Australia and New Zealand Accessible Graphics Group (ANZAGG)  
2023 Annual General Meeting  
Minutes

Date: Tuesday 9 May 2023  
Location: Rydges Sydney Central

# 1. Personnel

## 1.1 Present

Leona Holloway (Monash University) – meeting chair

Annette Sutherland (NSW Department of Education) – meeting minutes

Ada Chow (Vision Australia)

Alice Mussard (SASSVI)

Chantelle Griffiths (Tactile and Technology Literacy Centre)

Chelsea Bartlett (Consumer)

Debra Lewis (SVRC and Department of Education Vic.)

Debra Murphy (Vision Australia)

Gab DeCastro (NSW Department of Education)

Garth Humphreys (Consumer)

Jack Tyrell (Centre for Inclusive Design)

Jonathon Godfrey (Consumer; Blind Citizen NZ)

Jordie Howell (Consumer; Vision Australia; SVRC)

Kate Stephens (Consumer)

Maria Stevens (Braille Authority New Zealand)

Nicole Theissen (Vision Australia)

Peter Cracknell (QUANTUM)

Peter Le (Vision Australia)

Sarah Hayman (SVRC)

Scott Erichsen (Consumer)

Terry Truong (Vision Australia)

## 1.2 Apologies

Trish Bishop (BLENNZ)

Claire Garrett (childsPly VISION)

Kerri Weaver (Eyes & Independence)

Kirsten Ellis (Monash University)

# 2. Confirmation of Agenda

# 3. ANZAGG Annual Report – Leona Holloway

Refer to [Appendix A](#_Appendix_A:_ANZAGG).

Moved by Sarah Hayman and seconded by Deb Lewis.

# 4. Report from member organisations

## 4.1 Statewide Vision Resource Centre – Sarah Hayman

Refer to [Appendix B](#_Appendix_B:_Statewide).

## 4.2 childsPly VISION – Claire Garrett

Refer to [Appendix C](#_Appendix_C:_childsPly).

## 4.3 Vision Australia – Peter Le

* Transcription unit is very busy
* Still using swell paper however doing a lot more with UV printing
* Producing little books, braille rulers and protractors with the UV printer
* UV printer allows more layers, colours and textures
* Have produced a book of children’s diagrams
* Doing more accessible artworks, board games, card games and photos for clients
* Making seed library kits

## 4.4 Monash University

Refer to [Appendix D](#_Appendix_D:_Monash).

## 4.5 Quantum RLV – Peter Cracknell

Peter spoke about the highlights of new technology on display at the recent CSUN Conference.

[Tactonom](https://www.tactonom.com/en/tactonom-reader-en/) reader by Inventivio:

* Combines tactile graphics with a camera, finger tracking and audio output. The system will announce context and structure when the diagram is first placed on the platform. Further detail is given in response to finger position.
* shows great promise for STEM related diagrams
* Good for high quality tactile graphics

[Dot Pad](https://pad.dotincorp.com/) refreshable tactile display by Dot.Inc

* On display at Round Table
* Works in conjunction with an iPad app
* Not available for purchase in Australia just yet

[Monarch](https://www.aph.org/meet-monarch/) refreshable tactile display by APH

* still in prototype

# 5. ANZAGG Terms of Reference

The ANZAGG Terms of Reference have been updated and approved for use by the Round Table Executive. The main changes were to more clearly define membership, voting and executive committee duties.

Refer to <https://printdisability.org/wp-content/uploads/2023/05/ANZAGG-TOR-2023-05-1.doc>

We may like to make further changes to the Terms of Reference, however it was felt that this would be better to be led by the ANZAGG committee once it is in place.

# 6. Elections

## 6.1 Nominations

Nominations were sent in writing to Melissa Fanshawe and Peter Le prior to the meeting.

The following nominations were received:

Chair – Leona Holloway, Monash University – nominated by Madhuka de Silva (Monash University)

Committee members:

* Chantelle Griffiths, Tactile and Technology Literacy Centre (TTLC) - nominated by Leona Holloway (Monash University)
* Debra Murphy, Vision Australia - nominated by Peter Le (Vision Australia)
* Trish Bishop, BLENNZ - nominated by Meredith Pitcher (BLENNZ)

There was a call for further nominations.

No further nominations

## 6.2 Elections of Chair and Executive members 2023-2025

The nominees were duly elected.

# 7. Future Priorities

Discussion of priorities for future ANZAGG activities.

Refreshable tactile displays:

* Kate Stephens was impressed with [Graphiti](http://www.orbitresearch.com/product/graphiti/) display. More tactile displays will be coming and there is more to be done in Refreshable Braille Displays for all student subjects, so they don’t need to carry lots of books. Perhaps ANZAGG could look into the possibility of increasing the potential of Refreshable Braille Displays with more content
* Peter Cracknell agrees with Kate. This is an opportunity to collect a lot of feedback for the designers of this technology, to make it more meaningful for our members
* Leona mentioned that the [Braille File Formats (ebraille) group](https://daisy.org/activities/projects/ebraille/) has a [Tactile Graphics Taskforce](https://github.com/daisy/ebraille/wiki/Tactile-Graphics-Taskforce-Meeting-Notes) working on tactile graphics for refreshable braille displays. They meet in the middle of the night for us but also work through email and GitHub. Please join if you are interested in this work.
* Scott Erichsen commented that he is seeing more Braille Displays available for Australian students to use at home through the change in NDIS funding for equipment.

