



Bologna, Italy
27-30 August 2019

Global Challenges in Assistive Technology Research, Policy & Practice



The 15th International Conference
of the Association for the
Advancement of Assistive
Technology in Europe (AAATE)



PROGRAMME

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Presentation



Dear colleagues,

It is a great pleasure to present the Programme of the 15th international conference of the Association for the Advancement of Assistive Technology in Europe for your appreciation. The conference, taking place in Bologna (Italy) at the end of August 2019, covers as usual a wide variety of themes having to do with the relation between Technology and Disability. Beside the more traditional areas of Assistive Technology this includes Accessibility, Universal Design, Ambient Assisted Living, Smart environments and Internet of Things, Robotics, Technologies for independent living and self-management, Rehabilitation technology, Technology for Ageing, Augmentative and Alternative Communication, etc. It is a precise choice of the conference organisers, fully in line with the mission and positioning of AAATE as a European AT association of reference, not to specialise in any of those fields, but to keep this broad perspective, adopting the standpoint of those searching for effective assistive technology based solutions for their empowerment and for whom all solutions are open, as

long as they work well. This approach makes the AAATE conference probably the most all-round AT conference in Europe and a biannual “must” for professionals supporting persons with disabilities and older adults. As a matter of fact, reading through the Programme, the reader get a good picture of the broadness of the field and the wealth of competence represented by the authors. We would like to thank the Programme Committee, in particular Lorenzo Desideri of AIAS Bologna, and the Scientific Committee Members for the work done in collecting, reviewing and selecting the abstracts at the bases of this Programme. They form the main scientific heritage of this conference, together with other reports that will be made from the educational sessions, the policy sessions and the product and prototype presentations.

Finally we would like to thank the colleagues that have chosen the AAATE conference to present their work. We have appreciated your effort and look forward to listen to your presentations.

The conference chairs

Evert-Jan Hoogerwerf (AIAS Bologna onlus)

Rabih Chattat (Alma Mater Studiorum University of Bologna)

Luc de Witte (AAATE)



PRE-CONFERENCE EVENTS

27 August 2019



Virtual/Augmented Reality and Social Robotics in the Assistive Technology domain

A “hands-on” workshop organised by AIAS Bologna onlus and EON Reality Italy

27-08-2019, 9.00–14.00

Worklife Innovation Hub, Via del Lavoro 47,
Casalecchio di Reno BO

During the workshop participants will have the opportunity to learn more about innovative human machine interaction techniques and explore together possible application areas related to disability and ageing.

The workshop will focus on Virtual and Augmented Reality on the one hand and Social Robotics on the other hand.

i The workshop will be delivered in the VR Innovation Academy inside the Interactive Digital Center of EON Reality Italy) and will include demonstrations, hands-on development exercises, small group work, plenary discussions.

Light lunch provided

Registration required.

For more programme details and logistics <http://aaate2019.eu/pre-conference-events/>

Visit to “Centro Protesi INAIL”

27-08-2019, 10.00–13.30

Via Rabuina 14, Vigorso,
Budrio BO

The Centro Protesi Inail, founded in 1961, is an ISO 9001-2015 certified company and is an articulated and complex structure in which the most up-to-date knowledge in the field of technical orthopedics is applied and where the functional and psycho-social framework of the injured is rebuilt for complete reintegration into the world of work, in the family and more widely in society.

i Light lunch (offered by INAIL) provided.
Registration required
For more programme details and logistics <http://aaate2019.eu/pre-conference-events/>

General Assembly of the International Alliance of Assistive Technology Organizations

The meeting is open to potential members as well

27/08/2019, 10.00-11.45

Main conference venue: Via Beniamino
Andreatta 8, Bologna, Room Q

The International Alliance of Assistive Technology Organisations is a global alliance of AT focussed non-for-profit membership organisations. During the meeting the members will discuss the roadmap for growth and development of the Alliance and its updated strategic work plan.

i Participation (free of charge) is open to representatives of organisations interested in becoming members or observers. See call for collaborations downloadable from the conference website.

Workshop AAATE/SIG "Standardisation" (S13N)

How to find and contribute to standards
Standards as a means to support AT/
Accessibility/Inclusion

27/08/2019, 12.15-14.00

Main conference venue: Via Beniamino
Andreatta 8, Bologna, Room Q

The SIG on Standardisation of AAATE aims at overcoming the situation and establishing a platform of AT/Accessibility/Inclusion experts willing to contribute by identifying relevant standards or standardising activities, commenting/recommending amendments and submitting them to the relevant committees/authorities in due time in the course of the standardisation process. The SIG also aims at raising awareness for standardisation in and beyond the field.

i The meeting is free of charge and welcomes all interested participants.

Unlocking human potential

Increasing our efforts to boost assistive technology-enabled inclusive and sustainable development at global and local level. The role of international organisations, national, regional and local authorities, civil society, academia and industry.

27/08/2019, 15.00-18.30

Archiginnasio – Stabat Mater Room,
Piazza Galvani 1, Bologna

This high-level meeting will bring together representatives of international organisations, among which the World Health Organisation, the European Commission, the European Disability Forum, and of national and regional authorities and civil society organisations. The meeting is organised by AAATE and AIAS Bologna onlus, in collaboration with the Alma Mater Studiorum University of Bologna.



Translations and captioning English/Italian is provided.



PROGRAMME

– 14.30

Registration

Host of the day:

Evert-Jan Hoogerwerf
(SG AAATE/AIAS Bologna onlus)

– 15.00

Official greetings

Matteo Lepore (Councillor City of Bologna)
Mirko Degli Esposti
(Deputy Rector Alma Mater Studiorum,
University of Bologna)

– 15.15

Introductory speeches by:

- Wei Zhang (WHO)
- Inmaculada Placencia-Porrero
(The European Commission)
- Vincenzo Zoccano
(Undersecretary of State at the
Presidency of the Council of Ministers
with mandate to Disability
and Family - Italy)
- Luc de Witte
(President of AAATE)

– 16.00

Session 1:**Implementing a rights-based approach in Assistive Technology**

Chair: Katerina Mavrou
(European University of Cyprus)
Keynote by Giampiero Griffo
(The Italian National observatory on the
conditions of persons with disabilities)

Panel session with:

- Alejandro Moledo
(European Disability Forum)
- Luk Zelderloo
(European Association of Service
Providers to Persons with Disabilities)
- Malcolm MacLachlan
(Assisted Living and Learning Institute,
Maynooth University)
- Tara Rudnicki
(Assistive Technology Industry
Association)
- Egidio Sosio
(Disability manager of the City of
Bologna)
- Rabih Chattat
(Alma Mater Studiorum, University of
Bologna)

– 17.00

Coffee break

– 17.20

Session 2:**Creating conditions for AT to work**

Chair: Serenella Besio
(University of Bergamo)
Keynote by Massimo Guerreschi
(GLIC, the Italian association of AT centres)

Panel session with:

- Cathy Holloway
(Global Disability Innovation Hub)
- Renzo Andrich (the EASTIN network)
- Silvana Contepomi
(Argentinian Assistive Technology
Association)
- Roger Smith
(Rehabilitation Engineering and Assistive
Technology Society of North America)
- Filippo Borghi (AssoAusili)
- Maria Caterina Manca
(Commission for Health and Welfare, City
of Bologna)
- Massimiliano Malavasi
(The Regional Centre for Assistive
Technology of Emilia Romagna)

– 18.20

**Presentation of the International
Alliance of Assistive Technology
Organizations & Presentation of the
Bologna Declaration**

– 18.30

Closure



MAIN CONFERENCE VENUE





Plesso/Facility: "Belmeloro"

Via Beniamino Andreatta 8, Bologna

Opening hours of the registration/information desk
in Belmeloro:

Tuesday 27th from 8.30 to 17.30

Wednesday 28th from 8.00 to 18.00

Thursday 29th from 8.30 to 18.00

Friday 30th from 8.30 to 14.30

Rooms and their main function

There are 2 buildings: A and B.

Building A

ROOM B: Plenary Hall - 400 SEATS (FIRST FLOOR)

ROOM C: Scientific programme – 100 SEATS (FIRST FLOOR)

ROOM D: Scientific programme – 100 SEATS (FIRST FLOOR)

ROOM E: Scientific programme – 100 SEATS (SECOND FLOOR)

ROOM F: Scientific programme – 100 SEATS (SECOND FLOOR)

