AAATE 2017
Programme

>200 talks on harnessing the power of technology to improve lives.

This Congress is organised by AAATE and CATCH. For more information, please visit aaate.net or catch.org.uk

#AAATE2017
The 2017 AAATE Congress is a 5-day event focusing on all topics relating to Assistive Technology. It will take place in Sheffield from 11th to 15th September 2017. The main Conference occurs on the 13th and 14th and Satellite Events are running on the other three days.

Travel information can be found online: aaate2017.eu

Satellite Events
Mon 11th Sept

This day is not yet finalised. Please check our website for updates, or contact us with your enquiry: info@aaate2017.eu

Discounted tickets for AAATE2017 delegates are available.

Peak District

We can help you arrange a trip to the Peak District if you’re arriving early in the Congress week. Please contact us: info@aaate2017.eu
Satellite Events are additions to the core Conference at different venues. These sessions are workshop or lecture style with topics related to AT.

The venues St. Mary’s Conference Centre, the Octagon Centre and in the evening at the Diamond Building are all within walking distance (10 - 20 minutes) of each other.

### St Mary’s

- **8.00** Registration
- **8.30 - 10.00** Strategic aspects of standardisation and certification in the field of eAccessibility and eInclusion - This event focuses on the strategic aspects of the topic, answering questions from management, policy makers and decision makers in administration. It will also present new approaches to address some gaps and insufficiencies identified.
  - **Session 1:** The digital transformation of the health and social care sector
  - **Session 2:** Change Management as a Success Factor in the Implementation, Scaling up and Transfer of Digital Health & Social Care Solution - Seminar
  - **Session 3:** Including change management in your project strategy.
  - **Session 4:** Access Readiness and Integrated ...
  - Discussion, Q&A and concluding remarks.

- **10.00 - 13.00** Change Management as a Success Factor in the Implementation, Scaling up and Transfer of Digital Health & Social Care Solution - Seminar
  - **Session 1:** The digital transformation of the health and social care sector
  - **Session 2:** Change Management as a Success Factor in the Implementation, Scaling up and Transfer of Digital Health & Social Care Solution - Seminar

- **13.00 - 13.45** LUNCH
- **13.45 - 15.30** The Barriers and Enablers to introducing new technologies into the NHS – A Therapy perspective. Series of presentations.
  - **Session 1:** The digital transformation of the health and social care sector
  - **Session 2:** Change Management as a Success Factor in the Implementation, Scaling up and Transfer of Digital Health & Social Care Solution - Seminar

- **19.00 - 21.00** RECEPTION @Sheffield Winter Gardens £27 per person. Booking via www.aaate2017.eu

**Both St. Mary’s Events end at 15.45, in time to attend the AAATE pre-event in the Diamond.**

### Octagon

- **9.00** Registration
- **9.15** STUDENT INNOVATION TOURNAMENT Workshop for undergraduate students.
  - Entry is free of charge (Booking required)
  - **Morning Sessions:** Introduction, Presentation of Problems and Workshop Activity.

- **16.00 - 18.30** Conference Registration
- **16.30 - 18.30** AAATE Pre-event: The Assistive Technology promise for happy and sustainable ageing: myth or reality? A global perspective.

### Diamond

- **9.00** Registration
- **9.15** STUDENT INNOVATION TOURNAMENT Workshop for undergraduate students.
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  - **Morning Sessions:** Introduction, Presentation of Problems and Workshop Activity.

- **16.00 - 18.30** Conference Registration
- **16.30 - 18.30** AAATE Pre-event: The Assistive Technology promise for happy and sustainable ageing: myth or reality? A global perspective.

- **17.00** Presentation of prizes to winning groups.
  - **Afternoon Sessions:** Idea Development and Pitch Practice
  - **Groups deliver their pitches.**

### Venues

The venues St. Mary’s Conference Centre, the Octagon Centre and in the evening at the Diamond Building are all within walking distance (10 - 20 minutes) of each other.

### Participants

- **Professional Exhibition** for practitioners, students and the general public with an interest in Assistive Technology.
  - Entry free of charge. (Booking required)

- **STUDENT INNOVATION TOURNAMENT** Workshop for undergraduate students.
  - Entry is free of charge (Booking required)
  - **Morning Sessions:** Introduction, Presentation of Problems and Workshop Activity.

### Registration

- **STUDENT INNOVATION TOURNAMENT** Workshop for undergraduate students.
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### Professional Exhibition

- **STUDENT INNOVATION TOURNAMENT** Workshop for undergraduate students.
  - Entry is free of charge (Booking required)
  - **Morning Sessions:** Introduction, Presentation of Problems and Workshop Activity.
Dementia—Cognitive Impairment
- Comparing Recent Reviews about Touchscreens for Dementia with Lessons Learnt from the Field
- Digital Support for Persons with Cognitive Impairment
- Reconnecting People with Dementia by using the Interactive Instrument CRDL
- Independent Living Functions for the Elderly (IN-LIFE) Supporting Communication in Dementia
- Using Surface Computers to promote the Well-Being of People with Dementia
- Home Testing of a Digital Prompter for People with Dementia
- Mobile Delivery of Health Information for People with Mild Cognitive Impairment
- Interacting with Dementia: The Mario Approach

AT services
- Introducing an AT Passport: A key to Managing Transitions across the Lifespan
- Health and Social Care
- Writing Good-Quality Assistive Technology Assessment Reports
- Observing Remote Prescription of AT
- Development of National Guidelines for the Ground Rules to Lending Assistive Technology Devices in Finland
- Access Visits using Video Communication
- Remote Care Technology: A Systematic Overview
- The Needs Concerning Information on Standards on eAccessibility&Inclusion – taking the Evaluation of Standards in the EU-project IN LIFE as a Source

Tech for Independent Living 1
- Smart Clothing for Falls Protection and Detection: User-Centred Co-Design and Feasibility Study
- Perceptions and Use of Technology to Support Older Adults with Multi-morbidity
- Obstacle: a Tool to Assess the Home Environment designed for All
- ShopComm: Enabling and Supporting Older Adults to Shop Online
- Haptics in User Input for People with Motor and Cognitive Impairments
- Inclusive Smartphone Interface Design in Context

Human Behavior Drift Detection in a Smart Home Environment
- Validation of European Portuguese Version of the Kwazo Instrument
- Effectiveness of Service Dogs
- Measuring AT Usability with the Modified System Usability Scale (SUS)
- CHAT: A Community of Practice on Assistive Technology in Ireland
- Dissemination Strategy of AAL Project Experience

Quality Outcomes
- Exploring the use of Technology for Active Aging and Thriving
- A Study on Evaluations of Living Spaces by Caregivers for Elderly People

Home Living & Tech for Indep Living 2
- Introduction AGE WELL
- Citizen and Stakeholder Perspectives about Approaches to Enhance Equitable Access to Assistive Technologies for Older Adults
- Cross-cultural Adaptation of a Decision Support System for AT Selection
- Ethical Issues Related to ICT Adoption by Aging Persons with Cognitive Impairments
- Lived Experience, Stakeholder Evaluation and the Participatory Design of Assisted Living Technol
- How to attract computer illiterate elderly to use ICT technology?

