Global Challenges in Assistive Technology Research, Policy & Practice

Bologna, Italy
27-30 August 2019

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

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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)
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, Castelvecchio 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.

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, Vigoroso, 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.

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.

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.

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

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.

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

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.

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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.

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**PROGRAMME**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>14.30</td>
<td>Registration</td>
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<tr>
<td></td>
<td>Host of the day: Evert-Jan Hooijenwerf (SG AAATE/AIAS Bologna onlus)</td>
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<tr>
<td>15.00</td>
<td>Official greetings</td>
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<tr>
<td></td>
<td>Matteo Lepore (Councillor City of Bologna)</td>
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<td></td>
<td>Mirko Degli Esposti (Deputy Rector Alma Mater Studiorum, University of Bologna)</td>
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<tr>
<td>15.15</td>
<td>Introductory speeches by:</td>
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<td></td>
<td>Wei Zhang (WHO)</td>
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<td></td>
<td>Inmaculada Placencia-Porrero (The European Commission)</td>
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<td>Vincenzo Zoccano (Undersecretary of State at the Presidency of the Council of Ministers with mandate to Disability and Family - Italy)</td>
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<td>Luc de Witte (President of IAME)</td>
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<tr>
<td>16.00</td>
<td>Session 1: Implementing a rights-based approach in Assistive Technology</td>
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<td>Chair: Katerina Maxeou (European University of Cyprus)</td>
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<td></td>
<td>Keynote by Giampiero Griffo (The Italian National Observatory on the Conditions of Persons with Disabilities)</td>
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<td>Panel session with:</td>
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<td>– Alejandro Moledo (European Disability Forum)</td>
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<td></td>
<td>– Luk Zeleitner (European Association of Service Providers to Persons with Disabilities)</td>
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<td></td>
<td>– Malcolm MacLachlan (Assisted Living and Learning Institute, Maynooth University)</td>
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<td>– Tara Rudnicky (Assistive Technology Industry Association)</td>
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<td>– Egiziano Sozio (Director of the City of Bologna)</td>
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<td>– Rabih Chattat (Alma Mater Studiorum, University of Bologna)</td>
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<tr>
<td>17.00</td>
<td>Session 2: Creating conditions for AT to work</td>
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<td>Chair: Salvemilla Borghi (University of Bergamo)</td>
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<td>Keynote by Massimo Guerreschi (GUC, the Italian association of AT centres)</td>
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<td>Panel session with:</td>
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<td></td>
<td>– Cathy Holloway (Global Disability Innovation Hub)</td>
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<td>– Renzo Andrich (Bi-EASTIN network)</td>
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<td>– Silvana Contepomi (Azerbaijan Assistive Technology Association)</td>
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<td>– Roger Smith (Rehabilitation Engineering and Assistive Technology Society of North America)</td>
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<td>– Filippo Borghi (Advocacy)</td>
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<td>– Maria Caterina Marca (Commission for Health and Welfare, City of Bologna)</td>
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<td></td>
<td>– Masanori Nakayama (The Regional Centre for Assistive Technology of Enkai Rennan)</td>
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**TRANSLATIONS AND CAPTIONS**

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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)
Captioning services are provided in collaboration with the Coordinamento Fiiadda Emilia-Romagna, in the framework of the regional project to reduce communication barriers and for an inclusive society.
Opening ceremony with Luc de Wilte (IAATE), Raqqa Chulalit (University of Bali), Councillor Marco Lombardi (City of Bologna), Keynote speech Prof. Malcolm MacLachlan (Advancing learning Ireland)

Irmauldia Piazza-Permostro (The European Commission), Wei Zhang (WHO), Lorenzo Desideri (RS Research & Evert-Jan Hoogerwerf (RS Research/MARS)

**EYE GAZING TECHNOLOGY**

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

**EYE GAZE CONTROL**

computer-controlled gaze-based interaction. The gaze-based interaction is implemented in the form of gaze-controlled applications. For example, a user can select on-screen menu by moving their gaze towards the desired option. The selection is made when the user fixates on the option for a certain period of time. This technique is widely used in mobile devices, assistive technologies, and virtual environments.

**Gaze-controlled communication**

technology for children with severe disabilities requires specific considerations to promote effective communication and interaction. For instance, the technology should provide clear, consistent, and predictable feedback to aid in learning and understanding. Additionally, the system should be adaptable to meet the individual needs and preferences of each child.
Conference Day 1 — 12.30 - 15.00

12.30-13.00

DigiLab S.L. (Barcelona, Spain)

13.00-13.30

Gopsalwar, D.

