Towards coherence across global initiatives in assistive technology

Natasha Layton , Malcolm MacLachlan , Roger O. Smith & Marcia Scherer

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PERSPECTIVE

Towards coherence across global initiatives in assistive technology

Introduction

This Perspective article considers the complex array of actions in the assistive technology arena from state actors (including funders) and from civil society. We review key milestones in the last two decades and provide a snapshot of major projects and initiatives as a foundation for the perspective we offer. We call for the funders of assistive technology (AT) to come together and propose a multi-donor trust fund model to co-ordinate efforts, guided by the Global priority research agenda for improving access to high-quality affordable assistive technology. Finally, we propose the AT stakeholders best suited to guide such a model.

Key assistive technology milestones since 2000

Two interweaving threads have led the AT community to this juncture. These are, the emergence of enabling international policy frameworks, and the development and self-organising of AT entities in efforts to realise universal access to assistive technology (Figure 1).

In 2006, the UNCRPD established a human rights case in international law for promoting the rights of people with disability, with specific sections referring to the need for people to have access to quality affordable assistive products [1]. The publication of the World Report on Disability (2011) described experiences of disability, its prevalence, gaps in services provision – including in assistive technology – and how lack of equity and opportunity marginalises and oppresses people with disability globally [2].

The World Health Organisation established Global Cooperation on Assistive Technology (GATE) in 2014 to assist Member States to improve access to assistive technology as a part of Universal Health Coverage. In order to improve access to high-quality affordable assistive products globally, GATE have developed a global priority research agenda for improving access to high-quality affordable assistive technology and currently delivers actions in five interlinked areas (5 P); people-centred: policy, products, provision and personnel [3]. The Priority Assistive Products List (APL) is one of these deliverables [4], published in 2017. A Global Research, Innovation and Education in Assistive Technology Summit held in 2017 (GReAT Summit) resulted in five position papers on these interlinked P's[1] [5–9]. Two key milestones build on the work of GATE: the World Health Assembly Resolution (2018) on Improving Access to Assistive Technology demonstrates the extent of global commitment to providing AT to address impairment experienced by people with disabilities, chronic illnesses and frailty associated with ageing [10]. The GReAT Consultation held in 2019 produced two volumes of proceedings to inform the background papers for the Global Report on Assistive Technology (2022) [11]. Planned for release in 2022, Global Report will scope challenges, identify priorities and highlight good practices; providing a global impetus to government by providing them with a comprehensive state of the art review and guides to action [11].

Moving from "top down" to "bottom up" actions: the AT sector itself since 2000 has demonstrated exponential growth as a "self-organising system", building on foundations laid by allied health and engineering professional bodies, as well as stakeholders working in focal areas of AT such as mobility, prosthetics, or sensory.

International collaborative agreements amongst AT stakeholders are emerging in regions such as Asia and Latin America, with precursor "community or practice" networks forming in for example Africa and India [12]. The Global Alliance of Assistive Technology Organisations (GAATO)[2] is a non-profit association of legally established membership organisations from different countries or world regions. GAATO builds on twenty years of international alliances to fill a perceived gap and need for a unified global platform to represent the AT sector and coordinate with governments and international bodies such as the WHO and UN.

Year	Milestone
2000	International Collaborative Agreements of AT Associations (becomes GAATO by 2019)
2006	UN Convention on the Rights of Persons with Disability
2011	World Report on Disability
2013	UN 68th General Assembly request WHO coordinate a global initiative for AT
2014	WHO Global Cooperation on Assistive Technology
2017	WHO Global priority research agenda for improving access to high-quality affordable assistive technology
2017	WHO Rehabilitation 2030 agenda
2017	WHO Priority Assistive Products List (APL)
2017	WHO GReAT Summit & Position Papers
2018	WHA Resolution on Improving Access to AT (71st session)
2019	WHO GReAT Consultation and Proceedings
2019	Launch of GAATO (Global Alliance of AT Organisations)
2022	Global Report on Assistive Technology

Figure 1. Assistive technology milestones since 2000.

