14th AAATE Congress 2017 Sheffield UK

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

Dates: 11–15 Sept 2017

@AAATE_net

#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

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

Mon 11th Sept

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

From Sept 10th - 12th you can join the Communication Matters Conference in Leeds (only 1 hour from Sheffield). Discounted tickets for AAATE2017 delegates are available.
Satellite Events
Tue 12th Sept

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 & 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.

10.00 - 13.00 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 Session 3: Including Change Management in your Project Strategy

13.45 - 15.30 Session 4: Access Readiness and Integrated Care Discussion, Q&A and concluding remarks.

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.

16.00 - 18.30 Conference Registration


Diamond

9.00 Registration

9.15 Professional Exhibition for practitioners, students and the general public with an interest in Assistive Technology.

Entry free of charge. (Booking required)

16.00 - 18.30 Conference Registration

17.00 Presentation of prizes to winning groups.

£27 per person. Booking via www.aaate2017.eu
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 Impairments
- Interacting with Dementia: The Mario Approach

AT Services
- Introducing an AT Passport: A Key to Managing Transitions Across the Lifespan
- Wireless as Enabler of Innovation in 21st Century 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 Need for Information on Standards on eAccessibility & inclusion - Based on the Experience of the EU-Project IN LIFE

Quality Outcomes
- Validation of European Portuguese Version of the Kwazo Instrument
- Effectiveness of Service Dogs for Veterans with PTSD: Preliminary Outcomes
- Measuring AT Usability with the Modified System Usability Scale (SUS)
- CHAT: A Community of Practice on Assistive Technology in Ireland
- Dissemination Strategy of Ambient Assisted Living Project Experience
- Remote Health Care Provision in Care Homes

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: Community-Supported Online Shopping for Older Adults
- The Role of Haptics in User Input for People with Motor and Cognitive Impairments
- Inclusive Smartphone Interface Design in Context: Co(Re)designing the PIS

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

Platform Session 3

Aging

Life Areas

Home & Living

Aging

Life Areas

Home & Living
Platform Session 2
Peter Cudd, President of AAATE

E
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 of Young Adults with Intellectual Disabilities - a Participatory Design
- Managing Weight: What do People with an Intellectual Disability want from Mobile Technology?
- Assistive Technology Assessment for Children with Intellectual Disabilities and ASD: An Overview

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

AAC Speech 2
- Non-Visually 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
- Exploring the Perspectives of People who use Alternative and Augmentative Communication Aids (AAC)

LUNCH & EXHIBITION

AT for Children
- “Dyscalculia” Serious Game for Skill Development of Children with Dyscalculia
- “Sliders” Android Game - Improving Logical Skills of People with Disabilities
- Android-based Daily Routine Organizing Application for Elementary School Students Living with ASD
- Designing Out the Play: Accessibility and Playfulness in Inclusive Play
- Interactive Games with an Assistive Robotic System for Hearing-impaired Children

I
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 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

Innovative Methods
- Mouthsticks - A Participatory Approach
- Four Models to Guide AT Projects Intending Innovative Technology Development 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 (MCI): A Design Anthropological Perspective
- The Phenomenon of Competing-Values on the use of Technology in Healthcare

REFRESHMENTS & EXHIBITION

Platform Session 4

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

### 9.00 - 10.30

#### Robotics 1
- Overview of Robotic Devices for Nursing Care Project
- Development of Robotic Rollators and Walking Trolleys in Japan
- An Introduction to the Development of Transfer Assistive Robots in Japan
- Robots for Elderly Care: their Level of Social Interactions and the Targeted End User
- Development of a Robotic System for Enhancing Children’s Motivation in Constraint Induced Movement Therapy (CIMT)

#### E-Health
- Development/Testing of a Monitoring System Assisting MCI Patients: The European Project INLIFE
- Embracing Technological Development and Salutogenic Health Promotion in the Provision of Assistive Technologies
- Adaptive Sampling Technique Using Regression Modelling and Fuzzy Inference System for Network Traffic
- ICT Services for Life Improvement for the Elderly
- Augmented Reality (AR) to Support Family Carers: Focus on Visual (Dis) Comfort

