



September NEWSLETTER

Kia ora koutou,

As we head into the second half of Term 3, I hope you've had the chance to catch your breath amidst the whirlwind of activity. We know for many, change fatigue may be setting in due to the constant shifts in the Curriculum, NCEA Achievement Standards, and NCEA Vocational Education. Please know that TENZ is here to support you through these transitions, by providing resources, guidance, and a community to help navigate this evolving landscape.

Our kaiārahi, Pip and Ruth, have been working tirelessly to provide much needed support to our kaiako across the motu. If you need any assistance, whether it's advice on curriculum implementation, new standards, or just a sounding board, reach out to them at kaiaraahi@tenz.org.nz

*Mā whero mā pango ka oti ai te mahi
With red and black the work will be complete*

Additionally, check out the fantastic resource designed around the ever-popular Bird of the Year competition now in the TENZ Resource Store. This resource is perfect for integrating into your classroom, engaging ākonga with both technology and kaitiakitanga. Check out the article later in the newsletter to find out more.

The upcoming Vocational Education changes are a key focus for us, and we understand the concerns they bring. Rest assured, we are monitoring these developments closely and will continue advocating for your interests.

If you have ideas, feedback, or questions, we want to hear from you, please don't hesitate to reach out to us at support@tenz.org.nz.

Ngā mihi nui,
Hamish Johnston

Heamana
Chair
Poutakawaenga mō te Pūtake Rangatiratanga
Facilitator for the Rangatiratanga Principle

Technology in STEM: Essential skills for the modern world

Technology in STEM: Essential skills for the modern world

Did you know almost a quarter of jobs are expected to be fundamentally transformed by technology in the next five years? Technology Education New Zealand chair Hamish Johnston and kaiārahi Ruth Lemon and Pip Osborne discuss delivering quality STEM education in Aotearoa New Zealand through the technology learning area.

Unlike some international models that separate STEM (science, technology, engineering, maths) subjects, in Aotearoa New Zealand our curriculum supports effective interdisciplinary learning. One point of difference is the New Zealand Curriculum's technology learning area, which includes guidance on design and computational thinking as well as other engineering skills and knowledge. With its focus on applying learning from a range of disciplines to design innovative outcomes, many teachers see it as a gateway

into integrated STEM learning. Technology Education New Zealand (TENZ), one of four technology focused networks of expertise, have played a critical role in championing the place of technology in STEM. This has involved fostering the development of technology education, supporting professional growth, and building resources that enable kaiako to deliver effective STEM education. TENZ heamana (chair) Hamish Johnston is a man with many hats. In addition to being chair, he holds teaching



Check out the latest Education Gazette article which includes our Heamana | Chair Hamish Johnston and our Kaiārahi Ruth Lemon and Pip Osborne!

The Education Gazette will be available in schools, or you can read the article [here](#).

Information Sheets

As part of our continued efforts to support you, just wanting to remind people of our Information Sheets — designed to provide practical tips, teaching strategies, and insights across a range of topics.

Check out the STEAM/STEM and more here: <https://tenz.org.nz/information-sheets/>



Events

Remember to keep an eye on the TENZ Events Calendar where you will find TENZ events, National events, and much more relevant to educators of technology. Many of our National Events have materials that highlight national days and weeks of importance. They explain how national events link to The New Zealand Curriculum or to Te Marautanga o Aotearoa and provide ideas, resources, and tools to help schools get involved.

Taima ki te kōrero

VET Reform Webinars

Join us to discuss the Government's proposed VET reforms (vocational education and training). With the submission deadline of September 12th fast approaching, this event is designed to support you in preparing your submissions. Are you free to talk with TENZ kaiārahi and guest experts on Sep 5, 5:30-6:30pm?

5 September 2024, 5:30-6:30pm

Suitable for secondary teachers or anyone who is involved in vocational education.

Register [here](#).





