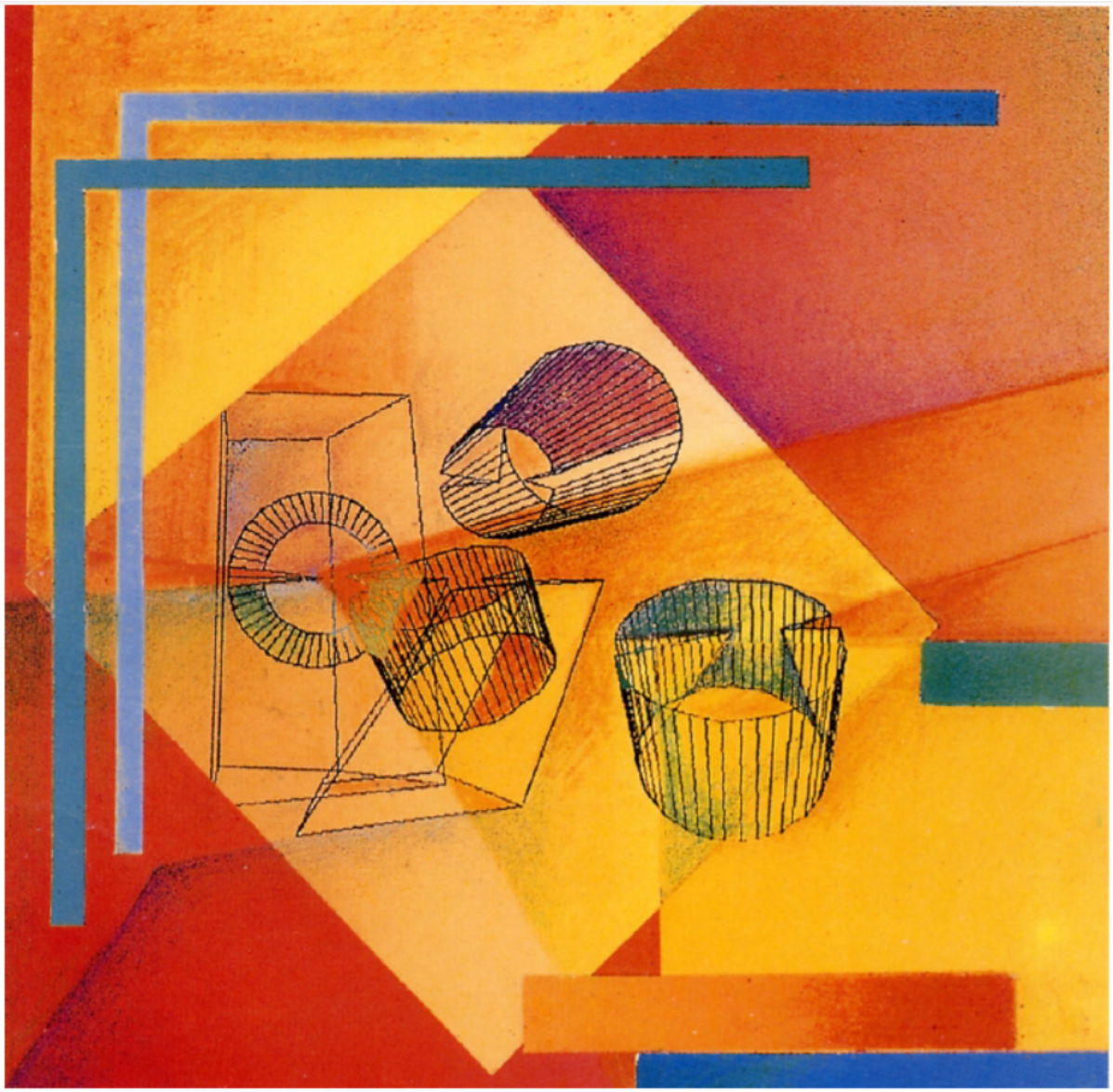

Proceedings of the Working Conference on **Advanced Visual Interfaces AVI 2020**

Island of Ischia, Italy
September 28 - October 2, 2020

Genny Tortora, Giuliana Vitiello and Marco Winckler
(editors)

The Association for Computing Machinery
1601 Broadway, 10th Floor
New York, New York 10019, USA

ACM COPYRIGHT NOTICE. Copyright © 2020 by the Association for Computing Machinery, Inc. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from Publications Dept., ACM, Inc., fax +1 (212) 869-0481, or permissions@acm.org.