### 10.30 - 11.00

#### REFRESHMENTS & EXHIBITION

### 11.00 - 12.50

#### Robotics 2
- A Robotic Solution for Assisting People with MCI at Home: Preliminary Tests of the ENRICHME System
- Design of a Behavior of Robot that Attracts the Interest of the Mildly Demented Elderly
- Exploring the use of a Humanoid Robot to Engage Children with Autism Spectrum Disorder (ASD)
- Introducing ZORA to Children with Severe Physical Disabilities
- 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

#### Apps 1
- Applying Game Thinking to Slips, Trips and Falls Prevention
- A Mobile Game for the Social and Cognitive Well-being of Elderly People in China - Customised City Maps in Mobile Applications for Senior Citizens
- Mobile Recommender Apps with Privacy Management for Accessible and Usable Technologies - The Use of Apps for Health in Persons with Multiple Sclerosis, Parkinson’s Disease and Stroke - Barriers and Facilitators - Mobile App Selection Tool (MAST) for Post-secondary Students with Disabilities - Involving Users in the Evaluation of Apps for Specific Health Conditions

### 12.50 - 14.00

#### LUNCH & EXHIBITION

### 14.00 - 15.30

#### Robotics 3
- Standardization of Care and Assistive Products involving Robot Technology
- Estimation of Injury by Falls for Risk Assessment of Robotic Care Devices
- Development of a Risk Assessment Assistance Tool for Robotic Care Devices
- Standardization of Assistive Products with Robotic Technology – from a Perspective of ISO/TC173
- IntelliTable: Inclusively-designed Furniture with Robotic Capabilities
- Usability of interfaces JACO Arm Designed with a User-Centred Design Methods

#### Apps & Games
- Living Lab as an Agile Approach in Developing User-friendly Welfare Technology
- Accapto, a Generic Design and Development Toolkit for Accessible Mobile Apps
- Designing Web-Apps for All: How do we include those with Cognitive Disabilities? - “Design for Somebody” - Approach for Enabling Mobile Technology Development
- Recommendations for Age-appropriate Mobile Application Design
- “Pre-Pair Cards” Android Game

#### Movement & Activity
- Inertial Measurement Techniques for Human Joints’ Movement Analysis
- Modular Gesture Interface for People with Severe Motor Dysfunction: Foot Recognition
- Assessing Gait Impairments Based on Auto-encoded Patterns of Mahalanobis Distances from Consecutive Steps
- Attenuating Tremor Using Passive Devices
- A Review of Physical Activity Monitoring and Activity Trackers for Older Adults
- Developing an Assessment (Tool) for Touch Screen Devices

### 15.30 - 16.00

#### REFRESHMENTS & EXHIBITION

### 16.00 - 16.50

#### Plenary: Lord Chris Holmes

### 17.00 - 17.30

#### Closing ceremony of AAATE 2017
**Education & Learning**

- **Autism & Intellectual Disability 2**
  - MotorSense: Using Motion Tracking Technology to Support the Identification and Treatment of Gross-Motor Dysfunction
  - Can Automated Facial Expression Analysis Show Differences between Autism and Typical Functioning?
  - Assistive Technology for an Inclusive Society for People with Intellectual Disability
  - Participation and Autonomy for Users with ABI through Easy Social Media Access
  - Assistive Technology for Children with Non-convulsive Epilepsy and their Environment

- **ICT Learning & Digital Inclusion 1**
  - A Self-assessment Framework for Inclusive Schools Supporting Assistive Technology 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**
  - 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
  - Comparing Accessibility Auditing Methods for eBooks: Crowdsourced, Functionality-led Versus Web Content Methodologies

- **Universal Design**
  - Universal Design as a Transformative Agent in Education for all Learners
  - A Self-service Approach to Promote Self-sufficiency, Independence and Inclusion Amongst Disabled Students
  - 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 Comics Accessible?
  - Practitioner’s Perspective on Embedding Universal Design into the Curriculum

- **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

**Accessibility**

- **Sight Loss**
  - How Accessible is Weibo for People with Visual Impairments?
  - DUCK: a DeDUCtive Soft Keyboard for Visually Impaired Users
  - Evaluation of Orientation Performance of Attention Patterns for Blind Person
  - An Analysis and Proposal of 3D Printing Applications for the Visually Impaired
  - Accessibility Analysis of the Eclipse IDE for Users with Visual Impairment

**Innovation**

- **Education in Care**
  - Education in Care and Technology; Development and Evaluation of a First Cohort of an International Master Course
  - Higher Education beyond Faculties: Interdisciplinary Education in Care and Technology
  - 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
  - Adoption and Use of a Mobile System at Home Care

**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 Control Technology Systems in Young Children with Cerebral Palsy: Pilot Study
  - Participation through Gaze Controlled Computer for Children with Severe Multiple Disabilities
  - Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech
  - Gaze-based Assistive Technology - Usefulness in Clinical Assessments
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 - 10.30 – Panel Discussion

10.30 - 11.00 BREAK

11.00 - 11.20 – Jessica Hyde Occupational Therapists using iPads for Cognitive Interventions in an NHS Critical Care Unit: This presentation focusses 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.

