alghazzawi, Saudi Arabia; Cesar A. Collazos, Colombia; Víctor M. Ruiz Penichet, Spain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>039. LineChange: An analytic framework for automated moderation of crowdsourcing systems</td>
<td>Brent Fegley, Ryan Mullins, Ben Ford, Chad Weiss, United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>040. Enhancing Itinerary Recommendation with Linked Open Data</td>
<td>Alessandro Fogli, Alessandro Micarelli, Giuseppe Sansonetti, Italy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>041. Human-automation interaction in automated vehicles: an innovative HMI design approach - The case of elderly and cyclists</td>
<td>Federico Fraboni, Marco De Angelis, Italy; David Plesnik, Slovakia; Andrea Altini, Marco Depolo, Bruna Zani, Gabriele Prati, Luca Pietrantoni, Italy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>042. Interface for a Better Tourist Experience, Bayesian Approach and Cox-Jaynes Support</td>
<td>Karim Elia Fraoua, Sylvain Michelin, France</td>
<td></td>
<td></td>
</tr>
<tr>
<td>043. Proposal of remote face-to-face communication system with line of sight matching based on pupil detection</td>
<td>Kiyotaka Fukumoto, Yoshiyuki Yamamoto, Yoshinobu Ebisawa, Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>044. Study on the layout and function allocation of community home care service center in Nanjing</td>
<td>Xingxing Gao, Ruiqi Li, Ya-jun Li, P.R. China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>045. ABLE: An Arts-Based, Interactive Physical Therapy Platform for Seniors with Dementia and Frailty</td>
<td>Paula Gardner, Stephen Surlin, Caitlin McArthur, Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>046. Implementation and Evaluation of a Reminder Registration Interface for Daily Life Objects</td>
<td>Kenro Go, Nagomu Horikoshi, Shion Tominaga, Jinta Nakamura, Akihiro Miyata, Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>047. Reconfigurable Spaces and Places in Smart Built Environments: A Service Centric Approach</td>
<td>Denis Gračanin, Mohamed Eltoweissy, Liang Cheng, Reza Tasooji, United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>048. Competitive intelligence in the service sector: a data visualization approach</td>
<td>Oscar Granados, Oswaldo Velez-Langs, Colombia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>049. Design social media interface to better support collaborative travel planning</td>
<td>Jie Gu, Xinlin Yao, Anan Hu, P.R. China</td>
<td></td>
<td></td>
</tr>
<tr>
<td>050. Player Analytic Technologies in Tennis: An Investigation of Non-Professional Players’ Personal Values and Perceptual Orientations</td>
<td>Sebastian Guevara Martinez, Stephan Schlögl, Austria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>051. Chat-Box: Proposing a Mood Analyzer for Individuals with Social Interaction Disabilities</td>
<td>Bineeta Gupta, Michael Saxon, Troy McDaniel, Sethuraman Panchanathan, United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>052. Chancho Assistant: Smart Shopping Guided by Consumer Habits</td>
<td>Fabián Gutierrez-Goméz, Rocio Abascal-Mena, Mexico</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
053. A Consideration of effects of Different Numbers of Seconds in Spontaneous Time Production with fMRI Analysis
   Ryosuke Hayasaka, Keita Mitani, Yukinobu Hoshino, Japan

054. Characterization of the Use of the Internet of Things in the Institutions of Higher Education of the City of Barranquilla and its Metropolitan Area
   Leonel Hernandez, Genett Jimenez, Claudia Baloco, Angelica Jimenez, Hugo Hernandez, Colombia

055. Picture Book-based Augmented Reality Content Authoring System
   Ji Sook Hong, Jong Weon Lee, Korea

056. Text Mining Analysis of Online Consumer Reviews on Home IoT Services
   Jihyung Hong, Jaehye Suk, Hyesun Hwang, Dongmin Kim, Kee Ok Kim, Yunjik Jeong, Korea

057. Development of Gesture Recognition Education Game for Elementary School Students Personality Education
   Sunghee Hong, Eunhye Kim, Korea

058. qVRty: Virtual Keyboard with a Haptic, Real-World Representation
   Adrian H. Hoppe, Leonard Otto, Florian Van de Camp, Rainer Stiefelhagen, Gabriel Unmüßig, Germany

059. Capability for Collision Avoidance of Different User Avatars in Virtual Reality
   Adrian H. Hoppe, Roland Reeb, Florian Van de Camp, Rainer Stiefelhagen, Germany

060. Multi-User Collaboration on Complex Data in Virtual and Augmented Reality
   Adrian H. Hoppe, Kai Westerkamp, Sebastian Maier, Florian Van de Camp, Rainer Stiefelhagen, Germany

061. Integration of Kahoot into EFL classroom
   Yen-Ju Hou, Taiwan

062. Utilizing HMD VR to Improve the Spatial Learning and Wayfinding Effects in the Virtual Maze
   Tsuei-Ju(Tracy) Hsieh, Yu-Hsuan Kuo, Chun-Kai Niu, Taiwan

063. The psychological cost of college math: digital learning behaviors, outcomes, and genders differences
   Xing Huang, Wonjoon Hong, Matthew Bernacki, United States

064. Effects of Videogames on HBCU Students
   Erick Huston, Joon Suk Lee, United States

065. Driver Drowsiness Detection using EEG Features
   Se-Hyeon Hwang, Myoungouk Park, Jonghwa Kim, Yongwon Yun, Joonwoo Son, Korea

066. Improve Onboarding customer experience and reduce airline ground staff efforts using wearable
   Abhishek Jain, India; Shiva Subhedar, United States; Naveen Kumar Gupta, India

067. Benefits and Challenges to using Tangible Augmented Reality in Product Evaluation
   Karan Jain, Young Mi Choi, United States

068. Factors Affecting User Satisfaction of Adaptive Cruise Control
   Hyeji Jang, Sung H. Han, Jiyoung Kwahk, Korea

069. Skip or Not to Skip: Impact of Empathy and Ad Length on Viewers’ Ad-Skipping Behaviors on the Internet
   Yongwoog Andrew Jeon, United States

