



The design and evaluation of a national peer mentoring model for assistive technology

AT Chat Research Insights 2020

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Who are we?

AT Chat is a peer-led, co-designed online space for assistive technology (AT) users to share information and lived experience about AT. Since its establishment in 2017, AT Chat has won state¹ and national² grants and has developed the AT Chat Peer Mentoring Program. This national peer mentoring model for assistive technology was co-designed with AT users. The person focused AT decision making support model which was designed to respond to individual capacity and to facilitate choice and control in all aspects of assistive technology use and acquisition.

What we did:

Evidence-based design of a National Peer Mentoring Model

AT Chat is based on three building blocks of knowledge. These include co-design principles and methods; the peer support evidence base, and assistive technology good practice principles for service delivery.

Building Block 1 Co-design principles and methods

Inclusion is a key principle for any human service endeavour. Co-production or co-design are alternate terms used to specify what inclusion 'looks like'[1]. Evidence demonstrates that the voices of service or product users are essential at multiple levels [2-4]. The design field has a long history of 'inclusion', usually described in terms of the user interface or user experience in constructing products and services. A range of tools or approaches include design thinking [5,6] and Living Labs methodology [7]. However it has been less common to find genuine consumer involvement and inclusion in health and disability [8,9]. Implementation of genuine partnerships for inclusion is however challenging. Even in the relatively well-developed field of peer support, it is professionals rather than peers who initiate and direct peer support activities. Disabled persons organisations note the power differences that are often evident when professionals engage with end users [10], and the potentials of peer to peer support. The NDIS Act General Principles enshrine consumer direction, choice and control as service delivery principles.

AT Chat worked to ensure that consumer involvement was meaningful – not just 'informing' and 'consulting', but actually being 'engaged' and 'co-designing'. Service users are best placed to comment upon how a product or service worked for them, to evaluate their user experience, to design the user interface, to advise on safeguarding, and to determine whether the product or service has met their personal outcomes.

¹ Western Australia Department of Communities (July 2018-October 2019)

² National Disability Insurance Scheme (NDIS) Information Linkages and Capacity Building Grant (2018 – 2020)

Building Block 2 Assistive technology (AT) competencies and roles in the NDIS

Assistive technology (AT) is the internationally recognised umbrella term for products and services suitable for use by people living with human diversity ('disability' and 'ageing'). AT encompasses both products and services. AT products known as aids, devices equipment, durable medical equipment, appliances), and AT services refers to the 'human factors' which support the match of person, goal and environment with specific products. Over 30 years of evidence supports a range of 'good practice' AT service steps [2]. Roles for AT Chat Peer Mentor and allied health professionals have been identified through the steps of AT provision, and include assessment/ evaluation, information gathering, solution selection, trial, adaptation/ customisation, training/ education, establish maintenance and servicing, and review. These roles have been adopted in the NDIS AT Strategy [11].

Building Block 3 Peer mentoring

Peer support refers to the support that people with lived experience give to one another [12], with evidence that hope, recovery and empowerment result from peer support programs in areas of mental health [13]. Emerging research in assistive technology includes peer support for prosthetics [3], and peer training for mobility [12]. In Australia, the National Disability Insurance Agency has funded development of the privately run Certificate IV in Assistive Technology Mentoring which has graduated a small number of certificated AT Peer Mentors since inception in 2015.

Building on two years of team development with intersectional capabilities, AT Chat team brought their experience of running the Chatterbox peer support community, into the design process of the Peer Mentor Model. Drawing on literature regarding peer expertise and the scope of peer support within healthcare systems, AT Chat selected a Peer Group Mentoring Framework [13], which was aligned with the emerging philosophy of the AT Chat community. Think Tank focus groups with AT users, allied health professionals and disability sector representatives were used to explore what the community wants from a peer mentoring service and how it differs from an allied health professional service. The idea of peer mentoring with a community of practice element was then developed into the AT Chat Peer Mentor Model and supporting Training Manual.

How we did it: designing a National Peer Mentoring Model

A living labs approach was used to explore the evidence base with stakeholders and to design and test the peer mentoring model. Living Labs involves exploration, experimentation and evaluation stages. Figure 1 illustrates AT Chat Living Labs design journey:



1 AT Chat Living Labs Design Journey

Long image description: Exploration: 1. Survey data, 2. Focus group, 3. Launch – building community engagement and peer-led content, 4. Think Tank – transition AT Chat into AT Peer Mentoring (ATPM) project. Experimentation and Evaluation: 5. Pre-iteration user driven prototyping, 6. Website MVP workshop. 7. Storytelling commences, 8. User-testing commences, 9. Story share and capture commences, 10. Pilot. Last hexagon labelled AT Peer Mentoring Service Soft-Launch.