13.30-14.00

Talbot, S.

14.00-14.30

Pawar, S.

14.30-15.00

Day 1

ROOM B ROOM C ROOM D ROOM E ROOM F ROOM L ROOM M ROOM P

10.00-10.30

SAID, A.  (Leeds, UK)

10.30-11.00

Mowlem, R.

11.00-11.30

Ainsworth, M.

11.30-12.00

Van den Heuvel, V.

12.00-12.30

Arlen Inc.

12.30-13.00

Wolters, M.

13.00-13.30

Drasen, E.A.

13.30-14.00

Porter, S.

14.00-14.30

Luc de Witte (University of Sheffield, UK)

14.30-15.00

Potter, S.

15.00-15.30

Moore, P.

15.30-16.00

Gopalarao, D.

16.00-16.30

Mackeogh, T.

16.30-17.00

Van Nimwegen, H.

17.00-17.30

Bertell, L.

17.30-18.00

Bertell, L.

18.00-18.30

Bertell, L.

18.30-19.00

EUROPE-ASIA CARE ROBOTICS

19.00-20.00

S.C. Natasa Nenadic (University of Sheffield, UK)

20.00-21.00

S.C. Akira Goto (University of Tokyo, Japan)

21.00-22.00

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

22.00-23.00

Details on the next page
15.00-15.30
Lim, M.J.
(Asan Biomedical Research Institute, South Korea)
What should be considered when developing care robots according to their types?

Bedaf, S.
(Leiden University, the Netherlands)
Cultural differences in perceptions of care robots within Europe


15.30-16.00
Giraldo, M.
(University of Regensburg, Italy)
Assistive technologies for older persons with intellectual disabilities: a preliminary systematic review for future research implementation

Spomale, A.M.
(University of Applied Sciences, the Netherlands)
Virtual garden for people with dementia


16.00-16.30
Inoue, T.
(National Rehabilitation Center for Persons with Disabilities, Japan)
Ergonomic Models of Digital Assistive Technology Education and Training

Prousada, T.
(University of Tokyo, Japan)
Assistive Technology in the University, is there still a person-technology match?


Coffee break


16.30-17.00
Kim, J.
(Korea University, South Korea)
The Influence of Socio-Economic Phenomenon on Elderly Rehabilitations in South Korea

Vincent, C.
(University of Waterloo, Canada)
Dementia apps and their impact on community-dwelling persons with mild to moderate dementia and their family caregivers

Roufhead, F.
(Center for interdisciplinary research in rehabilitation and social integration, Canada)
Family caregivers’ experience of care and use of assistive technologies


17.00-17.30
Alessa, T.
(Kalamata University, Greece)
Ergonomics and User-Centered Design for Assistive Technologies: Application to a Virtual Reality Environment

Veicelli, G.
(University of Genova, Italy)
Developing a Intelligent Virtual Coach for Bocci: Design of a Virtual Bocci Simulator


Coffee break


18.00-18.30
Zapf, S.
(Georg-August University, Germany)
Outcomes of Assistive Technology in Supporting Students’ Mastery of Educational Goals

Federici, S.
(University of Perugia, Italy)
Standardizing the procedures, improving the listening to the needs of the individual user


AIAS BOLOGNA ONLUS
(Paris, E. and Togni, E.) - (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.
22-05-2010

ROOM B

16.30-17.00

MOOC'S & GERS
S.C. Gottfried Zimmermann
Designing a MOOC for "Teaching the Trainers"

Gilligan, J. (School of Psychology & Computing, Ulster University) Using MOOCS to engage students across the borders of University Design and Accessible Learning: Fahal - A model for community based learning.

ROOM C

COMMUNICATION DISORDERS
S.C. Anna Kanto-Ronkanen (Ministry of Social Affairs and Health) Using Data from a telephone call app to produce necessary support to enable remote communication for people with communication difficulties?

ROOM D

ASSISTIVE ROBOTS
S.C. Anne Kanto-Ronkanen (Ministry of Social Affairs and Health) Access to Education for children with special educational needs (SEN): Addressing 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 E

EDUCATIONAL SESSION 1.2.
S.C. Gottfried Zimmermann (AIAS Bologna, Italy) Development of controllable, myoelectric signal electrolarynx controlled by neck myoelectric signal. A machine learning assistive technology device for users with dysarthria.