070. A method for developing creative ideas: A case study of user experience of the mobility challenged
   Dong Yeong Jeong, Sung H. Han, Jiyoung Kwahk, Mingyu Lee, Kyudong Park, Ju Hwan Kim, Hyeji Jang, Youngin Koh, Dawoon Jeong, Korea

071. Text Mining of Online News and Social Data about Chatbot Service
   Yunjik Jeong, Jaehye Suk, Jihyung Hong, Taiwan
072. A research on User Experience of Older Social Software
   Bin Jiang, Hengyuan Liu, P.R. China

073. Research on Interactive Design of Interface Layout of Idle Resource Transactional Websites
   Bin Jiang, Yitong Wang, P.R. China

074. Cognitive-psychology-based Study on Interactive Design of Preschool Children’s Picture Books
   Bin Jiang, Yuqiu Zhao, P.R. China

075. Entertainment Design of Elderly Community Oriented to Maker Space in University Libraries
   Bin Jiang, Sen Guo, P.R. China

076. Diagnosis of Initial Conditions for the Implementation of the Integrated Management System in the Companies of the Land Cargo Transportation in the city of Barranquilla (Colombia)
   Genett Jimenez, Laxmi Novoa, Laura Ramos, Jairo Martinez, Cesar Alvarino, Colombia

077. Evaluation of Quality Management for Strategic Decision Making in Companies in the Plastic Sector of the Colombian Caribbean Region Using the TQM Diagnostic Report and Data Analysis
   Genett Jimenez, Leonel Hernandez, Hugo Hernandez, Luis Cabas, Jenny Ferreira, Colombia

078. xBook, a Framework for Common Scientific Databases
   Daniel Kaltenthaler, Johannes-Y. Lohrer, Peer Kröger, Henriette Obermaier, Germany

079. ReMIS and ReMIS Cloud: Information Systems for Retrieving Disciplinary and Interdisciplinary Data
   Daniel Kaltenthaler, Johannes-Y. Lohrer, Peer Kröger, Germany

080. Development of prevention system for beast damage of agricultural product by using deep learning
   Ryoki Kamesaka, Yukinobu Hoshino, Japan

081. Proposal for an Affective Skateboard Using Various Lighting Patterns
   Namgyu Kang, Ryosuke Sato, Japan

082. Head and Neck Supporting for Seating
   Ghi-Hwei Kao, T. K. Philip Hwang, Taiwan

083. Generating Training Images using a 3D City Model for Road Sign Detection
   Ryuto Kato, Satoshi Nishiguchi, Wataru Hashimoto, Yasuharu Mizutani, Japan

084. Interactive Online Selection Guide for Usability Evaluation Methods
   Luise Künne mann, Heidi Krömker, Germany

085. Developing Instructional Videos to Direct Business Respondents Through a Feature-heavy Online Survey Instrument
   Rebecca Keegan, United States

086. Support Collaboration across Geographically Distributed Users using Heterogeneous Virtual Reality Systems
   Rajiv Khadka, James Money, Amy Banic, United States

087. Measurement of motion range to improve of body balance and its training contents
   Dong-Yeon Kim, Sung-Wook Shin, Se-Jin Goo, Sung-Taek Chung, Korea

088. Opinion Mining on Internet Primary Bank with Online News and Social Data
   Dongmin Kim, Jihyung Hong, Yunjik Jeong, Jaehye Suk, Kee Ok Kim, Hyesun Hwang, Korea