Opening: Mark Hawley and Peter Cudd

Keynote: Paul Timmers

Platform Session 1: Gregg Vanderheiden, Raising the Floor - International

Platform Session 3
Platform Session 2

Education & Learning

Autism & Intellectual disability 1
- The Application of CSCL Scripts to support Teaching and Learning for Children with Intellectual Disabilities
- User Centred Reading Intervention for Individuals with Autism and Intellectual Disability
- Improving the Quality of Life of Persons with Intellectual Disabilities through ICTs
- Risks of Stigmatisation Resulting from Assistive Technologies for People with Autism Spectrum Disorder
- E-inclusion: Social Inclusion for Young Adults with Intellectual Disabilities
- Managing Weight: What do People with an Intellectual Disability want from Mobile Technology?
- Assistive Technology Assessment for Children with Intellectual Disabilities and Autistic Spectrum Disorder

AAC-Speech 1
- An Innovative Speech-based User Interface for Smarthomes and IoT Solutions to Help People with Speech and Motor Disabilities
- Restoring Speech following Total Removal of the Larynx
- Cloud-Based Speech Technology for Assistive Technology Applications (CloudCAST)
- ISi-Speech: A Digital Training System for Acquired Dysarthria
- Analysis of an Individual’s Language to Improve Efficiency of an AAC System

Innovation

Innovative technology
- Technology for Early Detection of Depression and Anxiety in Older People
- A user-centred approach exploring the potential of a novel EMG switch for control of assistive technology
- Fuzzy Logic to Determine the Likelihood of Survival for Trauma Injury Patients
- Development of Unrestricted Constraint Technology for Assisting Violent Psychiatric Patients
- Embedded Systems and TensorFlow Frameworks as Assistive Technology Solutions
- Providing Sources of Self-Efficacy through Technology Enhanced Post-Stroke Rehabilitation in the Home
- Using Machine Learning to Match Assistive Technology to People with Disabilities

AAC-Speech 2
- Non-visualaly Performing Analytical Tasks on Statistical Charts
- The Language and Communication Characteristics of Communication Aids – A Systematic Review
- The Hollybank Challenges: AT for People with Profound Disabilities
- Democratisation of AAC Symbol Choices using Technology
- Optimising Service Delivery of AAC AT Devices and Compensating AT for Dyslexia

 authored by five

Innovative methods
- Mouthsticks - A Participatory Approach
- Four Models to Guide AT Projects Intending Innovative Technology-based Outcomes
- Conjuring up New Technology – Using Magic Objects in Co-ideation with Stroke Survivors
- Process Development for the Design and Manufacturing of Personalizable Mouth Sticks
- Designing for Mild Cognitive Impairment: A Design Anthropological Perspective

LUNCH & EXHIBITION

AT for Children
- “Dyscalculia” Serious Game for Skill Development of Children with Dyscalculia
- Digital Skills Development and ICT Development and Implementation of “Sliders” Game for Android
- Design of Android-based Daily Routine Organizing Application for Elementary School Students Living with Autism Spectrum Disorder
- Designing Out the Play: Accessibility and Playfulness in Inclusive Play
- Interactive Games with an Assistive Robotic System for Hearing-Impaired Children

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REFRESHMENTS & EXHIBITION

Platform Session 4

17.10 - 19.10 AAATE General Assembly
### Conference
**Thu 14th Sept**

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<td>Overview of Robotic Devices for Nursing Care Project</td>
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<td>An Introduction to the Development of Transfer Assistive Robots in Japan</td>
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<td>Development of a Robotic System for Enhancing Children’s Motivation in Constraint Induced Movement Therapy (CI-MT)</td>
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<td>A Robotic Solution for Assisting People with MCI at Home: Preliminary Tests of the ENRICHME System</td>
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<td>Design of a Behavior of Robot that Attracts the Interest of the Mildly Demented Elderly</td>
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<td>Exploring the Use of a Humanoid Robot to Engage Children with Autism Spectrum Disorder (ASD)</td>
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<td>Introducing ZORA to Children with Severe Physical Disabilities</td>
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<td>Evaluation of Dynamic Arm Supports in Real Life Environments - Investigating the Effect of Social Robot Embodiment - Care Robot ZORA in Dutch nursing homes; an evaluation study</td>
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<td>Customised City Maps in Mobile Applications for Senior Citizens</td>
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<td>Mobile Recommender Apps with Privacy Management for Accessible and Usable Technologies</td>
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<td>The Use of Apps for Health in Persons with Multiple Sclerosis, Parkinson’s Disease and Stroke</td>
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**Education & Learning**

**Autism & Intellectual disability 2**
- MotorSense: Using Motion Tracking Technology to Support the Identification and Treatment of Gross-Motor Dysfunction for Children with Neurodevelopmental Disabilities
- Take a Deep Breath: Affective Computing Applications for Children with ASDs
- Assistive technology for children with non-convulsive epilepsy and their environment
- Assistive Technology for an Inclusive Society for People with Intellectual Disability
- Participation and Autonomy for Users with ABI through Easy Social Media Access
- Can Automated Facial Expression Analysis Show Differences Between Autism and Typical Functioning?

**ICT Learning & Digital Inclusion**
- A Self-Assessment Framework for Inclusive Schools Supporting AT Users
- Digital Skills Development and ICT in Inclusive Education: Experiences from Cyprus Schools
- Web Widgets Barriers for Visually Impaired Users
- Extraction Methodology of Implicit Didactics in Math Schoolbooks for the Blind
- Toward Emotionally Accessible Massive Open Online Courses (MOOCs)
- Auditing the Accessibility of Massive Open Online Courses (MOOCs)

**Digital Accessibility & Interaction 1**
- Effects of Optimizing the Scan-Path on Scanning Keyboards with QWERTY-LAYOUT for English Text
- Usability of Optical Mark Reader Sheet as an Answering Tool in Testing
- Use of Scanning Wizard can Enhance Text Entry Rate: Preliminary Results
- Towards a Cognitive Screenreader: Inclusive Competitive Game Play through Balanced Sensory Feedback
- The WebACS - an Accessible Graphical Editor

**Universal Design & Education**
- Universal Design as a Transformative Agent in Education for all learners
- A Self-service Approach to Promote Self-sufficiency, Independence and Inclusion Amongst Students with Disabilities
- ICT and UD: Preliminary Study for Recommendations to Design Accessible University Courses
- Universal Design across the Curriculum: Training for Students and Teachers
- Machine Learning Based Evaluation of Reading and Writing Difficulties
- Development of Mathematical Skills Developing Game Software
- Lessons from Helen Keller: How to Make the Digital Comics

**Digital Accessibility & Interaction 2**
- A Community-Level Perspective on Digitally and Socially Including Disabled People
- Supporting Disabled People’s Independence with Digital Skills in the Community
- Comparing Accessibility Auditing Methods for ebooks
- Inclusive E-Learning - towards an Integrated System Design
- ICT and Inclusion: a Proposal for an AT Center Model to Facilitate the Proper Assessment and Co-creation Learning Procedures: Comparing Interactive Language Lessons for Deaf and Hearing Students
- Building An Accessible Picturegraph Interface for Users With Intellectual Disabilities

**Eye Gaze**
- Gaze-based Assistive Technology - Use in Everyday Life for Individuals with Impairments
- The Benefits of Gaze-Based Assistive Technology in Daily Activities for Children with Disabilities
- Teachers’ Experiences of Hope Using Eye Gaze-Controlled Computers
- Parent Perception of Two Eye-gaze Systems in Children with CP: Pilot Study
- Participation through Gaze Controlled Computer for Children with Multiple Disabilities
- Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech

**Open Developer Space**
- Open DeveloperSpace: an Enabling Infrastructure for Stakeholders to Generate New Access Solutions
- Feed3: A Strategy for a 3-Direction Connection among AT Consumers and Developers
- Using the Assistance on Demand platform to set-up a Network of Assistance Services
- Use Model for a User Centred Design in Multidisciplinary teams
- Enabling Accessibility through Model-based User Interface Development
- Stepping Stones for People with Cognitive Disabilities and Low Digital Literacy

19.00 - 21.00 CONGRESS DINNER @Sheffield Cathedral
£72 per person. Booking via www.aate2017.eu
Details about the talks
@St Mary’s Tues 12th Sept

GARDEN ROOM

8.40 - 9.00 – Cath O’Connor
Florence (FLO) Telehealth Implementation in the Sheffield Early Pulmonary Rehabilitation Service: This comprehensive pragmatic service evaluation aimed to assess the feasibility of FLO telehealth implementation within the Sheffield Early Pulmonary Rehabilitation (EPR) service for people with Chronic Obstructive Pulmonary Disease following an acute exacerbation (AECOPD).