Building B

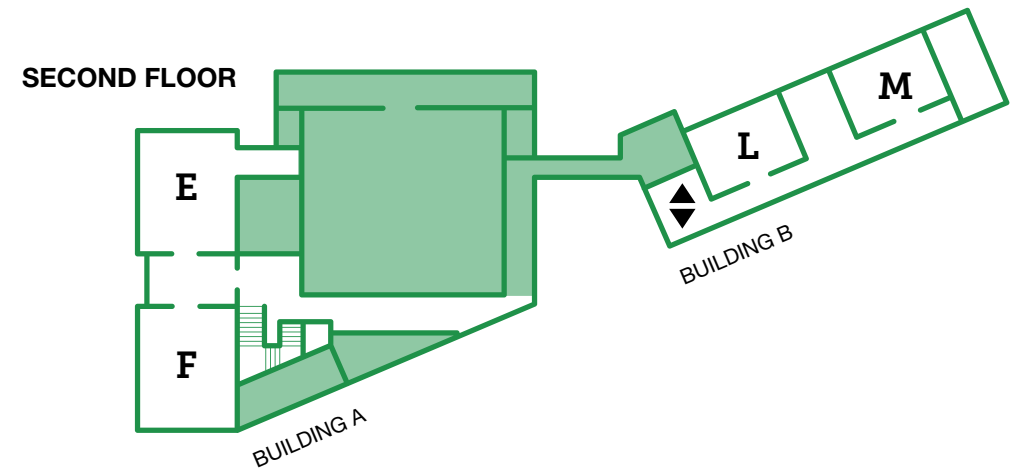
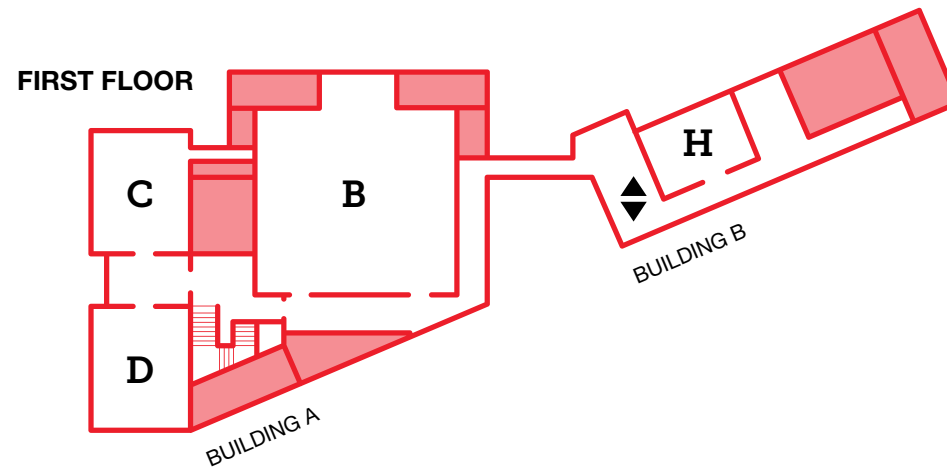
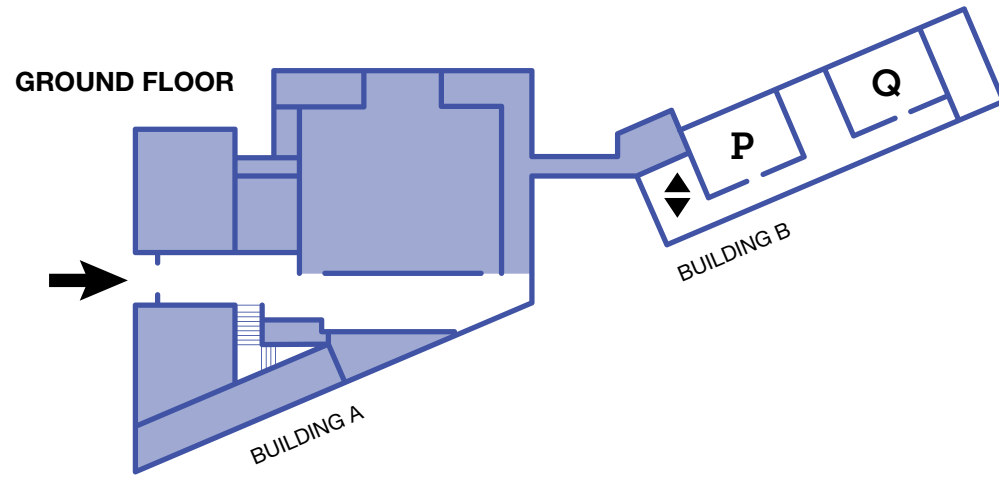
ROOM H: Silent working area – 50 SEATS (FIRST FLOOR)

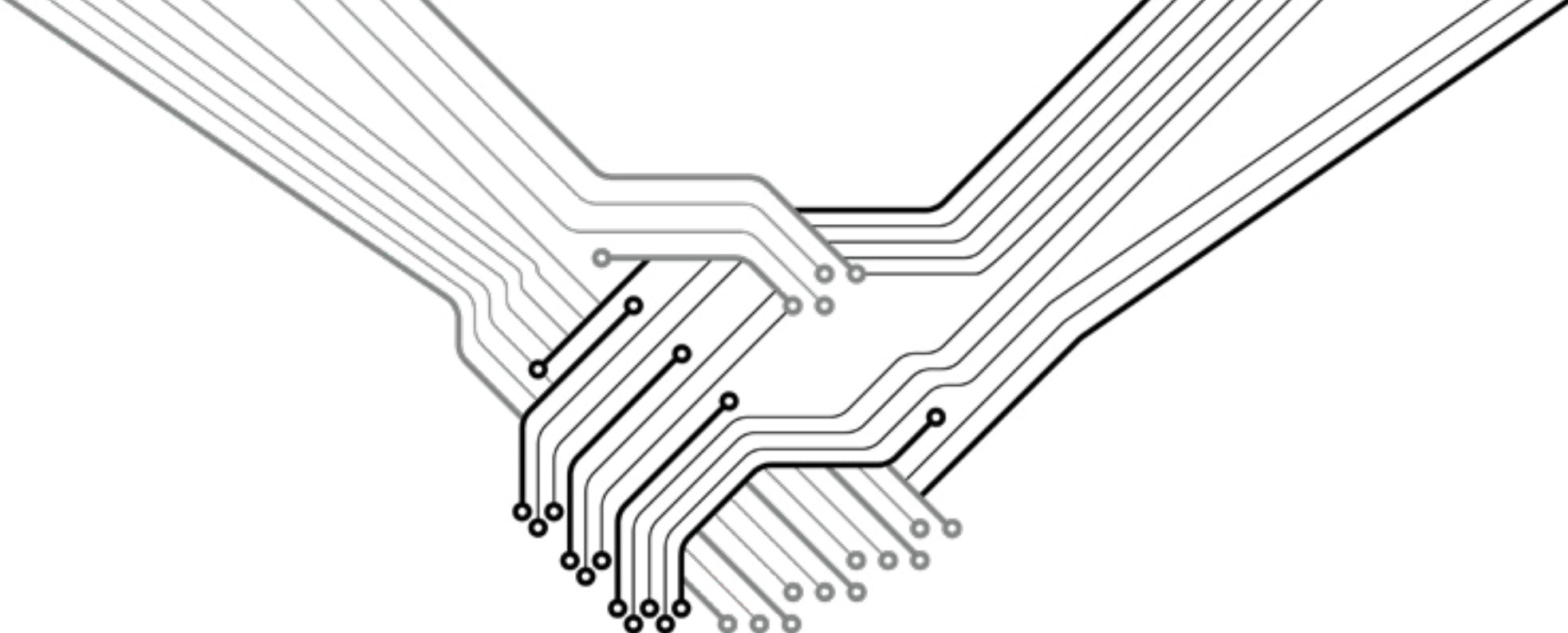
ROOM L: Educational sessions – 50 SEATS (SECOND FLOOR)

ROOM M: Policy sessions – 50 SEATS (SECOND FLOOR)

ROOM P: Innovation area – 50 SEATS (GROUND FLOOR)

ROOM Q: Social meeting point/coffee room – 40 SEATS (GROUND FLOOR)





Conference website



**Download the
programme**



Proceedings



Captioning services are provided in collaboration with the Coordinamento Fiadda Emilia-Romagna, in the framework of the regional project to reduce communication barriers and for an inclusive society



MAIN CONFERENCE PROGRAMME



DAY 1 28-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
8.00-9.00	Registration			
9.00-11.00	Opening ceremony with Luc de Witte (AAATE), Rabih Chattat (University of Bologna), Councilor Marco Lombardo (City of Bologna), Keynote speech: Prof. Malcolm MacLachlan (Maynooth University, Ireland) AAATE Diamond Award ceremony			
11.00-11.30	Coffee break			
11.30-12.00	EYE GAZE TECHNOLOGY S.C. Helena Hemmingsson Hemmingsson, H. (Stockholm University, Sweden) Eye gaze controlled computer: a total survey in Swedish context Holmqvist, E. (Dart, Sahlgrenska University Hospital, Sweden) Gaze-controlled communication technology for children with severe multiple disabilities: Parents and professionals' perception of gains, obstacles, and prerequisites	AT & AGING S.C. Maite Ferrando (AAATE) Jutai, J. (AGE-WELL WP8 ETHICS-TECH, Canada) Reducing health disparities in older people through assistive technology Orrell, A. (Bangor University, UK) Assistive social care technologies for older people: let's talk more about this	AI & INCLUSION S.C. EA Draffan Draffan, E.A. (University of Southampton, UK) AI and Inclusion: A Roadmap for Research and Development Potter, S. (The University of Sheffield, UK) The Four Idols of AI for Health and Wellbeing	CO-CREATION/USER EXPERIENCE S.C. Ramon Daniels (Zuyd University of Applied Sciences, the Netherlands) Pavón, J. (Universidad Complutense Madrid, Spain) Co-creation of assistive solutions Zahid, A. (Assistronix, CATCH, The University of Sheffield, Barnsley Hospital, UK) Hackaccessible: Towards a new model for stimulating user-led innovation in Assistive Technology
12.00-12.30	Masayko, S. (Easterseals Southeastern PA, United States) Child and Environmental Factors Influencing Selection of Eye Gaze Technology for Trials & Adoption for Young Children: An Interprofessional Pilot Study Borgestig, M. (Örebro University, Sweden) Eye gaze technology's effect on participation and functional independence	Oderud, T. (SINTEF, Norway) Experiences with the use of welfare technologies for elderly persons Nihei, M. (The University of Tokyo, Japan) Assistive Products Use among Oldest-Old People in Japan: Differences in Personal Attribute and Living Situation	Zimmermann, G. (Stuttgart Media University, Germany) AI Bias in Gender Recognition of Face Images – Study on the Impact of the IBM AI Fairness 360 Toolkit Gilligan, J. (Technological University of Dublin City, Ireland) Machine Learning: Design by Exclusion or Exclusion by Design?	Gavra Boland, S. (Saint John of God Community Services clg, Liffey Services, Ireland) Study on how health care service providers together with industry partners can co-design accessible assistive technology for individuals with intellectual disability. Timmins, B. (Technological University of Dublin, Ireland) Assistive technology users at the coal face of confronting intrinsic design issues in their assistive technology
12.30-13.00	NEXT PAGE			



Registration

Imaculada Placencia-Porrero (The European Commission), Wei Zhang (WHO), Lorenzo Desideri (AIAS Bologna) & Evert-Jan Hoogerwerf (AIAS Bologna/AAATE)



Coffee break

ACCESSIBLE STEM

S.C. Barbara Leporini (ISTI-CNR, Italy)

Murillo Morales, T.

(Johannes Kepler University, Austria)

Natural Language Processing for Non-visual
Access to Diagrams

Leporini, B.

(ISTI-CNR, Italy)

Technology Support for Inclusive STEM
Laboratories: State-of-the-Art and Open
Challenges

Yamaguchi, K.