089. Health e-Learning for Dads of Preterm Infants
   Hyung Nam Kim, United States

090. Personalized Recommendation System for Efficient Integrated Cognitive Rehabilitation Training
<table>
<thead>
<tr>
<th>Posters</th>
<th>Wednesday 18, 09:00-17:00</th>
<th>Thursday 19, 09:00-17:00</th>
<th>Friday 20, 09:00-16:30</th>
</tr>
</thead>
</table>
| 091. **Ergonomic Design of Target Symbols for Fighter Aircraft Cockpit Displays based on Usability Evaluation**  
Jeong Joon Kim, Yong-Jun Kim, Hyeok-Min Lee, Sang-Ho Lee, Sung-Taek Chung, Korea  
Sung-Ho Kim, Woo-Seok Jang, Heung-Seob Kim, Hyoung-Seog Chung, Young-Duk Kim, Woo-Jin Lee, Hyeon-Ju Seol, Korea | 092. **Ergonomic Design of Target Symbols for Fighter Aircraft Cockpit Displays based on Usability Evaluation**  
Jeong Joon Kim, Yong-Jun Kim, Hyeok-Min Lee, Sang-Ho Lee, Sung-Taek Chung, Korea  
Sung-Ho Kim, Woo-Seok Jang, Heung-Seob Kim, Hyoung-Seog Chung, Young-Duk Kim, Woo-Jin Lee, Hyeon-Ju Seol, Korea | 093. **Ergonomic Design of Target Symbols for Fighter Aircraft Cockpit Displays based on Usability Evaluation**  
Jeong Joon Kim, Yong-Jun Kim, Hyeok-Min Lee, Sang-Ho Lee, Sung-Taek Chung, Korea  
Sung-Ho Kim, Woo-Seok Jang, Heung-Seob Kim, Hyoung-Seog Chung, Young-Duk Kim, Woo-Jin Lee, Hyeon-Ju Seol, Korea |
| 092. **Talon Metaphor: Grasp and Release Method for Virtual Reality**  
Yusik Kim, Jung-Min Park, Korea | 093. **The digital evolution of gender: a visual analysis of women’s representation through emoji communication**  
Raquel Forma Klafka, Daniela Kutschat Hanns, Brazil | 094. **The digital evolution of gender: a visual analysis of women’s representation through emoji communication**  
Raquel Forma Klafka, Daniela Kutschat Hanns, Brazil |
| 093. **The digital evolution of gender: a visual analysis of women’s representation through emoji communication**  
Raquel Forma Klafka, Daniela Kutschat Hanns, Brazil | 094. **Redesign of Cartesian Diver for Underwater Expression Combining Dynamic Fabrication with Non-Contact Manipulation**  
Amy Koike, Kazuki Takazawa, Satoshi Hashizume, Mose Sakashita, Daitetsu Sato, Yoichi Ochiai, Japan | 095. **Redesign of Cartesian Diver for Underwater Expression Combining Dynamic Fabrication with Non-Contact Manipulation**  
Amy Koike, Kazuki Takazawa, Satoshi Hashizume, Mose Sakashita, Daitetsu Sato, Yoichi Ochiai, Japan |
| 094. **Redesign of Cartesian Diver for Underwater Expression Combining Dynamic Fabrication with Non-Contact Manipulation**  
Amy Koike, Kazuki Takazawa, Satoshi Hashizume, Mose Sakashita, Daitetsu Sato, Yoichi Ochiai, Japan | 095. **Understanding the acceptance of health management mobile services: Integrating theory of planned behavior and health belief model**  
Wen-Tsung Ku, Pi-Jung Hsieh, Taiwan | 096. **Understanding the acceptance of health management mobile services: Integrating theory of planned behavior and health belief model**  
Wen-Tsung Ku, Pi-Jung Hsieh, Taiwan |
| 095. **Understanding the acceptance of health management mobile services: Integrating theory of planned behavior and health belief model**  
Wen-Tsung Ku, Pi-Jung Hsieh, Taiwan | 096. **Implementation of educational drum contents using mixed reality and virtual reality**  
Yongjun Kweon, SunMyeong Kim, Byounghyuk Yoon, Taeyeang Jo, Changhoon Park, Korea | 097. **Implementation of educational drum contents using mixed reality and virtual reality**  
Yongjun Kweon, SunMyeong Kim, Byounghyuk Yoon, Taeyeang Jo, Changhoon Park, Korea |
| 096. **Implementation of educational drum contents using mixed reality and virtual reality**  
Yongjun Kweon, SunMyeong Kim, Byounghyuk Yoon, Taeyeang Jo, Changhoon Park, Korea | 097. **Modeling Conversational Flows for In-Store Mobile Decision Aids**  
Wi-Suk Kwon, Veena Chattaraman, Kacee Ross, Kiana Alikhademi, Juan E. Gilbert, United States | 098. **Modeling Conversational Flows for In-Store Mobile Decision Aids**  
Wi-Suk Kwon, Veena Chattaraman, Kacee Ross, Kiana Alikhademi, Juan E. Gilbert, United States |
| 097. **Modeling Conversational Flows for In-Store Mobile Decision Aids**  
Wi-Suk Kwon, Veena Chattaraman, Kacee Ross, Kiana Alikhademi, Juan E. Gilbert, United States | 098. **How Do Aging Adults Adopt and Use a New Technology? New Approach to Understand Aging Service Technology Adoption**  
Byung Cheol Lee, Junfei Xie, United States | 099. **How Do Aging Adults Adopt and Use a New Technology? New Approach to Understand Aging Service Technology Adoption**  
Byung Cheol Lee, Junfei Xie, United States |
| 098. **How Do Aging Adults Adopt and Use a New Technology? New Approach to Understand Aging Service Technology Adoption**  
Byung Cheol Lee, Junfei Xie, United States | 099. **Developing a Human Behavior Simulation System based on Geometry Affordance**  
Yun Gil Lee, Korea | 100. **Developing a Human Behavior Simulation System based on Geometry Affordance**  
Yun Gil Lee, Korea |
| 099. **Developing a Human Behavior Simulation System based on Geometry Affordance**  
Yun Gil Lee, Korea | 100. **Human Genome data protection using PostgreSQL DBMS**  
Péter Lehotay-Kéry, Attila Kiss, Hungary | 101. **Human Genome data protection using PostgreSQL DBMS**  
Péter Lehotay-Kéry, Attila Kiss, Hungary |
| 100. **Human Genome data protection using PostgreSQL DBMS**  
Jinlei Li, Pingyue Jin, Yuanli Liu, P.R. China | 102. **The Effect of an Integrated E-Health Care Model on the Health and Life-Style of Chinese Elderly: Study Protocol**  
Jinlei Li, Pingyue Jin, Yuanli Liu, P.R. China |
Jinlei Li, Pingyue Jin, Yuanli Liu, P.R. China | 102. **A Review of the Current Intelligent Personal Agents**  
Sean Li, Xiaojun (Jenny) Yuan, United States | 103. **A Review of the Current Intelligent Personal Agents**  
Sean Li, Xiaojun (Jenny) Yuan, United States |
| 102. **A Review of the Current Intelligent Personal Agents**  
Sean Li, Xiaojun (Jenny) Yuan, United States | 103. **Intervention Effect of Color and Sound Cross-modal Correspondence between Interaction of Emotion and Ambient**  
Xiaoling Li, Yang Liu, Huifen Wang, Bin Liu, Jiawei Li, Zhuoyun Li, Xin Chen, P.R. China | 104. **Intervention Effect of Color and Sound Cross-modal Correspondence between Interaction of Emotion and Ambient**  
Xiaoling Li, Yang Liu, Huifen Wang, Bin Liu, Jiawei Li, Zhuoyun Li, Xin Chen, P.R. China |
| 103. **Intervention Effect of Color and Sound Cross-modal Correspondence between Interaction of Emotion and Ambient**  
Xiaoling Li, Yang Liu, Huifen Wang, Bin Liu, Jiawei Li, Zhuoyun Li, Xin Chen, P.R. China | 104. **Research on Interactive Design of Vehicle Information Interface for Old People Based on Visual Characteristics**  
Ya-jun Li, Hong Zhu, P.R. China | 105. **Research on Interactive Design of Vehicle Information Interface for Old People Based on Visual Characteristics**  
Ya-jun Li, Hong Zhu, P.R. China |
| 104. **Research on Interactive Design of Vehicle Information Interface for Old People Based on Visual Characteristics**  
Ya-jun Li, Hong Zhu, P.R. China | 105. **Research on Information Interfaces Visual Search Efficiency and Matching Mechanism Based on Similarity Theory**  
Ya-jun Li, Ruiting Yang, P.R. China | 106. **Research on Information Interfaces Visual Search Efficiency and Matching Mechanism Based on Similarity Theory**  
Ya-jun Li, Ruiting Yang, P.R. China |
| 105. **Research on Information Interfaces Visual Search Efficiency and Matching Mechanism Based on Similarity Theory**  
Ya-jun Li, Ruiting Yang, P.R. China | 106. **A Study of Game Design Based on Sense of Loneliness of the Elderly**  
Ya-jun Li, Weiqing Ren, P.R. China | 107. **A Study of Game Design Based on Sense of Loneliness of the Elderly**  
Ya-jun Li, Weiqing Ren, P.R. China |
| 106. **A Study of Game Design Based on Sense of Loneliness of the Elderly**  
Ya-jun Li, Weiqing Ren, P.R. China | 107. **Digi-Craft: A creative process in form-finding beyond the accuracy of 3D printing**  
Chor-Kheng Lim, Taiwan | 108. **Digi-Craft: A creative process in form-finding beyond the accuracy of 3D printing**  
Chor-Kheng Lim, Taiwan |
| 107. **Digi-Craft: A creative process in form-finding beyond the accuracy of 3D printing**  
Chor-Kheng Lim, Taiwan | 108. **The way to preserve Korean Intangible Cultural Assets**  
Yang Kyu Lim, Jin Wan Park, Korea | 109. **The way to preserve Korean Intangible Cultural Assets**  
Yang Kyu Lim, Jin Wan Park, Korea |
| 108. **The way to preserve Korean Intangible Cultural Assets**  
Yang Kyu Lim, Jin Wan Park, Korea | 109. **A compliance method for the design and airworthiness certification of civil aircraft**  
Byung Cheol Lee, Junfei Xie, United States | 110. **A compliance method for the design and airworthiness certification of civil aircraft**  
Byung Cheol Lee, Junfei Xie, United States |
10. Research on information architecture based on graphic reasoning and mental model
Ren Long, Jiali Zhang, P.R. China