9.00 - 9.20 – Jen Read
A Remote Digital Home Visit? : Exploring the Possibilities for Therapists: Therapy home visits are essential but resource-intensive inpatient interventions. An NHS Trust and University collaboration explored the possibility of undertaking these visits remotely using a secure videoconferencing and note-taking prototype and consulted clinicians and members of the public regarding its use.

9.20 - 9.40 – Anne Kanto-Ronkanen
Developing Assistive Technology Digital Services for Citizens and Experts: Finland’s all five University Hospitals joint project is Healthvillage 2.0 which objectives are to develop specialised health care digital services in open access and under authentication for citizens and professionals. Healthvillage information is organized mainly by medical specialities e.g Brain, Heart etc. There is also Rehabilitation section in which Assistive Technology Device Services belongs.

9.40 - 10.00 – Sue Pownall
Evaluating and Implementing the Ampcare Effective Swallowing Programme for Treatment of Dysphagia: This presentation will describe how the Ampcare Effective Swallowing Protocol (ESP), a technique which combines electrical stimulation with intensive dysphagia exercises, is being introduced into routine NHS clinical practice and evaluated for delivery feasibility and patient outcomes following NICE guidance.

10.00 - 11.00 BREAK

10.00 - 11.00 – Jessica Hyde
Occupational Therapists using iPads for Cognitive Interventions in an NHS Critical Care Unit: This presentation focuses on a service development project, centred on the use of an iPad with clients in a critical care unit. Here traditional assessments and interventions are limited and can be restrictive in the early assessment of cognitive deficits.

11.00 - 11.20 – Jo Burke
Factors Influencing the Implementation of Self-Managed Computerised Therapy for People with Aphasia Following Stroke.

11.40 - 12.00 – Suk Wong
Developing an Exoskeleton Service in a NHS Setting: Spinal Injuries Case Study: This case study describes the development of the exoskeleton service using the Ekso GT™ by Ekso Bionics which was introduced as a rehabilitation tool to a NHS spinal cord injury centre in November 2014.

12.00 - 12.20 – Myriam Tellier
Training Medication Management with Technology for People with Dementia: This study aims to develop a systematic intervention that guides clinicians when teaching early-stage Alzheimer disease patients and their family carers how to improve medication management independence by the use of an electronic pill dispenser in a home setting.

12.20 - 12.40 – Kath Broomfield
User Perspectives on the Factors that Influence Voice Output Communication Aid Use: This service evaluation aimed to gather feedback from experienced users of a specific type of voice output communication aid (Lightwriter SL40) in order to better understand the factors that support and inhibit them to use the Lightwriter SL40 to aid their communication.

13.00 - 13.50 LUNCH

8.30 - 10.00 Co-organised by AAATE and the IN LIFE Consortium

Strategic Aspects of Standardisation and Certification in the Field of eAccessibility & eInclusion: Recent surveys reveal how little ‘experts’ in the field of eAccessibility & eInclusion know about standards and, therefore, the right application of standards in day-to-day work may become a problem. This event focuses on the strategic aspects of the topic, answering questions from management, policy makers and decision makers in administration. It will also present new approaches to address some gaps and insufficiencies identified.

08.30 - Evert-Jan Hoogerwerf - Welcome
08.35 - Christian Galinski (InfoTerm) - Strategic aspects of Standardisation
09.00 - Klaus Hoeckner (Accessible Media) - Certification in the field of eAccessibility & eInclusion
09.25 - Discussion chaired by Klaus Miesenberger (University of Linz) and Dominique Archambault (University of Paris).
10.00 - Closure

10.00 - 15.45 Organized by AAATE, ProACT, INLIFE, EHTEL, TECH Alliance and more

Change Management as a Success Factor in the Implementation, Scaling Up and Transfer of Digital Health & Social Care Solution: Demographic change requires regions to deploy on an increasingly large scale, digital health and social care solutions to keep the costs of care sustainable without reducing its quality. Unfortunately, many attempts to develop innovative solutions have shown success at pilot level, but difficulties in the actual deployment stage.

Confirmed speakers:
George Crooks (NHS 24/Scotland’s national Telehealth and Telecare organisation), Cees van Berkel (Philips Health Care), Brian Donnelly (CECOPS) John Dinsmore (Trinity College Dublin), Arlene Astell (University of Reading), Donna Henderson (NHS 24/UK), Andrea Pavlickova (NHS 24, UK), Stuart Anderson (University of Edinburgh, UK), Esteban de Manuel Keenoy (Kronikgune, Spain), Lundgren (Region of Norrbotten, Sweden), David Prendergast (INTEL, Ireland)

Read more on the next page >>
Details about the tournament & exhibition
@Octagon Centre Tue 12th Sept

09:00 - 18:00 - Great Opportunity for Students
Student Innovation Tournament: The Student Innovation Tournament will be a 'hackathon'-style event at which around 100 students from a range of backgrounds (such as social care, health, engineering) will work in multidisciplinary teams to generate ideas for solutions to real problems set by our community and industrial partners. There will be a broad and diverse range of problems set, but each problem will be one that has the potential to be solved by assistive technology of some form.

Students will not need to have technological expertise (e.g. coding) to participate - the tournament is focused on ideas generation, innovation and creativity towards solutions, rather than the development of solutions themselves. Students will be free to present their ideas in a range of formats such as digital posters, presentation slides or pitches.

The ideas will be judged by a panel of experts, including industrial partners, conference sponsors, assistive technology entrepreneurs, business leaders, University alumni, and research partners.

Students please sign up via the AAATE2017 website: www.aaate2017.eu

Details about the pre-conference talk
@Diamond Tue 12th Sept

16:30 - 18:30 - On Invitation of the AAATE Board
The Assistive Technology Promise for Happy and Sustainable Aging: Myth or Reality? A Global Perspective: This is the third edition of the "Global Challenges in Assistive Technology" meeting held on Tuesday 12th September 2017 between 16.30 and 18.30 in the Diamond Building at the University of Sheffield.

Aging is a global challenge. More people live longer than ever. Notwithstanding the numerous examples of hyper active and brilliant super seniors, many people aren't, but are fragile and the need for care is rapidly raising, laying a burden on governments and informal care networks. The aim of the meeting is to bring together views from different parts of the world on the role assistive technology can have to support active and healthy aging and living independently as long as possible. Following presentations by 4 speakers from different parts of the world, the audience will have the opportunity to engage in the panel discussion.