11.20 - 11.40 – 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.

12.40 - 13.00 – Panel Discussion

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

Strategic Aspects of Standardisation and Certification in the Field of eAccessibility & elnclusion: Recent surveys reveal how little ‘experts’ in the field of eAccessibility & elnclusion 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 Standardization
09:00 - Klaus Hoeckner (Accessible Media) Certification in the field of eAccessibility & inclusion
09:25 - Discussion chaired by Klaus Miesenberger (University of Linz) and Dominique Archambault (University of Paris9).
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) and Edouard J. Dinsmore (Trinity College Dublin).

12.40 - 13.00 – Panel Discussion

Read more on the next page >>
GARDEN ROOM

13.50 - 14.10 – Christine Smith
Factors Affecting Usage of a Functional Electrical Stimulation System in Clinical Environments: Few studies have focused on the introduction of rehabilitation technologies into clinical environments. This paper presents data from a feasibility study of an upper limb functional electrical stimulation system (FESRT).

14.10 - 14.30 – Mary Waight
How Accessible are NHS Trust Websites for People with Learning Disabilities? NHS trusts use their websites as the main source of information for patients. This is a brief audit of how accessible in content, layout and navigation trust websites in England are for people with learning disabilities.

14.30 - 14.50 – Mary Waight
Accessible Information – A New Perspective: Using a computer program to provide information for people with learning disabilities and poor literacy.

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

9:00 - 16:00 - Free Exhibition for Practitioners and Health Care Professionals
Professionals Exhibition: For the first time, the AAATE will host a Professionals Exhibition during the congress week the day before the main conference starts - in conjunction with the Student Tournament. The Public Exhibition aims to be interesting not only to AAATE delegates but also AT practitioners in education, health and social care and the general public. For instance, live demonstrations of equipment or services, such as robots, smart homes, living lab or internet of things and more are welcome.

Attendees can register free of charge to visit the exhibition. Book your place online: 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

A Session Chair: Gail Mountain, University of Bradford

Dementia - Cognitive Impairment
11.00 - 11.09 – Yvonne Schiklof, Rotterdam University of Applied Sciences
Comparing Recent Reviews about Touchscreens for Dementia with Lessons Learnt from the Field
11.09 - 11.18 – Maria Andreassen, Linköping University
Digital Support for Persons with Cognitive Impairment

11.18 - 11.36 – Luc de Witte, University of Sheffield (CATCH)
Reconnecting People with Dementia by using the Interactive Instrument
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.

11.36 - 11.54 – Sarah Kate Smith, University of Sheffield (CATCH)
Independent Living Functions for the Elderly (IN-LIFE) Supporting Communication in Dementia: A 3 year multidisciplinary, multi-site European project that aims to prolong and support independent living for people with cognitive impairments, through (ICT) services.

11.54 - 12.03 – Alexander Bejan, Furtwangen University (HFU)
Using Surface Table Computers to Promote the Well-Being of People with Dementia
12.03 - 12.12 – Hazel Boyd, Designability
Home Testing of a Digital Prompter for People with Dementia

12.12 - 12.30 – John Arnott, University of Dundee
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.

12.30 - 12.48 – Christos Kouroupetroglou, Caretta-net Technologies
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.

12.30 - 12.39 – Christian Galinski, Inforterm
The Need for Information on Standards on eAccessibility & Inclusion – Based on the Experience of the EU-project IN LIFE

12.39 - 12.50 – Discussion

B Session Chair: Suvedee Mazumdar, University of Sheffield

AT Services
11.00 - 11.09 – Siobhan Long, Enable Ireland
Introducing an AT Passport: A Key to Managing Transitions across the Lifespan
11.09 - 11.18 – Eddie Ball, University of Sheffield
Wireless as Enabler of Innovation in 21st Century Health and Social Care

11.18 - 11.36 – Renzo Andrich, IRCCS Fondazione Don Carlo Gnocchi
Writing Good-quality Assistive Technology Assessment Reports: The study reported in this paper developed criteria and guidelines for writing up a good-quality AT Assessment Report - a document which is often required to activate an assistive technology intervention for an individual client.