11. Sketching as a Modality in Intelligent Tutoring Systems
Rodney Long, Kenneth Forbus, Thomas Hinrichs, Samuel Hill, United States

12. Macrocognitive approaches on Cyber Performance
Ricardo G. Lugo, Stefan Sütterlin, Øyvind Jøsok, Benjamin J. Knox, Kirsi Helkala, Norway

13. Cognitive Styles of Cyber Engineers - A Cross Cultural Comparison
Ricardo G. Lugo, Stefan Sütterlin, Øyvind Jøsok, Benjamin J. Knox, Norway; Andrea Firth, United Kingdom; Stian Iversen, Norway

14. An adaptation of the OODA-loop model in cyber operations: Implications for communication and training in a Hybrid Space
Ricardo G. Lugo, Helle Stangeland, Stefan Sütterlin, Øyvind Jøsok, Benjamin J. Knox, Norway; Andrea Firth, United Kingdom

15. ParkCDMX: a Customized Parking App
Leticia Luna Tlatelpa, Rocio Abascal-Mena, Mexico

WenLan Luo, P.R. China

17. Information at Hand – Using Wearable Devices to Display Task Information in the Context of Industry 4.0
Sebastian Mach, Almut Kastrau, Franziska Schmalfuss, Germany

18. Making video tutorials in the classroom – tacit knowledge on display
Gunver Majgaard, Lykke Bertel, Denmark

19. Virtual Environment for the Treatment of Patients with Hemiparesis
Sandra Mateus, Cristian Garcia, Victor Martinez, Colombia

20. CyanoHABIT: A Novel Game to Identify Harmful Freshwater Algae
Elizabeth Matthews, Robin Matthews, Zaina Sheets, Juan E. Gilbert, United States

21. Towards the development of a system for the support of people with visual disabilities using computer vision
Carlos Mendieta, Cesar Ramos, Alexander Ceron, Colombia

22. A Gesture Elicitation Study with Visually Impaired Users
Gourav Modanwal, Kishor Sarawadekar, India

23. iCE: An intelligent Classroom Environment to Enhance Education in Higher Educational Institutions
Tarek Mokhtar, Ahmed Oteafy, Abd-Elhamid Taha, Nidal Nasser, Samer Mansour, Saudi Arabia

24. Analysing elderly behaviour in social media through language use
Paola Monachesi, Tigris De Leeuw, Netherlands

25. Overcoming space inequalities in City Building Games through negotiation
Paola Monachesi, Netherlands

26. Text Vocalizing Desktop Scanner for Visually Impaired People
Cintia Monticelli, Regina De Oliveira Heidrich, Ronaldo Rodrigues, Ewerton Cappelatti, Rodrigo Goulart, Ricardo Oliveira, Eduardo Velho, Brazil

27. Experimental verification of contents usability for upper limbs rehabilitation in patients with hemiplegia
Ho-Sang Moon, Eung-Hyuk Lee, Sung-Wook Shin, Sung-Taek Chung, Korea

