Assistive technology webinar
– developments, good practices and funds.
13 April 2021

Online

Report

This report summarizes the webinar on assistive technology run jointly by EPR and Fondazione Don Gnocchi and includes good practices, proposals for follow-up and an abstract from the evaluation.

Aims of the webinar:

- To raise awareness on the topic of Assistive Technology (AT), including the latest developments in the field, good practices and funding opportunities;
- To reinforce interest in the topic of AT within EPR;
- To connect to possible partners for future projects and explore topics for future EPR activities on the subject of AT.

Welcome and Introduction by EPR Secretariat

Roberto Zanon, Senior Project and Policy Officer, EPR launched the webinar and talked us through the agenda. Laura Jones, EPR Secretary General, welcomed participants who came from over 150 different organisations. Menti-meter questions were used to help gain an understanding of the audience background. Participants were a mixture of health professionals, students, service managers, rehab engineers and students. Laura explained the role of the European Platform of Rehabilitation, which is a community of service providers working with people with disabilities committed to high quality service delivery, who's aim is to promote mutual learning, innovation, address trends, contribute to policy at an EU level based on member's expertise, support and develop projects, facilitate working groups, conferences and to advocate on member's behalf. EPR also produces analytical papers, provides resources, newsletters and publications on matters of interest to members.

Presentation by Claudia Salatino, Fondazione Don Carol Gnocchi Onlus, Italy

Claudia Salatino reminded us of the aims of this Italian association which is to enable people to live healthy, productive, independent, and dignified lives, and to participate in education, the labour market and civic life. She emphaised the importance of assistive technology in supporting inclusion and participation of people with disabilities in society and how the UN convention on the rights of people with disabilities states that access to AT is a human right. Ms Salatino drew attention to the World Health Organisation initiative known as the global co-operation on AT (GATE) started in 2014. The aim of this initiative is to help increase access to high quality affordable Assistive Technology for everyone. WHO regards AT as an umbrella term covering the systems and services related to the delivery of assistive products and services. Assistive products maintain or improve an individual's functioning, independence thereby prompting their well-being. This include areas of the person' life within education, through replacing body functions, communication, leisure and moving and handling. Ms Salatino spoke of two particular publications on AT which are of particular interest currently.

1. "AT Scale: the case for investing in AT" (https://atscale2030.org/investment-case) which highlights the economic, social and health benefits of AT and "WIPO (world intellectual property organisation) Technology Trends - Assistive Technology" this report is the first large-scale landscaping and analysis of patenting and technology trends in AT technology trends and includes barriers PWD face in relation to the AT ecosystem. Such barriers include availability, affordability, attitudes and lack of involvement of PWD.

Presentation by Guilia Oggero, World Health Organisation (WHO).

Guilia Oggero provided us with an introduction on WHO's position on assistive technology with references to technological research, methodological research and data collection. She provided an overview of the GATE initiative (https://www.who.int/news-room/feature-stories/detail/global-cooperation-on-assistive-technology-(gate) which is to improve access to AT in the domains of vision, hearing, mobility, communication, cognition, environment and self-care. It was emphasized that only 1 in 10 people who would benefit from AT have access to it and by 2050, 2 billion will need AT therefore it's a priority for public health investment. In 2018 WHO made a resolution on AT involving programs and policies and aims by 2021 to provide a report on effective access to AT. The GATE initiative have 5 interlinked areas including:

Policy and products: Via AT toolkits the country can be assessed as to their readiness and capacity for provision of necessary AT. Surveys are completed to measure the AT demands of the country, including their existing procedure system and potential barriers. There is also an impact assessment in development which examines quality of life and inclusion in relation to AT. Countries are supported to develop national policies and programs to ensure everyone, everywhere can access assistive products. The toolkit includes also guidance on financing mechanisms, such as health and welfare insurance programs, to ensure sustainability of service provision and universal access to AT. It includes guidance on implementation of the Priority Assistive Products List, minimum standards, appropriate training and service provision. Details of various AT products and how to use them is available via WHO. This document can be found online (https://apps.who.int/iris/bitstream/handle/10665/339851/9789240020283-eng.pdf).

Provision: WHO is developing guidance on innovative models of service provision, including good-practice examples from across the globe. Emphasis is placed on encouraging movement away from specialist tertiary services towards in AT provision to people from primary health care being able to advice and provide AT, at a more local level.

Personnel: WHO has provided online training for staff to help build capacity in the area of AT including a training package on wheelchair provision. The model promoted is one whereby a referral is screened and identified which level is best to deal with it e.g. primary care or specialist. It is recognized that specialist services are expensive therefore there is move towards educating and supporting those at a primary level to be able to advise on AT especially in those countries where there are limited access to specialist AT services.