For other copying of articles that carry a code at the bottom of the first or last page, copying is permitted provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, +1-978-750-8400, +1-978-750-4470 (fax).

ACM ISBN: 978-1-4503-7535-1

FOREWORD

The International Conference on Advanced Visual Interfaces (AVI) is a biannual scientific event on the field of Human-Computer Interaction (HCI) that is organized every two years since 1992 in Italy. The scope of the AVI conference encompasses a large spectrum of topics describing advances on technology and new possibilities for user interaction. In addition to contributions reporting the design, implementation and evaluation of novel visual interfaces, AVI welcome researchers presenting technological results, paradigms, and visions of HCI and user interfaces.

While rooted in Italy, AVI is a true international conference with respect to nationality of participants, authors of papers and program committee members. The mixture of carefully selected research contributions paired with cordial Italian hospitality creates a unique conference atmosphere, which has made AVI an internationally recognized brand.

The AVI conference is held in cooperation with the Special Interest Groups (SIG) of the Association for Computing Machinery (ACM): ACM SIGCHI (on Computer Human Interaction), ACM SIGMM (on Multimedia), and ACM SIGWEB (on Hypertext and the Web). The conference proceedings are published by ACM Press and available in the ACM Digital Library. This conference also complies the Code of Conduct abides by ACM Code of Ethics and Policy against Harassment.

AVI 2020 was originally planned to run from June 8-12th, 2020, at the island of Ischia in the Gulf of Napes, Italy. Very unfortunately, due to the outbreak of the Covid-19 and the dramatic consequences of the pandemic that followed, the conference was postponed and, by the time of the writing of these proceedings, the AVI conference is confirmed to run from September 28th to October 2nd 2020.

AVI 2020 received 123 submissions of which were accepted 36 full papers (representing 29% acceptance rate) and 30 short papers (24% acceptance rate). In addition to that, AVI 2020 received 32 contributions as demo/posters. All these contributions have been rigorously peer-reviewed by the international program committee. The top ranked submissions were granted with the best paper award (1% of total submissions) and honorable mention award (6% of total submissions).

The program of the AVI 2020 also includes three international keynotes:

- Margaret Burnett, School of EECS, Oregon State University, United States of America.
- Philippe Palanque, ICS-IRIT, Université Toulouse 3 – Paul Sabatier, Toulouse, France.
- Albrecht Schmidt, Ludwig-Maximilians-Universität München, Germany.

As part of the organization of AVI 2020, we have selected the following workshops:

- AVI2CH 20 Advanced Visual Interfaces and Interactions in Cultural Heritage.
  Organizers: Angela Antoniou, Berardina (Nadja) De-Carolis, Alan Dix, Cristina Gena, George Lepouras, Tsvi Kuflik, George Raptis, Antonio Origlia.
- Data4Good: Designing for Diversity and Development.
  Organizers: Luigi De Russis, Neha Kumar, Akhil Mathur.
- EMPATHY: Empowering People in Dealing with Internet of Things Ecosystems.
  Organizers: Giuseppe Desolda, Vincenzo Deufemia, Cristina Gena, Maristella Matera, Fabio Paternò, Barbara Treccani.
- ITAVIS: 2nd Italian Workshop on Visualization & Visual Analytics.

Organizers: Marco Angelini, Giuseppe Santucci.

- Road Mapping Infrastructures for Artificial Intelligence Supporting Advanced Visual Big Data Analysis.
  Organizers: Thoralf Reis, Marco X. Bornschlegl, Matthias L. Hemmje.
- Visual Interface Design Methods (VIDEM).
  Organizers: Mandy Keck, Dietrich Kammer, Alfredo Ferreira, Andrea Giachetti, Rainer Groh.
- Visual user interfaces for human motion.
  Organizers: Lilian Genaro Motti Ader, Benoît Bossavit, Katerina El Raheb, Mathieu Raynal, Karine Lan Hing Ting, Nadine Vigouroux, Pourang P. Irani, Brian Caulfield, Jean Vanderdonckt.