(Nihon University, Japan)

InftyReader Lite: Converting e-Born PDF into
Various Accessible Formats

Agbakuribe, B.C.

(University Of Abuja, Nigeria)

An Investigation into Pedagogical and
Opportunity Confines in STEM Education Of
Visually-Impaired Nigerians: Why Disabled
People Must be Involved

EDUCATIONAL SESSION 1.1.

Measuring outcomes of AT service delivery and interventions

De Jonge, D.

(The University of Queensland, Australia)

Friesen, E.

(Raz Design Inc, Toronto, Canada)

In this workshop, we will explore the use of outcome measurement in service delivery through discussions and case studies. The workshop will begin with an overview of "outcomes" as it applies to health and disability services. From there, we will discuss the development and psychometric evaluation of measurement instruments, and how published data can be used to select and implement appropriate approaches to measuring outcomes. We will have opportunities to explore various stakeholder perspectives on outcomes measurement, such as those of interest to AT users, practitioners, suppliers, manufacturers, and funders. We will discuss various case studies and identify possible resources available for information and support.

POLICY SESSION 1

S.C. Emma M. Smith (University of British Columbia, Canada; ALL Institute, Maynooth University, Ireland)

Quality in AT Research:

Re-Evaluating Use of the Medical Model

Best, K.L. (Researcher, Centre for Interdisciplinary Research in Rehabilitation and Social Integration; Adjunct Professor, Universite Laval, Canada)

Routhier, F. (Researcher, Centre for Interdisciplinary Research in Rehabilitation and Social Integration; Associate Professor, Universite Laval, Canada)

MacLachlan, M. (Professor of Psychology and Social Inclusion, Director, Assisting Learning and Living (ALL), Maynooth University, Ireland, Research and Innovation Lead, WHO GATE Initiative)

Smith, R. (Professor, Director, Rehabilitation Research Design and Disability Center, University of Wisconsin, Milwaukee)

Mavrou, K. (Associate professor at the European University of Cyprus and President elect of AAATE)



INNOVATION AREA 1

TEXTHELP

(Neill, R.) - (11.30-12.00)

Browsealoud software is an innovative toolbar, which adds text-to-speech, translation, magnification and screen-masking to websites. The toolbar makes websites more accessible, reducing barriers between online content and website audiences.

DREAMWAVES

(Furtado, H.) - (12.00-12.30)

A navigation and orientation solution to assist blind and visually impaired people in overcoming their mobility challenges. The key aspect of the solution is that people can understand where they need to walk to, in the most natural and intuitive way

Details on the next page

DAY 1 28-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
12.30-13.00	<p>Gopal Rao, D. (Al Noor Training Centre for Persons with Disabilities, UAE) Facilitating Participation in Routines and Activities for Individuals with Complex Challenges by Use of Eye Gaze Intervention in a Transdisciplinary Special Education Setting</p> <p>Schettini, F. (Fondazione Santa Lucia IRCCS - SARA-t, Italy) Combining P300-based Brain Computer Interface with an eye-tracking system to improve communication efficacy for people with ocular motor impairment</p>	<p>Saad, A. (University of Haifa, Israel) Hand Function in skills of modern day among Elderly Individuals</p> <p>Porfirione, C. (University of Genoa, Italy) LivingHub: an interdisciplinary approach to designing an innovative AT laboratory for ageing population by using simulation-based education</p>	<p>Wolters, M. (School of Informatics, University of Edinburgh, UK) Accessibility and Stigma: Designing for Users with Invisible Disabilities</p> <p>Draffan, E.A. (University of Southampton, UK) AI and AAC: Linking Open Symbol sets - A global approach</p>	<p>Meyer, J.T. (ETH Zurich, Switzerland) Enabling User-centered Design and Evaluation to Increase Acceptance of Wearable Robotic Assistive Technologies</p> <p>Conway, V. (Web Key IT Pty Ltd, Australia) Benefits Beyond Experience</p>
13.00-13.30	Lunch			
13.30-14.00				
14.00-14.30				
14.30-15.00	<p>CARE ROBOTICS EUROPE-ASIA S.C. Luc de Witte (University of Sheffield, UK)</p> <p>Potter, S. (The University of Sheffield, UK) Care Robotics Development: A European Perspective</p> <p>Song, WK. (National Rehabilitation Center, South Korea) Planning care robot project in Korea based on user centered approach and its future direction</p>	<p>AT & DEMENTIA S.C. Natasha Layton (ARATA, Australia)</p> <p>Lemmens, R. (PXL University College of Applied Sciences and Arts, Belgium) Stay@home with dementia: from needs assessment to assistive technology</p> <p>Van den Heuvel, R. (Zuyd University of Applied Sciences, the Netherlands) CRDL – interactive technology eliciting engagement in elderly people with dementia</p>	<p>AI & INCLUSION S.C. EA Draffan (University of Southampton, UK)</p> <p>Iwabuchi, M. (Waseda University, Japan) IoT-Based Observation Technology for Assessment of Motor and Cognitive Conditions in Children with Severe Multiple Disabilities</p> <p>Ciampolini, P. (University of Parma, Italy) IoT-based continuous lifestyle monitoring: the Noah concept</p>	<p>SUPPORTING STUDENTS S.C. Marcia Scherer (Institute for Matching Person & Technology, Inc., USA) Susan Zapf (Rocky Mountain University of Health Professions, USA)</p> <p>Craddock, G. (Centre for Excellence in Universal Design, Ireland) Universal Design as a catalyst for transformation across the Educational Continuum</p> <p>Mackeogh, T. (ASSISTID, Ireland) Developing the Irish Matching Person with Technology (IMPT) to a multimedia format through a Universal Design process.</p>

ROOM F

Bertel, L.

(Aalborg University, Denmark)

Robot-supported inclusive education: a case study on the kubo robot in early stem education

Pulina, F.

(CNR-ISTI, HIIS Laboratory, Italy)

Automatic support for web accessibility evaluation

ROOM L

ROOM M

Traditionally, Assistive Technology (AT) research has been approached from a medical model – with the application of AT as an intervention akin to medication prescription. Research quality frameworks in evidence-based medicine prioritize RCTs, single ‘active ingredient’ interventions, and outcomes which are sensitive to change and easily measured. AT research is challenged by this model due to heterogeneity of populations, need for individualized approaches, and application of a social model of disability. AT interventions often include multiple ‘active ingredients’, and complex outcomes (e.g., community participation). This discussion focuses on re-framing our approach to research design and quality in AT.

ROOM P

FLEXMOTIV TECHNOLOGIES PVT LTD

(Suresh Ambalapuzha, A.) - (12.30-13.00)

Flexmo Crutch. A novel design (patent pending) of underarm and Elbow crutches. It is All Terrain (Tested in snow, sand dunes, slippery surfaces, rocks mud). By using specially crafted metal flexures, the FlexCrutch substantially improves the stability and mobility of a patient while keeping the cost low.

Lunch

AAATE National Contact
Person meeting

ERGOTEK SRL

(Tedesco, S. & Monticelli, P.) - (13.30-14.00)

A smart chair was developed in order to assess the posture of a seated person in real-time and detect the intention to get up. This ergonomic chair was properly designed for this project’s target population (i.e., the elderly). It includes pressure sensors, a computation module, and a communication module.

MOBILITY 1

S.C. Anna-Liisa Salminen (The Social Insurance Institution of Finland)

Darvishy, A.

(Zurich University of Applied Sciences, Switzerland)

Travelers with disabilities: Challenges and assistive technologies

Burzagli, L.

(IFAC CNR, Italy)

People moving in a Smart City

POLICY SESSION 2

S.C. Klaus Miesenberger
(University of Linz, Austria)

EU Accessibility legislation and implementation

Moledo, A.

(European Disability Forum)

Placencia-Porrero, I.

(The European Commission)

Gudrun Stock

(The European Commission)

Raising the bar on Digital Accessibility across the EU - Policy measures and research funding.

Details on the next page



LIQUIDWEB SRL

(Fedele, P.) - (14.00-14.30)

BrainControl AAC is an augmentative alternative communicator designed also for LIS (Locked-in state) and Complete-LIS patients). It is a Brain-Computer Interface based on a proprietary framework of Artificial Intelligence for human-machine interaction.

ABLENET INC.

(Thompson, P.) - (14.30-15.00)

Discussion of accessibility to an iOS device through either switch control or mouse control, how to set up a device for either and demonstration of head mouse control of the iOS device.

DAY 1 28-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
15.00-15.30	<p>Lim, M.J. (National Rehabilitation Research Institute, South Korea) What should be considered when developing care robots according to their types?</p> <p>Bedaf, S. (Zuyd University of Applied Sciences, the Netherlands) Cultural differences in perceptions of care robots within Europe</p>	<p>Giraldo, M. (University of Bergamo, Italy) Assistive technologies for older persons with intellectual disabilities. a preliminary systematic review for future research implementation</p> <p>Sponselee, A.M. (Fontys University of Applied Sciences, the Netherlands) Virtual garden for people with dementia</p>	<p>Inoue, T. (National Rehabilitation Center for Persons with Disabilities, Japan) Field-based innovation methodology and development of an information support robot system for older people with cognitive decline</p> <p>Ummels, D. (Zuyd University of applied science, the Netherlands) Patients' experiences with commercially available activity trackers embedded in physiotherapy treatment: A qualitative study</p>	<p>Norrie, C. (University of Dundee, UK) Exploring Models of Digital Assistive Technology Education and Training</p> <p>Pousada, T. (University of A Coruña, Spain) Assistive Technology in the University, Is there still a person-technology match?</p>
15.30-16.00	<p>Kim, J. (Kangnam University, South Korea) The Influence of Socio-Economic Phenomenon on Eldercare-Robotic Solutions in Korea</p>	<p>Vincent, C. (Université Laval, Canada) Dementia dogs and their impact on community-dwelling persons with mild to moderate dementia and their family caregivers</p> <p>Routhier, F. (Center for interdisciplinary research in rehabilitation and social integration, Canada) Family caregivers' experience of care and use of assistive technologies</p>	<p>Alessa, T. (Sheffield university / King Saud University, UK) Smartphones Apps to Support the Self-Management of Hypertension: identification of the most suitable apps</p> <p>Vercelli, G. (Università degli Studi di Genova, Italy) Developing an Intelligent Virtual Coach for Boccia: Design of a Virtual Boccia Simulator</p>	<p>Zapf, S. (Rocky Mountain University of Health Professions, USA) Outcome Effectiveness of Assistive Technology in Supporting Students' Mastery of Educational Goals</p> <p>Federici, S. (University of Perugia, Italy) Standardizing the procedures, improving the listening to the needs of the individual user</p>
16.00-16.30	Coffee break			
16.30-17.00 NEXT PAGE				

ROOM F**Krumins, V.**

(Advanced Manufacturing Research Centre, University of Sheffield, UK)

An affordable concept to produce mobility devices in low resource settings

Ableitner, T.