Ms Oggero concluded her presentation by highlighted some areas which are currently being developed in the AT arena including digital AT for ageing, AT and Paralympics and AT in a humanitarian context.

Presentation by Renzo Andrich, President of the EASTIN Association.

Renzo Andrich, president of the EASTIN association presented the working of the association and introduced us to the GATE AT explorer initiative. The purpose of these initiatives is to facilitate inclusion, minimize poverty associated with disability and supports people's independence.

EASTIN association

This is a global AT information network comprising of a search engine with information on AT products for users, family members, professionals, manufacturers and policy makers. 7 partners are involved with 8 affiliates within 38 countries. It contains technical and company details of AT products, articles on AT and information on what is available for procurement. It supports scientists and students to develop new AT ideas and any language can be used when using its search engine.

GATE AT explorer by WHO

The aim of this initiative is to provide people with guidance on selecting suitable AT to meet their needs and is particularly aimed at countries where the specialist AT professional network is under developed. The searcher is presented with sets of questions which uses artificial intelligence, on their needs to help guide them to an AT product that will help them. It will shortly include the facility to add statement of knowledge regarding products.

Presentation by C. Salatino and L.Pigini, Fondazione Don Gnocchi on the SIVA Network.

SIVA, started in 2003, and is an AT information and assessment service in Italy comprising of a network of specialist Centres, a web portal, email helpline and 11 SIVA units which provide assessment, guidance and advice on AT. It also provides training and conducts research projects into the outcomes and effectivness of the use of AT by service users. The portal specifically

provides information on AT with the aim of increasing the participation of people with disabilities in society. Within the portal are 5 databases each with their own unique purpose including providing information on products, enterprises and suppliers, centres that offer information on AT and research activities, a library of scientific papers and other educational material. It also includes a database dedicated to gathering ideas from people on how activities of daily living challenges can be solved via AT use. People also have the opportunity to send information regarding AT which is reviewed by an editorial team. Currently SIVA is working on improving its search facilitates for experts and health professional on the topic of AT.

Presentation by C. Salintino on the working group INTEREHA within EPR.

Ms Salatino drew our attention to the mission of the INTEREHA group which is to look at technology use in long term care, to examine the impact of AT on individuals lives, to provide a hub for Tech centres and collect voices and to put forward ideas to policies makers at an EU level.

The idea for the group took root in 2019 and in 2020 an online questionnaire was conducted with EPR members into the use of AT and projects relating to this topic. In November 2020 ideas, barriers and solutions to AT were explored by the group and the plan is in 2021 to carry out mutual learning exchange on best practice in AT and exploring the cross tech platform known as Healthtec 4EU alliance.

Presentation by R.Converti and M.Ramella, Fondazione Don Gnocchi on the OMAT research project.

Fondazione Don Gnocchi presented a best practice example from their service demonstrating the effectiveness of AT on patient's lives. The OMAT research project involved the evaluation of AT technology for mobility in patients in real life situations. It was conducted by a multidisciplinary team. 200 patients were invited with 49 in total participating, with the majority having a neurological diagnosis including mobility restrictions. The inclusion criteria consisted of provision of AT for the 1st time. 3 phases were involved and outcome measures such as the barthel index, the modified cumulative illness rating scale, mini-mental state examination (MMSE) which assess cognition, the individually prioritised problem assessment and quality of life measures (SF-36 and adult carer -QOL) were used. The Ac-QOL assesses pre and post quality of life of those people closest to the patient. 51 assistive technology devices were provided included equipment such as walkers, wheelchairs and stairlifts. Significant improvements were noted on individually prioritised problem assessment and quality of life measures.

Ms Debeljiak presented participants with information on the good practices and the SAAM research project. The service involves providing AT to service users and the team includes occupation therapists, engineers and physiotherapists. To measure the effectiveness of the AT provision the services uses outcome measures pre and post input. These include the functional independence measure (FIM) which examines the function of a person based on the level of assistance they require. Another outcome measure called the Canadian Occupational Performance Measure, which is client centred and designed to capture the client's self-perception of performance in everyday life. They provide AT which helps with activities of daily living and for ICT and support with getting the most out of their current technology (e.g. exploring the settinsg to access accessibility features etc.) They also provide training for wheelchair use and have an augmented and alternative communication solutions service. In the last 4 years they have established a service adapting vehicles for use by disabled people which is 85% state funded.