We would like to express our gratitude to those who supported AVI 2020 in many different ways. It is worthy of notice that the reviewing process was accomplished during a period of the uncertainty and we congratulate everyone for the motivation to carry on the work during the period of lockdown. Our special thought of gratitude for the chairs of tracks Full Papers (Maria De Marsico and Ignacio Aedo), Short Paper (Francesco Leotta and Carla Maria Dal Sasso Freitas), Posters & Demo (Silvio Barra and Marco Romano), Workshop (Monica Sebillo and Shah Rukh Humayoun), Tutorial (Rosa Lanzilotti and Helen C. Purchase), Associated Chairs, Program Committee members, and all the reviewers who not only help with the selection of high quality scientific contributions but also provided valuable advices to improve the work of authors. We extend our recognition of hard work to the Publicity Chair (Rita Francese), the Local Arrangements Chair (Paola De Roberto) who worked twice to make AVI happen after the changes in the dates, and the AVI Steering Committee for the valuable advices. Thanks to Michele Nappi who is organizing two special issues for selected papers of AVI 2020. Last, but not least, our sincere gratitude to the keynotes and all the attendees of AVI 2020.

Genny Tortora, Giuliana Vitiello and Marco Winckler

TABLE OF CONTENTS

Foreword

Keynotes

Doing Inclusive Design: From GenderMag in the Trenches to InclusiveMag in the Research Lab
Margaret Burnett, School of EECS, Oregon State University, United States of America

Ten Objectives and Ten Rules for Designing Automations in Interaction Techniques, User Interfaces and Interactive Systems
Philippe Palanque, ICS-IRIT, Université Toulouse 3 – Paul Sabatier, Toulouse, France

Interactive Human Centered Artificial Intelligence – A Definition and Research Challenges
Albrecht Schmidt, Ludwig-Maximilians-Universität München, Germany

Full Papers

Activity River: Visualizing Planned and Logged Personal Activities for Reflection
Bon Adriel Aseniero, Charles Perin, Wesley Willett, Anthony Tang and Sheelagh Carpendale

Bring2Me: Bringing Virtual Widgets Back to the User's Field of View in Mixed Reality
Charles Bailly, Francois Leitner and Laurence Nigay

Caarvida: Visual Analytics for Test Drive Videos
Alexander Achberger, René Cutura, Oguzhan Türksoy and Michael Sedlmair

Categories and Completeness of Visual Programming and Direct Manipulation
Michael McGuffin and Christopher Fuhrman

Children's Beliefs and Understanding of Smart Objects: an Exploratory Study
Alessandra Melonio, Mehdi Rizvi, Eftychia Roumelioti, Antonella De Angeli, Rosella Gennari and Maristella Matera

ClaVis: An Interactive Visual Comparison System for Classifiers
Frank Heyen, Tanja Munz, Michael Neumann, Daniel Ortega, Ngoc Thang Vu, Daniel Weiskopf and Michael Sedlmair

Comparing and Exploring High-Dimensional Data with Dimensionality Reduction Algorithms and Matrix Visualizations
René Cutura, Michaël Aupetit, Jean-Daniel Fekete and Michael Sedlmair

Corsican Twin: Authoring In Situ Augmented Reality Visualisations in Virtual Reality
Arnaud Prouzeau, Yuchen Wang, Barrett Ens, Wesley Willett and Tim Dwyer

CrossWidgets: Enhancing Complex Data Selections through Modular Multi Attribute Selectors
Marco Angelini, Graziano Blasilli, Simone Lenti, Alessia Palleschi and Giuseppe Santucci

CyberVR - An Interactive Learning Experience in Virtual Reality for Cybersecurity Related Issues
Silvestro Veneruso, Lauren Stacey Ferro, Andrea Marrella, Massimo Mecella and Tiziana Catarci

DELEX: A Deep Learning emotive experience
Andrea Francesco Abate, Aniello Castiglione, Michele Nappi and Ignazio Passero

Design and evaluation of an educational virtual reality application for learning how to perform on a stage
Fabio Pittarello, Veronica Pagini and Leonardo Zuffellato

Designing usable interfaces for Industry 4.0
Marianna Di Gregorio, Giancarlo Nota, Marco Romano, Monica Sebillo and Giuliana Vitiello

Drawing Graphs on the Sphere
Kathryn Gray, Mason Yin, Stephen Kobourov and Scott Perry

Emotions on the Go: Mobile Emotion Assessment in Real-Time using Facial Expressions
Thomas Kosch, Mariam Hassib, Robin Reutter and Florian Alt