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>129</td>
<td>An Interview Study Exploring Tesla End-users Acceptance</td>
<td>Sanaz Motamedi, Pei Wang, Tingting Zhang, Ching-Yao Chan</td>
</tr>
<tr>
<td>130</td>
<td>A Generalizable Method for Validating the Utility of Process Analytics with Usability Assessments</td>
<td>Ryan Mullins, Chad Weiss, Brent Fegley, Ben Ford</td>
</tr>
<tr>
<td>131</td>
<td>Facilitating Analysis of Mass Media Influence through Content Analysis and Emotional Computing</td>
<td>Stefanie Niklander</td>
</tr>
<tr>
<td>132</td>
<td>CognitOS: A Student-Centric Working Environment for an Attention-Aware Intelligent Classroom</td>
<td>Anastasia Ntagianta, Maria Korozı, Asterios Leonidıs, Margherita Antona, Constantine Stephanidis</td>
</tr>
<tr>
<td>133</td>
<td>Identity Verification for Attendees of Large-scale Events Using Face Recognition of Selfies Taken with Smartphone Cameras</td>
<td>Akitoshi Okumura, Takamichi Hoshino, Susumu Handa, Eiko Yamada, Masahiro Tabuchi</td>
</tr>
<tr>
<td>134</td>
<td>Recording your stress, can it help to prevent job stress?</td>
<td>Dahee Park, Seunghee Hwang, Serin Ko, Jeongpyo Lee, Jaeyong Lee</td>
</tr>
<tr>
<td>135</td>
<td>Development of authoring tool for extended interaction in mixed reality environments</td>
<td>Jaebum Park, Beomjun Son, Jihoon Seo, Changhoon Park</td>
</tr>
<tr>
<td>136</td>
<td>The Effects of Steering Control Strategy in a Lane Keeping Assistance System on the Driving Experience</td>
<td>Kyudong Park, Sung H. Han, Jiyoung Kwahk</td>
</tr>
<tr>
<td>137</td>
<td>Knowledge based Health Monitoring during Driving</td>
<td>Se Jin Park, Seunghee Hong, Damee Kim, Young Seo, Iqram Hussain</td>
</tr>
<tr>
<td>139</td>
<td>Interactive City Information Point: Your guide to Heraklion City</td>
<td>Nikolaos Partarakis, Konstantinos Chatziantoniou, Vassiliki Neroutsou, Spiros Papparoulis, Thanasis Toutountzis, Panagiotis Koutlemanis, Xenophon Zabulis, Stavroula Ntoa, Dimitris Grammenos, Emmanouil Apostolakis, Emmanouil Stamatakis, Margherita Antona, Constantine Stephanidis</td>
</tr>
<tr>
<td>140</td>
<td>Toward Human-Magic Interaction: Interfacing Biological, Tangible, and Cultural Technology</td>
<td>Pat Pataranutaporn, Kimberly Lyle</td>
</tr>
<tr>
<td>141</td>
<td>Measuring cognitive load levels during active sport sessions</td>
<td>Kevin Pfeffel, Nicholas H. Müller</td>
</tr>
<tr>
<td>142</td>
<td>ExProtoVAR: A Lightweight Tool for Experience-focused Prototyping of Augmented Reality Applications using Virtual Reality</td>
<td>Nadine Pfeiffer-Leßmann, Thies Pfeiffer</td>
</tr>
<tr>
<td>143</td>
<td>AR-based Mobile Applications for Exposure Therapy</td>
<td>Aarathi Prasad, Bryan McQuade, Casey Schofield</td>
</tr>
<tr>
<td>144</td>
<td>Improving efficiency of Desktop medicine using Guided Inquiry Learning in an Electronic Health Records System</td>
<td>Saptarshi Purkayastha, Parvati Ravindranathan, Menon Naliyatthaliyazchayil, Asha Kiranmayee</td>
</tr>
</tbody>
</table>
145. Influence of user and task related variables on latency perception  
Nadine Rauh, Miriam Gieselmann, Josef Krems, Germany

146. Designer’s Personal Fabrication: Understand the Designers Who Learn 3D Printing Design in China  
Jue Ren, Leirah Wang, P.R. China

147. Example based programming and ontology building: a bioinformatic application  
Quentin Riché-Piotaix, Patrick Girard, Frédéric Bilan, Ladjel Bellatreche, France

148. A tale of two earthquakes: analyzing social media responses in natural disasters  
Cuauhtemoc Rivera-Loaiza, Francisco J. Dominguez-Mota, Maria Isabel Lopez-Huerta, Daniel Santana-Quinteros, Mexico

149. Using Libras to Support People with Communication Disabilities: an Alternative Communication Tool  
Ednilson Rossi, Yasmina Cury, Janaina Abib, Brazil

150. Individual differences in trust in code: the moderating effects of personality on the trustworthiness-trust relationship  
Tyler Ryan, Charles Walter, Gene Alarcon, Rose Gamble, Sarah Jessup, August Capiola, United States

151. Visual Analysis for Overcoming Population Decline and Vitalizing Local Economy in Japan  
Ryosuke Saga, Japan

152. What was my search goal again? Supporting web exploration in information search for older users  
Mylene Sanchiz, Franck Amadieu, Pierre-Vincent Paubel, Aline Chevalier, France

153. Changed the Cup, not the Saucer – NFC Payments in Supermarkets  
Poornigha Santhana Kumar, Michael Bechinie, Manfred Tscheligi, Austria

154. Evaluation of Teamwork in Cooperative Tasks with Concern For Others  
Genki Sasaki, Hiroshi Igarashi, Japan

155. Using Qualitative Surveys to Better Understand Factors Impacting Graduation Rates and Academic Success for Design Students  
Debra Satterfield, United States

Yousef Sawires, Elaine Huang, Adam Gomes, Keegan Fernandes, David Wang, Canada

Maurice Schleußinger, Maria Henkel, Germany

158. Generation “Always On” Turned Off. Effects of Smartphone Separation on Anxiety Mediated by the Fear of Missing Out  
Catharina Schmidt, Ricardo Muench, Florian Schneider, Stephan Breitenbach, Astrid Carolus, Germany

159. Towards the Utilization of Diegetic UI in Virtual Reality Educational Content  
Gapyuel Seo, Byung-Chull Bae, Korea

160. “Voice Unlock” function  
Harim Seo, Younei Soe, United States

161. User Experience of Virtual Ads in eSports  
Young-Nam Seo, Singapore; Minkyung Kim, Doohwang Lee, Korea; Younbo Jung, Singapore

162. A Preliminary Usability Assessment of a 3D Printable Orthosis Design System  
Michaela Servi, Yary Volpe, Francesca Uccheddu, Rocco Furfere, Lapo Governi, Simone Lazzeri, Italy

