



Response to Request for Information:

NDIA – Designing an Early Childhood Assistive Technology Approach

July 2021

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Executive Summary

Vision 2020 Australia's members appreciate the ongoing commitment to improving system settings for the provision of assistive technology (AT), and to consulting the sector around potential opportunities for improvement and how these may impact specific cohorts.

AT is a critical component of supporting children and other Australians living with blindness and low vision. Vision is a significant contributor to childhood development and hence in the early childhood area, specific AT and support that minimises the impact of vision impairment on overall development is required. Like others with sensory impairment, children who are blind or have low vision require a timely, tailored suite of training, support and AT that is specific to their condition.

The 'market' for such supports is relatively small, and a high level of specialist knowledge is often required to both prescribe AT and support children with vision impairment and their families in its use.

While the consultation paper for the RFI suggests that there is a need to develop online markets for AT, Vision 2020 Australia members note that there is not a market gap for AT in the area of blindness and low vision: unlike other subsectors within disability, various online marketplaces already offer blindness and low vision AT for sale.

Vision 2020 Australia members support the current purchasing parameters for the outright purchase of low-cost AT (under \$1,500) via the consumables subcategory in budgets, although members note that in some instances, that limitation precludes timely provision of equipment that could make a significant and timely difference, including proprietary items that are potentially well set up for people with vision impairment.

Vision 2020 Australia members also support in principle a requirement for more expensive AT to be subject to an assessment process to ensure optimal fit. It is important that such approaches continue, but opportunities to expedite these systems be progressed.

This is because the nature of AT to support children and other Australians with vision impairment, and the need for careful prescribing and training in its use, means that direct purchase of higher cost AT via an online (or other) marketplace without those services would have significant risk.

However, an online marketplace that featured a 'front end' that enabled users to access a full range of AT but for higher cost AT required them to book an assessment to ensure it is suitable could be a way of mitigating that risk.

Vision 2020 Australia member organisations have also had extensive experience in operating loan systems for children with vision impairment, particularly as part of state and territory education schemes. Their lived experience of these schemes has been that for

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children with blindness or low vision, most items only have one user, either because they're obsolete or because they can't be economically refurbished.

Such organisations have also noted that to minimise potential confusion for participants, their families and others involved in supporting children with disability - and also to avoid duplication of effort by providers (and hence achieve market efficiencies), any proposed establishment of NDIA on-line marketplaces/loan systems should ideally build off and/or integrate with existing systems.

This submission to the Agency's RFI expands on these themes and includes a range of specific advice and recommendations that draws upon the practical experiences of services providing loan schemes and/or AT via other platforms to children with vision impairment.

To achieve this, however, organisations with experience in this area believe that:

- A specialist approach to AT provision is required for vision impairment and other sensory disabilities because of the complex needs of these clients and the need for a high level of tailoring. As such, Vision 2020 Australia supports the tailored approach for sensory disabilities suggested in the RFI documentation.
- Timely access to appropriate training and assessment is the key to effective and efficient AT supply arrangements: while enhancing market arrangements in areas where there are gaps can improve availability of AT, these other factors are critical if children are to realise the full benefits that AT can provide.

A tailored approach to provision of AT is required for sensory disabilities because of the specific and complex needs of those clients..(but) timely access to appropriate training and assessment is also key to effective and efficient AT arrangements

Responses to RFI questions

AT market solutions under the ECATA

Q: What product or solution would you propose that could already, or in the near future, be deployed to meet participant under 7 years/family and Agency needs, and how could it be delivered?

Multiple Vision 2020 Australia members already offer online stores via which various kinds of assistive technology (AT) can be purchased and delivered via mail, as do other retailers of low vision equipment. These stores are already providing products to those people who are blind or have low vision who have an awareness of assistive technology, and who know what they want to purchase.

Members believe the points of difference for a one-stop online marketplace for assistive technology as described in the ECATA are:

- Ability for people to buy products directly using their funds without needing to claim reimbursement.
- Simplicity of promotion – since all planners, local coordinators, support coordinators and other points of contact could be made aware of the online marketplace and inform families and children.

eBay is an online platform which allows either individuals or stores to post items for sale. One possibility could be an online marketplace wherein providers can sell AT similarly to an eBay store – e.g. the Royal Society for the Blind would be a seller in the online marketplace. This marketplace would include filters that allowed shoppers to search specifically for AT for people with blindness or low vision.

Low cost, low risk AT (specialist lamps, magnifiers, Penfriend labellers) would be available for direct purchase. Higher cost AT (video magnifiers, screen readers, Braille devices) would also appear, but instead of purchasing, shoppers could request an assessment to establish whether the item was appropriate.