Evaluating the Scalability of Non-Preferred Hand Mode Switching in Augmented Reality
Jesse Smith, Isaac Wang, Winston Wei, Julia Woodward and Jaime Ruiz

Evaluating User Preferences for Augmented Reality Interactions with the Internet of Things
Shreya Chopra and Frank Maurer

Exploring the Potential of Speech-based Virtual Assistants in Mixed Reality Applications for People with Cognitive Disabilities
Francesco Vona, Emanuele Torelli, Eleonora Beccaluva and Franca Garzotto

Externalizing Mental Images by Harnessing Size-Describing Gestures: Design Implications for a Visualization System
Sarah Anne Brown, Sharon Lynn Chu and Neha Rani

HeyTAP: Bridging the Gaps Between Users' Needs and Technology in IF-THEN Rules via Conversation
Fulvio Corno, Luigi De Russis and Alberto Monge Roffarello

Immersion in Desktop-Based Web Browsing: A Framework
Sabrina Scuri and Valentina Nisi

Incidental Visualizations: Primitive Visual Tasks At-a-Glance
João Moreira, Daniel Mendes and Daniel Gonçalves

Interactive Time-Series of Measures for Exploring Dynamic Networks
Liwenhan Xie, James O'Donnell, Benjamin Bach and Jean-Daniel Fekete

miniJava: Automatic Miniaturization of Java Applications
Rita Francese, Michele Risi and Genoveffa Tortora

Preserving Contextual Awareness during Selection of Moving Targets in Animated Stream Visualizations
Eric Ragan, Andrew Pachuilo, John Goodall and Felipe Bacim

Recognition and Recall of Geographic Data In Cartograms
Sabrina Nusrat, Jawaherul Alam and Stephen Kobourov

RegLine: Assisting Novices in Refining Linear Regression Models
Xiaoyi Wang, Luana Micallef and Kasper Hornbæk

Taking the Long View: Structured Expert Evaluation for Extended Interaction
Alan Dix

Target Expansion in Context: the Case of Menu in Handheld Augmented Reality
Patrick Perea, Denis Morand and Laurence Nigay

TieLent: A Casual Neck-Mounted Lip Movement Capturing Device for Silent Speech Interaction
Naoki Kimura, Kentaro Hayashi and Jun Rekimoto

TuVe : A Shape-changable Display using Fluids in a Tube
Saya Suzunaga, Yuichi Itoh, Yuki Inoue, Kazuyuki Fujita and Takao Onoye

Using Virtual Reality and Music in Cognitive Disability Therapy
Abel Vargas, Paloma Diaz and Telmo Zarraonandia

Virtual bowling: launch as you all were there!
Maria De Marsico, Emanuele Panizzi, Francesca Romana Mattei, Antonio Musolino, Manuel Prandini, Marzia Riso and Davide Sforza

Visual Encodings for Networks with Multiple Edge Types
Athanasios Vogogias, Daniel Archambault, Benjamin Bach and Jessie Kennedy

Visual Exploration of Time-Series Forecasts Through Structured Navigation
Xiaoyi Wang and Kasper Hornbæk

When High Fidelity Matters: AR and VR Improve the Learning of a 3D Object
Thibault Louis, Jocelyne Troccaz, Amélie Rochet-Capellan, Nady El Hoyek and François Bérard

Short Papers

3D Tabletop AR: A Comparison of Mid-Air, Touch and Touch+Mid-Air Interaction
Carole Plasson, Dominique Cunin, Yann Laurillau and Laurence Nigay

A Chrome extension to help people with dyslexia
Rudy Berton, Agnieszka Kolasinska, Ombretta Gaggi, Claudio Palazzi and Giacomo Quadrio

A Language-based Interface for Analysis of Digital Storytelling
Alberto Gloder, Massimo Zancanaro and Luca Ducceschi

A Question-Oriented Visualization Recommender Approach for Data Exploration
Raul de Araújo Lima and Simone Diniz Junqueira Barbosa

A Visual Environment for End-User Creation of IoT Customization Rules with Recommendation Support
Andrea Mattioli and Fabio Paterno

A Visual Tool for Supporting Decision-Making in Privacy Oriented Software Development
Vita Santa Barletta, Maria Teresa Baldassarre, Danilo Caivano and Antonio Piccinno