11.36 - 11.45 – Peter Cudd, University of Sheffield (CATCH)
Observing Remote Prescription of AT
11.45 - 11.54 – Anne Kanto-Ronkanen, Kuopio University Hospital
Development of National Guidelines for the Ground Rules to Lending Assistive Technology Devices in Finland

11.54 - 12.12 – Suvedee Mazumdar, University of Sheffield (CATCH)
Access Visits using Video Communication: An online video communication system is presented that enables Occupational Therapists (OTs) assess patient homes for assistive technology needs before acute care discharge.

12.12 - 12.30 – Nelson Rocha, University of Aveiro
Remote Care Technology: A Systematic Overview: The present study was based on a systematic review of reviews and meta-analyses and aimed to identify technologies being used to provide home monitoring to support older adults.

12.30 - 12.39 – Paul Magee, Coventry University
Inclusive Smartphone Interface Design in Context: Co(Re)desigining the PIS

12.39 - 12.50 – Discussion

C Session Chairs: Helianthe Kort, Hogeschool Utrecht and Gillian Ward, Coventry University

Tech for Independent Living 1
11.00 - 11.18 – Katherine Easton, University of Sheffield (CATCH)
Smart Clothing for Falls Protection and Detection: User-centred Co-design and Feasibility Study: The prevalence and impact of hip fractures on the health and wealth of nations is a global problem and source of health inequalities.

11.18 - 11.36 – Emma Murphy, Trinity College Dublin
Perceptions and use of Technology to Support Older Adults with Multimorbidity: Digital technologies hold great potential to improve and advance home based integrated care for older people living with multiple chronic health conditions.

11.36 - 11.54 – Ryanne Lemmens, PXL University College
Obstacle: A Tool to Assess the Home Environment Designed for All: Caused by the ageing population, the need for care will increase greatly amongst people aged >65 years and elderly prefer to live as long as possible independent in their own home.

11.54 - 12.12 – Garreth Tigwell, University of Dundee
ShopComm: Community-Supported Online Shopping for Older Adults: The United Kingdom has an ageing population whose members experience significant life transitions as they grow older, for example, losing mobility due to deteriorating health.

12.12 - 12.30 – Thomas Neumayr, University of Applied Sciences Upper Austria
The Role of Haptics in User Input for People with Motor and Cognitive Impairments: Most input devices, also traditional ones like keyboard and mouse involve at least a certain amount of haptic...
Autism & Intellectual Disability 1

Session Chair: Geraldine Leader, National University of Ireland, Galway. DOCTRID

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 – Fiachra O’Brolchain, 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 - A Participatory Design

12.12 - 12.30 – 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.

12.30 - 12.48 – Trish MacKeogh, Dublin Institute of Technology & Queens University Belfast, ASSISTID
Assistive Technology Assessment for Children with Intellectual Disabilities and ASD: An Overview: Technologies provide opportunities for greater and more flexible access but it is important to ensure the technology meets their needs.

12.48 – Discussion

AAC Speech 1

Session Chair: Annual Waller, University of Dundee

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 - 12.12 – 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.

12.12 - 12.30 – Will Wade, Ace Centre
Analysis of an Individual’s Language to Improve Efficiency of an AAC System

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.

12.30 - 12.50 – Discussion
### Details about the talks @Diamond Wed 13th Sept 14.00 - 15.30