The SAAM project funded by the EU has the aim of providing "technologies that care" with the purpose of helping people stay active and independent in their own home. Ms Debeljiak gave examples of AT devices within this project including sensors worn by patients that track and help them in their social life, with their mobility including falls management and also with monitoring and detection of issues such as depression. The sensors can detect changes in a person's voice and alert the necessary person to provide intervention. Coaching is then provided via an app or a person.

Presentation by Paloma Cid from Fundacion Once on Assistive Technology bank and 3D Printing

Ms Cid introduced participants to the role of Fundacion Once which includes providing job training and employment opportunities. As part of this service a new project designing 3-D printing to support products relating to tech devices has been developed. The purpose of this project is to make job places more accessible for people with disabilities. The service creates custom made AT products and designs with the aim of improving job performance for those with a disability. 2 products were showed cased as examples, including a suitcase holder to use with a wheelchair and an armrest to support with desk work. Organisations can request free 3-D printed pieces via the projects' online portal with over 3000 designs to choose from. The project also aims to train people in 3D design, establish networks and to continue to research products for the workplace. People can submit new ideas for AT products via the website and there are many design templates available already. To date 95 products have been lent to universities and companies.

Presentation by I. Placencia Porrero, entitled "The perspectives of the AT sector in the new EC programmes, European Commission".

Ms Placencia Porrero from the European Commission talked us through the challenges and developments with AT from an EU perspective. She highlighted that in the 1980s handynet was

developed by the EU which was a database of assistive technology, therefore there is a long history between the EU commission and its role with AT development. A challenge faced is the diversity of EU regulations which affects AT.

AT is a complex area from a regulation point of view with varying markets responding to different needs. One aim of the commission is to address certain elements of assistive technology and accessibility to deliver equal quick access to all.

The challenge of different member States having varying rules for AT was underlined by Ms Placencia Porrero, along with the aim of the Commission to support member states to acquire AT for learning and to provide funding. Another area is within vocational and digital skills training. A specific challenge faced by the EU commission in addressing the market in relation to AT is trying to obtain accurate information from markets of member states with the aim of having specific information to ensure needs are addressed. The role of the European Accessibility Act was highlighted in its support to ensure certain products are placed on the market only once they are accessible. An EU directive (a goal that all EU countries must achieve) on AT which incorporates the UN convention on AT acknowledges the difficulties of high prices and limited competition and promotes the notion that web accessibility should be usable with different AT. The directive advocates that a design for all approach is followed. Ms Placencia Porrero underlined and drew our attention to the importance of interoperability i.e. the basic ability of computerized systems to connect and communicate with one another readily, even if they were developed by widely different manufacturers in different industries. The EU commission are advocating for mainstream products to be usable with universal products and that products should come with information on accessibility and how they interact with AT solutions. The problem, she highlights, is that often products don't work with AT e.g. hearing technology and telecommunications. This is then a barrier to individuals with disabilities in many aspects of their lives e.g. using self service terminals in the community, banking, using e-readers and e-books and in the area of e-commerce. When asked by participants about programs available by the EU commission to support AT Ms Placencia Porrero informed us of the Horizon Program and also advised that the EU commission is involved in funding research projects looking at new AT and has a support centre for testing AT.

Questions & Answers with participants

AAC (augmented assistive communication):
A question by a participant was proposed to Guilia Oggero from WHO regarding the inclusion of the topic of AAC devices within the GATE initiative. Ms Oggero advised that although there wasn't a specific question in the AT survey regarding AAC there are questions around communication needs of people. Here people have the opportunity to report their needs within this specific domain.

Autism specific products:
A participant asked if there was information on autism specific products within EASTIN. Mr Andrich outlined that by asking the question "what outcome do I desire from the use of AT" you can identify which products may meet the person's need rather than thinking of specific conditions. The participant also asked if there were any specific links with Croatia to which Renzo answered there isn't but it would be great to start connecting. Thomas Michael Lyhne from Denmark responded to the question by stating "In the Danish AT database we have 14 entrances giving examples of assistive products for persons with autism, dementia, epilepsy and other target Groups (only available in Danish)". These products can be found using this link: (https://hmi-basen.dk/newslist.asp?cmd=reset&x_newstype=39)

Whilst another resource on products supporting people with dementia was shared by Janet Seward from the Disability living foundation UK which can be accessed using an AI facility called ASKSARA (https://asksara.livingmadeeasy.org.uk)

Another participant Paul Lynch shared a report focusing on the use of technology for learning – 'EdTech for Learners with Disabilities in Primary School Settings in LMICs: A Systematic Lit review':(https://docs.edtechhub.org/lib/?all=EdTech+for+Learners+with+Disabilities+in+Primary +School+Settings+in+LMICs%3A++A+Systematic+Literature+Review&page=1&page-len=1&sort=score&id=XJ42VUQG).

