



Submission

To the Ministry of Education on

The potential for digital technology to support tailored and personalized learning:
long-term insights briefing consultation

Our proposed topic is *exploring how the education system can be flexible, adaptable, and relevant to the diverse population it will serve in 10-20 years by realising the potential technological changes offer for more personalised and tailored learning.*

About PPTA Te Wehengarua

PPTA Te Wehengarua represents the majority of teachers engaged in secondary education in New Zealand, including secondary teachers, principals, manual and technology teachers, and community educators.

Under our constitution, all PPTA Te Wehengarua activity is guided by the following objectives:

- to advance the cause of education generally and of all phases of secondary and technical education in particular;
- to uphold and maintain the just claims of our members individually and collectively; and
- to affirm and advance Te Tiriti o Waitangi.

Introduction

PPTA Te Wehengarua passed policy on Teaching with Digital Tools and Technologies at its annual conference 2023. The policy defines digital technologies as inclusive of advanced digital technologies, and generative artificial intelligence systems that are emerging and continue to be refined. It accepts that there are potential opportunities and risks of teaching with these technologies and provides a clear direction for developing workforce and data capability. It also advocates for system and process readiness for the appropriate use of GenAI tools that can enhance teaching and learning outcomes.

The professional work to support the policy has required knowledge building to be a major focus and elected representatives and staff have been informed, connected, learning, and listening, at forums, seminars, external meetings, and conferences. Feedback has been shared with our membership and we have worked to build member understanding and thus empower members with knowledge. This work has informed our submission.

This submission is from the PPTA Te Wehengarua Executive and is on behalf of all of our members. If you would like to contact us about our submission, please email Kathleen Kaveney on KKaveney@ppta.org.nz

1. How do you think digital technologies could make the most difference to education in 10 to 20 years?

PPTA Te Wehengarua knows that education continues to change - digital technologies are everywhere, and they are impacting what, how, where, and why students learn, and who they learn from.¹ The rapid development of digital technologies and the globalised nature of economic systems is creating an entirely new set of educational challenges for the world to adapt to.² The national and global context demonstrate that making the most of digital technologies (emerging, advanced, GenAI) in our classrooms, will require trust, inclusion, workforce capability, data capability, and systems and processes to manage these.

Many PPTA members believe that digital technologies, particularly advanced, new, and emerging GenAI, promise opportunities for:

- **Engaged, creative learners with agency.** There are possibilities for out-of-the-box thinking and solutions, evaluating perspectives other than their own, greater creative expression, engaging students with technology they have and play with at home, creating more instead of just consuming.

The Artificial Intelligence Forum of New Zealand (AIForum), a purpose-driven, not-for-profit, NGO suggests that developing the right AI skills and talent is one of the most important actions that Aotearoa-New Zealand must undertake, whilst acknowledging that there is a low understanding of AI's significance compared to other issues with similarly wide-ranging effects on our society.³

- **Accessible, responsive, immediate and individualised learning** with access to knowledge anywhere, anytime, accessible for all. Technology can support learning that is affordable, collaborative, flexible, global and/or domestic and portable across all curriculum areas.

Social education is required – AI has risks; social awkwardness, believing the AI bot is your friend, poses risks of young people socialising with a chatbot as a real person. PPTA would want to see the Ministry of Education monitor the technology application closely and have guiding principles for educators.

There is also tension in the dichotomy between personalisation and data privacy.

- **Differentiated learning that is equitable** in creating learning opportunities, with assistive technology and learning resources able to be adapted for different styles, to suit different needs and levels. AI can make it easier to create tailored resources and can also provide learners with access to experts and individualised tutoring.