Table 1. Major projects and initiatives.

Initiative	Description	Aims
AT2030[a]	AT2030 will be the initial programme that helps to inform the work which ATscale is able to then take to 'scale'. LOCATION: Global Disability Innovation Hub, London and University College London; with partners in UK, Ireland, Africa and Asia	• Reach at least 3 million people; • Catalyse at least 10 new disruptive technologies with potential for life-changing impact; • Develop at least 6 innovative service delivery models; • Spark 30–50 new start-ups; • Develop and test new methodologies for market shaping on assistive technologies; • Establish an East Africa AT Innovation Hub; • Double DFID's initial investment through partner backing; • Use all of this to leverage resources from other stakeholders
ATScale[b]	Global Partnership for Assistive Technology taking a supply and demand view of advances in assistive technology and accelerating access to innovations for those most in need. Location: Geneva-based, international reach	• Develop an enabling environment for increased access to high-quality, affordable AT by growing political will, advocating for and informing policy reform, mobilising investment, and strengthening systems and service delivery at global, regional, and country levels; • Identify interventions required to shape markets and overcome supply and demand-side barriers for priority'[c]
China and the Belt and Road Initiative with its Assistive Technology Rollout [13] Location: China	Global development strategy adopted by the Chinese government in 2013 involving infrastructure development and investments. Location: In nearly 70 countries and international organizations in Asia, Europe, and Africa	• To enhance regional connectivity implications for assistive technology [14]
Shapes: Smart and Healthy Ageing through People Engaging in Supportive Systems[d]	To create, pilot and deploy a large-scale, EU-standardised open platform capable of integrating a broad range of assistive and digital technologies, along with organisational, clinical, educational and societal solutions that seek to facilitate long-term healthy and active ageing, and a good quality of life in people's own home and in their own neighbourhood Location: Based at Maynooth University, Ireland; with 36 European partners including service users and providers, civil society, industry and researchers	• Development and integration of assistive products, eHealth sensors and wearables, Internet of Things (IoT)-enabled devices and mobile applications. • A network of relevant users and key stakeholders working together to scale-up Platform and digital solutions. Seeks to connect demand and supply across H&C delivery, and to facilitate the co-creation of affordable, effective and trustworthy solutions. • Provide guidelines, a roadmap and an action plan, including a set of priorities dedicated to standardisation, to support key EU stakeholders to foster the large-scale deployment and adoption of digital solutions and new integrated care services in Europe.

Major projects and initiatives

A number of major projects and initiatives are now underway with a plethora of related but uncoordinated approaches. Table 1 lists some of these projects, their purposes, locations, and expected outcomes.

Funders of assistive technology initiatives

Major recent sources of AT research funding at the global level have been industry and national donor governments (e.g. U.S. Agency for International Development (USAID) and the UK Department of Foreign and International Development (DFID)), along with regional and global organisations (e.g. European Commission, World Health Organisation and World Bank)[15]. Much of this funding is concentrated in a few large projects; some of which have not been open to competitive bidding, or evaluation of proposals on the basis of merit. The most rapid recent increase in AT innovation and production has perhaps been in China, which in itself, has the capacity to produce a step-change in access to AT globally. In 2020, the USAID announced its intent to fund a 60 million dollar initiative for "Designing for Sustainable Physical Rehabilitation and Assistive Technology Services in Health Systems" [16]. This appears to be another major investment towards global AT accessibility for the populations in need. This adds another major player and funding source to the global efforts.

We argue that to promote coherence and prevent fracturing and capacity-stripping in the sector, oversight and governance by an independent global organisation is desirable.