User drawing/creation:

* Jonathon Godfrey encouraged people to be thinking about how blind people can be involved in the solutions for the graphics they use. At the moment they are dependent on other people providing information. Blind people need to ask, “How can I do this myself?”. He wants to see more solutions put in the hands of kids, with the help of their parents. We have tactile graphics available, though the blind child needs to be able to put this into a format they can use. However, the kids don’t have the equipment at home to make this possible. How are we going to make this happen?

# 8. Other Business

Nil

# 9. Meeting Close

# 10. Accessible Graphics Show, Touch and Tell Session

Attendees were invited to bring along samples of their accessible graphics and equipment to show, touch and tell. Items on display included:

* 3D printing pen for creating quick temporary tactile graphics (Leona Holloway, Monash Uni)
* 3D printed building models of Werribee Mansion, along with audio touch buttons (Leona Holloway & Dagmar Reinhardt, Monash & Sydney Unis)
* 3D printed tactile icons (Leona Holloway, Monash Uni)
* Thermoform and laser cut diagram (Claire Garrett, chidsPly VISION)
* 3D printed maths and science models (Sarah Hayman, SVRC)

# Appendix A: ANZAGG Annual Report, 2023

The Australia and New Zealand Accessible Graphics Group (ANZAGG) is a subcommittee of the Round Table on Information Access for People with Print Disabilities. The primary function of ANZAGG is to serve as a forum for sharing information about accessible graphics amongst its members.

## Membership and Communications

ANZAGG has been in operation since early 2016. Its Terms of Reference were first approved by the Round Table in November 2015, however elections have not been held and it has not had official office bearers. The Terms of Reference were updated in 2023 and we plan to elect our first ANZAGG Executive Committee this year.

The ANZAGG listserv is located at <http://www.freelists.org/list/accessiblegraphics>. It has more than 75 subscribers however it is very quiet, used mainly for announcements rather than discussion.

The ANZAGG Facebook group at <https://www.facebook.com/groups/909719082474080/> remains steady with around 350 members. 80% of the Facebook group members are female, 63% are from Australia, and 12% are from New Zealand. While it is intended as a discussion group, there are only two people who regularly post to the ANZAGG Facebook group and questions can sometimes go unanswered. We would like to seek the assistance of all members in reinvigorating the group online.

ANZAGG has a set of web pages on the Round Table website at <http://printdisability.org/about-us/accessible-graphics/>. Minor updates have been made to the pages to keep them up-to-date. In the past year, there have been just 400 visitors to the ANZAGG home page but there are have also been 1500 visitors to the 3D printing guidelines page and 1200 visitors to the Accessible Graphics guidelines page.

## 3D Printing Group

The ANZAGG working group on 3D printing for touch readers has continued to meet monthly via Zoom. The group has 40 members, mainly from educational vision support in Australia and New Zealand, but also with some regular attendees from overseas. In the last year, our guest speakers have included Caroline Karbowski from See3D in the USA, Dennis Damsma from Toyota Australia, Ka Li from NNELS in Canada, David Harraway from Yooralla on 3D printing for creating customised occupational therapy tools, and Abigale Stangl from the University of Washington.

## Workshop

The first ANZAGG workshop, held online as part of the 2022 Round Table Conference, was a great success with a host of local and international presenters providing insights into a wide range of methods for creating accessible graphics. Attendees asked lots of questions and there was enthusiasm for more workshops in the future.

- Leona Holloway, March 2023

# Appendix B: Statewide Vision Resource Centre Report

## 3D printing

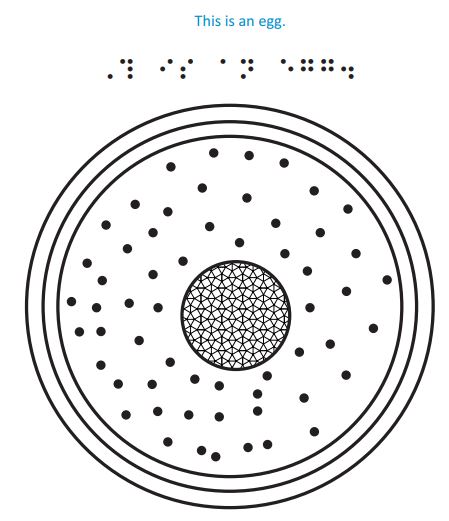
3D printed resources have been incorporated into SVRC’s Alternative Format provision for students in Victoria. We have recently released a new catalogue of available 3D models in spreadsheet format. This allows for filtering by Year Level and Subject, as well links to the Australian Curriculum and model files (should schools have a 3D printer of their own). Requests for and use of 3D models has increased over the past few years as Visiting Teachers and school staff learn what is available and feedback what they’d like to use with their students. Models for Maths and Science are the bulk of what is available, but there are also some models for History, Geography and Braille Literacy.