**Taima ki te
kōrero**
VET Reform Webinars
5 September 2024
5:30-6:30 PM

Last Month's Taima ki te kōrero

If you missed last month's Taima ki te kōrero 'NCEA Level 1 External Essentials' by Pip Osborne be sure to check it out on our Youtube channel [here](#).

Wednesday Webinar

LUMA Project Case St



WEDNESDAY WEBINAR 

Developing Your Professional Skills

**Luma Project
Case Study**



DATE
25th Sep
TIME
4-5 pm

Presenter
Rebecca Hembrow



Local curriculum is the focus, how to get projects off the ground wherever educators are starting small, medium and large projects. Examples of over 6 projects, various sizes. Luma is the largest local curriculum project I am involved with [for the past 10 years]. An opportunity to share how to make educators lives easier and enriched by involving local curriculum in Technology projects from workshop, DVC to digital.

25 September 2024, 4-5PM

Suitable for: All education providers.

Register [here](#).

Last Month's Webinars

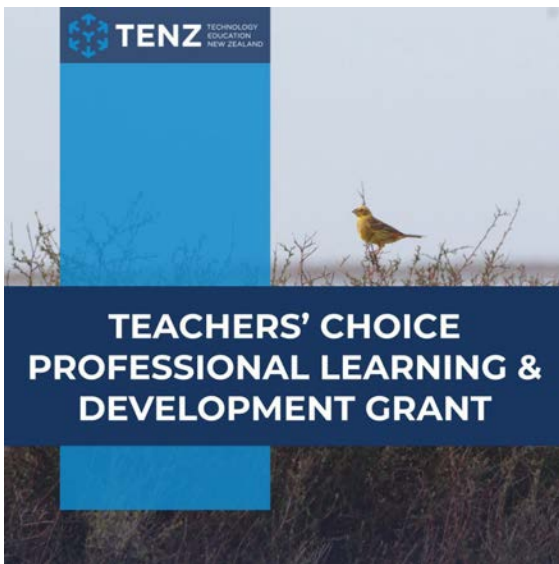
If you missed last month's webinar 'The International Antarctic Centre' by Bu Windsor be sure to check it out on our Youtube channel [here](#).



Events

Teachers' Choice Professional Learning and Development

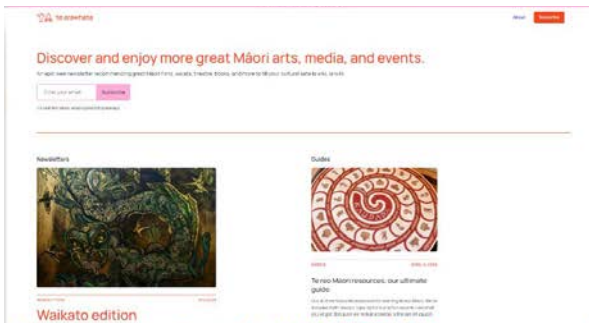
TENZ has funding to support teachers to attend/host PD that benefits technology teaching and learning. Applications for this fund are now available. Click [here](#)



Updates

[Te Arawhata](#)

A newsletter put together by a trio to make it easy for you to discover more Māori arts, media, and events... Absolutely fabulous! Some of the newsletters are regional, so the events they're discussing are not just in Auckland or the major city centres... Bonus!



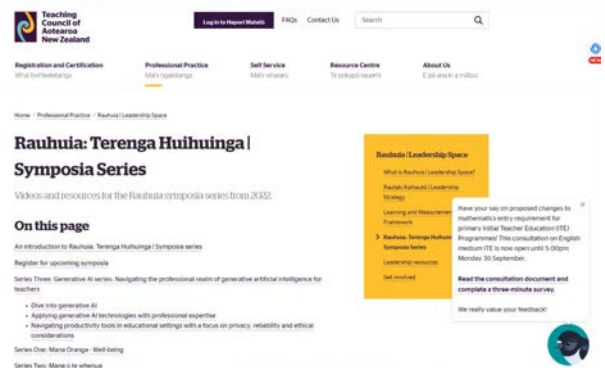
[Ōkupu - A translating service](#)

Have you ever wanted to know 100% that what you're trying to say in te reo Māori means exactly what you hope it means? A professional service so it has a price, but you can get an immediate quote so you can decide for yourself if it's worth it =)



[Rauhuia: A Teaching Council Webinar Series](#)

The Teaching Council webinars / symposia are exploring Generative AI for Teachers.