ROOM F

EDUCATIONAL SESSION 1.3.

ROOM M

MOBILITY 2

ROOM L

POLLICY SESSION 3
S.C. Renzo Andrich (EASTIN Network) Round table discussion with invited experts moderated by Roger O. Smith (Co-chair of the IAATO).

ROOM P

AIST (National Institute of Advanced Industrial Science and Technology) (Nagoya, 16:30-17:00) A Semantic Decision Support System to foster Return to Work of Novice Wheelchair Users.

17.30-18.00

Welcome cocktail

19.00-20.30

Guided City tour

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**DAY 2**

23-25 October

**ROOM B**

**ROOM C**

**ROOM D**

**ROOM E**

**ROOM F**

**ROOM M**

**ROOM P**

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**PATHOLOGICAL SPEECH PROCESSING**

S.C.seo Eunju (University of Cheonan, KR)

**AT & INTELLECTUAL DISABILITY**

S.C. Noles Danielson (Wayzata Public Schools, USA)

**AT DELIVERY: CROSS-CULTURAL PERSPECTIVES**

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

**EDUCATIONAL SESSION 2.1.**

**Policy Needs to be a “Bottom-Up” Educational Process**

Priscilla M. Danielson, Olin N. Danielson, Ole N. Danielson (Linguistic Solutions LLC)

**EDUCATIONAL SESSION 2.2.**

**Technology Needs to be a “Bottom-Up” Educational Process**

Priscilla M. Danielson, Olin N. Danielson, Ole N. Danielson (Linguistic Solutions LLC)

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**POLICY SESSION 4**

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

Nawo, O. (IMM – Royal Institution of Technological Studies of Science, Technology, Innovations and Communications from Brazil)

**Sharma, S.** (Director of the National Lab on Assistive Technologies of the CINI consortium)

**Banes, D.** (Director of David Banes Access and Inclusion Services from Brazil)

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**CONFERENCE DAY 2 – 09.00 - 10.00**

**POLICY SESSION 5**

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

Nawo, O. (IMM – Royal Institution of Technological Studies of Science, Technology, Innovations and Communications from Brazil)

**Sharma, S.** (Director of the National Lab on Assistive Technologies of the CINI consortium)

**Banes, D.** (Director of David Banes Access and Inclusion Services from Brazil)
CONFERENCE DAY 2 — 10.00 - 11.30

Waller, A. (University of Sheffield, UK) Exploring the Role of Assistive Technology in a Special Education (SE) Setting

Rocha, N. (University of Aveiro, Portugal) A Special Needs Course in undergraduate health professions: an evaluation using mixed methods

Parshé, S. (University of Kent, UK) Generating phonological feedback for evidence-based speech therapy

Hawley, M. (De Montfort University, UK) PersuAID for long-term development and evaluation of voice-input and voice-output communication aid app

Louné, J. (University of Leeds, UK) Developing a Social Inclusion Intervention with Support of a Mobile Application among Young Adults with Intellectual Disabilities

Jokar, E. (University of Tehran, Iran) Using high-fidelity work simulation for vocational orientation, skill assessment and development of young adults with disabilities

Khan, M.H. (Bilkent University, Ankara) Availability and Awareness of Assistive Products in Bangladesh from the Perspective of Rehabilitation Professionals

Zidanuk, 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

INCLUSION EDUCATION ENVIRONMENTS
S.C. Astin, M. (University of Sheffield, UK) Technology and Inclusive Education: a literature review

Miesenberger, K. (Technical University Dortmund, Germany) Nothing about Us Without Us

Pitel, R. (Indian Institute of Technology, Kanpur, India) A digital system supporting effective remote multi-agency home visits

29-08-2019

HOME VISITS
Effective Remote Multi-Agency
A Digital System Supporting
(University of Sheffield, UK)

TELEHEALTH PRODUCT AND SERVICE
(De Montfort University, UK)

S.C. Maite Ferrando (AAATE) SUPPORTED BY PROACT

THEMATIC SESSION
DIGITAL HEALTH — INCLUSIVE EDUCATION
ROOM B
ROOM C
ROOM D
ROOM E
ROOM F
ROOM G
ROOM H
ROOM I
ROOM J
ROOM K
ROOM L
ROOM M
ROOM N
ROOM O
ROOM P