AR Based User Adaptive Compensation of Metamorphopsia
Guido Bozzelli, Maurizio De Nino, Chiara Pero and Stefano Ricciardi

Are Thermal Attacks Ubiquitous? When Non-Expert Attackers Use Off the shelf Thermal Cameras
Yasmeen Abdrabou, Yomna Abdelrahman, Ahmed Ayman, Amr Elmougy and Mohamed Khamis

Augmented Situated Visualization for Spatial and Context-Aware Decision-Making
Renan Luigi Martins Guarese, Joao Becker, Henrique Fensterseifer, Marcelo Walter, Carla Freitas, Luciana Nedel and Anderson Maciel

BreastScreening: On the Use of Multi-Modality in Medical Imaging Diagnosis
Francisco Maria Calisto, Nuno Jardim Nunes and Jacinto Nascimento

Circles of Affordance: Proposal for a diagnostic tool to support usability studies and interaction design
Robert Spence and Leah Redmond

Conversational interfaces for a smart campus: a case study
Marta Bortoli, Marco Furini, Silvia Mirri, Manuela Montangero and Catia Prandi

Counterterrorism for Cyber-Physical Spaces: a Computer Vision Approach
Giuseppe Cascavilla, Johann Slabber, Fabio Palomba, Dario Di Nucci, Damian Andrew Tamburri and Willem-Jan van den Heuvel

Designing a Self-help Mobile App to Cope with Avoidance Behaviour in Panic Disorder.
Maria Teresa Paratore, Maria Claudia Buzzi and Marina Buzzi

Don't Use Fingerprint, it's Raining! How People Use and Perceive Context-Aware Selection of Mobile Authentication

Sarah Prange, Lukas Mecke, Alice Nguyen, Mohamed Khamis and Florian Alt

Empirical Study of Focus-Plus-Context and Aggregation Techniques for the Visualization of Streaming Data

Eric Ragan, Andrew Stamps and John Goodall

Examining Fitts' and FFitts' Law Models for Children's Pointing Tasks on Touchscreens

Julia Woodward, Jahelle Cato, Jesse Smith, Isaac Wang, Brett Benda, Lisa Anthony and Jaime Ruiz

Examining the Presentation of Information in Augmented Reality Headsets for Situational Awareness

Julia Woodward, Jesse Smith, Isaac Wang, Sofia Cuenca and Jaime Ruiz

Hand Gesture Interactions with a Low-Resolution Infrared Image Sensor Worn on the Inner Wrist

Yuki Yamato, Yutaro Suzuki, Kodai Sekimori, Buntarou Shizuki and Shin Takahashi

MirAIProjection: Real-time Projection onto High-speed Objects by Predicting Their 3D Position and Pose using DNNs

Kosuke Maeda and Hideki Koike

Modelling Data Visualization Interactions: from Semiotics to Pragmatics and Back to Humans

Paolo Buono and Angela Locoro

Neural Data-Driven Captioning of Time-Series Line Charts

Andrea Spreafico and Giuseppe Carenini

ParVis: A visual tool for exploring parser execution traces

Gennaro Costagliola, Mattia De Rosa, Vittorio Fuccella and Mark Minas

Polka: A Water-jet Printer for Painting on the Grounds

Reona Nagafuchi, Yasushi Matoba, Kaori Ikematsu, Ayaka Ishii, Yoshihiro Kawahara and Itiro Siio

Pose Estimation for Facilitating Movement Learning from Online Videos

Atima Tharatipyakul, Kenny Choo and Simon Perrault

SwimBall: a Serious Game for Children with Autism Spectrum Disorder

Berardina Nadja De Carolis and Domenico Argentieri

Towards a cognitive-inspired automatic unitizing technique: a feasibility study

Eleonora Ceccaldi and Gualtiero Volpe

Understanding and Supporting Academic Literature Review Workflows with LitSense

Nicole Sultanum, Christine Murad and Daniel Wigdor

Vibrotactile Feedback for Vertical 2D-space Exploration

Lancelot Dupont, Christophe Jouffrais and Simon Perrault

Visualizing Program Genres' Temporal-Based Similarity in Linear TV Recommendation
Veronika Bogina, Julia Sheidin, Tsvi Kuflik and Shlomo Berkovsky

