Digital Literacy & eSafety Education for Learners with Blindness and Low Vision



Phia Damsma

- Fellow University of Southern Queensland
- Fun fact: Author “Padam” Children’s Books

Whose Literacy?

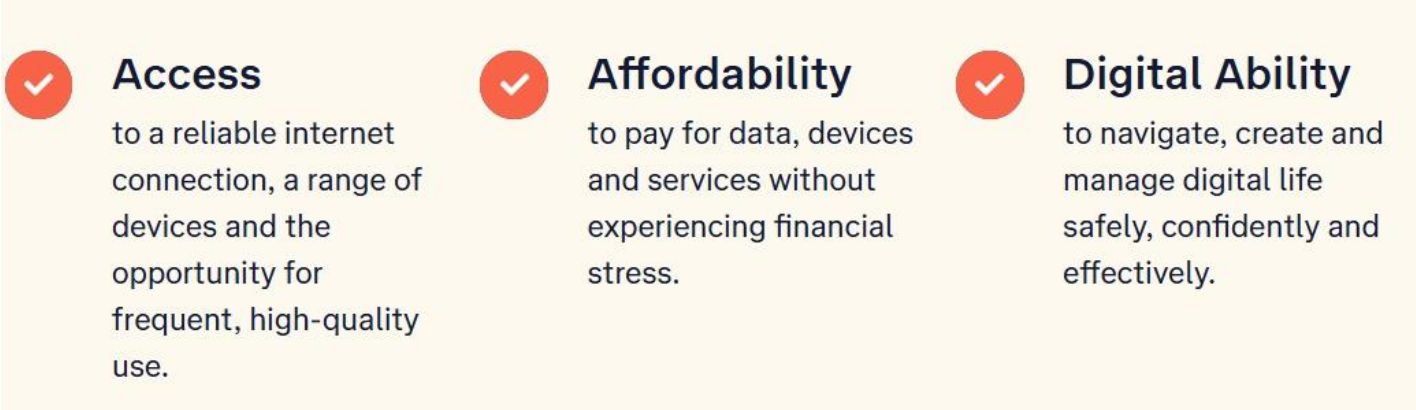
- Children and young people
- With blindness and low vision (BLV)
- Early years, Primary, Secondary settings
- Capable learners - in an inclusive setting!

Access Technology – Magnify, Touch, Listen

- Zoom: Scroll – lack of overview
- Electronic Braille output
- Screen reader on PC (NVDA/Jaws): Key-strokes (no mouse)
- Screen reader on touch tablet/smart phone: Finger gestures
- Audio output (text, images if formatted in accessible way)

Challenges for Inclusion

- Digital access skills need to be actively taught
- Not everyone has advanced skills
- Requires accessible content and resources.



Australian Digital Inclusion Index

Who are we?

- Sonokids Australia
- Developer “Ballyland” suite of accessible educational game software, apps and tactile learning tools
- that support Early Learning of digital skills by learners with BLV - essential technology skills, empowering them to be included in today’s connected world, education, communication and employment – digital inclusion
- Evidence based practice, and in consultation with educators, parents, and (young) people with BLV throughout the design stages.