Jobs

TENZ members can now advertise Technology job vacancies in their schools and/or search for vacant positions. Go to our [website](#) or click [here](#).

Job Vacancies

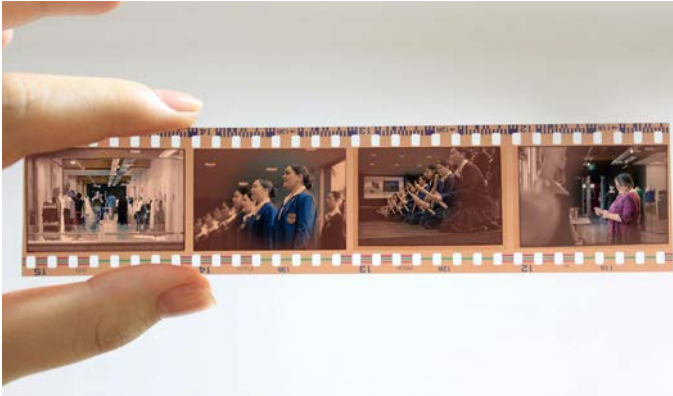
TENZ members, contact us to advertise on this page.

REMOTE POSITIONS ONLY

FIXED TERM
 FULL TIME
 PART TIME
 PERMANENT
 VOLUNTEER



Updates



Kohara2Shine 2024

Highlighting Student Innovation and Educational Collaboration in Wellington

The Kohara2Shine Wellington Secondary School Students' Product Design Exhibition, was formally opened with a mihi whakatau last Friday afternoon, 30 August 2024, at Massey University's Wellington campus, and brought together a diverse range of MPT student work. Now in its second year, the exhibition saw participation from ten secondary schools, an increase from the seven that took part in the inaugural event in 2023.

This exhibition serves as a platform for showcasing the creative and technical skills of Wellington's secondary school students while also emphasising the collaborative nature of Technology education. Teachers play a critical role, not only guiding students but also contributing to the broader educational community. Nan, who had the initial dream, underscored the importance of this collegiality, noting, "We make a point of knowing each other well." This spirit of collaboration is evident in the connections formed between educators, many of whom have worked together in various capacities over the years.

Expanding the Scope: Building Connections Between Secondary and Tertiary Education

Kohara2Shine aims to strengthen the links between secondary education and higher education institutions. Hosted by Massey University, the exhibition provides a venue for students to display their work within a university setting, thus bridging the gap between secondary and tertiary education. Nan's long-term vision is to see this exhibition evolve into a national event, drawing comparisons to the prestigious World of Wearable Art (WOW). The goal is to include work from across all Technology domains—DVC, MPT, and DT—and to incrementally grow the event each year. In Nan's words - Give me a logistical nightmare of how to display it, I dare you! In the end, it's all about celebrating the successes of our rangatahi. Teenagers get a bad rap sometimes. Let's celebrate them!"

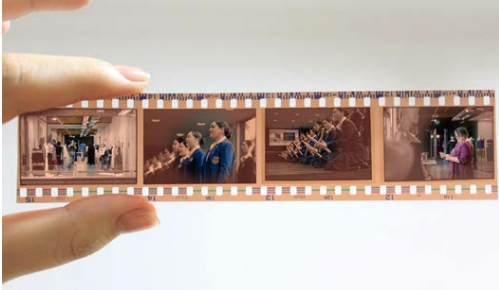
Support from TENZ and Massey University

The continued success and growth of Kohara2Shine are supported by TENZ and Massey University. TENZ's involvement provides crucial backing, enabling the event to expand and gain visibility. Nan expressed appreciation for this support, noting that it makes the organisational challenges of the exhibition more manageable. The future plans include aligning the event with the TENZ conference, potentially increasing its reach and impact.