(Stuttgart Media University, Germany)

User acceptance of Augmented Reality glasses for hand exoskeleton control

Kurokawa, S.

(National Rehabilitation Center for Persons with Disabilities / Tokyo Metropolitan University, Japan)

Accuracy evaluation of an add-on acquisition system of operation log with inertial measurement units for a mobility scooter

ROOM L**ROOM M**

Policy development and legislation has been the initiating and driving force for the social change towards inclusion. They support and facilitate (digital) Accessibility and Assistive Technology awareness, R&D, implementation, training and use by all stakeholders. This session will outline and discuss the state of the art and ongoing activities in policy, legislation and implementation at European level as a globally harmonised and major driving force for national/local developments. The session will call for active involvement of all stakeholders to take up the opportunities for support and cooperation to strengthen a more inclusive society.

ROOM P**AIAS BOLOGNA ONLUS**

(Cesario, L. and Lepore, C.) - (15.00-15.30)

WeCareMore: The product is a completely functional prototype, that reuses mainstream market devices and an existent opensource framework to build a new type of customised health and social care service.

ETH ZURICH

(Gantenbein, J.) - (15.30-16.00)

MiAssiSt: an open source, low-cost, wheelchair-mountable assistive device to support elbow flexion and extension for users with reduced upper limb muscle strength.

Coffee break

Opportunity to meet the presenters in the innovation area

DAY 1 28-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
16.30-17.00	<p>AT & IOT S.C. Massimiliano Malavasi (AIAS Bologna)</p> <p>Radcliffe, I. (Imperial College London, UK) Universal controller: An open source software development promoting connectivity with assistive technology devices and the internet of things</p> <p>Rega, A. (Neapolis Rehabilitation Center, Italy) Implementing an IoT based task analysis system to promote autonomy in daily hygiene of adults with autism in a residential house</p>	<p>MOOCS & OERS S.C. Gottfried Zimmermann</p> <p>Zimmermann, G. (Stuttgart Media University, Germany) Designing a MOOC for “Training the Trainers”</p> <p>Gilligan, J. (Technological University of Dublin City, Ireland) Using MOOCAP OERs to support Universal Design and Accessibility initiatives in Computer Science programmes in Ireland’s first Technological University</p>	<p>COMMUNICATION DISORDERS S.C. Anne Kanto-Ronkanen (Ministry of Social Affairs and Health)</p> <p>Mulfari, D. (University of Pisa, Italy) A machine learning assistive solution for users with dysarthria</p> <p>Oe, K. (Daiichi Institute of Technology, Japan) Development of controllable electrolarynx controlled by neck myoelectric signal</p>	<p>ASSISTIVE ROBOTICS S.C. Lorenzo Desideri (AIAS Bologna)</p> <p>Ootani, M. (Osaka Institute of Technology, Japan) Walking assist robot for prevention of frailty</p> <p>Lepore, C. (AIAS Bologna, Italy) VIVO-Rehab: Coupling humanoid robots with motion sensing devices to support upper limb function assessment of children with Spinal Muscular Atrophy (SMA)</p>
17.00-17.30	<p>Resalat, T. (The University of Sheffield, UK) The use of Internet of Things (IoT) and Assistive Technology (AT) in developing ‘Smart Homes’ for health and social care in the UK</p> <p>Kaimara, P. (Ionian University, Greece) Waking-up in the morning: A gamified simulation in the context of learning activities of daily living</p>	<p>Chen, W. (Oslo Metropolitan University, Norway) Harnessing MOOCs and OERs in teaching digital accessibility -- experiences with a flipped classroom approach</p> <p>Draffan, E.A. (University of Southampton, UK) Exploring the impact of the Digital Accessibility MOOC</p>	<p>Buchholz, M. Let’s stay in touch! Remote communication for people with communicative and cognitive disabilities</p> <p>Buchholz, M. (Dart, Sahlgrenska University Hospital, Göteborg University, Sweden) How do we provide necessary support to enable remote communication for people with communication difficulties?</p>	<p>Cesario, L. (AIAS Bologna, Italy) Promoting the use of social robots to engage students with special education needs (SEN): development of a teacher-friendly app</p> <p>Honda, Y. (Osaka Institute of Technology, Japan) Using Data from a telephone call beginning with “How Are You?”</p>
17.30-19.00	Welcome cocktail			
19.00-20.30	Guided City tour			

ROOM F

MOBILITY 2

S.C. Renzo Andrich (EASTIN Network)

Arlati, S.

(Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing - STIIMA-CNR, Italy)

A Semantic Decision Support System to foster Return to Work of Novice Wheelchair Users

Gøeg, K.

(Rosenbeck Informatics, Denmark)

Wheelchair users' experiences with and need of activity trackers

Maurya, S.K.

(Tokyo Institute of Technology, Japan)

Addressing communication issue among caregivers and wheelchair users: identifying design metrics and defining needs

Routhier, F.

(CIRRIIS, Canada)

Usability assessment of a navigation tool for manual wheelchair users in urban areas

ROOM L

EDUCATIONAL SESSION 1.2. Assessing usability of mobile (rolling) shower chairs

Emma Friesen (Raz Design Inc.)

Mobile (rolling) shower chairs are used by adults with spinal cord injury (SCI) for activities including showering, intimate hygiene, and bowel management. Workshop participants will explore the use, usability, and assessment of mobile (rolling) shower chairs, and review recent research on the topic by the presenter. Participants will then discuss three validated questionnaires that can be used to assess usability: the electronic Mobile shower commode ASsessment Tool (eMAST) 1.0, the devices subscale of the Quebec User Evaluation of Satisfaction with assistive Technology Version 2 (QUEST 2.0), and the modified System Usability Scale (SUS).

ROOM M

POLICY SESSION 3 Global challenges in AT education and training



Hoogerwerf, E.J.

(Co-Chair of the IAATO)

Round table discussion with invited experts moderated by Roger O. Smith (Co-chair of the IAATO)

Simth, R. O.

(USA)

Gift, N.

(India)

Contepomi, S.

(Argentina)

Richard, L.

(Canada)

Layton, N.

(Australia)

Key for successful outcomes in AT is the presence of competence among the stakeholders involved, first among those that have to advice on the adoption of specific technologies. Although there are examples of certification programmes or accredited training courses across the globe, there is no overall model or global approach to AT education and training. The International Alliance of AT Organisations (IAATO) will discuss the pro's and con's of having such a model and how it should or could look like.

ROOM P

AIST (National Institute of Advanced Industrial Science and Technology)

(Yoda, I.) - (16.30-17.00)

Augmentative and Alternative Gesture Interface (AAGI). Gesture interfaces to operate PCs for people with severe motor dysfunction who have difficulty operating a standard keyboard and mouse.

UNIVERSITY OF SHEFFIELD

(Krumins, V.) - (17.00-17.30)

The concept is to produce at a low cost devices that can be generated locally and individualized for the user. It embraces three products identified in the Priority Assistive Products List by WHO: walking stick, elbow crutch and walker frame.

DAY 2 29-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
9.00-9.30		<p>AT EDUCATION/AT IN EDUCATION S.C. Katerina Mavrou (European University Cyprus)</p> <p>Medenica, V. (College of Social Work, Serbia) Recommendations for using assistive technologies for inclusive media education in kindergartens</p> <p>Shrieber, B. (Kibbutzim College of Education Technology and the Arts, Israel) The impact of using learning apps on executive functions: task initiation and persistence, of students with attention and learning disorder</p>	<p>PATHOLOGICAL SPEECH PROCESSING S.C. Heidi Christensen (University of Sheffield, UK)</p> <p>Green, P. (University Sheffield, UK) Global Challenges in Pathological Speech Technology</p> <p>Mendoza Ramos, V. (University Hospital of Antwerp, Belgium) coustic features to support the perceptual evaluation of accent production in dysarthric speech</p>	<p>AT & INTELLECTUAL DISABILITY S.C. Helena Hemmingsson (Stockholm University, Sweden)</p> <p>Zegarra Flores, J. (Altran Technology, France) “ADAPEI transport” a learning and navigation app for young adults with intellectual disabilities to improve their autonomy to take public transport</p> <p>McDonnell, M. (Institute of Art Design and Technology, Ireland) Creating appropriate instructional applications for users with intellectual disability</p>
9.30-10.00		<p>Provisor, A. & Shrieber, B. (Kibbutiz College, Israel) The Contribution of iMovie Editing to Improve Storytelling Skills of a Student with Deafness & ADHD</p> <p>Vella, F. (IRIT/CNRS UMR 5505, France) Observation of HandiMathKey appropriation phase by disabled students in a middle school</p>	<p>Oates, C. (audEERING GmbH, Germany) Enabling Early Detection and Continuous Monitoring of Parkinson’s Disease</p> <p>Vasquez, J. (Friedrich Alexander University, Erlangen-Nuremberg, Germany) Apkinson: a Mobile Solution for Multimodal Assessment of Patients with Parkinson’s Disease</p>	<p>Kafritsa, E. (Margarita VTC, Greece) Assessment of SlideWiki OpenCourseWare Platform by individuals with mild or moderate intellectual disability</p> <p>Gavra Boland, S. (Saint John of God Community Servies clg, Liffey Services, Ireland) Can Accessible Technology help Person Directed Planning? Exploring the role of an ICT solution to evidence value in service delivery for people with intellectual disabilities.</p>
10.00-10.30 NEXT PAGE				

ROOM F

AT DELIVERY: CROSS-CULTURAL PERSPECTIVES

S.C. Lorenzo Desideri (AIAS Bologna)

Grinberg, M.