## Tactile diagrams

Occupational Therapy students from Monash University, in conjunction with staff of the Statewide Vision Resource Centre, developed a handbook for educators entitled, "[Relationships and Sexuality Education for Students with Vision Impairment](https://static1.squarespace.com/static/5fbb2da57472891c5bca66ea/t/616ca200e024a16fa493ea59/1634509313765/Relationships+and+Sexuality+Education+handbook.pdf)". This is available for free download as a pdf or docx from the SVRC website.

To support this resource, staff from SVRC have recently developed a booklet of tactile diagrams which represent reproduction (e.g. male & female reproductive systems, menstruation, fertilisation, twins, gestation, birth etc). Diagrams are labelled in contracted braille but also feature the print words for braille labels in a light blue colour (see example below). The blue print labels allow sighted teachers and others who are unfamiliar with braille to support the teaching and learning for the student who is blind. Printing these diagrams in colour to swell paper and running these through a PIAF machine will raise the black-coloured objects (images and braille), but not the blue-coloured objects. Diagrams that are relevant to the teacher's program can be selected and produced in tactile format efficiently at the school.

The diagrams will soon be available as a free downloadable.



# Appendix C: childsPly VISION Report 2023

childsPly VISION is a small independent Australian business developing and producing high-quality, affordable tactile graphics and manipulatives for children who are blind or have low vision.

Our hallmark of tactile resources remains the laser cut modular plywood grid system that services our widely used braille maths and music kits, as well as braille word games and most recently, the imaginative Waterscape model kit. We are continually extending our range of tactile teaching aids, games and graphics, often in response to direct requests from teachers and parents.

Our tactile graphics are vacuum formed from robust 0.5mm HIPS plastic sheet, creating representations of objects and scenarios in 3D relief and more generally in a stylized contour relief designed to complement 2D representation in embossed or PIAF media. HIPS Kits include a primer for teaching tactile graphicacy, simple picture story books, contoured 3D landforms, diagrams commonly encountered in school humanities curricula and general knowledge topics such as the diversity of forms taken by trees out of hands reach.

Dr Claire Garrett  
childsply@gmail.com

# Appendix D: Monash University Report to ANZAGG 2023

Monash University’s Inclusive Technologies group is a growing team of researchers exploring the use of new technologies for people with disabilities, including access to graphics for people who are blind or have low vision. Of particular note, A/Prof Matt Butler leads projects relating to art accessibility, Leona Holloway focuses on 3D printing for touch readers, Ruth Nagassa and Samuel Reinders are exploring interaction with 3D printed models and Madhuka de Silva is investigating technology-based solutions for non-visual learning of human movement and dance moves. We take a community-led approach to research, using participatory design and co-design.

In 2022 and 2023 we have enjoyed the return to face-to-face activities so that we can share our work in hands-on sessions. In partnership with the Bendigo Art Gallery, we created multi-sensory art experiences for two dedicated “Access Elvis” sessions as part of their blockbuster exhibition, Elvis: Direct from Graceland. We also took our work to the Statewide Vision Resource Centre science discovery days and technology expo, and to Sydney for a professional development session at NextSense.

With the aim of to raising awareness about accessibility and inclusion, we have had our work on display at large scale events for the general public. These events have included the Monash Open Day, Monash Maker Faire and Melbourne Knowledge Week.

Our research publications over the past year relating to accessible graphics have included:

* [TactIcons: Designing 3D Printed Map Icons for People who are Blind or have Low  Vision](https://doi.org/10.1145/3544548.3581359) by **Leona Holloway, Matthew Butler and Kim Marriott, 2023**
* [3D Building Plans: Supporting Navigation by People who are Blind or have Low Vision in Multi-Storey Buildings](https://doi.org/10.1145/3544548.3581389) by **Ruth Nagassa, Matthew Butler, Leona Holloway, Cagatay Goncu and Kim Marriott, 2023**
* [Physicalisation to Support Graphical Content Access by Blind and Low Vision Users](https://scholar.google.com.au/citations?view_op=view_citation&hl=en&user=dhvbWMIAAAAJ&citation_for_view=dhvbWMIAAAAJ:Se3iqnhoufwC)  
  **by Matthew Butler and Leona Holloway, 2023**
* [Animations at your Fingertips: Using a Refreshable Tactile Display to Convey Motion Graphics for People who are Blind or have Low Vision](https://dl.acm.org/doi/10.1145/3517428.3544797) by **Leona Holloway, Swamy Ananthanarayn, Matthew Butler, Madhuka de Silva, Kirsten Ellis, Cagatay Goncu, Kate Stephens and Kim Marriott, 2022**

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Inclusive Technologies, Faculty of Information Technology, Monash University  
<https://www.monash.edu/it/hcc/inclusive-technologies>