When tweeting about the event, please use #AAATE2017
### Details about the talks @Diamond
**Wed 13th Sept 11.00 - 12.50**

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<td>University of Bradford</td>
<td>Dementia - Cognitive Impairment</td>
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<td>11.09 - 11.18</td>
<td>Maria Andreassen</td>
<td>Linköping University</td>
<td>Digital Support for Persons with Cognitive Impairments</td>
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<td>11.18 - 11.36</td>
<td>Luc de Witte</td>
<td>University of Sheffield (CATCH)</td>
<td>Reconnecting People with Dementia by using the Interactive Instrument</td>
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<td>Peter Cudd</td>
<td>University of Sheffield (CATCH)</td>
<td>CRDL: Dementia is a progressive brain disease with a decline in functioning over time. CRDL (pronounced as Cradle) is an interactive instrument, developed to stimulate communication between users through sound and touch.</td>
</tr>
<tr>
<td>11.45 - 11.54</td>
<td>Anne Kanto-Ronkanen</td>
<td>Kuopio University Hospital</td>
<td>Development of National Guidelines for the Ground Rules to Lending Assistive Technology Devices in Finland</td>
</tr>
<tr>
<td>11.54 - 12.12</td>
<td>Suvoodeep Mazumdar</td>
<td>University of Sheffield (CATCH)</td>
<td>Access Visits using Video Communication: An online video communication system is presented that enables Occupational Therapists (OTs) to assess patient homes for assistive technology needs before acute care discharge.</td>
</tr>
<tr>
<td>12.12 - 12.30</td>
<td>John Arnott</td>
<td>University of Dundee</td>
<td>Mobile Delivery of Health Information for People with Mild Cognitive Impairment: The design of a smartphone application (app) for promoting healthy lifestyle choices has been investigated for people with mild cognitive impairment.</td>
</tr>
<tr>
<td>12.30 - 12.48</td>
<td>Christos Kouroupetroglou</td>
<td>Caretta-net Technologies</td>
<td>Interacting with Dementia: The Mario Approach: MARIO is a companion robot that aims to help people with dementia (PWD) to battle isolation and loneliness by enabling them to stay socially active.</td>
</tr>
<tr>
<td>12.30 - 12.39</td>
<td>Christian Galinski</td>
<td>Infoterim</td>
<td>The Needs Concerning Information on Standards on eAccessibility&amp;Inclusion – taking the Evaluation of Standards in the EU-project IN LIFE as a Source</td>
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<tr>
<td>12.39 - 12.50</td>
<td>Discussion</td>
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</table>
## Autism & Intellectual disability 1

**11.00 - 11.18 – Bryan Boyle, Trinity College Dublin, ASSISTID**

**The Application of CSCL Scripts to support Teaching and Learning for Children with Intellectual Disabilities:**
This paper describes the application of collaboration scripts to guide social interaction behaviours of children with intellectual disabilities.

**11.18 - 11.36 – Anita Yakkundi, University College Dublin, ASSISTID**

**User Centred Reading Intervention for Individuals with Autism and Intellectual Disability:**
Individuals with autism and intellectual disability (ID) have complex learning needs and often have difficulty in acquiring reading comprehension skills using conventional teaching tools.

**11.36 - 11.54 – Alberto Ferreras Remesal, Instituto de Biomecánica de Valencia**

**Improving the Quality of Life of Persons with Intellectual Disabilities through ICTs:**
Removing barriers to accessing Information and Communication Technologies (ICTs) by Persons with Intellectual Disabilities (IDPs) is crucial.

**11.54 - 12.03 – Fiacra O’Brochtaín, Dublin City University, ASSISTID**

**Risks of Stigmatisation Resulting from Assistive Technologies for People with Autism Spectrum Disorder**
12.03 - 12.12 - Julia Louw, National University of Ireland, Galway, ASSISTID

**E-inclusion: Social Inclusion for Young Adults with Intellectual Disabilities**

**11.00 - 11.18 – Massimiliano Malavasi, AIAS Bologna onlus**

**An Innovative Speech-based User Interface for Smartphones and IoT Solutions to Help People with Speech and Motor Disabilities:**
A better use of the increasing functional capabilities of home automation systems and Internet of Things (IoT) devices.

**11.18 - 11.36 – Jose A.Gonzalez, University of Sheffield**

**Restoring Speech following Total Removal of the Larynx:**
By speech articulator movement and training a transformation to audio we can restore the power of speech to someone who has lost their larynx.

**11.36 - 11.54 – Stuart Cunningham, University of Sheffield, CATCH**

**Cloud-Based Speech Technology for Assistive Technology Applications (CloudCAST):**
The CloudCAST platform provides a series of speech recognition services that can be integrated into assistive technology applications.

**11.54 - 12.03 – Fiacra O’Brochtaín, Dublin City University, ASSISTID**

**ISi-Speech: A Digital Training System for Acquired Dysarthria:**
Speech motor impairments such as dysarthria, on the other side, have a significant impact on everyday communication due to reduced speech intelligibility.

**11.00 - 11.18 – Jacob Andrews, University of Sheffield, CATCH**

**Technology for Early Detection of Depression and Anxiety in Older People:**
Under-diagnosis of depression and anxiety is common in older adults. This project took a mixed methods approach to explore the application of machine learning.

**11.18 - 11.27 – Simon Judge, Barnsley Assistive Technology Team, CATCH**

**A user-centred approach exploring the potential of a novel EMG switch for control of assistive technology**

**11.27 - 11.36 – Reza Saatchi, Sheffield Hallam University**

**Fuzzy Logic to Determine the Likelihood of Survival for Trauma Injury Patients**

**11.36 - 11.54 – Reuven Katz, Technion**

**Development of Unrestricted Constraint Technology for Assisting Violent Psychiatric Patients:**
Forceful restraint of psychiatric patients is lawful only in cases of violent uncontrolled behavior. The methods used to limit physical freedom are mainly mechanical means of confinement.

**11.54 - 12.12 – Davide Mulfari, University of Pisa**

**Embedded Systems and TensorFlow Frameworks as Assistive Technology Solutions:**
In the field of deep learning, this paper presents the design of a wearable computer vision system for visually impaired users.

**12.00 - 12.18 – Philomena Smyth, NUI Galway / Ulster University, ASSISTID**

**Managing Weight: What do People with an Intellectual Disability want from Mobile Technology?**
Obesity is a significant health challenge. People with Intellectual Disability (ID) are particularly vulnerable to developing obesity.

**12.12 - 12.30 – Will Wade, Ace Centre**

**Analysis of an Individual’s Language to Improve Efficiency of an AAC System**
12.30 - 12.50 – **Discussion**

**12.12 - 12.30 – Jack Parker, University of Sheffield**

**Providing Sources of Self-Efficacy through Technology Enhanced Post-Stroke Rehabilitation in the Home:**
This research explores the impact of receiving feedback through a Personalised Self-Managed Rehabilitation System (PSMrS) for home-based post-stroke rehabilitation.

