

Empowering Communication: Duncan's Assistive Technology Journey

Meet Duncan

Duncan (a pseudonym) is a disabled adult with complex communication needs. He wanted more independence in expressing his choices and connecting with others. Our Assistive Technology (AT) team set out to find the best tools to support him in communicating effectively. This is the story of how a person-driven approach and collaborative, transdisciplinary teamwork transformed Duncan's communication—and his everyday life.

The Challenge

Duncan's care setting had its share of challenges: staff turnover, leadership transitions, and infrastructure limitations made implementing technology more difficult. The goal was clear—identify the right assistive technology to meet Duncan's needs while building staff confidence and consistency in supporting its use.

The Approach

Using Leonard Cheshire's evidence-based **Four Pillars of Assistive Technology** (developed by Dr. Julie Eshleman), the team conducted a holistic assessment across key areas:

- **Physical Infrastructure:** Were the tools accessible, reliably powered, and easy to incorporate into daily routines?
- **Financial Pathways:** Could the devices and software be supported and maintained over time?
- **Technology Leadership:** Were staff engaged, trained, and confident?
- **Knowledge and Skills:** Did the team have the understanding needed to support Duncan's communication goals and keep his technology running smoothly?

Our Assistive Technology team have developed an Assistive Technology Clinical Pathway, based on elements from the **HAAT** (Human, Activity, Assistive Technology, Context), **COPM** (Canadian Occupational Performance Model), **SETT** (Student/Service User, Environment, Tasks, Tools), and **ALP** for AAC (Assessment of Learning Process (ALP) for AAC) frameworks. This new tool, combined with their own experience over the last five years, informed the assessment and implementation model used to guide decision-making with Duncan on the kinds of technologies he might use best. The team gathered insights from Duncan's wider therapy team, engaged with his family, reviewed his person-centred plan, and worked closely with clinical professionals to ensure every decision reflected Duncan's goals and needs.

The Journey

To better understand Duncan's existing communication, the team began with a **Talking Mats** session. This accessible method revealed Duncan's ability to respond clearly with "yes" and "no," providing a crucial foundation for building his communication system.

He initially used a **partner-assisted auditory scanning book**, provided by the local speech and language therapist (SLT). While this offered a starting point, the content needed adaptation to match Duncan's interests and preferences. Inconsistent staff knowledge at first limited its impact, but the AT team offered training and in-the-moment support to build confidence and understanding across the care team. The next step was to introduce a **BIGmack single-message communicator**, enabling Duncan to call for support using a pre-recorded message. He then used physical gestures to respond to follow-up questions, such as "yes" or "no." Once staff became familiar with this setup, the team explored how to expand Duncan's voice.

After assessing his understanding of cause and effect and his ability to use multiple switches, the team introduced the **iTalk4**—a turning point in Duncan's journey. With four colourful, easy-to-press buttons, Duncan could now say:

-  "Yes"
-  "No"
-  "Excuse me!"
-  "Communication book, please"

These additions gave him the ability to ask, answer, and make requests in a way that reflected his preferences and daily needs. Recognising the importance of ease of use, the team ensured the device was always well-positioned, charged, and integrated into his routines, setting everyone up for success.

Support Pathways

As Duncan's use of AAC (Augmentative and Alternative Communication) developed, the team supported a referral to **Ace Centre**, a local AAC hub, through his SLT team. This gave Duncan access to specialised support and ensured a pathway for continued progress.

Later in the project, Duncan relocated to a service closer to his family. The AT team maintained continuity by staying involved during the transition—bridging communication between Duncan's family, care staff, clinical specialists, and the Ace Centre team. This collaborative and person-driven approach ensured Duncan's communication remained supported as his environment changed, keeping his goals at the centre of planning.

The Impact

Duncan's journey with assistive technology has had a meaningful and measurable impact. He gained greater control over his interactions, which helped reduce frustration and foster a stronger sense of autonomy. With access to tools that matched his communication style, he was able to express himself more fully and participate more actively in his daily environment. At the same time, staff across his care setting received formal training and developed confidence in supporting his AAC tools, leading to more consistent and person-driven support. Even during times of staff transition, a structured AAC plan helped maintain continuity in his care, ensuring that Duncan's communication tools remained an integrated and valued part of his routine.

Lessons Learned

Throughout this project, several important lessons emerged. One of the most valuable was the importance of identifying an **AT champion**—a committed staff member who could take ownership of technology use and support across shifts and transitions. Their involvement provided essential continuity and helped embed AT practices into daily routines. We also learned the importance of acting promptly; delays in assessments or decision-making can slow progress and risk losing momentum, particularly when service users are ready to engage. Finally, the success of Duncan's journey underscored the critical role of regular training and support for staff. When staff are confident and well-equipped, they are more likely to embrace assistive technology and use it consistently, helping to build a culture where communication is supported and celebrated every day.

The Future

Duncan's journey is only just beginning. Now confident using AAC, he's eager to explore more advanced communication tools. His story is a powerful reminder that when we provide the right tools, training, and support, disabled people can overcome communication barriers and build greater independence—**one button at a time.**

To find out about Leonard Cheshire's Assistive Technology programme, go to:

leonardcheshire.org/assistive-technology-leonard-cheshire