Assessments would be provided, in person where possible, via teleconference if necessary, and would be performed by consultants with an understanding of AT for this cohort. Assessors could recommend the purchase of one or more products, which would allow shoppers to purchase them via the marketplace. Recommendation of a specific product by an assessor would not require shoppers to purchase it from a specific service provider if they chose another, thus minimising potential conflicts of interest.

Q: In addition to the proposed approaches outlined in 3.2, what approaches do you offer or are you developing that you believe could deliver good outcomes under the ECATA?

Children who are blind or have low vision face a number of unique challenges:

1. There is still relatively low community awareness around the way people with vision loss approach everyday tasks. This means families and mainstream teachers are not always equipped to pass on all the information children need.

2. Because of the low prevalence of vision loss, these children are often not connected with many of their peers, meaning there are fewer opportunities for capacity building via skill sharing.
3. Many of the technologies used by children with vision loss are complex to operate, and because they are neither intuitive to sighted users or mainstream, their use can't always be taught by families or other informal supports.

The most significant obstacle to capacity-building for children with vision loss is the lack of appropriate training. This is the case whether the AT product is low or high cost. It is easy, for example, to purchase a ball which contains a bell to allow audible play, and many other pieces of affordable AT via already existing online marketplaces using consumables funding. But no amount of AT, without appropriate training, will deliver outcomes that allow a child with vision loss to enjoy equivalent choice and control to her peers.

AT for children with vision loss has often been recommended by allied health professionals such as occupational therapists. Blindness and low vision service providers also employ assistive technology consultants, who specifically understand the technology, often through lived experience. Orientation and mobility specialists teach methodical, safe and long-proven approaches to accessing the community, sometimes using low or higher-cost AT, but mostly using strategies and techniques for exploration and retention of environments.

Vision 2020 Australia therefore recommends that:

1. High risk products for children with vision loss ((usually higher-cost items) remain purchasable through the NDIS only following assessment by qualified specialists, and ideally trials of equipment.
2. Quotes for high-cost AT should be allowed to routinely include training in its use and after sale support.
3. Rather than seeing increased awareness of AT as the primary solution for children with vision loss, the NDIA should view appropriate capacity-building funding as the most effective way to improve outcomes for this cohort, recognising that awareness remains a secondary problem.

Q: What elements of your solution or approach meet the expectations, and/or may be able to assist with addressing barriers and challenges, outlined in section 2?

Sustainability

For children with vision loss, the best way to minimise waste of equipment, regardless of cost, is through the delivery of appropriate training and advice from specialists, with a strong knowledge of available options and understanding of a child's needs. There are some children whose vision will change significantly within the lifespan of a product, but experts favour early intervention approaches which prescribe and prepare for predicted rather than current vision level.

Timeliness of Supply

Historically, the most significant barrier to timeliness has been the wait times caused by approval processes for requests for higher-cost AT. V2020A members appreciate the NDIA's work to decreasing these wait times.

Service providers face additional challenges which may impact timeliness, including:

- The complexity of AT request forms, which can often take at least two hours to complete, and
- Shortages in workforce and challenges relating to thin markets.

Transparency

Various online marketplaces exist already which provide a wide variety of information about AT products. These can easily be discovered via a Google search. A unified online marketplace would save a small amount of time for families, facilitate easier comparison of prices between suppliers, and allow for suppliers or even products to be reviewed, but it would not substantially increase the amount of information already available about AT products themselves.

Safety and Quality of Product and Service

The most significant barriers to provision of after sales service, maintenance and adjustment of AT products are funding-related – that is, they are not routinely considered necessary as part of the provision of a high-cost AT item, and thus funding streams are not consistent.

The best way to ensure the quality and safety of a product is through ensuring the appropriate training and services are provided around it. For example, it is very easy to provide a person with vision loss with a white cane, but if it isn't suitable for their height, weight and use case, and they don't know how to use it strategically, this product would be completely unsafe.

“Market Place” for 21st Century

While online marketplaces for these products already exist, there is not currently an online venue for purchase or sale of second-hand vision AT. For the purchase of high-cost second-hand AT under the NDIS, Vision 2020 Australia would recommend the same assessment processes as for new products.

For children to benefit most from the new approach, it should also facilitate the delivery of training around particular AT products from appropriate experts. Many providers deliver this training in person, but it can in some cases also be delivered remotely via teleconference, although it should be noted that this approach is not suitable for Aboriginal or Torres Strait Islander Peoples.

Q: What would you require from the Agency in order to apply your solution/approach as part of the ECATA?