**12.30 - 12.48 – Abe Rafi, The Arc of the United States**

**Using Machine Learning to Match Assistive Technology to People with Disabilities:**
This paper describes the initial results of work to create a recommender system to match technology products to people with I/DD by applying machine learning to a large volume of data about people with I/DD.
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<th>Time</th>
<th>Session Chair(s)</th>
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<td>14.00 - 14.09</td>
<td>Jeff Jutai, University of Ottawa and Jerome Bickenbach, University of Lucerne</td>
<td>Introduction AGE WELL</td>
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<td>14.09 - 14.18</td>
<td>Michael Wilson, McMaster University Citizen and Stakeholder Perspectives about Approaches to Enhance Equitable Access to Assistive Technologies for Older Adults</td>
<td>How to attract computer illiterate elderly to use ICT technology?</td>
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<tr>
<td>14.18 - 14.36</td>
<td>Claudine Auger, Université de Montréal and Centre for Interdisciplinary Research in Rehabilitation</td>
<td>Cross-cultural Adaptation of a Decision Support System for AT Selection: Older adults may benefit from decision support systems for the selection of assistive technologies.</td>
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<td>14.36 - 14.45</td>
<td>Hajer Chalghoumi, AGE-WELL WP8 ETHICS-TECH</td>
<td>Ethical Issues Related to ICT Adoption by Aging Persons with Cognitive Impairments.</td>
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<td>14.54 - 15.03</td>
<td>Sandra Dittenberger, New Design University Privatuniversität GesmbH</td>
<td>How to attract computer illiterate elderly to use ICT technology?</td>
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<tr>
<td>15.03 - 15.30</td>
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<td>14.00 - 14.09</td>
<td>Nelson Rocha, University of Aveiro</td>
<td>Validation of European Portuguese Version of the Kwazo Instrument</td>
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<td>Effectiveness of Service Dogs</td>
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<td>14.09 - 14.18</td>
<td>Laura Burzagli, IFAC CNR</td>
<td>Evaluation Method for an App Involving Kitchen Activities</td>
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<td>14.18 - 14.36</td>
<td>Emma Friesen, Teva Pharmaceuticals</td>
<td>Measuring AT Usability with the Modified System Usability Scale (SUS): The modified System Usability Scale (SUS) is a widely-used generic measure of product usability.</td>
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<td>14.36 - 14.54</td>
<td>Nikki Holliday, Centre for Technology Enabled Health Research</td>
<td>Electronic Assisted Living Technology: Interim Systematic Review Results – the Evidence for Creative Methodologies: Despite reported benefits of creative methodologies for the design and development of electronic Assisted Living Technologies (eALT)</td>
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<td>14.00 - 14.09</td>
<td>Andrea Masciadri, Teva Pharmaceuticals</td>
<td>Quantitative Indicators for Behaviour Drift Detection from Home Automation Data: Smart Homes diffusion provides an opportunity to implement elderly monitoring, extending seniors’ independence and avoiding unnecessary assistance costs.</td>
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<td>14.36 - 14.45</td>
<td>Pierce Richardson, Disability Federation of Ireland</td>
<td>CHAT: A Community of Practice on Assistive Technology in Ireland</td>
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<td>14.45 - 14.54</td>
<td>Eoghan McConalogue, Dublin City University</td>
<td>Dissemination Strategy of AAL Project Experience</td>
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<td>14.54 - 15.30</td>
<td>Tone Oderud, SINTEF</td>
<td>Exploring the use of Technology for Active Aging and Thriving: The study explores how older adults with limited digital experience become users of tablet computers (iPad) with Internet access, and how the tablet computers become part of their daily life facilitating active aging and thriving.</td>
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<td>15.12 - 15.21</td>
<td>Yuya Tamashima, University of Tokyo</td>
<td>A Study on Evaluations of Living Spaces by Caregivers for Elderly People</td>
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14.00 - 14.18 – Cecilia Sik Lanyi,
University of Pannonia
“Dyscalculia” Serious Game for
Skill Development of Children with
Dyscalculia
14.09 - 14.18 – Tibor Guzsvinecz,
University of Pannonia
Digital Skills Development and ICT
Development and Implementation of
“Sliders” Game for Android

14.18 - 14.27 – Simon Judge, Barnsley
Assistive Technology Team, CATCH
The Language and Communication
Characteristics of Communication
Aids – A Systematic Review
14.27 - 14.36 – Kim Ludi,
Hollybank Trust
The Hollybank Challenges: AT for
People with Profound Disabilities

14.36 - 14.54 – Raymond John Holt,
University of Leeds
Designing Out the Play: Accessibility
and Playfulness in Inclusive Play: Play
is an important part of child development,
yet disabled children are often excluded
from the opportunity to play, either due to
lack of accessible toys and games, or social
pressures.

14.00 - 14.18 – Klaus Miesenberger,
IIS Linz
Non-visually Performing Analytical
Tasks on Statistical Charts: This article
proposes a natural language-based
approach to accessibility of charts. Formal
underpinnings are used to semantically
annotate the constituent elements of a
vector graphic to support accessing and
modifying the content.

14.18 - 14.36 – Joseph Lane,
University at Buffalo (SUNY)
Four Models to Guide AT Projects
Intending Innovative Technology-based
Outcomes: Generating innovations –
including Assistive Technology products
or services – requires expertise in project
planning and management.

14.36 - 14.54 – E.A. Draffan,
University of Southampton
Democratisation of AAC Symbol
Choices using Technology: The use of an
online voting system has been developed
to enable democratic choices of newly
designed symbols to support speech,
language and literacy skills in a localisation
situation.

14.00 - 14.36 – Waltraud Ernst,
Johannes Kepler University Linz
Mouthsticks - A Participatory
Approach: Mouthsticks are quite an
old kind of assistive technology (AT) but
nevertheless they are up to now the Swiss
army knives among AT.

14.00 - 14.18 – Dan Wolstenholme,
CLAHRC NIHR YH
Innovative Methods
14.18 - 14.36 – Uta Roentgen,
Zuyd University of Applied Sciences
Optimising Service Delivery of AAC
AT Devices and Compensating AT
for Dyslexia: To promote successful
use of Assistive Technology (AT)
supporting Augmentative and Alternative
Communication (AAC) and compensating
dyslexia.

14.54 - 15.12 – Kirsten Rassmus-Gröhn,
Lund University
Conjuring up New Technology – Using
Magic Objects in Co-Ideation with
Stroke Survivors: Ideation means
to generate ideas, and when involving
non-designers in these activities they
need to be informed about the scope of
the possibilities without limiting their
imagination.

14.54 - 15.12 – Veronika Maria Berger,
Johannes Kepler University, Institute of
Polymer Product Engineering
Process Development for the Design
and Manufacturing of Personalizable
Mouth Sticks: A process to generate
personalizable mouth sticks developed
based on the participatory design
principle.

15.12 - 15.21 – Guy Collier, AUT
Designing for Mild Cognitive
Impairment: A Design Anthropological
Perspective

15.12 - 15.30 – Panel Discussion
Details about the talks @Diamond
Thu 14th Sept 9.00 - 10.30

**Session Chairs:**
- **Tony Prescott,** University of Sheffield and Takenobu Inoue
- **Evert-Jan Hoogervorst,** INLIFE Consortium
- **Klaus Miesenerger,** Johannes Kepler Universität, Linz

### Robotics 1

9.00 - 9.18 – Hirohisa Hirukawa, National Institute of Advanced Industrial Science and Technology

**Overview of Robotic Devices for Nursing Care Project:** METI/AMED are conducting a project on the development and deployment of robotic devices for nursing care to enhance the autonomy of elderly persons and assist care givers.

9.18 - 9.36 – Osamu Matsumoto, National Institute of Advanced Industrial Science and Technology

**Development of Robotic Rollators and Walking Trolleys in Japan:** In Japan, several types of robotic rollators and walking trolleys have been developed with financial assistance from the Japanese government.

9.36 - 9.54 – Isamu Kajitani, National Institute of Advanced Industrial Science and Technology

**An Introduction to the Development of Transfer Assistive Robots in Japan:** This paper briefly introduces the development of transfer assistive robots in terms of development support.

9.54 - 10.12 – Sandra Bedaf, Zuyd University of Applied Sciences

**Robots for Elderly Care:** Robots for older adults have a lot of potential. In order to create an overview of the developments in this area a systematic review of robots for older adults living independently was conducted.

10.12 - 10.30 – Christos Dimopoulos, Utrecht University of Applied Sciences

**Development of a Robotic System for Enhancing Children’s Motivation in Constraint Induced Movement Therapy (GIMT):** From May 2016 – November 2016 the use of the ZORA robot was investigated in 15 long-term care facilities for older people.