Bloom P (2024) spotlights the two-sigma problem, that tutoring enables progress two standard deviations above those not having tutoring, and this is a large increase in educational

¹ [Managing-and-supporting-students/DigitalTechnologySafeAndResponsibleUseInSchools.pdf](#)

² [Educatingforthefuture.economist.com](#)

³ [Artificial intelligence shaping a future new-zealand-pdf](#)

productivity. AI has the potential to be a 'personal tutor'. An important caveat however is that AI as a tutor should be used with teacher guidance, with researchers pointing out that sometimes AI output is untrue. Also, young people are innovative and could use AI in a way you don't expect.⁴

Oakley, B (2024) suggests that AI can be used to support the learning of neuro-diverse students. AI can be adaptive to the way children learn, can elicit patterns in thinking, it tunes into your idiosyncrasies. AI is very patient, it will not be annoyed when you do not get it, and it can give ideas from a wide range of situations. However, although endlessly patient, we do not want AI to displace social activity among young people. It is not a virtual friend and this needs to be impressed on young people, it does not care about them, and it is not their friend.⁵

- **Workload improvements/ reductions for teachers** in planning and preparation. Lesson planning, marking, differentiated resources as well as logistical tasks could be completed much more efficiently and AI can help refine ideas, provide alternatives and even offer previously unconsidered ideas. It can be specific to localised curriculum.

Researchers suggest caution when using these tools for marking. Henk M and Bickerton S (2023) note that whatever you type in to ChatGPT becomes part of its dataset and advise teachers not to put student essays into it. This technology currently has no privacy settings and may spit out the essays at later date.⁶ PPTA Te Wehengarua knows there is already variation in this practice.

Fadel C (2024) considers that the threat of AI to current education systems is that we assess by exams, which are a regurgitation of knowledge and AI is good at this. It is bad at imagining, which perhaps indicates where assessment needs to go.⁷

Our professional work has included attendance at several seminars and conferences as well as specific research on the impact of technology on our classrooms. Authentic learning, writing and assessment are issues teachers are grappling with. Findings suggest that there are many positives in using technology however, this is balanced by experts arguing for caution:

- Sal Khan, the founder and CEO of Khan Academy, thinks artificial intelligence could spark the greatest positive transformation education has ever seen.⁸ However, Charles Fadel talks of the hype around AI, companies need money which often cannot be justified in the short term so the overhype of the importance of AI enables the money to flow more.⁹
- Johnston, M. (2024) is worried that AI will 'do' learning before students learn themselves and this means they will not commit to long term memory and will not have stable education. He advises that AI can write better than most humans, however writing is important as a support for thinking. His report argues that AI does not change what children need to learn; basics are still needed so AI should be a support to education.¹⁰

⁴ [Webinar: AI in Education: Navigating the opportunities and risks](#)

⁵ [Webinar: AI in Education: Navigating the opportunities and risks](#)

⁶ [Determining the implications for education from the hype of AI](#) September 18, 2023, NZ

⁷ [NZ Initiative Welcome-to-the-machine](#)

⁸ [Sal Khan's 2023 TED Talk: AI in the classroom can transform education - Khan Academy Blog](#)

⁹ Education for the Age of Artificial Intelligence seminar, August 19, 2024, Wellington, New Zealand

¹⁰ [NZ Initiative Welcome-to-the-machine](#)

- Professor Emerita Naomi Baron (2023) is concerned that AI generation can make all writing sound the same and believes that human creativity matters and needs to be preserved. She suggests that some writing should be crafted, and teachers need parameters. She also points out that there are issues with writers' work being in data sets without permission, so their voice is 'stolen'.¹¹
- Mandy Henk (2023) notes that students spend a lot of time on devices, and questions what do we want to get out of this tool? She suggests we need to understand the limitations, and highlights that AI is unreliable if needing to share **factual** information. AI data may sound plausible but is not necessarily true. Students often misunderstand this.

Henk advocates for healthy skepticism when using AI technology. She advises users to fact check and question the bias in information received; this may be generalised misogyny, unconscious bias or dominant perspective bias. We also need to be aware that we replicate our own bias.¹²

2. What are the biggest challenges to using technology in education?

Challenges

The challenge of building trust

The 2023 GEM Report, *Technology in Education: A tool on whose terms* addresses the use of technology in education around the world through the lenses of relevance, equity, scalability and sustainability.¹³ It argues that education systems should always ensure that learners' interests are placed at the centre and that digital technologies are used to support an education based on human interaction rather than aiming to substitute it. Teaching and learning are relational, and NZ educators will certainly need to trust that learners are at the centre of technological use in our classrooms.