The following recommendations are directed toward the NDIA unless otherwise noted:

1. If an online marketplace for AT is created, it should:
 - A. Allow providers to operate as individual stores rather than relying on one supplier of AT.
 - B. Allow participants to purchase directly using their NDIS funds rather than using their own funds and claiming reimbursement.
 - C. Not allow participants to purchase high-cost, high-risk AT which would be deliverable currently through the Capital budget in plans without assessment from a qualified specialist.
 - D. Allow the booking of assessments directly through the marketplace.
 - E. Ensure that recommendations via assessors lead to purchase of products as quickly as possible with minimal administration or intervention requirements.

- F. Provide funding to facilitate the integration of such a system with systems and services already offered by service providers. Costings could not be delivered within the timeframes offered.
2. If an online marketplace for AT is not created, the agency should work with the sector to provide resources to all incoming participants with blindness or vision loss, providing information about where AT can be purchased, and what kinds of equipment are available.
 3. A mechanism should be established that streamlines prescribing of AT products by workers with appropriate expertise [i.e. without time-consuming oversight by occupational therapists or other allied health professionals]. The eye sector would be happy to contribute to such work.
 4. The complexity of current AT request forms and reporting requirements should be diminished in order to lessen the administrative burden of this work for service providers and improve the timeliness of supply.
 5. Funding should be provided to ACCHOs to equip and train them to provide culturally safe services to Aboriginal and Torres Strait Islander Peoples in rural and remote locations.

Q: Provide an estimate of cost and timing expected to establish each given/proposed solution. Please indicate the relevant solution and as many underlying assumptions, drivers or considerations as possible (e.g. time to train staff, level of stock, system improvements, asset management). Ideally indicate likely annual subscription pricing for the different 'bundles' in Table 1.

The bundles in table 1 are likely not relevant to our cohort. Realistic costings could not be obtained within given timeframes.

Minimum market requirements to empower NDIS participants

Q: How well do the assumptions and grouping in Section 3 fit with your experience in the supply of EC AT? Please provide any similar cohort structures for Participants under 7 years needing AT from other disability groups such as sensory, cognitive/behavioural.

The needs of children with vision loss are highly variable, and impacted by factors such as level of vision, presence of a secondary disability, degree of training and remoteness. IN section 3.1, the RFI notes the potential necessity for a tailored approach to AT provision for some groups, including those with sensory disabilities. Children with vision loss would likely be most suited to the delivery approach indicated for Cohort 5 - a combination of flexible support for low-cost AT and fixed support with assessments required for high-cost AT.

Data around the most frequently purchased AT for children with vision loss has been difficult to gather in the current environment, but anecdotally in the case of AT purchased outright through the NDIS, it seems likely that:

- Most children require a combination of low-cost and high-cost AT products, and
- If prescribed correctly, most children will keep high-cost AT products for at least 2 years.

Low-cost AT products, which can currently be purchased under the consumables subcategory in plan budgets, might include white canes, specialist toys/games, labelling devices, and handheld LED magnifiers.

Higher-cost AT products for this group will depend on level of vision. Children with low vision often require desktop magnifiers (CC TVs), because these devices allow them to learn to read using the same books, in the same way, as their peers. While handheld video magnifiers popular with older age groups must be held over a page, and digital solutions like iPads allow access to eBooks, a desktop magnifier allows a child to place a book on a pre-aligned tray and simply turn the page.

For children who are blind or whose vision will likely decrease, Braille reading and writing devices are necessary. These might be mechanical and very durable (e.g. Perkins Braille), or digital and less long-lasting, such as smart Brailers. Devices including refreshable Braille are less likely to be needed for this cohort, although for children between 7 and 9, their necessity would increase.

Q: How would you meet participant expectations of transparent pricing, AT identification/selection, and delivery tracking?

Service providers who are already providing online marketplaces believe they have largely addressed these problems. Unlike other sectors, the vision sector has been operating online for a significant period of time, and has therefore developed robust solutions to problems of delivery and tracking.

Q: How can the EC AT market balance the simplicity (and empowerment) of online or walk-in ordering/exchange for EC AT by a family, with appropriate guidance/checks by an AT Assessor to manage the risk of poor outcomes?

Members believe the vision subsector is different from other subsectors providing AT to different cohorts, in that it has already invested significant effort in digital provision of information for

reasons of accessibility. The existence of online information about AT vision equipment in itself simplifies the process of understanding what AT is available.