Updates



Spotlight on Kohara2Shine

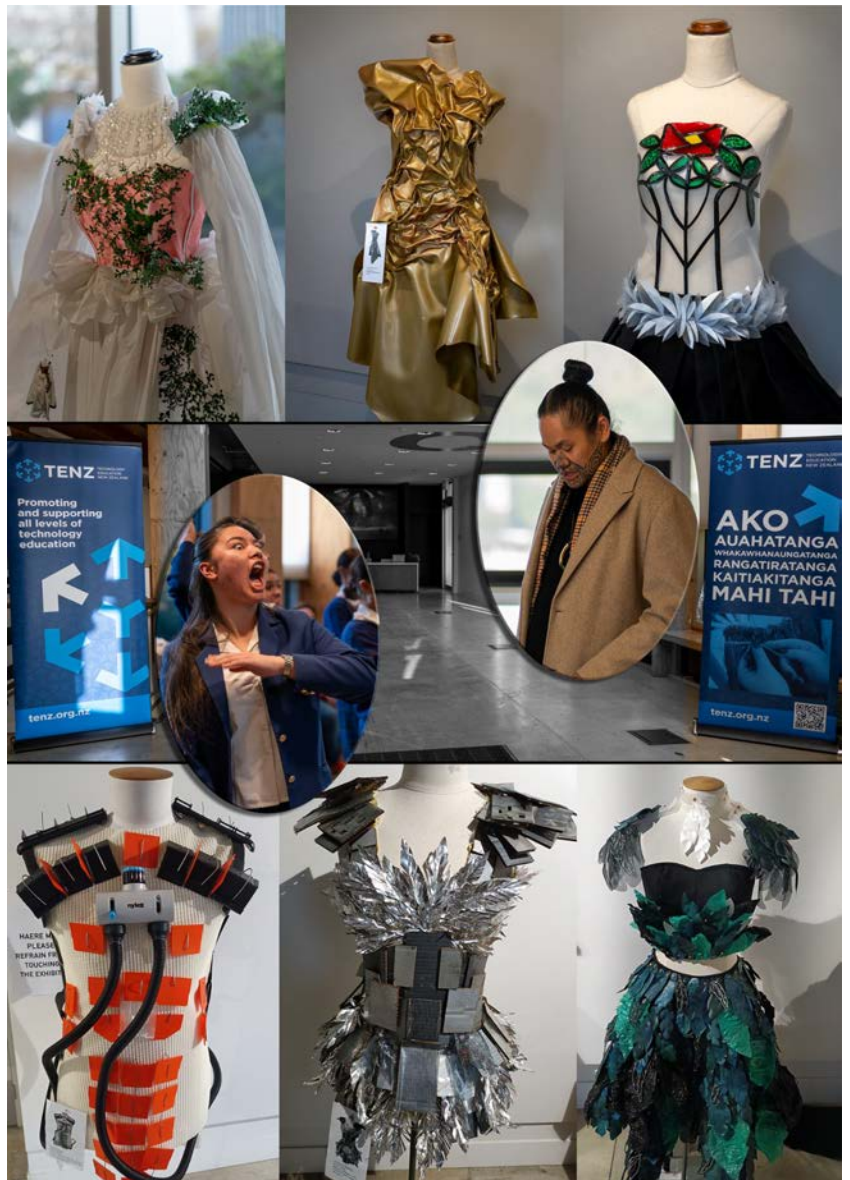
Exhibition of Wellington Secondary School Students' Product Design cont.

Are you in Wellington? Come and check it out!

The exhibition is open to the public from Monday, 2 September, to Friday, 6 September, from 9 am to 4 pm at Block 12, Te Ara Hihiko, Massey University Wellington campus.

The works on display offer a wide range of perspectives and techniques, from garments made from recycled suits to tukutuku panels exploring themes of identity and connection, from New Zealand witch dresses with embroidered falling pōhutukawa blossoms, to an intricate etching of a fish, mounted on wood.