### E&R

**Session Chair:** Evert-Jan Hoogervorst, INLIFE Consortium

9.00 - 9.09 – Evangelos Kaimakamis, CERTH-INAB

**Development/Testing of a Monitoring System Assisting MCI Patients:**
**European Project INLIFE**

9.09 - 9.18 – Sini Annika Vasalampi, EU Master Care & Technology/City of Nokia

**Adoption and Use of a Mobile System at Home Care**

9.18 - 9.36 – Reza Saatchi, Sheffield Hallam University

**Adaptive Sampling Technique Using Regression Modelling and Fuzzy Inference System for Network Traffic:** Electronic-health relies on extensive computer networks to facilitate access and to communicate various types of information in the form of data packets.

9.36 - 9.54 – Pascal Garel, European Hospital and Healthcare Federation

**ICT services for Life Improvement for the Elderly:** Integrated care ICT Platform to support patients, care-givers and health/social professionals in the care of dementia and Parkinson's disease with training, empowerment, sensor-based data analysis and cooperation services

9.54 - 10.12 – Marten Fortuin, Utrecht University of Applied Sciences

**Augmented Reality in eHealth: Focus on Visual (Dis)Comfort:** This presentation discusses various (new) factors for visual comfort which may be encountered in eHealth applications such as Augmented Reality and can be used to advise users or for future research purposes.

### E&H

**Session Chair:** Sandra Bedaf, University of Sheffield and Takenobu Inoue

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### Navigation

9.00 - 9.18 – Tetsuya Watanabe, Niigata University

**Six-and-a-Half-Year Practice of Tactile Map Creation Service:** To disseminate the use of tactile maps, a tactile map creation service has been offered according to the demands of blind people and their helpers.

9.18 - 9.36 – Helmut Heck, Forschungsinstut Technologie und Behinderung (FTB)

**Towards Standardised Information Exchange Regarding the Accessibility of Public Transport in Germany:** In the innovation project DELFplus a concept for standardised information on accessibility of public transport facilities in Germany.

9.36 - 9.54 – Christian Bühler, TU Dortmund University, FTB der ESV

**Definition of “Total Accessibility” for Public Transport:** The paper describes the approach and results of a German study as an example of strategies in German legislation relating to accessibility in public transport. Based on user-friendly interfaces.

9.54 - 10.12 – Kazuho Kamasaka, University of Tsukuba

**Image Based Location Estimation for Walking out of Visual Impaired Person:** A new and intelligent walking navigation system could be helpful for visually impaired people so that they do not need helpers or guide dogs on going out.

10.12 - 10.21 – Takao Yanagihara, Kindai University

**Effectiveness of Mobility Support for Visually Impaired Person Using Video Call**

10.21 - 10.30 – Discussion
MotorSense: Using Motion Tracking Technology to Support the Identification and Treatment of Gross-Motor Dysfunction for Children with Neurodevelopmental Disabilities: MotorSense is a motion detection and tracking technology.

How Accessible is Weibo for People with Visual Impairments?: Weibo is one of the most popular Chinese social media services. The literature has shown that social media have potential to empower people with disabilities.

Take a Deep Breath: Affective Computing Applications for Children with ASDs

Assistive technology for children with non-convulsive epilepsy and their environment

Assistive Technology for an Inclusive Society for People with Intellectual Disability: People with intellectual disability (ID), are some of the most stigmatized and marginalized social groups.

Evaluation of Orientation Performance of Attention Patterns for Blind Person: Tactile walking surface indicators (TWSIs) are installed on footpath to support independent travel for the blind.

Can Automated Facial Expression Analysis Show Differences Between Autism and Typical Functioning?: Exploratory analyses of emotional expressions using a commercially available facial expression recognition software are reported, from the context of a serious game for screening purposes.

An Analysis and Proposal of 3D Printing Applications for the Visually Impaired: The full 3D printing process is divided into discrete 3 steps. With user-centric approach, the study confirmed that people with visual impairments could use CAD to carry out 3D printing tasks.

Accessibility Analysis of the Eclipse IDE for Users with Visual Impairment: Integrated Development Environments support software developers during their daily work. However, complex graphical interfaces and various functions disable an accessible development environment.

The Mediata app is a mobile application providing easy access to internet and social media for persons with acquired brain injury.

Assistive technology for children with ABI trough Easy Social Media Access: The Mediata app is a mobile application providing easy access to internet and social media for persons with acquired brain injury.

How to coordinate/determine the roles and responsibilities between parents and therapists from a Kindergarten Treatment centre in the Netherlands.

The aim of the study is to gather insights into the current procedure used to coordinate/determine the roles and responsibilities between parents and therapists from a Kindergarten Treatment centre in The Netherlands.

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Designing Situated Learning Experiences: Interdisciplinary Collaboration for Design Education in Healthcare

Simulation in Medical School Education

Roles and Responsibilities of Parents and Therapists in a Kindergarten Treatment Centre: The aim of the study is 1) to gather insights into the current procedure used to coordinate/determine the roles and responsibilities between parents and therapists.
11.18 - 11.36 – Natsuki Sakuma, The University of Tokyo
**Design of a Behavior of Robot that Attracts the Interest of the Mildly Demented Elderly:** In this study, using the unexpected intervention overturning the interaction amount of the field and the mental model, an interaction of a robot system enables sustained nonverbal communication with the elderly.

11.36 - 11.54 – Lorenzo Desideri, IAIS Bologna onlus
**Exploring the Use of a Humanoid Robot to Engage Children with Autism Spectrum Disorder (ASD):** We present a study aimed at exploring whether a humanoid robot may improve the effectiveness of educational interventions targeting children with autism.

11.54 - 12.12 – Renee van den Heuvel, Zuyd University of Applied Sciences
**Introducing ZORA to Children with Severe Physical Disabilities:** The aim of the present study was to explore the potential of a ZORA robot based intervention in rehabilitation and special education for children with (severe) physical disabilities from the professionals perspective.

12.12 - 12.21 – Cecilia Winberg, Lund University, Department of Health Sciences
**The Use of Apps for Health in Persons with Multiple Sclerosis, Parkinson’s Disease and Stroke**
12.21 - 12.30 – Linda Chmiliar, Athabasca University
**Mobile App Selection Tool (MAST) for Post-secondary Students with Disabilities**

12.30 - 12.48 – Lauren Amy Powell, University of Sheffield
**Involving Users in the Evaluation of Apps for Specific Health Conditions:** With rapid growth of Internet accessibility over recent years, the way in which we engage with healthcare services and make decisions about our own healthcare has changed.
A11Y  Session Chairs: EA Draffan and Abi James, University of Southampton

Digital Accessibility & Interaction 1

11.00 - 11.18 – Frode Eika Sandnes, HiOA
Effects of Optimizing the Scan-Path on Scanning Keyboards with QWERTY-Layout for English Text: Scanning keyboards can be essential tools for individuals with reduced motor function. However, most research addresses layout optimization. Learning new layouts is time-consuming.

11.18 - 11.36 – Masayuki Booka, Hiroshima International University
Usability of Optical Mark Reader Sheet as an Answering Tool in Testing: The research result on usability of Optical Mark Reader Sheet (OMRS) being used as the standard answering tool is reported.

11.36 - 11.54 – Heidi Koester, Koester Performance Research
Use of Scanning Wizard can Enhance Text Entry Rate: Preliminary Results: Scanning Wizard software helps scanning users improve the setup of their switch and scanning system. This study is evaluating Scanning Wizard’s effectiveness, with nine people.