Poster and Demos

A color map to compare reactions tools in interactive systems
Davide Brunetti, Federica Cena, Cristina Gena, Enrico Mensa and Fabiana Vernero

A Design Space for Advanced Visual Interfaces for Teleoperated Autonomous Vehicles
Gaetano Graf, Henri Palleis and Heinrich Hussmann

A Framework for Biometric Recognition in Online Content Delivery Platforms
Mirko Marras and Gianni Fenu

A New Notation for Interactive Systems
Robert Spence and Leah Redmond

A Playful Citizen Science Tool for Casual Users
Risa Kimura, Keren Jiang, Di Zhang and Tatsuo Nakajima

A Voice User Interface for football event tagging applications
Silvio Barra, Alessandro Carcangiu, Salvatore Carta, Alessandro Sebastian Podda and Daniele Riboni

A Web App for Teaching Piano to Students with Autism
Amaury Trujillo, Maria Claudia Buzzi, Marina Buzzi and Caterina Senette

An Haptic Interface for Industrial High-Precision Manufacturing Tasks
Sergio Di Martino and Vincenzo Norman Vitale

ARCA. Semantic exploration of a bookstore
Eleonora Bernasconi, Miguel Ceriani, Massimo Mecella, Tiziana Catarci, Maria Cristina Capanna, Clara Di Fazio, Roberto Marcucci, Erik Pender and Fabio Maria Petriccione

cASpER: A Plug-in for Automated Code Smell Detection and Refactoring
Manuel De Stefano, Michele Simone Gambardella, Fabiano Pecorelli, Fabio Palomba and Andre De Lucia

Designing different features of an interactive tabletop application to support collaborative problem-solving
Hoorieh Afkari, Valérie Maquil, Béatrice Arend, Svenja Heuser and Patrick Sunnen

Designing Visual Tools to Facilitate Human-Centered Design
Yuzhou Wang and Masood Masoodian

Domus: a multi-user TUI game for multi-touch tables
Giuseppe Coppola, Gennaro Costagliola, Mattia De Rosa and Vittorio Fuccella

FeedBucket: Simplified Haptic Feedback for VR and MR
Valentino Artizzu, Davide Fara, Riccardo Macis and Lucio Davide Spano

Gaze-Based Moving Target Acquisition using Pseudo Stopping for the Time predicted via Fitts' Law
Keita Shimasato and Yasuyuki Kono

Giving Motivation for Using Secure Credential through User Authentication by Game
Tetsuji Takada and Yumeji Hattori

Information Visualization Interface on Home Router Traffic Data for Laypersons
Marija Schufrin, David Sessler, Steven Lamarr Reynolds, Salmah Ahmad, Tobias Mertz and Jörn Kohlhammer

Integrated Visual Analytics Approach against Multivariate Cybersecurity Attack
Taewoong Kwon, Iksoo Shin, Kyuil Kim, Jungsuk Song and Jun Lee

Interaction in Volumetric Film - An Overview
Krzysztof

Introducing Artificial Commensal Companions
Maurizio Mancini, Conor Patrick Gallagher, Radoslaw Niewiadomski, Gijs Huisman and Merijn Bruijnes

Modified AttrakDiff in UX Evaluation of a Mobile Prototype
Pekka Isomursu, Minna Virkkula, Karoliina Niemelä, Jouni Juntunen and Janne Kumpuoja

Personalized Multifaceted Visualization of Scholars Profiles
Saeed Amal, Mustafa Adam, Peter Brusilovsky, Einat Minkov and Tsvi Kuflik

PowerShare 2.0: A Gamified P2P Energy Trading Platform
Sabrina Scuri and Nuno Nunes

SelfLens: A Portable Tool to Facilitate All People in Getting Information on Food Items
Giulio Galesi, Luciano Giunipero, Barbara Leporini and Gianni Verdi

Space-free Gesture Interaction with Humanoid Robot
Shah Rukh Humayoun, Muhammad Faizan, Zuhair Zafar and Karsten Berns

SuppleView: Rotation-Based Browsing Method by Changing Observation Angle of View for an Actor in Existing Videos
Natsuki Hamanishi and Jun Rekimoto

TeMoCo-Doc: A visualization for supporting temporal and contextual analysis of dialogues and associated documents

Shane Sheehan, Saturnino Luz, Pierre Albert and Masood Masoodian

The CrazySquare solution: a gamified ICT tool to support the musical learning in pre-adolescents