#### Session Chairs: Jeff Jutai, University of Ottawa and Jerome Bickenbach, University of Lucerne

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>14.00 - 14.09</td>
<td>Jeff Jutai, University of Ottawa and and Jerome Bickenbach, University of Lucerne</td>
<td>Introduction AGE WELL</td>
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<tr>
<td>14.09 - 14.18</td>
<td>Michael Wilson, McMaster University</td>
<td>Citizen and Stakeholder Perspectives about Approaches to Enhance Equitable Access to Assistive Technologies for Older Adults</td>
</tr>
<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>
</tr>
<tr>
<td>14.36 - 14.45</td>
<td>Hajer Chalghoumi, AGE WELL WP8 ETHICS-TECH</td>
<td>Ethical Issues Related to IT Adoption by Aging Persons with Cognitive Impairments</td>
</tr>
<tr>
<td>14.45 - 14.54</td>
<td>Joan Cahill, Trinity College Dublin</td>
<td>Lived Experience, Stakeholder Evaluation and the Participatory Design of Assisted Living Technology</td>
</tr>
<tr>
<td>14.54 - 15.03</td>
<td>Sandra Dittenberger, New Design University</td>
<td>ICT Inexperienced Elderlies: what would Attract Elderlies to use Items of Technology?</td>
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#### Quality Outcomes

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<tr>
<th>Time</th>
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<tr>
<td>14.00 - 14.09</td>
<td>Nelson Rocha, University of Aveiro</td>
<td>Validation of European Portuguese Version of the Kwazito Instrument</td>
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<tr>
<td>14.09 - 14.18</td>
<td>Claude Vincent, Universite Laval</td>
<td>Effectiveness of Service Dogs for Veterans with PTSD: Preliminary Outcomes</td>
</tr>
<tr>
<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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<tr>
<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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<tr>
<td>14.45 - 14.54</td>
<td>Eoghan McConalogue, Dublin City University</td>
<td>Dissemination Strategy of Ambient Assisted Living Project Experience</td>
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<tr>
<td>14.54 - 15.03</td>
<td>Louise Newbould, University of Sheffield (CATCH)</td>
<td>Remote Health Care Provision in Care Homes</td>
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#### Tech for Independent Living 2

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>14.00 - 14.09</td>
<td>Andrea Masciadi, Politecnico di Milano</td>
<td>Polo territoriale di Como Human Behavior Drift Detection in a Smart Home Environment</td>
</tr>
<tr>
<td>14.09 - 14.18</td>
<td>Laura Burzagli, IFAC CNR</td>
<td>Evaluation Method for an App involving Kitchen Activities</td>
</tr>
<tr>
<td>14.18 - 14.36</td>
<td>Andrea Masciadi, 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>
</tr>
<tr>
<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>
</tr>
<tr>
<td>14.54 - 15.12</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>
</tr>
<tr>
<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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#### Discussion

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<td>15.21 - 15.30</td>
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Session Chair: Raymond Holt, University of Leeds

AT for Children

14.00 - 14.09 – 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
“Sliders” Android Game – Improving Logical Skills of People with Disabilities

14.18 - 14.36 – Cecilia Sik Lanyi, University of Pannonia
Android-based Daily Routine Organizing Application for Elementary School Students Living with ASD: Today, more and more children with Autism Spectrum disorder are diagnosed, which means that around 1% of the population is concerned.

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.

AAC Speech 2

14.00 - 14.18 – Klaus Miesenberger, I1S Linz
Non-visualy 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 - 14.27 – 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 – 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.

14.54 - 15.12 – Hatice Kose
Interactive Games with an Assistive Robotic System for Hearing-Impaired Children: This paper presents an assistive robotic system, which can recognize and express sign language words from a predefined set, within interactive games to communicate with and teach hearing-impaired children sign language.

15.12 - 15.30 – Panel Discussion

Innovative Methods

14.00 - 14.18 – 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.

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

14.36 - 14.54 – 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.

15.12 - 15.30 – Panel Discussion

Session Chair: Dan Westenholler, CLAHRC NIHR YH

Session Chair: Stuart Cunningham, University of Sheffield, CATCH

Discussion

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 (MCI): A Design Anthropological Perspective

15.21 - 15.30 – Discussion
Details about the talks @Diamond
Thu 14th Sept 9.00 - 10.30

RoR 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: their Level of Social Interactions and the Targeted End User: 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 Constraint Induced Movement Therapy (CIIMT): From May 2016 – November 2016 the use of the ZORA robot was investigated in 15 long-term care facilities for older people.

E& A 9.00 - 9.09 – Evangelos Kaimakamis, CERTH-INAB
 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.

9.09 - 9.18 – Kyle Mulholland, Satakunta University of Applied Science
Nursing Care Project: 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.

9.18 - 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 (AR) to Support Family Carers: 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.