Kohara2Shine continues to grow as an important event for showcasing student innovation in Technology education. As it expands, the exhibition aims to foster stronger connections between secondary schools and universities while highlighting the creative and technical achievements of students in the Wellington region.





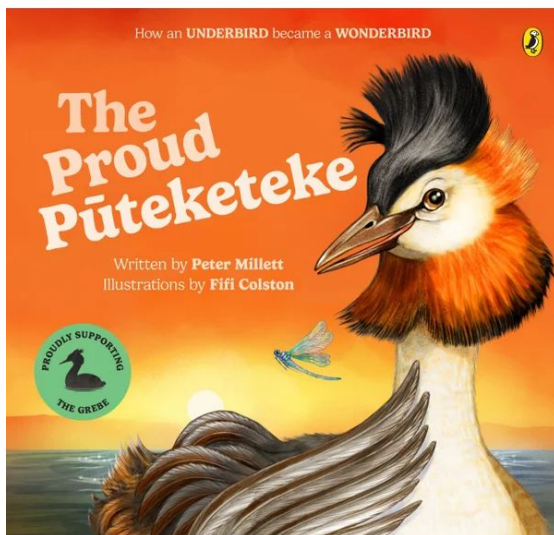
Resources

EOTC Lucky Draws

As teachers we are always looking for something new and exciting to do with our tamariki. Each month we will share a suggested place to visit in Aotearoa for classes - think local curriculum, authentic contexts, heritage, Te Ao Māori, industrial processes!

If you have any suggestions please email support@tenz.org.nz - remember to tell us WHY you think this is an awesome resource - and you'll go into the draw for a prize that month!

September's Lucky Draw giveaway winner will receive a copy of The Proud Pūteketeke, in honour of the 2023 Bird of the Year. Use this to inspire your students as they try out our newest TENZ resource, A Restful Solution- A DVC Unit Plan inspired by Bird of the Year. You can find it at <https://shop.tenz.org.nz/>



Recommended EOTC Venue

A gem in New Plymouth, Jewel and the Jeweller is more than just a jewellery shop, showcasing handmade jewellery by original NZ makers. Consider bringing your older ākonga along to look at exhibits or perhaps speak to the artist in residence. Jewel and the Jeweller also offers a variety of jewellery making workshops teaching the

skills required to make a piece of sterling silver jewellery. Check out the Jewel and the Jeweller at <https://www.thejewelandthejeweller.com/>



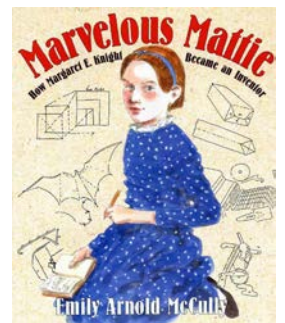
Interesting Site

Love Letters for Computers <https://www.helloruby.com/loveletters> is a fantastic resource for primary educators, developed by Linda Liukas, the author of the Hello Ruby series of books. Liukas wants teachers to see computer science the way she does: not dry, mechanical, and boring, but instead playful and gentle! The site has teacher videos, student videos, classroom activities and more. While not specifically made for New Zealand audiences, this material absolutely links to our Digital Technologies curriculum, and will help teachers see computer science in a whole new light.

Links to Literacy

Last month we showcased Jenna the Creative Engineer by Prof. Higazi. This month we review Marvelous Mattie. How Margaret E. Knight Became an Inventor by Emily Arnold McCully. This book is suitable for 7-11 year olds. It describes the life of Margaret Knight and some of her many inventions (kites, sleds, safety guards for workers and even square bottom paper-bags). Simple illustrations with design sketches on every page.

Suitable for primary students, especially girls.