(ASSIST-Assistive Technologies, Bulgaria)

Barriers to Assistive Technology in Europe

Salminen, A.L.

(The Social Insurance Institution of Finland)

Demanding assistive technology for study and work in Finland 2007–2018

Tönsing, K.

(University of Pretoria, South Africa)

Augmentative and alternative communication systems for multilingual contexts: a South African perspective

Contempomi, S.

(AATA Argentine Assistive Technology Association)

Access to appropriate Assistive Technology in less-resourced settings: Argentina's case

ROOM L

EDUCATIONAL SESSION 2.1.

UDL Needs to be a “Bottom-Up” Educational Process

Priscilla M. Danielson,

Ole N. Danielson

(Linguistic Solutions LLC)

Universal Design for Learning (UDL), a framework for curriculum development, was designed to provide teachers with tools and principles that reduce barriers to educational access. Implementation of UDL is often a “top down” process, characterized by administrative staff delivering content to teachers who then provide implementation in the classroom. This presentation describes why a “bottom-up” approach is a more effective model for implementation. The presenter will identify at least five research-based strategies of using Assistive Technology supporting a “bottom up” model designed to support classroom staff and improved fidelity of curricular design in classrooms characterized by varied educational needs.

ROOM M

POLICY

S.C. Evert-Jan Hoogerwerf (AIAS Bologna, Italy)

Rwampigi, A.J.

(University College Dublin, Ireland)

Assistive Technology, the International Classification of Functioning, Disability and Health, and the Convention on the Rights of Persons with Disabilities

Altin, N.

(University of Toronto, Canada)

Political drivers in harnessing the power of the assistive technology: a multiple streams framework analysis

Altin, N.

(University of Toronto, Canada)

Re-thinking the advancement of the assistive technology system from the human rights perspective.

Sharma, S.

(Indian Council of Medical Research HQ New Delhi, India)

“Equipping, empowering, enabling”: center-staging Assistive Technologies in disability and rehabilitation policy discourse in India

ROOM P

POLICY SESSION 4

Global challenges on Assistive Technology Transfer: from basic research towards the end user.

Neto, O.

(RMIT – Royal Melbourne Institute of Technology/Ministry of Science, Technology, Innovations and Communications from Brazil)

Banes, D.

(Director of David Banes Access and Inclusion Services and was formerly CEO, at Mada the Qatar Assistive Technology and Accessibility Center)

Fanucci, L.

(Director of the National Lab on Assistive Technologies of the CINI consortium)

Fedele, P.

(CEO and founder of LiquidWeb)

Technology Transfer (TT) is still a challenging task when it is confronted with Assistive Technology (AT). Due to its peculiarity, Assistive Technology Transfer (ATT) requires a coordinated system in order to provide innovative solutions to the end user. However, different challenges emerge within this process, influencing the roles of involved stakeholders. Universities, industry and the government, therefore, should be constituents of a holistic process which will foster innovation from basic prototypes until the final product, reaching the end user.

DAY 2 29-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
10.00-10.30		<p>Waller, A. (University of Dundee, UK) Exploring the Role of Assistive Technologist in a Special Education (SE) Setting</p> <p>Rocha, N. (University of Aveiro, Portugal) A Special Needs Course in undergraduate health professions: an evaluation using mixed methods</p>	<p>Parekh, S. (University of Gent, Belgium) Generating phonological feedback for evidence-based speech therapy</p> <p>Hawley, M. (University of Sheffield, UK) From VIVOCA to VocaTempo: development and evaluation of a voice-input voice-output communication aid app</p>	<p>Louw, J. (National University of Ireland, Galway) Evaluating a Social Inclusion Intervention with Support of a Mobile Application among Young Adults with Intellectual Disabilities</p> <p>Jókai, E. (Óbuda University, Hungary) Using high fidelity work simulator for vocational orientation, skill assessment and development of young adults with disabilities</p>
10.30-11.00	Coffee break			
11.00-11.30	<p>DIGITAL HEALTH – THEMATIC SESSION SUPPORTED BY PROACT S.C. Maite Ferrando (AAATE)</p> <p>Fisk, M. (De Montfort University, UK) Telehealth Product and Service Design for an Ageing Population</p> <p>Ciravegna, F. (University of Sheffield, UK) A digital system supporting effective remote multi-agency home visits</p>	<p>INCLUSIVE EDUCATION ENVIRONMENTS S.C. Katerina Mavrou (European University of Cyprus & ENTELIS Network) Silvio Pagliara (Ausilioteca Mediterranea & ENTELIS Network)</p> <p>Miesenberger, K. (Institut Integriert Studieren, JKU, Austria) “Nothing about Us without Us”: Next Level</p> <p>Patel, P.K. (Indian Institute of Technology, Kanpur, India) Accessibility evaluation of computer-based tests</p>	<p>GOOD PRACTICES IN AT DELIVERY S.C. Renzo Andrich (EASTIN Network) Giulia Oggero (World Health Organization)</p> <p>Watanabe, T. (Nihon Fukushi University, Japan) Proposal for Collaborative Assistive Technology Provision with Digital Fabrication</p> <p>Salatino, C. (Fondazione Don Carlo Gnocchi ONLUS, Italy) Assistive technology service delivery in rehabilitation context</p>	<p>INDOOR/OUTDOOR MOBILITY S.C. Silvia Mirri (University of Bologna, Italy)</p> <p>Elgendy, M. (Benha University, Egypt) Indoor Navigation for People with Visual Impairment</p> <p>Pettersson, C. (Örebro University, Sweden) Understanding mobility device users’ experiences of physical inaccessibility and discrimination: a qualitative study</p>
11.30-12.00 NEXT PAGE				

ROOM F

Khan, M.H.

(Kobe Gakuin University, Japan)

Availability and Awareness of Assistive Products in Bangladesh from the Perspective of Rehabilitation Professionals

Zdaniuk, N.

(University of Toronto, Canada)

Assistive Technology Access: a global concern in the Canadian context – stakeholder perspectives on unmet needs, gaps in services, and ethical, social, and policy issues

ROOM L

Coffee break

ROBOTICS, VIRTUAL WORLDS & WHEELCHAIRS

S.C. Eleni Hatzidimitriadou
(Canterbury Christ Church University, UK)
Konstantinos Sirlantzis (University of Kent, UK)

Ragot, N.

(ESIGELEC – IRSEEM, France)

ADAPT: an EU multidisciplinary project in robotics rehabilitation for empowering people with disabilities

Oprea, P.

(University of Kent, UK)

Artificial intelligence for safe assisted driving based on user head movements in robotic wheelchairs

EDUCATIONAL SESSION 2.2. The Assessment, Development, and Implementation of Low and High Technology Augmentative and Alternative Communication (AAC) Systems

Lauren E. Vaughan (Heartspring, USA)

Linda Lawrence

Details on the next page

ROOM M

Menich, N.

(Eötvös Loránd University Faculty of Social Sciences,
Doctoral School of Sociology, Hungary)

Access to assistive technology in Hungary – what is (not) done about it?

Fiordelmondo, V.

(AIAS Bologna, Italy)

Examining Gender, Disability and Technology: A survey study from the RISEWISE project



USER PARTICIPATION IN SW DEVELOPMENT

S.C. Christian Bühler
(TU Dortmund University & FTB der ESV, Germany)
Ingo Bosse (TU Dortmund, Germany)
Susanne Dirks (TU Dortmund, Germany)

Dirks, S.

(Technical University Dortmund, Germany)

Participation of Users with Disabilities in Software Development Projects

Marzini, M

(Heidelberg University of Education, Germany)

Assistive Technology for People with Profound Intellectual and Multiple Disabilities



ROOM P

INNOVATION AREA

ERGOTEK SRL

(Tedesco, S. & Monticelli, P.) - (10.30-11.00)

A smart chair was developed in order to assess the posture of a seated person in real-time and detect the intention to get up. This ergonomic chair was properly designed for this project's target population (i.e., the elderly). It includes pressure sensors, a computation module, and a communication module.

LIQUIDWEB SRL

(Fedele, P.) - (11.00-11.30)

BrainControl AAC is an augmentative alternative communicator designed also for LIS (Locked-in state) and Complete-LIS patients). It is a Brain-Computer Interface based on a proprietary framework of Artificial Intelligence for human-machine interaction.

DAY 2 29-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
11.30-12.00	<p>Dinsmore, J. (Trinity College Dublin, Ireland) ProACT: Person-centred digital integrated care for adults aged 65 years and over, living with multimorbidity.</p> <p>Gherardini, A. (AIAS Bologna onlus, Italy) Advancing home-based integrated care for older adults with multiple chronic conditions: preliminary results from the Italian ProACT trial</p>	<p>Wuttke, L. (TU Dortmund University, Germany) LernBAR [Learning based on Augmented Reality] – An inclusive Training Concept for Home Economics</p> <p>Baldiris, S. (Universidad Internacional de la Rioja, Colombia) Meta-analysis on the impact of augmented reality on the learning gains of students with special needs</p>	<p>Maas, H. (Eesti Töötukassa, Estonia) ICF and ISO 9999 based evaluation of assistive technology effectiveness and electronic profiles</p> <p>De Jonge, D. (The University of Queensland, Australia) Exploring smart technologies: the value of tailored sessions</p>	<p>Comai, S. (Politecnico di Milano, Italy) MEP CROWD: Improving Data Quality of Crowd-based Accessibility Maps</p> <p>Mirri, S. (University of Bologna, Italy) On Enhancing Campus Accessibility: accessible digital signage, wayfinding and navigation</p>
12.00-12.30	<p>Jones, N. (Sheffield Teaching Hospitals NHS FT, UK) Opportunities for multimedia tools to improve services</p> <p>Willard, S. (Zuyd University of Applied Sciences, The Netherlands) Why do Dutch older adults use online community care platforms, or not?</p>	<p>Mavrou, K. (European University Cyprus) Augmenting Reading through technology: The Living Book Project</p> <p>Loizou, M. (University of Lancaster) Flipped Classroom for All in primary education: Using technology for differentiation and inclusion</p>	<p>Borilovic, J. (University of Sydney, Australia) What are they doing and what are they measuring? A scoping review on the technological interventions and ageing in place outcomes allied health professionals use.</p> <p>Norman, G. (Bangalore Baptist Hospital, India) Assistive Technology Provision in India; challenges and solutions</p>	<p>Mirri, S. (University of Bologna, Italy) Making tourism services accessible to visually impaired users through a mobile app</p> <p>Xi, L. (The University of Tokyo, Japan) Shared Control System of Electric Wheelchair for Persons with Severe Disabilities using Reinforcement Learning Method</p>
12.30-13.00	<p>Long, S. (Enable Ireland) A Systems Approach to the implementation of a national model of Assistive Technology Service Delivery: Challenges and Opportunities Designing for the future: a Systemically Viable Assistive Technology Service for Disabled and Older People in Ireland</p>	<p>Traina, I. (National University of Ireland Galway (NUIG), Ireland) Project E-IDEAS: empowerment of youth with Intellectual Disabilities through an individualized transition program including AT for acquiring employment skills</p>	<p>Pigini, L. (Fondazione Don Carlo Gnocchi ONLUS, Italy) Assessing the outcome of individual assistive technology interventions</p> <p>Roentgen, U. (Zuyd University of Applied Sciences, the Netherlands) Assistive Technology Service Delivery Models in the Netherlands</p>	<p>Yanagihara, T. (Kindai University, Japan) The Effect of Footway Crossfall Gradient on one arm and leg drive wheelchairs</p>