10.12 - 10.30 – Discussion

M 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, Forschungsinstitut Technologie und Behinderung (FTB)
Towards Standardised Information Exchange Regarding the Accessibility of Public Transport in Germany: In the innovation project DELF1plus 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
<table>
<thead>
<tr>
<th>Session Chair</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td><strong>Autism &amp; Intellectual Disability 2</strong></td>
<td>9.00 - 9.18 – Inmaculada Arnedillo-Sanchez, Trinity College Dublin</td>
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<tr>
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<td>MotorSense: Using Motion Tracking Technology to Support the</td>
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<td>Identification and Treatment of Gross-Motor Dysfunction: MotorSense is a motion detection and tracking technology.</td>
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<td><strong>MotorDysfunction:</strong> MotorSense is a motion detection and tracking technology.</td>
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<td>9.18 - 9.36 – Miklos Gyori, ELTE University, Budapest, Hungary</td>
<td>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.</td>
</tr>
<tr>
<td>9.36-9.54 – John Owuor, Trinity College Dublin, ASSISTID</td>
<td>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.</td>
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<tr>
<td>9.54 - 10.12 – Susanne Dirks, Technical University Dortmund</td>
<td>Participation and Autonomy for Users 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.</td>
</tr>
<tr>
<td>10.12 - 10.21 – Bart Jacobs, UC Leuven Limburg</td>
<td>Assistive Technology for Children with Non-convulsive Epilepsy and their Environment</td>
</tr>
<tr>
<td>9.00 - 9.18 – Weiqin Chen-Sanchez, Oslo and Akershus University College of Applied Sciences</td>
<td>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.</td>
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<td>9.18 - 9.36 – Raynal Mathieu, IRIT - University of Toulouse</td>
<td>DUCK: a DeDUCtive Soft Keyboard for Visually Impaired Users: Touch screens rapidly and significantly replace physical keyboards on mobile devices. Hence, text entry is now dependent on software (or virtual) keyboards that are widely used by sighted people.</td>
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<td>9.36-9.54 – Shochiro Fujisawa, Tokushima University</td>
<td>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.</td>
</tr>
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<td>9.54 - 10.12 – Kazunori Minatani, National Center for University Entrance Examinations</td>
<td>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.</td>
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<td>10.12 - 10.30 – Vanessa Petrausch, Karlsruhe Institute of Technology</td>
<td>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.</td>
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<td>9.00 - 9.18 – Charles Willems, Zuyd University of Applied Sciences</td>
<td>Education in Care</td>
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<td>9.18 - 9.36 – Anne-mie Sponselee, Fontys University of Applied Sciences</td>
<td>Higher Education beyond Faculties: Interdisciplinary Education in Care and Technology: A Centre of Healthcare and Technology of a Dutch University of Applied Sciences shows how the transitions in the sectors of health care and technology can result in interdisciplinary education.</td>
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<td>9.45 - 9.54 – Nuno Pombo, Instituto de Telecomunicacoes</td>
<td>Simulation in Medical School Education</td>
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<td>9.54 - 10.12 – Nadine Spierts, Zuyd University of Applied Sciences</td>
<td>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.</td>
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<tr>
<td>10.12 - 10.21 – Sini Annika Vasilampi, EU Master Care &amp; Technology/City of Nokia</td>
<td>Adoption and Use of a Mobile System at Home Care</td>
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<tr>
<td>10.21 - 10.30 – Discussion</td>
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11.00 - 11.18 – Claudia Salatino, Fondazione Don Carlo Gnocchi ONLUS
A Robotic Solution for Assisting People with MOI at Home: Preliminary Tests of the ENRICHME System: The ENRICHME project is developing an integrated system composed of a robot, sensors and a networking care platform.

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 - Barriers and Facilitators

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.

11.00 - 11.18 – Paul Dewick, The University of Manchester
Applying Game Thinking to Slips, Trips and Falls Prevention: Gamification is about the way in which ‘game thinking’ can engage participants and change behaviours in real, non-game contexts.

11.18 - 11.36 – Weiqin Chen, Oslo and Akershus University College of Applied Sciences
A Mobile Game for the Social and Cognitive Well-being of Elderly People in China: China, like many other countries, is facing the challenges of an ageing population. Literature has shown that the lack of social interaction has a negative impact on the elderly.

11.36 - 11.54 – Helmut Heck, Forschungsinstitut Technologie und Behinderung (FTB)
Customised City Maps in Mobile Applications for Senior Citizens: Map services should be used in mobile applications for senior citizens. Do the commonly used map services meet the needs of elderly people?