163. Shadow-IT System and Insider Threat: An Assessment of an Opportunity Dimension for the Identity Theft  
Asif Shaikh, United States
<table>
<thead>
<tr>
<th>Poster Number</th>
<th>Title</th>
<th>Authors</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>164</td>
<td>Vestibular display for walking sensation in a virtual space</td>
<td>Koichi Shimizu, Yasushi Ikei, Tomohiro Amemiya, Koichi Hirota, Michiteru Kitazaki</td>
<td>Japan</td>
</tr>
<tr>
<td>165</td>
<td>Development of Serious Game and Integrated Management Service Model for the Cognitive Rehabilitation</td>
<td>Sung-Wook Shin, C. J. Lim, Ho-Sang Moon, Ji-Yong Chung, Ha-Yeon Cho, Sung-Taek Chung</td>
<td>Korea</td>
</tr>
<tr>
<td>166</td>
<td>Development of cognitive function evaluation contents for mobile based on MMSE-DS</td>
<td>Sung-Wook Shin, Ho-Sang Moon, Sung-Taek Chung</td>
<td>Korea</td>
</tr>
<tr>
<td>167</td>
<td>A Study on Organization Simulator as a Means to Prevent Workplace Depression</td>
<td>Takeaki Shionome</td>
<td>Japan</td>
</tr>
<tr>
<td>169</td>
<td>Trademark Image Similarity Search</td>
<td>Girish Showkatramani, Sashi Narredni, Chris Doninger, Greg Gabel, Arthi Krishna</td>
<td>United States</td>
</tr>
<tr>
<td>170</td>
<td>Developing an Internet of Things (IoT) Service System Based on Spatial Context</td>
<td>Hyo Jun Sim, Yun Gil Lee</td>
<td>Korea</td>
</tr>
<tr>
<td>171</td>
<td>A Simulator-based Approach to Assess Take-Over Performance in a Conditionally Automated Vehicle</td>
<td>Joonwoo Son, Sungryul Park, Myoungouk Park, Jinwoo Park, Jihyuk Park, Jonghwa Kim, Yongwon Yun</td>
<td>Korea</td>
</tr>
<tr>
<td>172</td>
<td>User-based Error Verification Method of Laser Beam Homogenizer</td>
<td>Jee Ho Song, Han Sol Shin, Tae Jun Yu, Kun Lee</td>
<td>Korea</td>
</tr>
<tr>
<td>173</td>
<td>Optimal Keyboard Design by using Particle Swarm Optimization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>Evaluation of Accessibility of Course Websites for Foundations of Engineering Classes</td>
<td>Elizabetth Spingola, Ken Reid</td>
<td>United States</td>
</tr>
<tr>
<td>175</td>
<td>Teaching Introductory Programming Concepts through a Gesture-based Interface</td>
<td>Lora Streeter, John Gauch</td>
<td>United States</td>
</tr>
<tr>
<td>176</td>
<td>Differences in Consumers’ Evaluation of Product Design Values by Thinking Style</td>
<td>Jaehye Suk, Kee Ok Kim</td>
<td>Korea</td>
</tr>
<tr>
<td>177</td>
<td>Evaluation of Touch-based Interface Design for the Elderly based on Cultural Differences</td>
<td>Fanny Febriani Susilo, Ji-Hyung Park, Jung-Min Park</td>
<td>Korea</td>
</tr>
<tr>
<td>178</td>
<td>Interaction Design Process Oriented by Metrics</td>
<td>Jessica Suzuki, Edna Dias Canedo</td>
<td>Brazil</td>
</tr>
<tr>
<td>179</td>
<td>Development of an Interactive Evolutionary Computation Catalog Interface with User Gaze Information</td>
<td>Hiroshi Takenouchi, Masataka Tokumaru</td>
<td>Japan</td>
</tr>
<tr>
<td>180</td>
<td>Verification of stereoscopic effect induced parameters of 3D shape monitor using reverse perspective</td>
<td>Ryoichi Takeuchi, Wataru Hashimoto, Yasuharu Mizutani, Satoshi Nishiguchi</td>
<td>Japan</td>
</tr>
<tr>
<td>181</td>
<td>Flexible Keyboard for Everyone - tailored software keyboard for the better touch typing -</td>
<td>Tomosugi Tasaka, Sayaka Akioka</td>
<td>Japan</td>
</tr>
<tr>
<td>182</td>
<td>Conversion of Player Locations from Football Goal Scene Videos to a 2D Top View</td>
<td>Kazuma Tomikawa, Ryosuke Saga</td>
<td>Japan</td>
</tr>
<tr>
<td>183</td>
<td>Detection of Checking Action on Parking Significant for Cognitive Dysfunction Patients</td>
<td>Tomoji Toriyama, Akira Urashima, Kanada Taisei</td>
<td>Japan</td>
</tr>
</tbody>
</table>
184. Creating individualized learning paths by blending content from multiple courses: An ontology-based model
Wan-Ting Tsai, Taiwan

185. Facebook reactions: Impact of introducing new features of SNS on Social Capital
Rama Adithya Varanasi, Elaine Dicicco, Andrew Gambino, United States

186. Redefining Audience Role in Live Performances
Victor Vasconcelos, Mauro Amazonas, Thais Castro, Rosiane De Freitas, Bruno Gadelha, Brazil

187. Effects of screen protector material on user's pressure accuracy when using a stylus for digital art
Daniela Vazquez Klisans, Nicholas Kelling, Michelle L. Spinelli, United States

188. Women, Gender Equality, and Digital Technology
Rojin Vishkaie, United States

189. Developing and Evaluating a Reproducible Research Platform for Analyzing Epidemiological Data to Predict Emerging Infectious Diseases
Jessica Voge, Arthur Wollocko, Jeffrey Mara, Brian Prue, United States

190. A User-Centered Terminology for Existing and Upcoming ICT Devices, Services and Applications
Bruno Von Niman, Sweden; Martin Böcker, Germany; Angel Boveda, Spain

191. An Intelligent and Context-Aware Touring System Based on Ontology
Chian Wang, Taiwan

192. Design Research on Customized Online Education Platform Catering to Business Demands
Yajie Wang, Xing Fang, Ying Luo, P.R. China