11.54 - 12.12 – Klaus Miesenberger, IIS Linz
Extraction Methodology of Implicit Didactics in Math Schoolbooks for the Blind: The implicit didactic information embedded in the theoretical part of math schoolbooks is one of the keys for successful learning mathematics, but mostly reserved for sighted students.

12.12 - 12.30 – Thomas Westin, Stockholm University
Inclusive Competitive Game Play through Balanced Sensory Feedback: While game accessibility has improved significantly the last few years, there are still barriers for equal participation and multiplayer issues have been less researched.

12.30 - 12.48 – Discussion

Open Developer Space

11.00 - 11.18 – Gregg Vanderheiden, Raising the Floor - International
Open DeveloperSpace: an Enabling Infrastructure for Stakeholders to Generate New Access Solutions: The DeveloperSpace, one of the core components of GPII, is a self-sustainable infrastructure and collaborative environment.

11.18 - 11.36 – Ignacio Peinado Martinez, Raising the Floor - International
Feedback: A Strategy for a 3-Dimension Connection among AT Consumers and Developers: The Feedback strategy aims to provide AT consumers, developers and manufacturers with Feedback, Feedforward and FeedPeer mechanisms to collaborate in the development of novel accessible solutions.

11.45 - 11.54 – Vivian Vimarlund, Jönköping International Business School (JIBS)
Use Model for a User Centred Design in Multidisciplinary teams

12.12 - 12.21 – Francisco Iniesto, The Open University
Stepping Stones for People with Cognitive Disabilities and Low Digital Literacy

12.21 - 12.48 – Discussion

ICT Learning & Digital Inclusion

11.00 - 11.18 – Evert Jan Hoogerwerf, AAS Bologna
A Self-Assessment Framework for Inclusive Schools Supporting AT Users: In order to support schools to assess their performance in supporting children with disabilities in their ICT and ICT-AT needs, a self-assessment framework was developed.

11.18 - 11.36 – Katerina Mavrou, European University Cyprus
Digital Skills Development and ICT in Inclusive Education: Experiences from Cyprus Schools: This qualitative research has been a pilot implementation of the ENTELS self-assessment framework for schools on digital skills development and Information and Communication Technologies (ICT) in inclusive education.

11.36 - 11.54 – Letícia Seixas Pereira, Université Paris 8
Web Widgets Barriers for Visually Impaired Users: Currently, websites are mainly composed of web widgets, dynamic elements and updatable sections - like autosuggest list, carousel, slideshow etc.

11.54 - 12.12 – Peter Heumader, Institut Integriert Studieren, JKU LINZ
Towards a Cognitive Screenreader
This paper describes the current state of development of a tool that assists people with cognitive disabilities while using the internet. The support is provided by interfaces that give additional or alternative information for content or user interaction mechanics.

12.12 - 12.30 – Daniel Ziegler, Fraunhofer-Institute for Industrial Engineering IAO
Enabling Accessibility through Model-based User Interface Development: Adaptive user interfaces (AUIs) can increase the accessibility of interactive systems. They provide personalized display and interaction modes to fit individual user needs.

12.30 - 12.48 – Discussion
Details about the talks @Diamond
Thu 14th Sept 14.00 - 15.30

R

Session Chairs: Shigeru Yamauchi and Karl-Erik Westman, Assistive Technology Development Organization

14.00 - 14.18 – Yoji Yamada, Nagoya University
A Standardization Activity for Expanding The Market of Care and Assistive Products with Robotic Technology Introduced: An ongoing Japan-wide project for the development and deployment of care and assistive robotic devices.

14.18 - 14.36 – Koji MATSUMOTO, Japan Automobile Research Institute
Estimation of Injury by Falls for Risk Assessment of Robotic Care Devices: In order for manufacturers of robotic devices for nursing care to predict injury in accidents related to their products, risk assessments are carried out according to various standards e.g. ISO 12100.

14.36 - 14.54 – Keiko Homma, National Institute of Advanced Industrial Science and Technology (AIST)
Development of a Risk Assessment Assistance Tool for Robotic Care Devices: Aiming to eliminate a labor shortage caused by the aging of society, many kinds of service robots are under development.

14.54 - 15.12 – Takenobu Inoue, National Rehabilitation Center for Persons with Disabilities
Standardization of Assistive Products with Robotic Technology – from a Perspective of ISO/TC173: ISO/TC173 is a technical committee, in charge of international standardization of assistive products (APs).

E&A

Session Chair: Fabio Ciravegna, University of Sheffield

14.00 - 14.18 – Niina Holappa, Prizztech Ltd
Living Lab as an Agile Approach in Developing User-friendly Welfare Technology: This paper discusses living lab as a method of developing user-friendly welfare technology, and presents a qualitative evaluation research of how living lab tested technologies impacted on the life of healthcare customers.

14.18 - 14.27 – Elmar Krainz, FH Joanneum/JK University Linz
Accapto, a Generic Design and Development Toolkit for Accessible Mobile Apps
14.27 - 14.36 – Abi James, University of Southampton
Designing Web-Apps for All: How do we include those with Cognitive Disabilities?

14.36 - 14.45 – Tsutomu Hashizume, Tokyo University
Efficiency and Rolling Resistance in Manual Wheelchair Propulsion
14.45 - 15.44 – Ikuo Yoneda, Nishikyushu University
Advantages of Unstable Manual Wheelchair

15.12 - 15.30 – Tony Prescott, University of Sheffield, CATCH
IntelliTable: Inclusively-designed Furniture with Robotic Capabilities: The prototype design stages of an robotic table is reported in this paper.

15.30 - 15.48 Frédéric Vella, IRIT/CNRS UMR 5505
Usability of interfaces JACO Arm Designed with a User-centred Design Methods: Utility, usability and acceptability of robotic arm for helping motor impairment people (quadriplegic, muscular dystrophy, Amyotrophic Lateral Sclerosis) must be improved.

Wheelchair

Session Chair: Luc de Witte, University of Sheffield, CATCH

14.00 - 14.18 – Tulio Maximo, Loughborough University
Not Just the Right to a Wheelchair but the Right Wheelchair – improving Brazilian Wheelchair Service Delivery: The barriers encountered before and after the implementation of good practice in the delivery of wheelchair provision services in Belo Horizonte city, Brazil.

14.18 - 14.36 – Lele XI, The University of Tokyo
One Dimensional Input Device of Electric Wheelchair for Persons with Severe Duchenne Muscular Dystrophy: Persons with severe Duchenne Muscular Dystrophy (DMD) usually have difficult in operating electric wheelchairs (EW) using standard input device due to the lack of muscular power.

14.36 - 15.12 – Fausto Orsi Medola, UNESP - São Paulo State University
Servomotor Assistance in the Improvement of Manual Wheelchair Mobility: This study reports the development of a servo-controlled power-assisted wheelchair, designed to reduce the loads on the upper limbs while maintaining the drivability of a manual chair.

15.12 - 15.21 – Katherine Broomfield, Gloucestershire Care Services NHS Trust
Exploring the Perspectives of People who use Alternative and Augmentative Communication aid (AAC)
15.21 - 15.30 – Discussion
Session Chair: Gerald Craddock, Centre for Excellence in Universal Design

Universal Design & Education

14.00 - 14.18 – Gerald Craddock, Centre for Excellence in Universal Design
Universal Design as a Transformative Agent in Education for all learners: Universal Design (UD) offers a “whole systems approach” and has the capacity to transform the educational environment to encompass all learners.

14.27 - 14.36 – Silvio Pagliara, GLIC - Italian Network of AT Centers
ICT and UD: Preliminary Study for Recommendations to Design Accessible University Courses

14.36 - 14.54 – Trish MacKeogh, ASSISTID
Universal Design across the Curriculum: Training for Students and Teachers: Providing an inclusive educational setting for children with disabilities is essential if they are to truly benefit from mainstream education. Universal Design (UD) provides a framework to develop our classrooms.