Current system settings don't allow the outright purchase of most equipment that should be delivered only following assessment. Vision 2020 Australia recommends that even if an online marketplace system were created, this should remain the case. Therefore, in the event that an online marketplace was created, and vision-related AT was included in that marketplace, it is suggested that high-cost AT still be listed, but instead of purchasing, the action users could take would be to request an AT assessment. The assessment would offer other options as well as the product related to the request, and would then make a recommendation based on conversation with the child and the family about the requirements, use cases, and the problem they're attempting to solve.

In order to avoid conflicts of interest, the assessor would not need to be from the same service provider as supplied the product, and would not specify which provider ultimately supplied the product.

Q: If you are a provider with potential online solutions, how would you work with the Agency or other providers to deploy your technologies to deliver ECATA options? If you have past experience in similar scenarios/situations, please describe with explanation on how these would be adapted to this Approach.

As mentioned later, providers have experienced significant costs in integrating systems. For example, in relation to an online marketplace, it could be prohibitively costly for providers to import their often extensive catalogue of AT products into a new system, and then link these to their own order tracking systems.

There are also significant concerns in relation to the administration of loan systems for AT. For example, it would again be very complex for providers to hold and administrate a wide range of AT equipment for users to borrow. If a loan pool were administrated by the Agency, this would be less costly for providers, but this would mean that:

1. The equipment pool would likely be held in a few central locations and would thus be more difficult to trial.
2. Decisions about which pieces of equipment to include in the loan pool might not be made by people with sufficient knowledge of this equipment.

Q: What successful approaches have you used to ensure continuity of EC AT access for Rural, Remote and CALD & ATSI communities, despite barriers?

The facility to deliver some training and advice via teleconference has been vital during the pandemic, and will likely remain a significant part of the service delivery model for providers working with a low prevalence disability. Members who provide services in this way have reported success in various kinds of training, even for young children. Some service providers are trialling innovative solutions wherein an orientation and mobility instructor offers training remotely, while a second sighted support person ensures the safety of the client, and ensures the instructor is able to observe their behaviour via video. This solution is not ideal but can be effective in some cases.

Notably however, remote service delivery is not suitable in all cases. For example, this mode would generally not be considered safe for delivery to Aboriginal and Torres Strait Islander Peoples. Additionally, rural and remote communities are most likely to suffer from poor internet coverage.

Vision 2020 Australia therefore has recommended through a number of consultation processes that ACCHOs be funded to deliver services for people with blindness and low vision, including assistive technology assessment. Additionally, the sector is eager to work with the NDIA to help address the problem of thin markets, partly through implementation of the NDIS National Workforce Plan.

Q: What level of data you would require from the Agency to confidently deploy/ scale your solution, and what data could you share with the Agency once in operation?

The NDIA may be able to provide data about the kinds of AT supports being purchased by children (and other cohorts) with vision loss which have required reporting. This could help reveal patterns which may help enable something more like a package approach as exists for other cohorts, although it is possible that results will reflect our experience, that there is too much variation of needs to develop such an approach.

Delivering market efficiency and effectiveness

Q: What are the outcomes and efficiencies that could be expected to result from deploying the given solution?

One of the efficiencies that would be created by a single online marketplace would be that it would be easier to explain to families and participants where they should find AT, and this information could be provided to all planners and other contact points within the agency. This would result in a wider awareness of where AT could be found and distributed.

Members say that the actual difficulty, for families of children with vision loss, lies in connecting with an assessor to approve provision of high-cost AT. This is particularly the case in rural or remote areas, and is complicated by the fact that some providers only operate in specific regions.

Creation of an online marketplace for AT could inspire a solution to this problem – an online portal which allows users to request an assessment booking. That assessment request would be passed on directly to the relevant service provider based on type of disability, availability of assessment times and the participant's location.

Q: How could families identify suitable AT Assessors to provide them the EC AT advice and support they need? What options are there to improve access for those in rural/remote Australia?

The proposed online marketplace approach could, as previously mentioned, allow for requests to be sent to assessors when a participant identifies a need for a kind of product. These would be delivered through the service providers employing the assessors.

Barriers and incentives to market adoption

Q: What are the main challenges / barriers to your organisation offering an adaptable supply AT option as outlined in section 3?

Main challenges and barriers are that:

- The interface with a new system could be costly, and the transference of service providers' catalogues to a new system could be excessively time consuming to most providers.
- The kinds of equipment supplied are incredibly specialised, and not generally well-understood.
- The expertise of assistive technology specialists who may be very experienced but may not have typical qualifications for provision of AT is not always recognised by the NDIA, resulting in the need for oversight by other allied health professionals such as occupational therapists.

Q: Would you be interested in any future ATM and what may stop you participating?