Coffee break

INNOVATION AREA

Digital Health — Thematic Session Supported by Proact

Waller, A. (University of Sheffield, UK) Exploring the Role of Assistive Technology in a Special Education (SE) Setting

Rocha, N. (University of Aveiro, Portugal) A Special Needs Course in undergraduate health professions: an evaluation using mixed methods

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INCLUSION EDUCATION ENVIRONMENTS
S.C. Astin, M. (University of Sheffield, UK) Technology and Inclusive Education: a literature review

Miesenberger, K. (Technical University Dortmund, Germany) Nothing about Us Without Us

Pitel, R. (Indian Institute of Technology, Kanpur, India) A digital system supporting effective remote multi-agency home visits

Tecnology and Inclusive Education: a literature review

INNOVATION AREA

Digital Health — Thematic Session Supported by Proact

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29-08-2019

HOME VISITS
Effective Remote Multi-Agency
A Digital System Supporting
(University of Sheffield, UK)

TELEHEALTH PRODUCT AND SERVICE
(De Montfort University, UK)

S.C. Maite Ferrando (AAATE) SUPPORTED BY PROACT
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DAY 2
29-30-10
ROOM B
ROOM C

11.30-12.00

Dinsmore, J.
(Stevenson College, Irnset)
ProCT!-Person central digital integrated care for adults aged 65 years and over, being with multimorbidity.

Gherardi, A.
(Walgreens, US)
Integrating care for older adults with multiple chronic conditions: results from the Italian ProCT trial

12.00-12.30

Jones, N.
(Urban Teaching Hospitals Nl-IT, UK)
Opportunities for multimodal interfaces for improved services

Willard, S.
(Deerfield University, Applied Sciences, The Netherlands)
Making tourism services accessible through technology: the Living Book Project

12.30-13.00

Long, S.
(Semide.integer)
A Systems Approach to the Improvement of a National Model of Assistive Technology Service Delivery: Challenges and Opportunities for Designing for the Future: a Systemically Wilder Assistive Technology Service for Disabled and Older People in Ireland

Watkins, I.
(University of Oxford, UK)
A Survey of Assistive Technology Knowledge and Use among Healthcare Professionals in the UK and France: challenges and solutions

13.00-13.30

Traina, I.
(University of Trento Galvani, Ireland)
Project ET-ARIAN: empowerment of youth with Intellectual Disabilities through an individualised transition program including AF for acquiring employment skills

Pigó, L.
(Humanitas San Camillo-Forlanini, Italy)
Assessing the outcome of individual supportive interventions: a randomized controlled trial

Roetgen, U.
(University of Applied Sciences, the Netherlands)
Assistive Technology Service Delivery Models in the Netherlands

Yanaghara, T.
(Kabu University, Japan)
Using the Fantastic Crayon: Guidance on using computer and large print technologies

Nihadeh, E.
(University of Frad, Iran)
Integrating role dynamics measurements and user centred assessment to assist vital wheelchairs

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29

DAY 2
29-30-10
ROOM D
ROOM E
ROOM F
ROOM L
ROOM M
ROOM P

13.30-14.00

Watkins, L.
(Stevenson College, (Vienna)

Baldini, S.
(Sistema di Intervento in Sanità, Fiore, Como)
Meta-analysis of the impact on actualised learning on the realm learning of students with special needs

De Jonge, D.
(Eesti Töötukassa, Estonia)
Exploring smart technologies: the effectiveness and electronic evaluation of assistive technology based on ICF and ISO 9999 based

Aristi, S.
(University of Bologna, Italy)
The Effect of Footway Crossfall on one arm and leg drive Gradient on one arm and leg drive

Masura, K.
(University of Kiel, Germany)
What are the challenges and what are they measuring? A scoping review on the technology on intervention and ageing in place outcomes, allied healthcare professionals

Norman, G.,
(University of Auckland, New Zealand)
Teaching Assistive Technology: The Living Book Project

Mirri, S.
(Istituto per l'Enegetica, Italy)
Exploring smart technologies: the potential of mixed reality

Carranza, H.
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The impact of an open source framework to build a new type of customizable health and social care service.