11.54 - 12.12 – Marion Hersh, University of Glasgow
Mobile Recommender Apps with Privacy Management for Accessible and Usable Technologies: The paper presents the results of a survey of disabled people in Italy and the UK and a comparative analysis of their interest in using recommender apps with privacy management.

12.12 - 12.30 – John Barton, Tyndall National Institute
A Review of Physical Activity Monitoring and Activity Trackers for Older Adults: The objective assessment of physical activity levels through wearable inertial-based motion detectors for an automatic, continuous and long-term monitoring of people in free-living environments.
### Session Chairs: 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, 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.

### Session Chairs: Evert Jan Hoogerwerf, AIAS Bologna

**A Self-Assessment Framework for Inclusive Schools Supporting Assistive Technology 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.

### Session Chairs: Francisco Iniesto, The Open University

**Towards Emotionally Accessible Massive Open Online Courses (MOOCs):** While game accessibility has improved significantly the last few years, there are still barriers for equal participation and multiplayer issues have been less researched.

### Session Chairs: 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.

### Session Chairs: 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.

### Session Chairs: 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.

### Session Chairs: Daniel Ziegler, Fraunhofer-Institute for Industrial Engineering IAO

**Enable 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.

### Session Chairs: Greg Vanderheiden, Raising the Floor - International

**Open DeveloperSpace:** The DeveloperSpace, one of the core components of GPII, is a self-sustainable infrastructure and collaborative environment.

**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.

**Use Model for a User Centred Design in Multidisciplinary teams:** Multidisciplinary teams are still barriers for equal participation and multiplayer issues have been less researched.

### Session Chairs: Vivian Vimarlund, Jönköping International Business School (JIBS)

**Step Up for People with Cognitive Disabilities and Low Digital Literacy:** This paper presents a gap analysis between crowdsourced functional accessibility evaluations of ebooks conducted by non-experts.

### Discussion

**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.
Details about the talks @Diamond
Thu 14th Sept 14.00 - 15.30

**Wheelchair**

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 Xl, 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 - 14.54 – Tsutomu Hashizume, Tokyo University
*Efficiency and Rolling Resistance in Manual Wheelchair Propulsion*

14.45 - 14.54 – Ikuko Yoneda, Nishikyushu University
*Advantages of Unstable Manual Wheelchair*

**Apps & Games**

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 - 14.54 – Andrew Sirkka, Satakunta University of Applied Sciences
*“Design for Somebody” - Approach to Enabling Mobile Technology Development:*
The paper presents case examples of Design for Somebody (DfS) philosophy used both in developing novel technologies and modifying existing main stream technologies applicable for users with special needs.

14.54 - 15.12 – Alireza Darvishy, Zurich University of Applied Sciences
*Recommendations for Appropriate Mobile Application Design:*
This paper presents recommendations for avoiding or eliminating unnecessary barriers to mobile application usage by older generations. It sets out ten areas of age-appropriate application design.

15.12 - 15.21 – Cecilia Sík Lanyi, University of Pannonia
*“Pre-Pair Cards” Android Game*

15.21 - 15.30 – Discussion

**Robots**

14.00 - 14.18 – Yoji Yamada, Nagoya University
*Standardization of Care and Assistive Products involving Robot Technology:*
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.

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 JACO Arm Interfaces Designed with a User-Centred Design Method:*
Utility, usability and acceptability of robotic arm for helping motor impairment people (quadriplegic, muscular dystrophy, Amyotrophic Lateral Sclerosis) must be improved.

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**Session Chairs:**

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

Fabio Ciravegna, University of Sheffield, CATCH

Luc de Witte, University of Sheffield, CATCH

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Session Chairs: Emily Redmond and James Richardson, Good Things Foundation

**ICT Learning & Digital Inclusion 2**

- 14.00 - 14.09 – James Richardson, Good Things Foundation 
  A Community-Level Perspective on Digitally and Socially Including Disabled People

- 14.09 - 14.18 – Emily Redmond, Good Things Foundation 
  Supporting Disabled People’s Independence with Digital Skills in the Community

- 14.18 - 14.36 – 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.