14.54 - 15.03 – Mamoru Iwabuchi, The University of Tokyo
Machine Learning Based Evaluation of Reading and Writing Difficulties

15.03 - 15.12 – Tibor Guzsvinecz, University of Pannonia
Development of Mathematical Skills Developing Game Software

15.12 - 15.30 – Jerome Dupire, CNAM
Lessons from Helen Keller: How to Make the Digital Comics Accessible?
This paper addresses the lack of accessibility of the comics for deaf or hard-of-hearing readers. Comics are a major cultural object, used in many different contexts with, as much as different purposes (leisure, education, advertising, etc.).

Digital Accessibility & Interaction 2

11.00 - 11.09 – James Richardson, Good Things Foundation
A Community-Level Perspective on Digitally and Socially Including Disabled People

11.09 - 11.18 – Emily Redmond, Good Things Foundation Supporting Disabled People’s Independence with Digital Skills in the Community

11.18 - 11.36 – Abi James, University of Southampton
Comparing Accessibility Auditing Methods for ebooks: Crowdsourced, Functionality-led Versus Web Content Methodologies: This paper presents a gap analysis between crowdsourced functional accessibility evaluations of ebooks conducted by non-experts.

11.36 - 11.45 – Eva Holmqvist, Dart, Sahlgrenska University Hospital
Inclusive E-Learning - towards an Integrated System Design: At first sight there seem to be issues combining technical accessibility guidelines and educational needs when designing inclusive E-Learning.

11.45 - 11.54 – Helena Hemmingssson, Linköping University
Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech

11.54 - 12.03 – Maria Borgestig, Linköping University
The Benefits of Gaze-Based Assistive Technology in Daily Activities for Children with Disabilities

12.03 - 12.12 – Petra Karlsson, Cerebral Palsy Alliance, The University of Sydney
Parent Perception of Two Eye-gaze Systems in Children with CP: Pilot Study

12.12 - 12.21 – Patrik Rytterström, Linköping University
Teachers’ Experiences of Hope Using Eye Gaze-Controlled Computers

12.21 - 12.30 – Leen Sevens, University of Southampton
Building An Accessible Pictograph Interface for Users With Intellectual Disabilities: Pictograph interface for Pictograph-to-Text translation, which facilitates the construction of written text on social media platforms.

12.30 - 12.39 – Naotsune Hosono, NPO Niimaru
Co-creation Learning Procedures: Comparing Interactive Language Lessons for Deaf and Hearing Students

Eye Gaze

11.09 - 11.18 – Maria Borgestig, Linköping University
The Benefits of Gaze-Based Assistive Technology in Daily Activities for Children with Disabilities

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Participation through Gaze Controlled Computer for Children with Multiple Disabilities

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11.54 - 12.03 – Helena Wandin, Swedish National Center for Rett syndrome and related disorders
Gaze-based Assistive Technology

12.03 - 12.12 – Petra Karlsson, Cerebral Palsy Alliance, The University of Sydney
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Co-creation Learning Procedures: Comparing Interactive Language Lessons for Deaf and Hearing Students

12.39 - 12.48 – James Richardson, Good Things Foundation
A Community-Level Perspective on Digitally and Socially Including Disabled People

12.48 - 12.57 – Emily Redmond, Good Things Foundation Supporting Disabled People’s Independence with Digital Skills in the Community

12.57 - 13.06 – Trish MacKeogh, ASSISTID
Universal Design across the Curriculum: Training for Students and Teachers: Providing an inclusive educational setting for children with disabilities is essential if they are to truly benefit from mainstream education. Universal Design (UD) provides a framework to develop our classrooms.

13.06 - 13.15 – Abi James, University of Southampton
Comparing Accessibility Auditing Methods for ebooks: Crowdsourced, Functionality-led Versus Web Content Methodologies: This paper presents a gap analysis between crowdsourced functional accessibility evaluations of ebooks conducted by non-experts.

13.15 - 13.24 – Eva Holmqvist, Dart, Sahlgrenska University Hospital
Inclusive E-Learning - towards an Integrated System Design: At first sight there seem to be issues combining technical accessibility guidelines and educational needs when designing inclusive E-Learning.

13.24 - 13.33 – Helena Hemmingssson, Linköping University
Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech

13.33 - 13.42 – Maria Borgestig, Linköping University
The Benefits of Gaze-Based Assistive Technology in Daily Activities for Children with Disabilities

13.42 - 13.51 – Petra Karlsson, Cerebral Palsy Alliance, The University of Sydney
Parent Perception of Two Eye-gaze Systems in Children with CP: Pilot Study

13.51 - 13.59 – Eva Holmqvist, Dart, Sahlgrenska University Hospital
Participation through Gaze Controlled Computer for Children with Multiple Disabilities

13.59 - 14.08 – Helena Hemmingssson, Linköping University
Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech

14.08 - 14.17 – Helena Wandin, Swedish National Center for Rett syndrome and related disorders
Gaze-based Assistive Technology

14.17 - 14.26 – James Richardson, Good Things Foundation
A Community-Level Perspective on Digitally and Socially Including Disabled People

14.26 - 14.35 – Emily Redmond, Good Things Foundation Supporting Disabled People’s Independence with Digital Skills in the Community

14.35 - 14.44 – Trish MacKeogh, ASSISTID
Universal Design across the Curriculum: Training for Students and Teachers: Providing an inclusive educational setting for children with disabilities is essential if they are to truly benefit from mainstream education. Universal Design (UD) provides a framework to develop our classrooms.

14.44 - 14.53 – Abi James, University of Southampton
Comparing Accessibility Auditing Methods for ebooks: Crowdsourced, Functionality-led Versus Web Content Methodologies: This paper presents a gap analysis between crowdsourced functional accessibility evaluations of ebooks conducted by non-experts.

14.53 - 14.59 – Eva Holmqvist, Dart, Sahlgrenska University Hospital
Participation through Gaze Controlled Computer for Children with Multiple Disabilities

14.59 - 15.08 – Helena Hemmingssson, Linköping University
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15.35 - 15.44 – Helena Hemmingssson, Linköping University
Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech

15.44 - 15.53 – Helena Wandin, Swedish National Center for Rett syndrome and related disorders
Gaze-based Assistive Technology

15.53 - 15.59 – Discussion
Satellite Events are additions to the core Conference at different venues. These sessions are workshop or lecture style with topics related to AT.

St Mary’s Conf. Centre

GARDEN ROOM

- Keeping in Touch: Use of Social Media Among Chinese Older People
- Internet-Based Intervention for Mobility Assistive Technology Users and Caregivers: Setting Priorities
- Evaluation of Orientation Performance of Attention Patterns for Blind
- The Role of Technology in Social Isolation and Loneliness in Later Life
- Exploring the Perspectives of People who use Aids to Enhance their Communication
- ICF-based Workability Assessment System using e-Health Services

NAVE

9.00 - 17.00 - Leading UK Research Conference on Assistive Technology

T4I2017 Call for Papers is still open until 23.06.2017! We invite those working to use or innovate Assistive Technology and associated services to submit short communications (paper) for presentation or as posters for Technology for Independence (T4I 2017) Conference at St Mary’s Conference Centre on Friday 15th Sept 2017. Registration is already open for delegates and exhibitors. More information can be found on the T4I website: [www.t4i2017.org.uk](http://www.t4i2017.org.uk)

19.00 - 21.00 CLOSING EVENT @INOX Dine at the University of Sheffield Students Union