Co-Design and AT Chat – results of the Living Lab process

AT Chat brings an inclusive approach to finding out what “good looks like” in AT by ensuring AT users, AT experts, AT practitioners and the wider AT community are part of the development, design and review of the AT Chat program. Two important features of co-design for AT Chat are:

Firstly, principles and methods that support genuine and ongoing realisation of co-design. The AT Chat team consists of AT users and supporters who have a lived experience of disability and of AT use. AT users and supporters as well as AT practitioners, suppliers and other stakeholders, are seen to hold equally valuable skills and knowledge and able to contribute through co-design processes. AT Chat has defined co-design as ‘A collaborative program delivered in equal and reciprocal relationships between service-users, service-professionals, and their support networks (ie. family and friends)’. Secondly, a service design method built on user-led design principles.

Re-imagining assistive technology services with user-focussed language

AT can be an extremely effective intervention to support participation in chosen life activities. However, there is substantial evidence of AT abandonment and non-use if AT is not provided appropriately [2,14]. For AT to be effective, a range of service steps are indicated. A core task of the AT Chat Living Labs was to a) translate the professionalised language into fit for purpose language and concepts for AT Chat Peer Mentors and b) build work roles for these steps. The AT Service Delivery steps were transformed through the Living Labs processes into a set of simplified, reworded steps comprising Connect, Create, Control. This action addressed a key theme throughout all AT Chat co-design with the AT community has been a desire for jargon free information. AT Chat undertook a piece of work to translate and test user friendly language, which was applicable to the broader AT community, yet founded on evidence. Table 1 shows the process of matching the 7 stages of service delivery with themes and language taken from the Think Tank focus group.

Table 1 Translating service delivery steps into the AT Chat Connect, Create Control Model

	Service Delivery Stages	Think Tank Terms	Description
CONNECT	Initiate	<i>Let's Chat</i>	Getting to know you, your life and your goals <u>About You</u> <ul style="list-style-type: none"> • What is your day to day life like? • What technology/equipment do you currently use? • What do you want to be able to achieve/do? • What are the unmet needs in your current life? • What do you think will help you achieve your goals?
CREATE	Assessment	<i>Information Gathering</i>	Finding out what has helped or hindered and why? What are the barriers or facilitators and why? Exploring new options to assist you in reaching your goal. Revising past options to assist you in reaching your goal. ***Seek allied health support if needed
	Solution Selection	<i>Compare and Evaluate Options</i>	Finding a solution that works best for you. Use the information gathered to evaluate and compare AT options. ***Seek allied health support if needed
	Procurement	<i>Checkout</i>	Sourcing and purchasing your equipment. Identifying funding options to access/purchase your AT. ***Seek allied health support if needed
CONTROL	Implementation	<i>Put it to Practice or Test Run</i>	Set up your AT Trial your AT. Access training for your AT. Set goals to achieve with your AT? AT Chat to follow up AT user outcomes of AT purchases. Has the mentee/service user reached their assistive technology goal? ***Seek allied health support if needed
	Follow up and Review	<i>Feedback</i>	Review – check in with how your AT journey is going. Evaluate – What is working or not working? Troubleshooting support? Assess against achieving your goals? Set a timeline? Set updated goals / plan. ***Seek allied health support if needed

AT and competency

AT Chat journey-mapped a range of AT pathways and determined the scope of an AT peer mentor role is related to the NDIS AT Complexity levels. Figure 2 identifies the peer mentor role across all service delivery steps for Level 1 AT. Peer mentor roles with Level 2 AT may include all service delivery steps, depending on the personal scope of the AT Chat Peer Mentor. An allied health practitioner and maybe a treating team will be involved at complexity levels 3 and 4. An AT Chat Peer Mentor can add value at any stage of service delivery within this team context.