Cudd, P.
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Developed by Engineering Undergraduates: Developed by Engineering Undergraduates

Hayhoe, S.
(University of Bath, UK)
A Participative Research Methodology, Inclusive Control Opportunities for workforce development in the UK and France

Mohamed, E.
(AAAS BOLOGNA ONLUS)
A concomitant evaluation of mobile application for visually impaired users through a mobile app

Carabia, H.G.
(Leon University, Mexico)
A Literature Review of the Challenges and Interventions for Advanced Manufacturing - STIIMA-CNR, Italy

Stein, M.S.
(University of Kent, UK)
A Survey of Assistive Technology Knowledge and Use among Healthcare Professionals in the UK and France: challenges and opportunities for workforce development

Parkin, C.
(University of Bristol Church University, UK)
A Survey of Assistive Technology Knowledge and Use among Healthcare Professionals in the UK and France

De Jonge, D.
(Eesti Töötukassa, Estonia)
Exploring smart technologies: the effectiveness and electronic evaluation of assistive technology based on ICF and ISO 9999 based

Aristi, S.
(University of Bologna, Italy)
The Effect of Footway Crossfall on one arm and leg drive Gradient on one arm and leg drive

Masura, K.
(University of Kiel, Germany)
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14.30-15.00

SOCIAL ROBOTICS

S.C. Francesco Rea (Italian Institute of Technology), Riccardo Magni (GLIC Association)

Rea, F.

HUMANOID ROBOTS: Advantages of social robots in the assistance of elders

Takahashi, Y.

Communication Robot System for Older People Who Live Alone

Igarashi T.

Socially assistive robots influence for elderly with cognitive impairment living in nursing facilities: Micro observation and analysis

Ghiglino, D.

Robot-assistive joint attention training in autism spectrum disorders

Black, R.

Development of a Socially Assistive Robot for Children with Autism Spectrum Disorder

Hirotsu, T.

Communication partners’ perspective on the use of an AAC application oriented to just-in-time language acquisition

Uchiha, T.

Automatic Production System for Sports Program with Support Information

Hiraga, R.

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.

Arthanat, S.

(University of Texas at Austin, USA)

What is the pay-off? Usability and cost benefit of assistive technology at workplace

Weiker, S.

(IBM, Germany)

Technology's Impact on Tasks of Employees with Disability in Germany (2006-2017)

15.00-15.30

Igarashi T.

(Technivers University, Japan)

Socially assistive robotics for elderly with cognitive impairment living in nursing facilities: Micro observation and analysis

Ghiglino, D.

(University of Technology)

Robot-assistive joint attention training in autism spectrum disorders

13.00-14.30

Lunch

ROOM B

ROOM C

ROOM D

ROOM E

ROOM F

ROOM L

ROOM M

ROOM P

DREAMWAVES

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

A navigation and orientation solution to assist blind and visually impaired people in overcoming their spatial 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 ASSITECH, IIT Delhi.

ASSITECH

(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 e-books, create and edit documents, browse the Internet, manage emails, connect 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.
CONFERENCE DAY 2 — 16.00-20.00

AAATE General assembly

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

Elena Rudi & 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:
• 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.

15.30-16.00 Coffee break

Platform speech 1
S.C. Massimiliano Malavasi (AIAS Bologna, Italy) 
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 expansion of BCIs in AT-centers

Platform speech 2
S.C. Riccardo Savini (University of Applied Sciences, the Netherlands) 
Coccagna, M. (CIAS Research Centre, University of Ferrara, Italy)
Environment and people perceptions: the experience of NEVArt, Neuroestethics of the Art Vision

Platform speech 3
S.C. Riccardo Savini (University of Applied Sciences, the Netherlands) 
Aarts, S. (Maastricht University, the Netherlands)
Ethics in future research: It’s already hard enough without it

Platform speech 4
S.C. Evert Jan Hoogerwerf (AIAS Bologna, Italy) 
Field, W. (National Agribusiness Project Director, Purdue University, USA)
Development and Dissemination of Appropriate Assistive Technology for Agricultural Production Sites

17.00-19.00 AAATE General assembly

16.10-19.10 Busses leaving for social dinner at different intervals

Social dinner (Ca’ la Ghironda Modern Art Museum, Zola Predosa)
**CONFERENCE DAY 3 — 09.00 - 10.00**

**9.00-9.30**

**PANEL SESSION 7**

**“Artificial Intelligence in Practice”**

**Chair:** D. Marra (PoliMi, Italy)

**Panelists:**
- S. Duretti (Universita’ degli Studi di Palermo, Italy)
- A. Monteriù (University of Bologna, Italy)
- F. Lupo (University of Trieste, Italy)
- L. Lecchi (Technological University of Dublin, Ireland)

**Discussion:** Artificial Intelligence and its applications in different fields.

**9.30-10.00**

**SESSION 1.2**

**“Robotics and Play for Children with Disabilities”**

**Chair:** B. Azevedo (ANPC, Portugal)

**Speakers:**
- N. Bianquin (University of Bologna, Italy)
- A. Besio (University of Bergamo, Italy)
- S. Bonarini (University of Bologna, Italy)

**Topics:**
- Research on play and robotics in the context of children with disabilities.
- Development of robots for play therapy.