Carlo Centofanti, Alessandro D'Errico, Federica Caruso and Sara Peretti

The Therapeutic Use of Humanoid Robots for Behavioral Disorders

Federica Amato, Marianna Di Gregorio, Clara Monaco, Monica Sebillo, Genoveffa Tortora and Giuliana Vitiello

V-DOOR: A Real-Time Virtual Dressing Room Application Using Oculus Rift

Silvestro Veneruso, Tiziana Catarci, Lauren S Ferro, Andrea Marrella and Massimo Mecella

Visual analysis of interactive document clustering streams

Eric M. Cabral, Evangelos E. Milios and Rosane Minghim

VITRuM - A Plug-In for the Visualization of Test-Related Metrics

Fabiano Pecorelli, Gianluca di Lillo, Fabio Palomba and Andrea De Lucia

Wearable Interfaces and Advanced Sensors to Enhance Firefighters Safety in Forest Fires

Pietro Battistoni, Marianna Di Gregorio, Domenico Giordano, Monica Sebiilloo, Genoveffa Tortora and Giuliana Vitiello

Workshops

Visual user interfaces for human motion

Lilian Genaro Motti Ader, Benoît Bossavit, Katerina El Raheb, Mathieu Raynal, Karine Lan Hing Ting, Nadine Vigouroux, Pourang P. Irani, Brian Caulfield, Jean Vanderdonckt

Visual Interface Design Methods

Mandy Keck, Dietrich Kammer, Alfredo Ferreira, Andrea Giachetti, Rainer Groh

Data4Good: Designing for Diversity and Development

Luigi De Russis, Neha Kumar, Akhil Mathur

AVI^{2}CH 20 Advanced Visual Interfaces and Interactions in Cultural Heritage

Angela Antoniou, Berardina (Nadja) De-Carolis, Alan Dix, Cristina Gena, George Lepouras, Tsvi Kuflik, George Raptis, Antonio Origlia

EMPATHY: Empowering People in Dealing with Internet of Things Ecosystems

Giuseppe Desolda, Vincenzo Deufemia, Cristina Gena, Maristella Matera, Fabio Paternò, Barbara Treccani

ITAVIS: 2nd Italian Workshop on Visualization & Visual Analytics

Marco Angelini, Giuseppe Santucci

Road Mapping Infrastructures for Artificial Intelligence Supporting Advanced Visual Big Data Analysis

Thoralf Reis, Marco X. Bornschlegl, Matthias L. Hemmje

Organizing Committee

General Chair
Genny Tortora, *University of Salerno, Italy*

Program Chairs
Giuliana Vitiello, *University of Salerno, Italy*
Marco Winckler, *University of Nice Sophia Antipolis, France*

Long paper Chairs
Ignacio Aedo, *Universidad Carlos III de Madrid, Spain*
Maria De Marsico, *Sapienza University of Rome, Italy*

Short Paper Chairs
Carla Maria Dal Sasso Freitas, *Universidade Federal do Rio Grande do Sul, Brazil*
Francesco Leotta, *Sapienza University of Rome, Italy*

Posters & Demo Chairs
Marco Romano, *University of Salerno, Italy*
Silvio Barra, *University of Cagliari, Italy*

Workshop Chairs
Monica Sebillo, *University of Salerno, Italy*
Shah Rukh Humayoun, *San Francisco State University, United States*

Tutorial Chairs
Helen C. Purchase, *University of Glasgow, Scotland*
Rosa Lanzilotti, *University of Bari Aldo Moro, Italy*

Publicity Chair
Rita Francese, *University of Salerno, Italy*

Local Arrangements Chair
Paola De Roberto, *University of Salerno, Italy*

Special Issue Chair
Michele Nappi, *University of Salerno, Italy*

Steering Committee
Franca Garzotto, *Polytechnic of Milan, Italy*
Genny Tortora, *University of Salerno, Italy*
Kent Norman, *University of Maryland, USA*
Maria Francesca Costabile, *University of Bari, Italy*
Maristella Matera, *Polytechnic of Milan, Italy*
Massimo Mecella, *Sapienza University of Rome, Italy*
Paolo Buono, *University of Bari, Italy*
Paolo Paolini, *Polytechnic of Milan, Italy*
Tiziana Catarci, *Sapienza University of Rome, Italy*