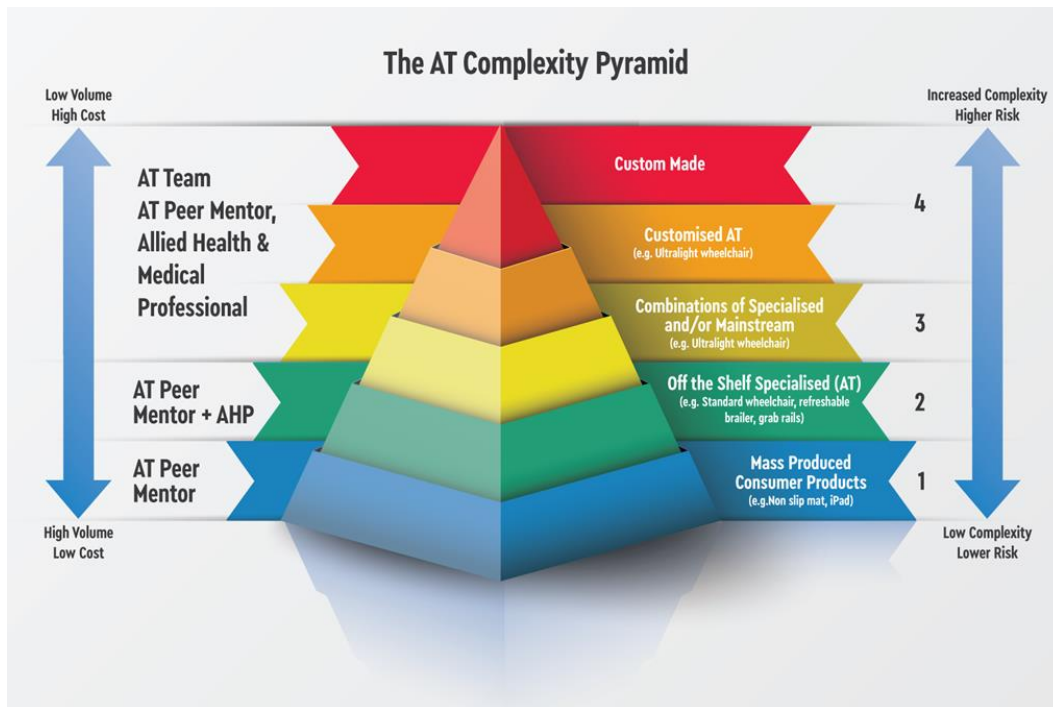
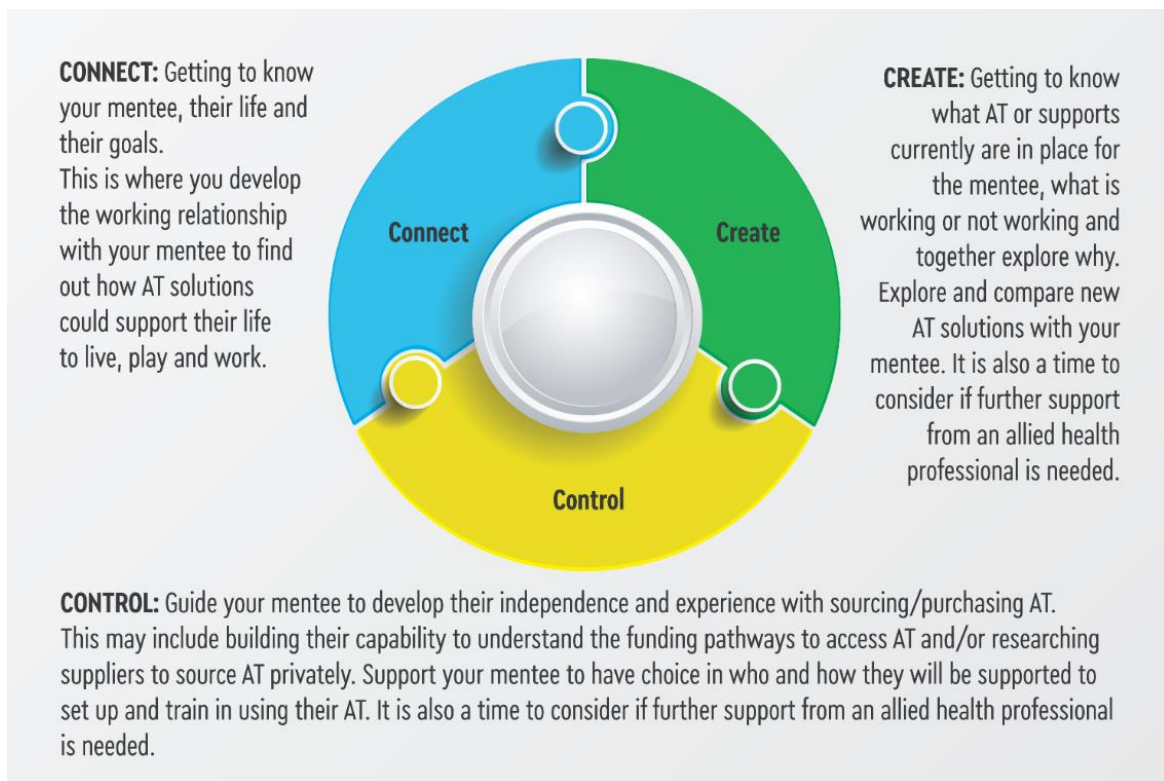