ROOM F

Arlati, S

(Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing - STIMA-CNR, Italy)

A Simulator to Promote the Return to Work of Wheelchair Users

Hatzidimitriadou, H

(Canterbury Christ Church University, UK)

A Literature Review of the Challenges Encountered in the Adoption of Assistive Technology (AT) and Training of Healthcare Professionals

Parkin, C.

(Canterbury Christ Church University, UK)

A Survey of Assistive Technology Knowledge and Experiences of Healthcare Professionals in the UK and France: challenges and opportunities for workforce development

Stein, M.S.

(Canterbury Christ Church University, UK)

Training Needs and Development of Online AT Training for Healthcare Professionals in UK and France

Mohamed, E.

(University of Kent, UK)

Integrating ride dynamics measurements and user comfort assessment to smart robotic wheelchairs

Kolaghassi, R.

(University of Kent, UK)

A smart posture monitoring and correction system for wheelchair users

ROOM L

The session will target the development of basic knowledge and skill sets needed for the assessment, development, and implementation of low and high technology Augmentative and Alternative Communication (AAC) systems. The World Health Organization (WHO) cites approximately 1 billion people have a disability. AAC is one means to assist people with disabilities (i.e., acquired and developmental) in communication. AAC can be either low technology (e.g., picture books) or high technology (e.g., speech generating devices). The session will provide and discuss free resources to assist individuals globally that require an alternate means to communicate their wants, feelings, and medical needs.

ROOM M

Sacchi, F.

(University of Bergamo, Italy)

Usability evaluation of mobile application for persons with disabilities: a review of available tools

Edler, C.

(inbut, Germany)

E-Inclusion of People with Cognitive Disabilities Inclusive Collaboration in Research and Development for Improved Cognitive Accessibility



Carrizosa, H.G.

(Open University, UK)

Arches Project – Validation of Technological Outcomes of Gaming Software based on a Participative Research Methodology

Hayhoe, S.

(University of Bath, UK)

Participatory Methodology, Inclusive Control Systems and Inclusive Technical Capital Developed by Engineering Undergraduates and Teenagers from a Marginalised Community in Mexico



Cudd P.

(University of Sheffield, UK)

Starting on the innovation path for a fatigue management app for people with Multiple Sclerosis



ROOM P

TEXTHELP

(Neill, R.) - (11.30-12.00)

Browsealoud software is an innovative toolbar, which adds text-to-speech, translation, magnification and screen-masking to websites. The toolbar makes websites more accessible, reducing barriers between online content and website audiences.

AIAS BOLOGNA ONLUS

(Cesario, L. and Lepore, C.) - (12.00-12.30)

WeCareMore: The product is a completely functional prototype, that reuses mainstream market devices and an existent opensource framework to build a new type of customised health and social care service.

AIST (National Institute of Advanced Industrial Science and Technology)

(Yoda, I.) - (12.30-13.00)

Augmentative and Alternative Gesture Interface (AAGI). Gesture interfaces to operate PCs for people with severe motor dysfunction who have difficulty operating a standard keyboard and mouse.

DAY 2 29-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
13.00-14.30	Lunch			
14.30-15.00	<p>SOCIAL ROBOTICS S.C. Francesco Rea (Italian Institute of Technology), Riccardo Magni (GLIC Association)</p> <p>Rea, F. (Italian Institute of Technology) HUMANOID ROBOTS: Advantages of social robots in the assistance of elders</p> <p>Takahashi, Y. (Toyo University, Japan) Communication Robot System for Older People Who Live Alone</p>	<p>AAC/1 S.C. Silvio Pagliara (Ausilioteca Meditteranea)</p> <p>Carbone, F. (Università degli Studi di Napoli Federico II, Italy) Development of an AAC system for a student with speech impairment and spastic quadriplegia</p> <p>Yoda, I. (National Institute of Advanced Industrial Science and Technology, Japan) Augmentative and Alternative Gesture Interface (AAGI): Multi Modular Gesture Interface for People with Severe Motor Dysfunction</p>	<p>AT & SPORT S.C. Valentina Fiordelmondo (AIAS Bologna)</p> <p>Amaike, K. (National Rehabilitation Center for Persons with Disabilities / Chiba Institute of Technology, Japan) Designing high-efficient and easy-to-wear thermal interface for cooling of wheelchair athletes during training</p> <p>Kitagawa, K. (National Rehabilitation Center for Persons with Disabilities, Japan) Thermal characterization and field trial of a wearable coolant circulator for assist of thermoregulation in wheelchair athletes</p>	<p>AT OUTCOME S.C. Renzo Andrich (EASTIN Network)</p> <p>Layton, N. (ARATA, Australia) Continuous Outcome Scaling: A Discriminative Method for Person-Centered Assistive Technology Outcomes Studies</p> <p>Mele, M.L. (Myèsis, Italy) Towards a Successful Match Between User and Assistive Technology: A Correlational Study on User's Satisfaction, Perceived Effectiveness, and Psychosocial Impact of an Assistive Solution</p>
15.00-15.30	<p>Igarashi T. (The University of Tokyo, Japan) Socially assistive robots influence for elderly with cognitive impairment living in nursing facilities: Micro observation and analysis</p> <p>Ghiglino, D. (Italian Institute of Technology) Robot-assistive joint attention training in autism spectrum disorders</p>	<p>Black, R. (University of Dundee, UK) Presentation Matters: A Design Study of Different Keyboard Layouts to Investigate the Use of Prediction for AAC</p> <p>Hirotoomi, T. (Shimane University, Japan) Communication partners' perspective on the use of an AAC application oriented to just-in-time language acquisition</p>	<p>Uchida, T. (NHK Science & Technology Research Laboratories, Japan) Automatic Production System for Sports Program with Support Information</p> <p>Hiraga, R. (Tsukuba University of Technology, Japan) First Evaluation of Information Support of everyone by everyone for everyone TimeLine (ISeeTL) applied to Deaf and Hard of Hearing People Watching Sport</p>	<p>Arthanat, S. (University of New Hampshire, USA) What is the pay-off? Usability and cost benefit of assistive technology at workplace</p> <p>Weller, S. (BIBB, Germany) Technology's Impact on Tasks of Employees with Disabilities in Germany (2006-2017)</p>

Lunch

POLICY SESSION 5**Standardisation.**

A report from the AAATE SIG preconference workshop followed by discussion

DREAMWAVES

(Furtado, H.) - (13.30-14.00)

A navigation and orientation solution to assist blind and visually impaired people in overcoming their mobility challenges. The key aspect of the solution is that people can understand where they need to walk to, in the most natural and intuitive way

RAISED LINES FOUNDATION

(Balakrishnan, M.) - (14.00-14.30)

Tactile diagrams are the embossed representation of diagrams for people with visually impairment. An end to end mechanism for the design and production of tactile diagrams has been developed by ASSISTECH, IIT Delhi.

ASSISTECH

(Balakrishnan, M. & Jhadav, N.) - (14.30-15.00)

DotBook is a feature-packed, affordable Refreshable Braille Display, designed to enable easy access to digital content for people with visual impairment. DotBook enables users to read books, create and edit word documents, browse the Internet, manage emails, connects directly to online libraries through built-in applications.

UNIVERSITY OF PISA

(Fanucci, L.) - (15.00-15.30)

El.Go. the Electronic Goalkeeper. a novel piece of Assistive Technology that lets a person with motor-impairments to play the role of the goalkeeper during a live non-professional football match. The main goal of the project is the improvement of the accessibility for people with disabilities to sport.

DAY 2 29-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
15.30-16.00	Coffee break			
16.00-16.30 16.30-17.00	<p>Platform speech 1 S.C. Massimiliano Malavasi (AIAS Bologna, Italy)</p> <p>Riccio, A. (Fondazione Santa Lucia IRCCS - SARA-t, Italy) Bridging the gap between research and practice: investigation of needs and characteristics of end-users, for a future inclusion of BCIs in AT-centers</p>	<p>Platform speech 2 S.C. Lorenzo Desideri (AIAS Bologna, Italy)</p> <p>Coccagna, M. (CIAS Research Centre, University of Ferrara, Italy) Environment and people perceptions: the experience of NEVArt, Neuroesthetics of the Art Vision</p>	<p>Platform speech 3 S.C. Ramon Daniels (Zuyd University of Applied Sciences, the Netherlands)</p> <p>Aarts, S. (Maastricht University, the Netherlands) Ethics in future research: It's already hard enough without it</p>	<p>Platform speech 4 S.C. Evert Jan Hoogerwerf (AIAS Bologna, Italy)</p> <p>Field, W. (National AgrAbility Project Director, Purdue University, USA) Development and Dissemination of Appropriate Assistive Technology for Agricultural Production Sites</p>
17.00-19.00	AAATE General assembly			
18.10-19.10	Busses leaving for social dinner at different intervals			
20.00	Social dinner (Ca' la Ghironda Modern Art Museum, Zola Predosa)			

Coffee break

**EDUCATIONAL SESSION 2.3.
Augmentative and Alternative
Communication for individuals with
complex communication needs:
learn by doing**

Elena Radici & Stefania La Rosa
(International Society for Augmentative and Alternative
Communication (ISAAC))

The session will allow participants to experience
Augmentative and Alternative Communication (AAC). By
simulations and role play the participants will increase
their knowledge in:

- the “why” of AAC interventions. In particular the importance of participation, communication opportunities and the role of communication partners;
- the “how” of AAC interventions. In particular the strategies and techniques that can be used to support communication;
- the “what” of AAC interventions by the use of low-tech and high-tech devices.