Resources

TENZ Resource Store

Check out the latest updates in our TENZ resource store: <https://tenz.org.nz/resource-store/>

Unit Plans

A Restful Solution- A DVC Unit Plan inspired by Bird of the Year

In this unit New Zealand native birds inspire ākonga to design restful solutions within a school environment. Students will explore design concepts by abstracting bird characteristics and applying these to create functional, aesthetic, or symbolic elements. This project builds on prior knowledge in Design and Visual Communication, specifically in sketching, modelling, and using digital design tools. It has been prepared by an experienced DVC teacher and is targeted at curriculum level 5.

Available at <https://shop.tenz.org.nz/>



rapidly changing world. Seven topics are covered, including sustainable school architecture, wearable well-being devices, and smart cities. For each topic, five tasks are provided which emphasise different skills such as drawing, writing, research, critical thinking, and presentation.

Suitable for years 9-13, these activities are self-contained and could be run by either a classroom teacher or reliever.

Find it at <https://shop.tenz.org.nz/>



TENZ Youtube Channel

Our YouTube channel is where you'll find all our conference videos, recorded webinars, and other video resources we are producing. Check out some of the new videos released over the last month.

Check them out here: [TENZ - YouTube Channel](#)



Activities

Designing for Tomorrow: Scaffolded design activities

This resource provides scaffolded design exercises that help ākonga think deeply and creatively, developing outcomes against the backdrop of our



Resources

Happy Phones DIY - Waikato District alert!

Have you heard of Happy Phones? It's a box of pre-loved smartphones, designed for offline use in the classroom - that could be taking photos or videos, coding apps, or plant & bird identification. You can even make your own box, using the FREE guides at diy.happyphones.nz which TENZ sponsored.

If you would like some support with making a Happy Phones kit, register your interest at <https://forms.gle/fCqT5Foi9gg2ut9c7> - there is currently funding available for schools in the Waikato District!



Research

TENZ Supporting Presentation of Research

The postgraduate team of the TENZ Council has supported a number of early researchers including teachers. If you need any assistance in undertaking **research in the technology postgraduate field** please reach out support@tenz.org.nz

Need Research Participants?

If you are completing your master's or doctorate and need to source data, TENZ is happy to assist you to find participants, as long as you agree to share a summary of your findings with our members.

Secondary School Teachers Required

Title of the Research Project: The role of emotions in teachers' well-being and their relationships with students.

Researchers from the University of Auckland Faculty of Education and Social Work are currently recruiting secondary teachers who currently teach years 9-13 to participate in research investigating emotional intelligence and well-being.

The research involves a short 10-15 minute questionnaire about your experiences. To thank you for your time and effort you may enter a draw for a chance to win one of ten \$50 Prezzy smart eGift cards.

Scan the QR code on your phone or iPad to be taken directly to the online survey. Or click [here](#).



For more information, please contact the Research Coordinator Rochelle Wong (rochelle.wong@auckland.ac.nz).



Research

TENZ Postgraduate Scholarships

The TENZ Postgraduate Scholarships were established in 2021 and are awarded each year to TENZ members enrolled in a course of study at a postgraduate level that has a technology education focus and meets the scholarship criteria. The purpose of the scholarship is to support people who will make a positive contribution to technology education through the dissemination and sharing of their research.

[Application and more information here](#)

Please note this is NOT for initial teacher education (teacher training).



Have Research Ideas?

If you have research ideas or know a company that needs research completed, contact support@tenz.org.nz to make a plan.

Women in Engineering Holiday Camp Study

This series of focus groups and discussions is funded by the Women in Engineering Project in the Faculty of Engineering, UOA. It aims to gain a better understanding of the decision-making

process of self-identifying females aged 16-19 when considering studying Engineering, their current experiences in Engineering, and how project resources can be effectively utilized to encourage more women to pursue Engineering in the future.

The information collected will be used to develop the future strategy of the Women in Engineering project and provide evidence to support the initiatives and actions outlined within that strategy. It will also be used for academic publications, conference presentations and strategic project reporting to stakeholders.

The research has the following goals:

- Understand the decision-making process for self-identifying females in choosing their career pathways.
- Determine the influencing factors that impact self-identifying females' decisions to choose or not choose Engineering.
- Gather a broader range of insights and ideas to encourage greater participation of women in Engineering.