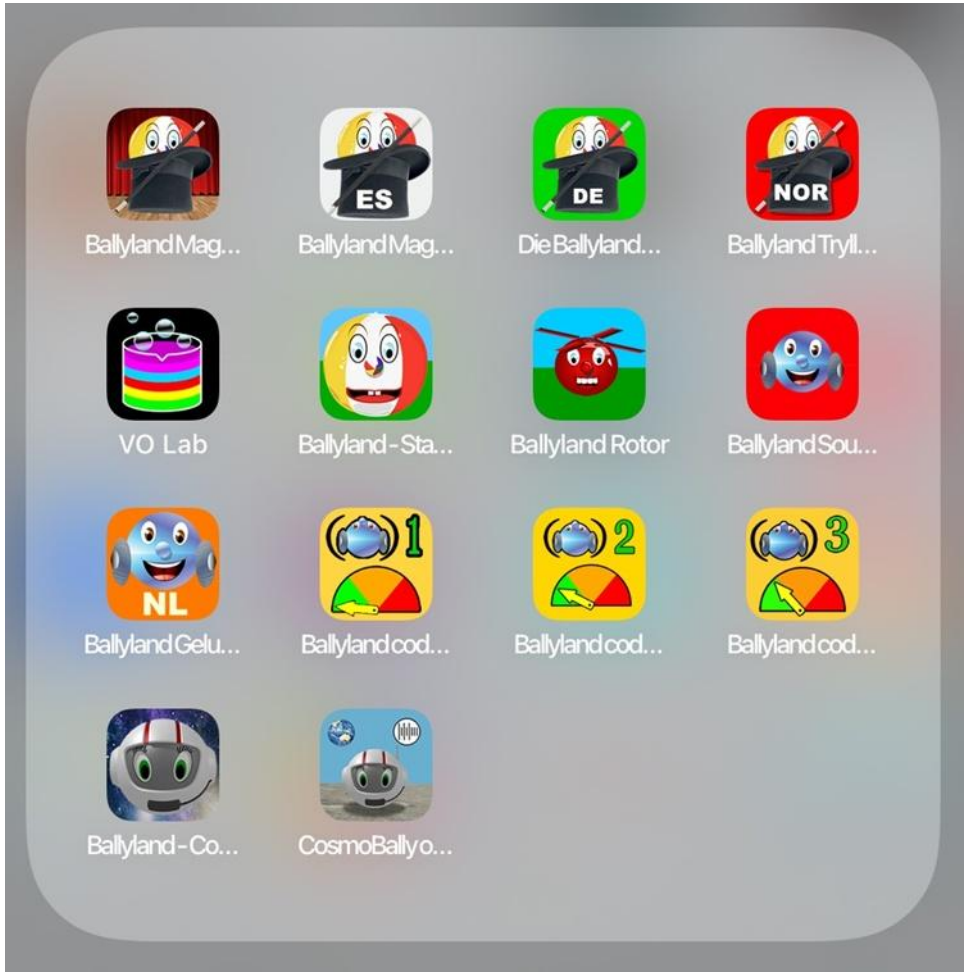
Introducing... Ballyland

Zero Project
AWARD WINNER



Ballyland eLearning Pathway

- iOS (14), Android (8)
- Global reach
- Playful learning (ages 4 and up)
- Familiar characters, sounds
- Self-voicing, audio based
- Simple images and animations



Ballyland Tactile Learning Support







Examples Digital Skills for Access - Ballyland

- Coding and Computational Thinking
- Mathematical grids
- Data sonification
- Using digital technology

> How to support our learners to stay safe online?



eSafety Education landscape in Australia

- Australian Government, eSafety Commissioner
- Australian Media Literacy Alliance Inc
- Private sector: i.e. banks
- Departments of Education: school programs, classroom activities



Barriers to access visual eSafety Education

eSafety is critical for all young people, yet many digital safety resources assume that users can access visual information such as pop-up warnings, website design features, visual indicators of trustworthiness, and social cues.

For learners with BLV, these visual cues may be inaccessible or interpreted differently, creating unique challenges in navigating online environments safely and independently.



Sonokids **Red Flags for eSafety** Project - Research

- 50 participants at the 2025 SPEVI Conference
- Educators, professionals working with learners with BLV, youth with lived experience of BLV
- Aim to identify key concerns and priorities related to digital safety and inclusion.

Lead researcher: Ass. Prof. Melissa Fanshawe
University of Southern Queensland.



Initial Findings – Paper submitted

Four key themes emerged

1. Navigating Online Risk Without Visual Cues
2. Privacy, Trust and Vulnerability in Digital Environments
3. Digital Safety is a Shared Responsibility
4. The Need for Accessible and Authentic eSafety Learning Resources



1. Navigating Online Risk Without Visual Cues

- One participant explained, “… there's a lot of visual strategies, but as soon as you bring in a screen reader, it won't have those same strategies."
- “The best strategy to stay safe is: *Don't click on anything*. But I am concerned that I may click on an Ad or Scam by accident”.



2. Privacy, Trust & Vulnerability in Digital Environments

- "It's really hard for me to tell if someone's recording me with a phone or something… I can't really tell who's recording me or not."
- “Kids with blindness and visual impairment are often more lonely or isolated, so may be more vulnerable and more likely to be targeted”



3. Digital Safety is a Shared Responsibility

- “The ‘I am not a robot’ test is way too hard for vision impaired people.”
- “Passwords are an ongoing challenge - toxic stress for me.”
- “Parents and teachers have an added layer of not understanding the access technology AND not understanding the internet.
- "Adults need to upskill themselves to have that capacity to actually teach eSafety (to learners with BLV)."



4. Need for Accessible and Authentic eSafety Learning Resources

- “There’s a gap between what is rolled out in schools for everyone and what our students with BLV need.”
- "There should be a game where the parents play with the child. That's how the parents learn."



Sonokids **Red Flags for eSafety** Project - App

- Ballyland educational game app (iOS/Android tablets, phones)
- Non-visual eSafety education: All essential clues/info in the audio
- To address specific challenges and relevant topics identified in the research.



Pilot: Ballyland Stop & Think 1

- Time for reflection and discussion
- Grow awareness about one specific issue of eSafety
- Age: from 5 years old
- Adult-led (trusted educator, parent)
- Conversation starters
- Where to turn if concerned or unsure
- Opportunity to assess level of understanding.

What is next?

- Continue **Red Flags for eSafety** research project
- Publish research papers
- Present at SPEVI 2027 Conference (18-20 January)
- Develop series of apps and learning materials within the national education curriculum, using evidence-based practice



Importance

- eSafety is important for all, but “our people” are vulnerable because staying safe often relies on being aware of visual cues
- Impacts young learners with BLV, AND seniors!



Collaboration

Evidence based, Sonokids can develop authentic learning experiences and practical strategies for learners with BLV to navigate digital environments safely and confidently.

Sonokids is interested in building international collaborations and would welcome opportunities to exchange ideas, share findings, and explore potential funding partnerships in this area.



Please reach out!

- Email: support@sonokids.org
- Visit Sonokids website www.sonokids.org



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