Figure 2 The AT complexity pyramid and NDIS complexity levels for AT Peer Mentors

Long image description: A pyramid with five levels to define the complexity levels of AT and who can provide support at each level. Base of the pyramid, Level 1: Mass produced consumer products e.g. non slip mat, iPad. AT Peer Mentor support. Level 2: Off the shelf specialised AT e.g. standard wheelchair, refreshable brailer, grab rails. AT Peer Mentor and AHP support. Level 3: Combinations of specialised and/or mainstream e.g. ultralight wheelchair. AT Peer Mentor, AHP and medical professional support. Level 4: Customised AT e.g. ultralight wheelchair. Level 5: Custom made. To the left of the pyramid is a vertical two-way arrow. The top of the arrow is labelled, low volume, high cost. The bottom of the arrow is labelled, high volume, low cost. To the right of the pyramid is a vertical two-way arrow. The top of the arrow is labelled, increased complexity, higher risk. The bottom of the arrow is labelled, low complexity, lower risk.

The AT Chat Peer Mentoring Model

The AT Peer Mentoring Model emerged from the co-design process as depicted in Figure 3.



3 Connect Create Control stages of the AT Peer Mentor Model

Long image description: Central image of three interlocking puzzle pieces. The puzzle pieces are labelled as follows, Connect, Create and Control. Surrounding the puzzle pieces are text to describe each stage of Connect, Create and Control. The text is as follows: Connect: Getting to know your mentee, their life and their goals. This is where you develop the working relationship with your mentee to find out how AT solutions could support their life to live, play and work. Create: Getting to know what AT or supports currently are in place for the mentee, what is working or not working and together explore why. Explore and compare new AT solutions with your mentee. It is also a time to consider if further support from an allied health professional is needed. Control: Guide your mentee to develop their independence and experience with sourcing/purchasing AT. This may include building their capability to understand the funding pathways to access AT and/or researching suppliers to source AT privately. Support your mentee to have choice in who and how they will be supported to set up and train in using their AT. It is also a time to consider if further support from an allied health professional is needed.

Development of AT Chat Peer Mentoring Learning Modules

AT Chat Peer Mentors and Mentees were encouraged to come into the Peer Mentor Program with their own everyday life context and mentorship context, shaped by personal experiences, life situations and personal factors. The final phase saw the ingredients of the AT Chat Peer Mentoring Model turned into 7 Learning Modules, reviewed by a panel of AT users, and used during the Pilot Program. These Learning Modules included:

1. What is Assistive Technology?
2. Understanding the Different NDIS AT Complexity Levels.
3. Overviews of Different Categories of Assistive Technology.
4. Accessing Information on Assistive Technology.
5. Making Informed Decisions on Assistive Technology.

6. Understanding Funding Pathways to Access Assistive Technology.
7. Delivering Support and Training as an AT Peer Mentor.

Evaluating the AT Chat Peer Mentoring Program Pilot: did it work?

Four peer mentors and eight peer mentees took part. We reviewed the impact and outcomes of AT Chat in the areas of co-design; of peer mentoring; and of AT service design.

Outcomes for Peer-Mentees

Mixed method analysis demonstrated the following results. All mentees identified an increased opportunity to be able to **access** unbiased information about assistive technology that was free from sales and marketing content. This was supported by mentees' demonstrated **choice and control** following the pilot, regarding their AT decision-making. Following the pilot, peer mentees felt more **empowered** to independently source information, construct an AT solution, and make informed decisions. Mentees also showed improved **general self-efficacy**, motivation, and belief in their ability to overcome challenges to achieve their goals following the pilot.