Participant Involvement We are recruiting Holiday Camp attendees to participate in our annual online questionnaire, semi structured interviews, and/or focus groups for the next 3 years. We are interested in gathering insights regarding their experiences in school related to choosing and pursuing Engineering as a career, or what alternatives they follow instead. This recruitment includes high school female students participating in the Women in Engineering Holiday Camp at the University of Auckland for our study from 2023 to 2025.

If you or your whānau would like more information on this project or have questions about the questionnaire/ interviews/ focus groups or the study itself, please feel free to contact the Project Manager directly as below: Ashleigh Fox (she/her) Student Development and Engagement, Faculty of Engineering, The University of Auckland Phone: +64 9 923 5922 email: a.fox@auckland.ac.nz



Research

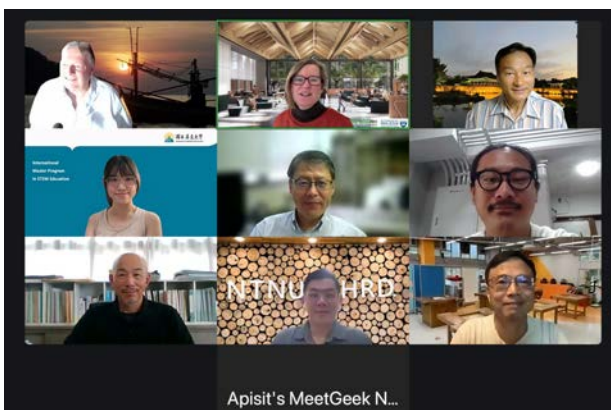
ICTE (International Conference on Technology Education in the Asia Pacific region) Minutes (20/8/24).

Kerry Lee is on the ICTE Board as NZ/TENZ representative. The group has a zui each month to support and hear about national tech. Ed. & STEM trends.

Countries represented at this meeting: USA, NZ, Japan, Hong Kong, Korea, Taiwan, Thailand.

The meeting covered several key topics, starting with the integration of AI and mobile phones in STEM education, where concerns were raised about the challenges of smartphone usage in classrooms, including recent bans by 11 school districts. The upcoming ICTE 2025 conference was discussed, highlighting important dates for registration and paper submissions, with logistics for the conference in Nara, Japan also addressed.

Participants explored the role of social media in education, noting differences in usage patterns among students in Japan compared to other countries, and discussed regulations on smartphone use in classrooms, emphasizing the balance between technology and educational effectiveness. The meeting concluded with a focus on the need for responsible smartphone use in education and plans for future discussions on these topics.



Conferences

- TENZ Conference, Wellington, NZ - (to be confirmed)
- ICTE + JST 2025 Conference. Nara, Japan; August 22-25 2025
- [ITEEA Inaugural Fall Virtual STEM Conference](#): November 4-8, 2024 [Online]
- [ITEEA 2025 Annual Conference](#): April 2-5, 2025 [St. Louis, MO]
- [Australian Technology Education Research Conference](#) (ATERC) 2024, taking place in Sydney, Australia, from November 28-29, 2024. Submit your expression of interest through this [form] (<https://forms.gle/6w341HhapqctdnhE6>).

Interesting Technology Education Publication

[A Delphi study on the future of technology education \(2023\). Ardies, J. & de Vries, M. Australasian Journal of Technology Education, 9.](#)

Abstract:

In 2020 an article about American experts' opinions on the future of technology education was published. Several concerns were expressed by the experts in the Delphi study that had been conducted, such as a shortage of teachers and funding. From the start of the study in the USA, the idea was to conduct similar studies in other countries. It is interesting to see to what extent the outcomes are USA - specific or more broadly valid. To find that out a similar study was done in Flanders (the Dutch-speaking part of Belgium) and the Netherlands. In our Delphi study, consent was found among the experts in three rounds. It became clear that there are similarities between the USA outcomes but also differences. Most of those differences can be explained by taking into account the local developments in the different countries.