While Vision 2020 Australia is a peak body rather than a service provider, individual members have noted that practical factors such as establishment of duplicative schemes (rather than leveraging existing loan arrangements for blindness and low vision AT for children) would be highly problematic, as would arrangements that required market providers to incur substantial entry costs to new arrangements and/or arrangements that enabled participants to directly purchase high cost AT without appropriate assessment and/or training, as such settings would likely result in suboptimal outcomes for participants and/or significantly higher than necessary equipment return rates.

Q: How can the ECATA be designed to ensure national coverage? Are suppliers willing and able to form consortia and/or partnerships to help ensure national coverage is achieved? What lead-time would suppliers need to negotiate such arrangements?

The barriers to national coverage of AT provision for people with vision loss largely relate to thin markets. Without workforce availability in specific areas, trial and in-person assessment for AT provision is often not possible. Members believe that resolving this problem is one of the necessary next steps to ensuring that children with vision loss reliably receive the right products.

Reuse, trade and recycling of second-hand AT

Q: What cost effective solutions exist to offer the precision/fit needed for each child, but the flexibility to permit reuse or modest cost recycling when outgrown after a year or so?

Much of the AT used by people who are blind or have low vision, especially young children, is low-cost. Examples include handheld LED magnifiers, specialist toys, labellers, ID or white canes. Users who have run loan schemes in the past have not found it cost-effective to distribute these, especially on a national scale, via the kind of loan scheme proposed as part of the ECATA, because the costs of administration, hygiene, return and distribution could exceed the cost of the products.

Various member organisations have run loan schemes in the past, particularly within the bounds of state education systems, for higher-cost AT products. These members have found that:

- Though there are some marginal cases where severe changes in vision result in products becoming unsuitable in the short term, these are relatively rare.
- While in adult hands, many higher-cost AT products could remain viable for several years, children frequently produce wear and tear that precludes products being economically refurbished for a second user. This is especially true in the case of devices with refreshable Braille displays, which are unfortunately some of the most costly and delicate pieces of equipment used by children with vision loss.
- If a product is no longer suitable for a child through obsolescence, it will generally not be appropriate for another user. Since many of these products are technology-based, over time they develop compatibility problems which cannot be addressed without significant technical literacy.
- There are some cases in which desktop magnifiers (CC TVs) can be used by multiple users. Young children may use them to learn to read before moving onto more advanced portable devices which require greater dexterity and technical literacy.
- Members have also found some parents and children unwilling to use older desktop magnifiers, because aesthetically they single the child out as being more disabled. Newer, more compact devices are often more socially acceptable and even as technology advances, this will likely remain the case.

For all these reasons, members who have run loan schemes have typically found that for young children within the education system, they are loan schemes in name only, and in most cases, high-cost AT for this cohort only has one user in practice.

Additionally, if a loan or refurbishment scheme were to be introduced, products would need to be delivered through the same assessment processes that are recommended for new products, in order to make sure that they aren't unsuitable and do not become unused or are returned frequently.

Q: If a family chose to buy new AT for their child (even though an adaptably supplied AT solution was suitable), what market options could be offered that would be compatible with annualised funding from the planned ECATA?

As was suggested in the RFI documentation, an annualised approach will likely not prove appropriate for this cohort, given that funding needs are highly variable, and AT solutions are often highly specific.

Other feedback

Assistance Dogs for Children

There has from time to time been discussion regarding potential inclusion of dog guides in rental or loan schemes.

This is an extremely complex area that would not readily lend itself to rental or loan schemes, as substantial work would be required alongside changes to pricing structures and other settings to make such an arrangement viable.

Some providers supply assistance dogs as part of their supports for children who are blind or have low vision.

Vision 2020 Australia and its members strongly recommend that all dog supports be excluded from any proposed loan schemes because of the challenges noted above.

About Vision 2020 Australia

Vision 2020 Australia is the national peak body for the eye health and vision care sector. Working with and representing almost 50 member organisations, we focus on supporting policy and funding changes to prevent avoidable blindness, enhance eye care delivery and better meet the needs of people who are blind or living with low vision.

Our members span a wide range of areas and are involved in local and global eye health and vision care, health promotion, low vision support, vision rehabilitation, eye research, professional assistance, and community support. This means that the work we do in developing sector-supported policy and advice brings a diverse range of expertise and perspectives to bear, and that the perspectives and experiences of both service users and service providers are at the heart of our work.

Avoidable blindness and vision loss in Australia, and our region, can be prevented and treated by working in partnership across government, non-government, private and community sectors. People of all ages who are blind or vision impaired will benefit from these partnerships, with improved access to services that support their independence and community participation.

For further information about this submission, please contact Vision 2020 Australia via email, policy@vision2020australia.org.au