**FLEXMOTIV TECHNOLOGIES PVT
LTD**

(Suresh Ambalapuzha, A.) - (15.30-16.00)
Flexmo Crutch. A novel design (patent pending) of
underarm and Elbow crutches. It is All Terrain (Tested in
snow, sand dunes, slippery surfaces , rocks mud). By
using specially crafted metal flexures, the FlexCrutch
substantially improves the stability and mobility of a
patient while keeping the cost low.

URABILITY

(Northridge, J.) - (16.00-16.30)
UrAbility has developed an online course for parents of
students with disabilities to learn how to use and support
their children with assistive technology.

Opportunity to meet the
presenters in the innovation area

AAATE General assembly

Busses leaving for social dinner at different intervals

Social dinner (Ca' la Ghironda Modern Art Museum, Zola Predosa)

DAY 3 30-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
8.30-9.00	Registration desk			
9.00-9.30	<p>POLICY SESSION 7 S.C. Massimiliano Malavasi (AIAS Bologna onlus)</p> <p>This session is organised by the ProACT consortium</p> <p>Challenges in implementing IoT based person-centred services</p> <p>Part 1. IoT based applications and services: technologies, (big) data treatment and ethical issues</p> <p>Introductory talks:</p> <p>Orsini, M. (Datariver)</p> <p>Ciampolini, P. (University of Parma)</p>	<p>PLAY ROBOTICS S.C. Serenella Besio</p> <p>Besio, S. (Università degli Studi di Bergamo, Italy)</p> <p>What is Play in Robotics Today?</p> <p>Bonarini, A. (Politecnico di Milano, Italy)</p> <p>Simple robots for simple play: exploiting the resources in real situations.</p>	<p>COGNITIVE ACCESSIBILITY S.C. Christian Bühler (TU Dortmund University & FTB der ESV, Germany) Ingo Bosse (TU Dortmund, Germany) Susanne Dirks (TU Dortmund, Germany)</p> <p>Lubrano, F. (Links Foundation, Italy)</p> <p>Gap reduce. A research & development project aiming at developing a tool for promoting quality of urban life of people with autism spectrum disorder</p> <p>Lee, S (OpenDirective & W3C, UK)</p> <p>Cognitive and Learning Disabilities work at W3C and for the Easy Reading Project.</p>	<p>DEVELOPING AT WITH END USERS S.C. Paulette Wauben-Penris (Zuyd University of Applied Sciences, the Netherlands)</p> <p>Daniels, R. (Zuyd University of Applied Sciences, the Netherlands)</p> <p>Structural cooperation between different care organizations</p> <p>Tetteroo, D. (Eindhoven University of Technology, the Netherlands)</p> <p>Designing end-user adaptable interactive rehabilitation technology</p>
9.30-10.00	<p>Panel session:</p> <p>Hoeckner, K. (EC High level expert group on Artificial Intelligence)</p> <p>Lecchi, L. (University of Bologna)</p> <p>Lupo, F. (Cooperativa Sole)</p> <p>Monteriù, A. (AitAAL)</p> <p>Duretti, S. (Director Digital Welfare of Lepida ScpA)</p>	<p>Azevedo, L. (ANDITEC, Portugal)</p> <p>Play and Augmentative Mobility: the INMAC (INclusive Mobility for All Children) Vehicle</p> <p>Bianquin, N. (University of Bergamo, Italy)</p> <p>Mainstream traditional or robotic toys. Which of them better supports playfulness in children with disabilities?</p>	<p>Zaynel, N. (PIKSL Lab Duesseldorf, Germany)</p> <p>Inclusive Participatory Evaluation and Analysis with Peer-Researchers with Cognitive Disabilities - an Innovative Approach</p> <p>McCaig, A. (Texthelp, UK)</p> <p>Automated Adaptation of Content and Structure of Original Web pages</p>	<p>Andreoni, G. (Politecnico di Milano, Italy)</p> <p>Design and implementation of a multimodal wearable systems for functional assessment in rehabilitation and work</p> <p>Sels, R. (MOBILAB & Care, Belgium)</p> <p>ARTHE: Development of an upper limb Active smart wearAble orthosis for stroke THERapy</p>
10.00-10.30 NEXT PAGE	Details on the next page			

ROOM F

AT2030

S.C. Catherine Holloway (UCL Global Disability Innovation Hub, UK)

Fineberg, A.E.

(ATscale – the Global Partnership for Assistive Technology, Switzerland)

ATscale – meeting the global need for AT through an innovative cross-sector partnership

Savage, M.

(Clinton Health Access Initiative, USA)

Increasing access to assistive technology by addressing the market-barriers: A market-shaping approach for wheelchairs

Holloway, C.

(UCL Global Disability Innovation Hub, UK)

AT2030 – exploring novel approaches to addressing the global need for AT

Barbareschi, G.

(University College London Interaction Centre, UK)

Innovate Now: Creating an Assistive Technology Innovation Ecosystem in Nairobi

ROOM L

EDUCATIONAL SESSION 1.3.

Developing Practice Guidelines in Assistive Technology Assessment and Outcome Measures Using the MPT Model.

Marcia Scherer

(Institute for Matching Person & Technology, Inc., USA)

Susan Zapf

(Rocky Mountain University of Health Professions, USA)

Assistive Technology (AT) can be an effective tool to support children and adults with disabilities; however, there remains a high abandonment rate in the use of these technologies that leads to ineffective implementation of AT, poor use of funding provided for AT, and more importantly, loss of a person's dreams and opportunities for participation that can lead to improved quality of life. This session will address the need to develop practice guidelines that address three key principles: Assessment, Implementation, and Follow-up outcomes that are critical for successful match of technology to consumer. Participants will engage in discussion on strategies to develop an effective global approach to matching consumers and AT to support independence and functional participation.

ROOM M

POLICY SESSION 6

S.C. Rabih Chattat: Rector Delegate for Disability at the University of Bologna

Assistive Technology Best Practices and Challenges in Higher Education in Europe Promoted by CNUDD (The Conference of Italian University Rectors' Delegates for Disabilities)

Chattat, R.

(Rector Delegate for Disability at the University of Bologna)

Fanucci, L.

(University of Pisa, Italy)

Miesenberger, K.

(Institut Integriert Studieren, JKU, Austria)

Archambault, D.

(University Paris 8, France)

Gilligan, J.

(Technological University of Dublin, Ireland)

Arenghi, A.

(Rector Delegate for Disability at the University of Brescia)

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ROOM P

INNOVATION AREA

RAISED LINES FOUNDATION

(Balakrishnan, M.) - (9.30-9.30)

Tactile diagrams are the embossed representation of diagrams for people with visually impairment. An end to end mechanism for the design and production of tactile diagrams has been developed by ASSISTECH, IIT Delhi.

ABLENET INC.

(Thompson, P.) - (9.30-10.00)

Discussion of accessibility to an iOS device through either switch control or mouse control, how to set up a device for either and demonstration of head mouse control of the iOS device.

DAY 3 30-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
10.00-10.30	<p>An increasing amount of institutions responsible for welfare, as well as public and private service providers, look at opportunities offered by the Internet of Things (IoT) to gather data of clients, basically to anticipate their needs, prevent critical events and increase their autonomy and safety; in other words to better remain in contact with clients and provide them with services that are more effective and more efficient.</p> <p>In this first part of the session we will look at some of the most relevant ethical implications of IoT based services.</p>	<p>Jansens, R. (Zuyd University of Applied Sciences, Research Centre for Assistive Technology in Care, the Netherlands) Guidelines and tools on usability and accessibility of robots for play for children with disabilities: Review and proposal from the LUDI project.</p> <p>Encarnação, P. (Universidade Católica Portuguesa, Portugal) Taking integrated augmentative manipulation and communication assistive technologies to daily intervention practice</p>	<p>Heumader, P. (Institut Integriert Studieren, JKU, Austria) Adaptive User Interface Concepts Supporting People with Cognitive Disabilities</p> <p>Derbring, S. (DART, Sahlgrenska University Hospital, Sweden) Safety, Privacy and Ethical Considerations when Researching With People with Cognitive Disabilities</p>	<p>Van der Heide, L. (Zuyd University of Applied Sciences, the Netherlands) Combine forces in further developing an innovation for incontinence care</p> <p>Lemmens, R. (PXL University College of Applied Sciences and Arts, Belgium) Stay@home with dementia: Companies, healthcare- and knowledge institutions challenged for user-centered design</p>
10.30-11.00		<p>Heuvel, R. (Zuyd University of Applied Sciences, the Netherlands) Playing with ZORA – Robot supported therapy and education for children with severe physical disabilities</p>	<p>Parker, S. (Kompetenznetzwerk KI-I, Austria) New Approaches to Web User Tracking</p>	<p>de Vlugt, E. (The Hague University of Applied Sciences, the Netherlands) Making black swans free as a bird: freedom, safety and courage in psychogeriatric care</p> <p>Biasin, E. (Centre for IT & IP Law (CiTiP), KU Leuven, Belgium) 'Sharing is caring': what are the main legal and ethical challenges to be looked at when co-designing DIY assistive technologies?</p>
11.00-11.30	Coffee break			
11.30-12.00 NEXT PAGE				

ROOM F

Barbareschi, G.

(University College London Interaction Centre, UK)

Moulding a New Prosthetic Service Delivery System with the Amparo Confidence Socket

Oderud, T.