193. Flux Extraction Based on General Regression Neural Network for Two-Dimensional Spectral Image
Zhen Wang, Qian Yin, Ping Guo, Xin Zheng, P.R. China

194. Research on Dishwasher with User Experience Evaluation
Zhongting Wang, Ling Luo, Chaoyi Zhao, P.R. China

Ruth Wario, Bonface Ngari, South Africa

196. Medical Dictionary Using Sign Language Animation for Hearing-Impaired Persons
Keiko Watanabe, Yuji Nagashima, Japan

197. Interactive maps, seat maps, and charts: How do you make them accessible?
Gian Wild, United States

Pinata Winoto, Jie Chen, Hangzhi Guo, Tiffany Y. Tang, P.R. China

199. A CDF-based Symbolic Time-Series Data Mining Approach for Electricity Consumption Analysis
I-Chin Wu, Yi-An Chen, Zan-Xian Wang, Taiwan

200. Don’t lie to me: tracking eye movement and mouse trajectory to detect deception in sharing economy
Ping Wu, Jie Gu, Tian Lu, P.R. China

201. The Research on the Benefit of Telemedicine to Human Based on Evolutionary Game Theory
Qing Xue, Lingchen Zhou, Jia Hao, Minxia Liu, P.R. China

202. Development of Planetarium Viewing System using HMD
Kosei Yamamura, Satoshi Cho, Hisashi Sato, Japan

203. Quantitative Usability Testing based on Eye Fixation-related Potentials
Kimihiro Yamanaka, Japan

204. Study on UI of charger in EV Charging Station
Wonseok Yang, Takanori Hirohashi, Yeongchae Choi, Japan
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>205</td>
<td>Research on user-centered information design in SVOD service</td>
<td>Wonseok Yang, Satoshi Yahiro, Keitaro Sato</td>
<td>Japan</td>
</tr>
<tr>
<td>206</td>
<td>HCI-related research investment trend in Korea</td>
<td>Seung-Kyu Yi</td>
<td>Korea</td>
</tr>
<tr>
<td>207</td>
<td>Appropriateness of User Experience Design</td>
<td>Wei Yu, Yun Yang, Yanan Ni</td>
<td>P.R. China</td>
</tr>
<tr>
<td>208</td>
<td>Experimental Design for Multi-modal Take-Over Request for Automated Driving</td>
<td>Hanna Yun, Ji Won Lee, Hee Dong Yang, Ji Hyun Yang</td>
<td>Korea</td>
</tr>
<tr>
<td>209</td>
<td>Designing autonomous driving HMI system: interaction need insight and design tool study</td>
<td>Yinshuai Zhang, Chun Yu, Yuanchun Shi</td>
<td>P.R. China</td>
</tr>
<tr>
<td>210</td>
<td>Training Demand Analysis for Airlines Safety Manager Based on Improved OTP Model</td>
<td>Yuan Zhang, Yanqi Yu, Yijie Sun, Mingliang Chen</td>
<td>P.R. China</td>
</tr>
<tr>
<td>211</td>
<td>Research on Future-oriented Manager Service Design under the Background of New Retail</td>
<td>Shifeng Zhao</td>
<td>P.R. China</td>
</tr>
<tr>
<td>212</td>
<td>Experimental Study Based on Impacts of Time Pressure on Human-Computer Interaction Performance</td>
<td>Yi-qian Zhao, Tian-yu Wu, Ya-jun Li</td>
<td>P.R. China</td>
</tr>
<tr>
<td>213</td>
<td>Research on Filter Naming Mechanism Based on Emotional Expression and Cognitive Integration</td>
<td>Ke Zhong, Chen Tang, Liqun Zhang</td>
<td>P.R. China</td>
</tr>
</tbody>
</table>
The International Journal of Human-Computer Interaction addresses the cognitive, social, health, and ergonomic aspects of interactive computing. It emphasizes the human element in relation to the systems in which humans function, operate, network, and communicate, including software, hardware, and their various contexts of use. The journal publishes original articles including reviews and reappraisals of the literature, empirical studies, and quantitative and qualitative contributions to the theories of HCI.

RECENT CONTENTS

- **The System Usability Scale: Past, Present, and Future**
  James R. Lewis

- **Gender Differences in Motivations for Identity Reconstruction on Social Network Sites**
  Jiao Huang, Sameer Kumar & Chuan Hu

- **The Effect of Stimulus Size and Position on the Task Performance of an Eye Mouse: Comparing Blink and Dwell**
  Minjee Kim, Daehwan Jin, Ilsun Rhiu & Myung Hwan Yan

- **B2B E-Commerce Adoption in Iranian Manufacturing Companies: Analyzing the Moderating Role of Organizational Culture**
  Masoumeh Mohtaramzadeh, T. Ramayah & Cheah Jun-Hwa

- **A Human Factors Approach to Exploring the Experience of Group Trip Planning from the Perspective of Intragroup Interaction**
  Lanyun Zhang, Xu Sun & Christian Wagner

- **Head Movement Based Interaction in Mobility**
  Dariusz Sawicki & Piotr Kowalczyk

- **Mobile Technology in the Classroom: What Drives Student-Lecturer Interactions?**
  Chin Lay Gan & Vimala Balakrishnan

ONLINE SERVICES FROM TAYLOR & FRANCIS

- **Alerting Services** Set up table of contents alerts by clicking on the ‘alert me’ link on the journal homepage at tandfonline.com/HIHC

- **Taylor & Francis OPEN** The Taylor & Francis Open Access program offers a broad range of publishing options for authors. Visit tandfonline.com/page/openaccess to find out more.

READY TO PUBLISH YOUR ARTICLE?