Outcomes for Peer-Mentors

Mixed method analysis demonstrated the following results. Peer mentors recognised the need for information that was unbiased and independent of commercial interest ('accessibility'). It was important for the peer mentors to understand the limitations of their role in supporting mentees in problem-solving and decision-making, contribute their own knowledge and experience, and understanding when to seek allied health professional input for matters beyond the scope of their AT peer mentor role ('competence'). Findings related to competence show that the training provided peer mentors with a fuller understanding of the complexity of AT knowledge and skills. Peer mentors were able to understand the limitations of their role and felt capable of knowing when to ask for further information or assistance from an allied health professional. Peer mentors reported feeling confident in their ability to co-ordinate mentees in their AT decision-making to enable them to achieve their goals ('co-ordination'). This required an ability to build the capacity of a mentee to make an informed decision, to seek further information, to present possible solutions, and be supportive during the AT service delivery steps, from delivery to setup, trial, training, follow-up and review. Peer mentors also reported an improvement in their overall efficiency of being able to support the mentees in their AT decision making, understanding the mentee's AT needs, and access to information and support ('efficiency').

The mentor / mentee team or dyad

Narratives of the peer mentorship dyads demonstrated a person-focused, goal-oriented, control-enabling set of conversations and actions (see Figure 4) and provided rich illustrations of the 'work of peer mentorship' and its outcomes. Mentors were rewarded when Mentees were observed 'to be

The team agreed that the pilot provided a more streamlined system and measures to prevent or detect possible non-use or abandonment of the purchased devices. They found mentees were efficient in sourcing information, and knowledgeable about when and how to access additional information from allied health practitioners. The small scale of this pilot enabled responsiveness to the needs of peer mentors and mentees to support good outcomes. The COVID-19 environment demanded flexibility as face to face interactions were not possible, and mentors experienced their own health and self-management challenges in relation to the pandemic lock-down.

Team members received positive feedback from peer mentors regarding their feelings of empowerment in being able to be a part of the peer-support process. Peer Mentors felt recognised and valued. An implementation analysis [15] found positive results on the indices of acceptability, adoption, appropriateness, feasibility, fidelity, penetration and sustainability. Cost of continuing and scaling this innovative program will depend on external factors.

Where to From Here? Broader impacts for AT Chat

AT Chat represents an important enactment of co-production in the assistive technology arena and has been recognised as a unique and contemporary service enhancement for its parent organisation, for West Australia, and nationally.

AT Chat are well positioned to be learning partners supporting other stakeholders to develop co-production skills and approaches. These include health service organisations looking to deliver the National Safety and Quality Health Service (NSQHS) Standards for partnering with consumers³. AHPRA regulation of allied health professionals also has codes and guidelines recommending the involvement of consumers in self-management and in broader systems and advisory roles⁴.

The AT Chat Community Peer Support Model

The Peer Mentoring model described in this report is evidence-based, aligned with peer mentorship and adult learning literature from fields of research such as mental health and community development. The model was demonstrated to build capacity amongst the AT community, has developed roles for peers based on AT service delivery steps, and has explored the potential of inclusion of a peer support workforce as key workers.

³ <https://www.safetyandquality.gov.au/standards/nsqhs-standards/partnering-consumers-standard>

⁴ <https://www.ahpra.gov.au/>

The AT Peer Mentoring Pilot Program

Based on sound foundations described above, the small pilot run in challenging conditions provides positive indicative evidence about the value of peer mentorship from the perspective of mentors, mentees, and the knock-on benefits for service systems. Mentor benefits include skill recognition; capability building; psychosocial benefits of lifelong learning; and potential career pathways. Mentees benefits include rich dimensions of connection and empathy with other AT users; the creation of richer support networks, and modelling of AT user capability including the visioning of future roles for the mentee as a mentor themselves. From a service setting perspective, having a peer mentoring thread delivers competency sharing; enhances wholistic team functioning; and provides a legitimised pathway for professional staff to knowledge- exchange with lived experience.

Learnings from the pilot indicated the need for increased emphasis on work-ready skills such as documentation, and an embedding of mentors within an ongoing supportive AT learning community. The next iteration of the AT Chat Peer Mentoring Program will, it is suggested, feature a) a guided learning series around record keeping and documentation aligned to the IT platform, and b) a stepped engagement with other peer mentors and AT practitioners through an AT Chat-based community of practice. This is to be stepped with fading intensity to provide supervision over the first 18 months of mentoring or longer if required. The next iteration is dependent of further funding.

Future pathways for peer support workforce include:

Inform research and development of products and services, market AT peer support services for quality improvement of existing services, and conducting consumer-relevant research (e.g. provide steering group members to university research initiatives).

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