**10.00-10.30**

**SESSION 1.3**

**“Guidelines for the Implementation of Assistive Technology”**

**Chair:** S. Zappe (University of Washington, USA)

**Speakers:**
- S. Lee (University of Washington, USA)
- S. Beswick (University of Melbourne, Australia)

**Topics:**
- Development of guidelines for the implementation of assistive technology.
- Best practices for the implementation of assistive technology.

**Details on the next page**
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.

In this first part of the session we will look at some of the most relevant ethical implications of IoT based services.

**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.

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, etc. for students and/or professor with disability. The session 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).

**ETH ZURICH**
(Morrelli, E.) - (11.30-12.00)
FabiOS – Final OS: an open-source, low-cost, wheelchair-mounted robotic arm to support upper limb function and extension for users with reduced upper limb muscle strength.
11.30-12.00

CONFERENCE DAY 3—11.30-12.30

**POLICY SESSION 7**

This session is organised by the ProACT Consortium.

Challenges in implementing IoT-based person-centred services

**ACCESSIBILITY**

Jittegammader, P.

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

**AT REHABILITATION**

Sik Laney, C.

Developing an android game for restaurating the motor functions of fingers

**AT OUTCOME**

Frisen, E.

Developing an administration a tool for evaluating the ABCAT a case study

**AAL, MONITORING & AGING**

Zapf, S.

Outcome of provision of wheelchair appropriate wheelchairs a global challenge

**ROOM B**

**ROOM C**

**ROOM D**

**ROOM E**

**ROOM F**

**ROOM M**

**ROOM L**

**ROOM P**

12.00-12.30

**ROOM D**

**ROOM F**

**ROOM L**

**ROOM M**

**ROOM P**

12.30-13.00

**NEXT PAGE**

Detail on the next page
DAY 3 30-05-2019

ROOM B

Notwithstanding the existence of significant experiences in supporting persons with disabilities and older adults with IoT based technologies, many of these fail when first diffusing into screening experimental phase, scaling up or in being transferred to other contexts. In this second part of the session we will discuss the most common barriers for 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.

ROOM C

Jadhav, N. (IIT Delhi, India)
Challenges in Indoor Navigation and Accessibility

ROOM D

Sik Lanyi, C. (University of Pannonia, Hungary)
Mobile health game development to reimburse walking for hematopoietic stem cell transplant patients

ROOM E

Sik Lanyi, C. (University of Pannonia, Hungary)
AccessTools and AccessPlace Apps as Key Ingredients of a Building Accessibility Information System for Community Participation

ROOM F

Poli, M. (University of Amsterdam, the Netherlands)
Translation and preliminary validation of the Italian version of the Family Impact of Assistive Technology Scale for Augmentative and Alternative Communication (FIATS-AAC it)

ROOM G

Pol, M. (University of Amsterdam, the Netherlands)
Effectiveness of sensor monitoring in a rehabilitation program for older patients after hip fracture: a three-arm stepped wedge randomised trial

ROOM H

Costanza, A. (University of Rome, Italy)
HABITAT: a New Generation of Ambient Assisted Living

ROOM I

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)

ROOM J

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ROOM K

Sik Lanyi, C. (University of Pannonia, Hungary)
Mobile health game development to reimburse walking for hematopoietic stem cell transplant patients

ROOM L

Saad, A. (University of Haifa, Israel)
Experience level and usability evaluation while using “TOOTOO”, a touch screen tool for assessing children and clinicians

ROOM M

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Experience level and usability evaluation while using “TOOTOO”, a touch screen tool for assessing children and clinicians

ROOM N

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

ROOM O

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

ROOM P

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

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

Jadhav, N. (IIT Delhi, India)
Challenges in Indoor Navigation and Accessibility

Smith, R. O. (University of Wisconsin-Milwaukee, USA)
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