Virtual reality and artificial intelligence based assistive technologies:
A participant asked if VR and AI based AT are also included in EASTIN, GATE and the SIVA service or whether this was under development. Guilia Oggero from the WHO responded to this question by stating that only products that are on the market can be considered but the WHO hopes that artificial intelligence AT related products can start to be included in the future. Ms Oggero also underlined that many of the original assistive technology products listed in the 2016 are now available in a software format. But that the continued goal is for the product to meet the persons needs and to be available in the persons country. Ms Salatino from Fondazione Don Gnocchi added that virtual reality products are in her experience mainly used at the moment in Italy in the field of rehabilitation.

EPR discussion amongst members:

Following on from the main presentations of the webinar a selection of EPR members came together to discuss further the main challenges and solutions in relation to AT. The discussion was facilitated by Roberto Zanon, EPR Senior Project and Policy Officer.

Challenges:
The topic of requiring more funding and sustainability of AT assessment and provision was raised by Ms Salatino from Fondazione Don Gnocchi, Italy. The assessment, evaluation and provision of AT can be complicated and involve many people and multiple evaluations and monitoring to ensure the AT continues to meet that person's needs. This is a costly and time consuming process.

A. Roberto advised that EPR is monitoring the EU horizon project regularly for opportunities to apply for AT related funding.

Proposals for follow-up:
Pablo Sanchez of Fundacion Intras raised the topic of looking at combining AT and rehabilitation within the same EU project proposal as a way to enhance the area of assistive technology. Currently AT is a minority issue but it's becoming more popular in particular with supporting the independence of elderly people. There is a need to attract the interest of large companies and look at concepts which have the potential to become products.

A. Roberto advised that proposed projects to the EU should show how they are meeting multiple aims and it often depends on the priority of the call by the EU regarding suitability of project proposals.

Primary care V's specialized services and Tele-heath:
The idea of introducing AT as simple solution rather than a specialized need was raised. Also the idea of having a bank of AT to share was proposed. Mojca from Slovenia promotes the use of tele-consultations in assisting evaluations to help with the issue of sustainability. Others promoted the idea of using telehealth for expert second opinions and the option of conducting the initial assessment using telehealth. If then a second session is needed this can be in person. This is working well with elderly people at present within the AT service at Fondacion Once, Spain.

Interoperability:
The importance of the topic of interoperability was again highlighted by members. Attention was drawn to how Microsoft is addressing this issue with some of its technology. Also the importance of producing products that are mainstream that are accessible to everyone such as the availability of a keyboard that can be used in conjunction with the x-box.

Wider societal involvement:
As patients try to create their own AT solutions which can be take a long time the need to promote the standardization of products for use in the long term and involving more of a community approach was emphasised as a solution. By sharing ideas and putting together devices and to think about attracting big companies supporting clients as innovators. Also the topical fragmentation of initiatives was discussed and the solution of thinking about bringing the person back into and engaging with society as opposed to being left to engage with just a microenvironment.

PWD involvement:
Members emphaised that some companies such as Apple have people with disability testing their products which ensures they are usable and relevant. This was seen as something that needs to continue to be promoted and encouraged.

Training of engineers:
Another solution proposed to ensuring AT products meet the actual needs of PWD and for them to fit into their lives is helping engineers to understand the needs of people with disabilities. It was discussed that at times engineers have great ideas for AT products but they don't have contact with clients and don't understand whether the product/idea will fit into the lives of the PWD.

Webinar Evaluation

27 participants provided feedback on the webinar. Participants were mainly informed of the webinar through colleagues, emails and newsletters. A rating of 4.3/5 was given for gaining relevant knowledge and information and suggested improvements included having more information on practical products and acquiring knowledge on EU laws and directives relating to AT.

A rating of 4.4/5 was given for the question "Did the workshop meet your expectations?" The main knowledge acquired included information on the WHO GATE project, the EASTIN association, EPR activities and good practices.

Further comments:

Suggestions improvements for future webinars included for all speakers to have a slide show presentation and to have a more interactive approach e.g. questionnaire at the beginning. Some participants had hoped to gain more information on funding opportunities for Assistive Technology in the period 2021-2027 from the EU commission talk. A program for funding was mentioned but not elaborated on. A suggested improvement was for the Q and A section to be more structured or formalized rather than via the common chat tool. Participants commented that they hoped AT webinars would be organized periodically in the future.

Contact

For more information, please contact: **Roberto Zanon**, rzanon@epr.eu