- 14.36 - 15.03 – Silvio Pagliara, GLIC - Italian Network of AT Centers 
  ICT and Inclusion: a Proposal for an AT Center Model to Facilitate the Proper Assessment

- 15.03 - 15.12 – Naotsune Hosono, NPO Niimaru 
  Co-creation Learning Procedures: Comparing Interactive Language Lessons for Deaf and Hearing Students

- 15.12 - 15.21 – Stefan Parker, Kompetenznetzwerk KlI 
  The WebACS - An Accessible Graphical Editor

- 15.21 - 15.30 – Discussion

**Universal Design**

- 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.

- 14.18 - 14.27 – Lars Ballieu Christensen, Sensus ApS 
  A Self-service Approach to Promote Self-sufficiency, Independence and Inclusion Amongst Disabled Students

- 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

  Lessons from Helen Keller: How to Make the 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.).

- 15.30 - 15.39 – Margaret Kinsella, Institute of Technology, Blanchardstown (ITB) 
  Case Study: Practitioner’s Perspective on Embedding Universal Design into the Curriculum

**Eye Gaze**

- 14.00 - 14.09 – Rob Gregory, Good Things Foundation 
  Gaze-based Assistive Technology - Use in Everyday Life for Individuals with Impairments

- 14.09 - 14.18 – Maria Borgestig, Linköping University 
  The Benefits of Gaze-Based Assistive Technology in Daily Activities for Children with Disabilities

- 14.18 - 14.27 – Patrik Rytterström, Linköping University 
  Teachers’ Experiences of Hope using Eye Gaze-Controlled Computers

- 14.27 - 14.36 – Petra Karlsson, Cerebral Palsy Alliance, The University of Sydney 
  Parent Perception of Two Eye-gaze Control Technology Systems in Young Children with Cerebral Palsy: Pilot Study

- 14.36 - 14.45 – Eva Holmqvist, Dart, Sahlgrenska University Hospital 
  Participation through Gaze Controlled Computer for Children with Severe Multiple Disabilities

- 14.45 - 14.54 – Helena Hemmingsson, Linköping University 
  Gaze-based Assistive Technology for a Toddler with Tetraplegia and without Speech

- 14.54 - 15.03 – Helena Wandin, Swedish National Center for Rett syndrome and related disorders 
  Gaze-based Assistive Technology - Usefulness in Clinical Assessments

- 15.03 - 15.30 – Discussion
Satellite Events
Tue 12th Sept
Fri 15th Sept

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 Conference Centre

12/09/17 PAVILION ROOM
The Role of Technology in Social Isolation and Loneliness in Later Life
8.40 - 9.00 – David Clayton, University of Sheffield
Exploring the Loneliness of Older People and their use of New Technologies to Help Mitigate it

9.00 - 9.20 – Dr Chui Man Chau & Ka Chun Ho, University of Sheffield
Keeping in Touch: Use of Social Media among Chinese Older People

9.20 - 9.40 – Dr Marcus Green, Age UK
The Role of Technology in Social Isolation and Loneliness in Later Life

15/09/17 GARDEN ROOM
Evaluating Technology - Supported Complex Health and Social Interventions
11.00 - 11.20 – Katherine Broomfield, Gloucestershire Care Services NHS Trust
Exploring the Perspectives of People who use Aids to Enhance their Communication

11.20 - 11.40 – Shoichiro Fujisawa, Tokushima University
Evaluation of Orientation Performance of Attention Patterns for Blind

11.40 - 12.00 – Hille Maas, Estonian Unemployment Insurance Fund
ICF-based Workability Assessment System using e-Health Services

12.00 - 12.20 – Claudine Auger, Universite de Montreal
Internet-based Intervention for Mobility Assistive Technology Users and Caregivers: Setting Priorities

Don’t miss “Robotics in Care”
Half-day event Friday 15th September
Contact: Professor Luc de Witte for details: aaate2017@sheffield.ac.uk

15/09/17 NAVE
9.00 - 17.00 - Leading UK Research Conference on Assistive Technology

Technology for Independence (T4I) 2017 Conference
Join us this year to discuss issues and innovation in AT related best practice, innovation and service delivery. This is a unique opportunity for AT practitioners and researchers to meet and engage.

Registration is open for delegates and exhibitors. For more information visit: www.t4i2017.org.uk

19.00 - 21.00 CLOSING EVENT
@INOX Dine at the University of Sheffield Students Union
€20 per person (plus VAT) included in T4I registration. If you are not a T4I delegate please book via www.aaate2017.eu.