International Journal of Human Computer Interaction welcomes manuscript submissions. For more details, visit the journal’s website at: www.tandfonline.com/HIHC
ISSN 1615-5289 (print)
ISSN 1615-5297 (electronic)
2017 Impact Factor: 1.176
5 Year Impact Factor: 1.175
Please recommend the journal to your librarian

International Journal
Universal Access in the Information Society (UAIS)

Editors-in-Chief: Constantine Stephanidis and Margherita Antona

UAIS addresses the accessibility, usability, and, ultimately, acceptability of Information Society Technologies by anyone, anywhere, at anytime, and through any media and device. UAIS focuses on theoretical, methodological, and empirical research, of both a technological and non-technological nature, that addresses equitable access and active participation of potentially all citizens in the information society. It features papers that report on theories, methods, tools, empirical results, reviews, case studies, and best-practice examples.

UAIS stimulates cross-fertilization between different contributing disciplines.

Why Publish in UAIS?

- Addresses the accessibility, usability, and, ultimately, acceptability of Information Society Technology by anyone, anywhere, at anytime, and through any media and device
- Technological and non-technological research focus


Free 7 week access to Volume 17:2 of UAIS for all HCI 2018 delegates: http://bit.ly/2ygtdkT
HCI International 2019
21st International Conference on Human-Computer Interaction

CALL FOR PARTICIPATION

HCI International 2019, jointly with its Thematic Areas and Affiliated Conferences, held under one management and one registration, invites you to participate and contribute (through papers, posters, student designs, demonstrations or tutorials) to this major international forum for the dissemination and exchange of up-to-date scientific information on theoretical and applied areas of HCI. Past HCI Conferences were attended by approximately 2,000 participants from more than 70 countries.

Awards
The best paper of each of the HCI 2019 Thematic Areas / Affiliated Conferences and the best poster will be given an award.

Student Design Competition
Students (undergraduate, postgraduate or doctoral) are invited to submit an abstract and a video clip (up to 5-minutes) that presents their design idea. Three awards will be presented.

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

Proceedings
The Conference Proceedings will be published by Springer in a multi-volume set. Papers will appear in the LNCS and LNAI series, while poster extended abstracts will be published in the CCIS series. All volumes will be available on-line through the SpringerLink Digital Library, readily accessible by subscribing libraries, and indexed by a number of services, including ISI CPCI, EI Engineering Index, ACM Digital Library, Google Scholar, etc.

Thematic Areas
Human-Computer Interaction
Chair: Masaaki Kurosu (Japan)

Human Interface and the Management of Information
Chairs: Sakae Yamamoto and Hirohiko Mori (Japan)

Affiliated Conferences
16th International Conference on Engineering Psychology and Cognitive Ergonomics
Chair: Don Harris (United Kingdom)

13th International Conference on Universal Access in Human-Computer Interaction
Chairs: Margherita Antonia and Constantine Stephanidis (Greece)

11th International Conference on Virtual, Augmented and Mixed Reality
Chairs: Jessica Y.C. Chen and Gino Fragomeni (USA)

11th International Conference on Cross-Cultural Design
Chair: P.L. Patrick Rau (P.R. China)

11th International Conference on Social Computing and Social Media
Chair: Gabriela Meiselwitz (USA)

13th International Conference on Augmented Cognition
Chair: Dylan Schomrow and Cali Fidopiastis (USA)

10th International Conference on Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management
Chair: Vincent Duffy (USA)

8th International Conference on Design, User Experience and Usability
Chairs: Aaron Marcus (USA) and Wentao Wang (P.R. China)

7th International Conference on Distributed, Ambient and Pervasive Interactions
Chairs: Norbert Streitz (Germany) and Shin’ichi Konomi (Japan)

6th International Conference on HCI in Business, Government and Organizations
Chairs: Fiona Full-Hoon Nah and Keng Siau (USA)

6th International Conference on Learning and Collaboration Technologies
Chairs: Panayiotis Zaphiris and Andri Ioannou (Cyprus)

5th International Conference on Human Aspects of IT for the Aged Population
Chairs: Gavriel Salvendy (USA, P.R. China) and Jia Zhou (P.R. China)

1st International Conference on HCI for Cybersecurity, Privacy and Trust
Chair: Abbas Moallem (USA)

1st International Conference on HCI in Games
Chair: Xiaowen Fang (USA)

1st International Conference on HCI in Mobility, Transport and Automotive Systems
Chair: Heidi Krömker (Germany)

<table>
<thead>
<tr>
<th>Submissions</th>
<th>Requirements &amp; Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papers²</td>
<td>Abstract length</td>
</tr>
<tr>
<td></td>
<td>Proposal Deadline</td>
</tr>
<tr>
<td></td>
<td>Review Notification</td>
</tr>
<tr>
<td></td>
<td>Camera-ready</td>
</tr>
<tr>
<td></td>
<td>Registration</td>
</tr>
<tr>
<td>Posters³</td>
<td>Abstract length</td>
</tr>
<tr>
<td></td>
<td>Proposal Deadline</td>
</tr>
<tr>
<td></td>
<td>Review Notification</td>
</tr>
<tr>
<td></td>
<td>Camera-ready</td>
</tr>
<tr>
<td></td>
<td>Registration</td>
</tr>
<tr>
<td>Demonstrations</td>
<td>Abstract length</td>
</tr>
<tr>
<td></td>
<td>Proposal Deadline</td>
</tr>
<tr>
<td></td>
<td>Camera-ready</td>
</tr>
<tr>
<td></td>
<td>Registration</td>
</tr>
</tbody>
</table>

²Submissions will be peer-reviewed by at least 2 independent referees from the International Program Boards
³A distinguished international committee will be the jury

Invited Papers
Process under the guidance of Parallel Session Organizers
Process open until camera-ready deadline: 1 February 2019

Regular or Invited Tutorials
Deliver a half day tutorial at introductory, intermediate or advanced level regarding one of the Conference topics. Submit a 300 words abstract by 12 October 2018
Property Map

1. Entrance from the hotel
2. Secretariat – Registration Desk
3. Opening Plenary Session
4. Reception
5. Exhibition
6. Posters Area
7. Conference Refreshment Breaks
8. Tutorials Refreshment Breaks

Scan the QR-Code for on-line program or visit http://2018.hci.international/program