Programme Committee

Associate Chairs

Alessio Malizia, *University of Hertfordshire, UK*
Andreas Holzinger, *HCI-KDD Medical University Graz, Austria*
Andrea Marrella, *Sapienza Università di Roma, Italy*
Athula Ginige, *Western Sydney University, Australia*
Bongshin Lee, *Microsoft Research, USA*
Daniela Fogli, *University of Brescia, Italy*
Effie Lai-Chong Law, *University of Leicester, UK*
Elena Marquez Segura, *Universidad Carlos III de Madrid, Spain*
Harry Hochheiser, *University of Pittsburgh, USA*
Margherita Antona, *ICS-FORTH, Greece*
Noritaka Osawa, *Chiba University, Japan*
Paloma Díaz, *University Carlos III of Madrid, Spain*
Paolo Bottoni, *Sapienza Università di Roma, Italy*
Phillip Sheu, *University of California Irvine, USA*
Stephen Brewster, *University of Glasgow, UK*
Takayuki Itoh, *Ochanomizu University, Japan*
Tsvi Kuflik, *The University of Haifa, Israel*
Vincenzo Deufemia, *University of Salerno, Italy*

Program Committee members

Aliaksei Miniukovich
Angela Locoro
Antonella Toffetti
Barbara Rita Barricelli
Berardina Nadja De Carolis
Davide Bolchini
Diogo Cabral
Carmelo Ardito
Carmen Santoro
Christophe Hurter
Cristina Gena
Emmanuel Dubois
Esther Guerra
Fabio Persia
Federico Cabitza
Francesco Cutugno
George Ghinea
Giovanni Acampora
Giuseppe Desolda
Janet Wesson
Juan Manuel Dodero
Keith Cheverst
Kresimir Matkovic
Lauren Ferro
Laurence Nigay
Marco Angelini
Marcos Baez
Maria Claudia Buzzi
Masahito Hirakawa
Maurizio Caon
Michele Fiorentino
Michele Risi
Nuno Nunes
Ombretta Gaggi
Ornella Mich
Rob Macredie
Silvia Mirri
Simone Stumpf
Stefano Valtolina
Telmo Zarraonandia
Vlado Glavinic

Reviewers

Alessio Malizia
Aliaksei Miniukovich
Andrea Marrella
Andreas Holzinger
Angela Locoro
Antonella Toffetti
Antonio Piccinno
Athula Ginige
Barbara Barricelli
Berardina Nadja De Carolis
Bongshin Lee
Boris De Ruyter
Carla M.D.S. Freitas
Carmelo Ardito
Carmen Santoro
Christophe Hurter
Cristina Gena
Daniela Fogli
Davide Bolchini
Diogo Cabral
Effie Lai-Chong Law
Elena Marquez Segura
Emanuele Panizzi
Emmanuel Dubois
Esther Guerra
Fabio Paterno
Fabio Persia
Fabio Pittarello
Federico Cabitza
First name Last name
Francesco Cutugno
Francesco Leotta
Gheorghita Ghinea
Giovanni Acampora
Giuliana Vitiello
Giuseppe Desolda
Giuseppe Santucci
Gustavo Rossi
Harry Hochheiser
Ignacio Aedo
Janet Wesson
Juan Manuel Dodero
Keith Cheverst
Kresimir Matkovic
Lauren Ferro
Laurence Nigay
Marco Angelini
Marco Romano
Marco Winckler
Marcos Baez
Margherita Antona
Maria Claudia Buzzi
Maria De Marsico
Marianna Di Gregorio
Mark Minas
Masahito Hirakawa
Maurizio Caon
Michele Fiorentino
Michele Risi
Noritaka Osawa
Nuno Nunes
Ombretta Gaggi
Ornella Mich
Paloma Díaz
Paolo Bottoni
Phillip Sheu
Rita Frances
Rita Francese
Rob Macredie
Silvia Mirri
Silvio Barra
Simone Stumpf
Stefano Valtolina
Stephen Brewster
Takayuki Itoh
Telmo Zarraonandia
Vincenzo Deufemia
Vlado Glavinic

Hosting

UNIVERSITÀ DEGLI STUDI DI SALERNO
DIPARTIMENTO DI INFORMATICA
DIPARTIMENTO DI ECCELLENZA

In Cooperation