The WHO GATE programme is the natural candidate for this, as it is currently in a UN agency. However, in order to reach out and be credible across different sectors (health, welfare, education, employment, justice, etc) GATE could become a "One UN" initiative, operating as a multi-UN agency. In fact, such a model already exists in the wider disability community, with the UN Partnership for the Rights of Persons with Disabilities (UNPRPD). The UNPRPD seeks to implement the Convention (the UNCRPD) by addressing structural barriers and currently operates across almost 40 low- and middle-income countries.[3] Just as the UNPRPD, for reasons of programmatic expediency, has its secretariat based in one agency (in this case The United Nations Development Programme), so GATE should continue to be situated in WHO, but operate programmatically across agencies and sectors. Another example of donors seeking to coordinate their activities around disability is GLAD (Global Action on Disability)[4] which is a network seeking coordinate the actions of bilateral and multilateral donors and agencies, but also the private sector and charitable foundations; all working to enhance the inclusion of persons with disabilities in international development and humanitarian action.

A Multi-donor Trust Fund (such as that run by the multi-partner trust fund office for the UNPRPD) which also incorporates a range of country, corporate, and philanthropic donors, and social and commercial investors, could be established

which would support the current operations of GATE; but also enable GATE to provide oversight of major open global Calls, with funding allocation based on agreed and strategic criteria and guided by the global priority research agenda [3]. With GAATO as an existing and global network of long-standing assistive technology organisations, representing substantial depth and breadth of expertise, we foresee considerable advantages to GAATO having a close working relationship with GATE and providing a ready and credible network of AT providers and users, with global reach. We believe that with appropriate governance and oversight structures, such an initiative to promote coherence in global AT would be welcome, efficient and effective in providing much greater access to quality affordable assistive technology globally.

Conclusion

The recent pace of development in global AT reflects the exponential increase in interest in this area, particularly in the last 5 years, mostly under leadership of WHO. This increased interest has been accompanied by a dramatic increase in funding and the entry of new stakeholders into the field, particularly in low- and middle-income contexts. We argue that it is important that regional and global initiatives build on the long-standing expertise of AT organisations, practitioners and researchers. This experience should be seen as central, both as a mean to draw on strong capacity and learning, and as a vehicle to build capacity where it does not yet fully exist. In particular there is a need for greater coherence between the approach of aid agencies and AT professional bodies. Global oversight and governance of this coherence should be overseen by an independent global organisation, which does not itself have to compete for funding from the same sources as other stakeholders. We propose the establishment of a multi-donor Assistive Technology Trust Fund to be overseen by GATE, as a multi-national and multi-agency UN entity, that will encourage and disperse funding globally in a strategic, open and transparent manner that can promote greater global cohesion across and confidence in the AT sector.

Notes

1. "Position Papers from the First Global Research, Innovation, and Education on Assistive Technology (GREAT) Summit" published in 2018, Volume 13, Issue 5. https://www.tandfonline.com/toc/iidt20/13/5?nav=tocList
2. www.gaato.org
3. http://mptf.undp.org/factsheet/fund/RPD00
4. www.gladnetwork.net

ORCID

Natasha Layton (iD) http://orcid.org/0000-0002-3213-8069
Malcolm MacLachlan (iD) http://orcid.org/0000-0001-6672-9206
Roger O. Smith (iD) http://orcid.org/0000-0002-1537-7439
Marcia Scherer (iD) http://orcid.org/0000-0001-8374-6526

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Natasha Layton (iD)
ARATA, Melbourne, Australia
RAIL (Rehabilitation, Ageing and Independent Living) Research Centre, Monash University, Melbourne, Australia
✉ natasha@natashalayton.com.au

Malcolm MacLachlan (iD)
ALL (Assisting Living and Learning Institute), Department of Psychology, Maynooth University, Ireland
Research & Innovation Coordinator for the World Health Organisation's Global Cooperation on Assistive Technology (GATE) programme, Geneva, Switzerland

Roger O. Smith (iD)
Rehabilitation Research Design & Disability (R2D2) Center, University of Wisconsin-Milwaukee, Milwaukee, WI, USA
RESNA (Rehabilitation Engineering and Assistive Technology Society of North America), Arlington, USA

Marcia Scherer (iD)
Institute for Matching Person and Technology, Webster, NY, USA
Department of Physical Medicine and Rehabilitation, University of Rochester Medical Center, Rochester, NY, USA