(SINTEF, Norway)

Developing tablet audiometry for screening children's hearing in Tanzania

Van den Bergh, G.

(University of Bergen & Western Norway University of Applied Sciences, Norway)

Assistive technology services for children with disabilities and inclusive education in Tanzania: the need for intersectoral coordination

Jalovcic, D.

(Western Norway University of Applied Sciences, Norway)

Comprehensive approach to assistive technology in low-income country: A case study of CRP Bangladesh

ROOM L

ROOM M

This session will present and discuss best practises and challenges in Assistive Technologies in Higher Education in different European Countries including discussion about teaching methods, teaching environment (rooms, labs, etc.), e-learning, AT tools, ecc.. for student and/or professor with disability. The topic will be addressed from both the professor and the student perspectives. The session is proposed and organized by CNUDD (The Conference of Italian University Rectors)

ROOM P

UNIVERSITY OF SHEFFIELD

(Krumins, V.) - (10.00-10.30)

The concept is to produce at a low cost devices that can be generated locally and individualized for the user. It embraces three products identified in the Priority Assistive Products List by WHO: walking stick, elbow crutch and walker frame.

ETH ZURICH

(Gantenbein, J.) - (10.30-11.00)

MiAssiSt: an open source, low-cost, wheelchair-mountable assistive device to support elbow flexion and extension for users with reduced upper limb muscle strength.

URABILITY

(Northridge, J.) - (11.00-11.30)

UrAbility has developed an online course for parents of students with disabilities to learn how to use and support their children with assistive technology.

Coffee break

DAY 3
30-08-2019

ROOM B

ROOM C

ROOM D

ROOM E

11.30-12.00

POLICY SESSION 7

This session is organised by the ProACT consortium

Challenges in implementing IoT based person-centred services

Part 2. Removing barriers to upscaling and transfer of digital based integrated care platforms

S.C. Evert-Jan Hoogerwerf - AIAS Bologna onlus/ProACT Consortium)

Ferrando, M.

(AAATE/ProACT Consortium)

Transferability of digital solutions for integrated care (ProAct qualitative research)

Experiences:

Cesario, L. and Gherardini, A.

(WeCareMore, AIAS Bologna onlus)

Camorali, G.

(IBM Italia S.p.A.)

Panel:

Chiari, L.

(University of Bologna)

Franchini, M.

(President of ASP Terre di Castelli)

Redaliè, L.

(ASP Città di Bologna)

Detail on the next page

ACCESSIBILITY

S.C. Klaus Miesenberger (Institut Integriert Studieren, JKU, Austria)

Conway, V.

(Web Key IT Pty Ltd, Australia)

Accessibility equals Innovation

Salinas López, V.

(JKU, Austria)

Complex PDF remediation for accessibility: review of current methodologies.

Jitngernmadan, P.

(Burapha University, BUU, Thailand)

Holistic Evaluation Method and Tools for Local Government Websites, Case Study: EEC, Thailand

Rocha, N.

(University of Aveiro, Portugal)

Usability assessment of an Accessible Voting System – a mixed method study

AT in REHABILITATION

S.C. Dominique Archambault (Université Paris 8, France)

Hobbs, D.

(Flinders University, College of Science and Engineering, Australia)

A Custom Serious Games System with Forced-Bimanual Use can Improve Upper Limb Function for Children with Cerebral Palsy – Results from a Randomised Controlled Trial

Maximo, T.

(The Hong Kong Polytechnic University)

CIRANDA, a floor seat positioning system and social enterprise

Sik Lanyi, C.

(University of Pannonia, Hungary)

Developing an android game for restoring the motor functions of fingers

Vincent, C.

(Université Laval, Canada)

Preferred” light color in home lighting interventions for people with age-related macular degeneration (ARDM)

AT OUTCOME

S.C. Lorenzo Desideri (AIAS Bologna, Italy)

Salatino, C.

(Fondazione Don Carlo Gnocchi ONLUS, Italy)

Aassistive technology outcome measures: a review of recent literature

Jacobsen, T.

(Økistænastan í Sandoyar Sýslu, Faroe Islands)

Outcome of provision of ”uncomplicated” assistive devices to older people in the Faroe Islands – an IPPA pretest-posttest study

Friesen, E.

(Raz Design Inc, Canada)

Developing an administration manual for the eMAST: a case study

Zapf, S.

(Rocky Mountain University of Health Professions, USA)

Cross-Walking the Matching Assistive Technology to Child Assessment to the ICF Model

12.00-12.30

12.30-13.00
NEXT PAGE

ROOM F

AAL, MONITORING & AGING

S.C. Peter Cudd (University of Sheffield, UK)

Simbrig, I.M.

(Eurac Research, Italy)

Evaluation of an assistive technologies bundle by informal carers of older adults. Results from a pilot trial in Austria and Italy

Manabe, K.

(Teikyo University of Science, Japan)

Evaluation of daytime activities at home for elderly hemiplegic patients and development of bed with standing up function to prevent disuse syndrome

Comai, S.

(Politecnico di Milano, Italy)

Detecting Social Interaction in a Smart Environment

Joddrell, P.

(The University of Sheffield, UK)

Continuous ambient in-home walking speed monitoring in frail older adults: Results of a feasibility study

ROOM L

APPROPRIATE WHEELCHAIRS: A GLOBAL CHALLENGE

S.C. Rosemary Joan Gowran (University of Limerick, Ireland)

Gowran, R.

(University of Limerick, Ireland)

Wheelchair stakeholders meeting 2018 - developing a global wheelchair sector report with priority actions toward sustainable wheelchair provision: appropriate wheelchairs, a global challenge

Gowran, R.

Personal, public, political discourse illuminating context specific experiences enabling and depriving individuals as wheelchair users in the republic of ireland: appropriate wheelchairs a global challenge

Goldberg, M.

(University of Pittsburgh, USA)

Global Wheelchair Service Provision Capacity Building: An Online Mentoring Feasibility Study

Gowran, R.

(University of Limerick, Ireland)

A cross-sectional survey investigating wheelchair skills training in Ireland: appropriate wheelchairs a global challenge

ROOM M

AAC/2

S.C. Sarah Gavra Boland (Saint John of God Community Servies clg, Liffey Services, Ireland)

Klaus, B.

(FH Technikum Wien, Austria)

AsTeRICS Grid – a flexible web-based application for alternative communication (AAC), environmental- and computer control

Hristova, E.

(ASSIST - Assistive Technologies Foundation, Bulgaria)

Attitudes and Usage of AAC in Bulgaria: A Survey among Special Education Teachers

Kimura, T.

(National Institute of Technology, Toyota College, Japan)

Sign language recognition using machine learning by a new linguistic framework

Koutny, R.

(Institut Integriert Studieren, JKU, Austria)

Access to Non-Verbal Aspects of Group Conversations for Blind Persons

ROOM P

UNIVERSITY OF PISA

(Fanucci, L.) - (11.30-12.00)

El.Go. the Electronic Goalkeeper. a novel piece of Assistive Technology that lets a person with motor-impairments to play the role of the goalkeeper during a live non-professional football match. The main goal of the project is the improvement of the accessibility for people with disabilities to sport.

ASSISTECH

(Balakrishnan, M. & Jhadav, N.) - (12.00-12.30)

DotBook is a feature-packed, affordable Refreshable Braille Display, designed to enable easy access to digital content for people with visual impairment. DotBook enables users to read books, create and edit word documents, browse the Internet, manage emails, connects directly to online libraries through built-in applications.

DAY 3 30-08-2019	ROOM B	ROOM C	ROOM D	ROOM E
12.30-13.00	<p>Notwithstanding the existence of significant experiences in supporting persons with disabilities and older adults with IoT based technologies, many of these find difficulties in surviving experimental phase, scaling up or in being transferred to other contexts.</p> <p>In this second part of the session we will look at the most relevant barriers to the successful transfer of digital solutions for integrated care from one context to another and how these barriers can be addressed by applying more universal and user centred design principles.</p>	<p>Jadhav, N. (IIT Delhi, India) Challenges in Indoor Navigation and Accessibility</p> <p>Smith, R. O. (University of Wisconsin-Milwaukee, USA) AccessTools and AccessPlace Apps as Key Ingredients of a Building Accessibility Information System for Community Participation</p>	<p>Sik Lanyi, C. (University of Pannonia, Hungary) Mobile health game development to motivate walking for hematopoietic stem cell transplant patients</p> <p>Saad, A. (University of Haifa, Israel) Experience level and Usability evaluation while using “TATOO”, a touch screen tool for assessing children and clinicians</p>	<p>Magni, R. (COAT, Italy) Translation and preliminary validation of the Italian version of the Family Impact of Assistive Technology Scale for Augmentative and Alternative Communication (FIATS-AAC.it)</p>
13.00-14.00	<p>Closing ceremony</p> <p>With Katerina Mavrou and Georgios Kouroupetroglou</p> <p>Best Paper Award</p>			
19.00-24.00	<p>Dinner on the wine farm</p>			



ROOM F

Poi, M.

(Hogeschool van Amsterdam, the Netherlands)
Effectiveness of sensor monitoring in a rehabilitation program for older patients after hip fracture: a three-arm stepped wedge randomized trial

Costanzo, A.

(University of Bologna, Italy)
HABITAT: a New Generation of Ambient Assisted Living

ROOM L

Gowran, R.

(University of Limerick, Ireland)
Improving Global Wheelchair Product Quality

Fujisawa, S.

(Tokushima Bunri University, Japan)
On Tire Pressure and Comfort of Manual Attendant-Controlled Wheelchairs

ROOM M

Northridge, J.

(University College Cork, Ireland)
Selecting AAC apps for effective communication in a mainstream classroom setting. A new framework of where to start.



ROOM P

Opportunity to meet the presenters in the innovation area

Closing ceremony

With Katerina Mavrou and Georgios Kouroupetroglou

Best Paper Award

Dinner on the wine farm



Organisers



Patronship



Collaborating organizations



AAATE, c/o Institut Integriert Studieren, Johannes Kepler University, Linz.
Local host: AIAS Bologna onlus, Piazza della Pace 4A, I-40134 Bologna.

E-mail: office@aaate.net
E-mail: aaate2019@aiasbo.it



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