Misuse/mistrust of technology is significant, with dis-information, propaganda, extremism, hate, information tampering all possible when using digital technologies. The outputs reflect inputs so discriminatory ideas can flourish and the known bias (white, middle-aged, western-centric, male worldview) of the creators may still be present. PPTA Te Wehengarua believes that we need to address issues with mis/ disinformation through demanding technology suppliers have detection mechanisms as a condition of release for technology programmes. This requires action from our government.

Bias is a particularly important issue to tackle if we are to encourage young people's use of technology. McKnight and Fruze (2023) suggest "we need an honest stance on generative AI – and to be clear that generative AI is biased."¹⁴ The whiteness of its 'voice' means there are inherent problems in requiring students to use or rely on it.

TechWomenNZ panelists (2023), Sarah Carney and Dr. Yun Sing Koh, highlighted that AI data sets include historical data bias, algorithms that are taught what to do based on the opinions or beliefs of the

¹¹ [Writing in a digital age - THE EDUCATION HUB](#), November 11, 2023

¹² [Determining the implications for education from the hype of AI](#) September 18, 2023

¹³ [Technology in education: A tool on whose terms?](#)

¹⁴ <https://eveningreport.nz/2023/12/04/australia-has-its-first-framework-for-ai-use-in-schools>

developers, and the human bias that is inherent in us all.¹⁵ They suggest that prevention is key and achieved through:

- Data quality and diversity
- Algorithmic fairness and explainability
- Human oversight and accountability
- Stakeholder participation and empowerment

The challenge of ensuring inclusion

Inclusion needs to be comprehensively addressed. PPTA supports government action to provide appropriate regulation and governance to this global issue, inclusive of:

- **The rights and privacy of young people** - We need cross-party consensus to provide a regulated online environment and global governance for the Internet. We need safety by design, transparency and an independent regulator.

Fadel C (2024) suggests the demand for 'modernised knowledge' – the world is volatile, uncertain, complex and ambiguous. Young people require critical thinking and versatility. Schools are islands of stability for young people, who need to be educated to reflect and adapt constantly.¹⁶

Critical thinking is key – a way of thinking consciously and deliberately. This is not being taught much in classrooms around the world and therefore has implications for our curriculum. Students need to be taught how to use technology well – for example the importance of the prompts you use, issues with AI (hallucinations), the value of learning (and devaluing cheating).

Young people need to be cautious with machines that aim to have relationships with them e.g. MyAI, Character AI - machines generating word strings that lead people to believe they are having a relationship when no connection is being formed.

Students need to remember that once you give ChatGPT information, it's going to be used beyond their session which is a security issue.

- **Māori taonga** - Responsibilities in relation to mātauranga Māori (Māori knowledge), mana (authority and power) and the exercise of tikanga Māori (Māori law) need to be strong. [Lynell Tuffery Huria](#), cautions of AI enabling individuals to scrape content from the internet, and asks how we make sure our taonga including te reo Māori and mātauranga are protected and not misused or misappropriated? She highlights that various international agreements and obligations that affect indigenous flora, fauna and intellectual property rights do not necessarily protect Māori culture and identity.¹⁷

Fadel C (2024) points out that indigenous knowledge has a place in education, culture forms social bonds. It should be seen as more than 'Pacific' knowledge, it contributes to the world view

¹⁵ [TechWomen - Ada Lovelace Day 2023 - Gender Bias in AI Panel \(humanitix.com\)](#)

¹⁶ Education for the Age of Artificial Intelligence seminar – Charles Fadel, 19 August, 2024, Wellington, NZ

¹⁷ [Episode 30 – LYNELL TUFFERY HURIA – Indigenous 100](#)

of a student.¹⁸ Students do not need only Shakespeare, they need world literature, and this can readily be provided using technology. Indigenous knowledge, however, needs to be respected and protected.

- **Closing the digital divide** - The digital divide must be bridged. Inequitable device/ internet access and/ or reliability needs attention. We need to acknowledge that there is an existing digital divide related to basic technological access (to hardware, software and connectivity) that means that students will not have equitable experiences of generative AI from the outset. The increased costs of digital readiness for schools will not be equitable across the motu and will be felt differently depending on the affluence or location of the community.

The challenge of developing capability

PPTA Te Wehengarua considers there are challenges in developing capability particularly:

i) Data capability

Our Principal members are concerned that ‘the most advantaged will be the most advantaged’ be that the individual, school or community. A rethink is needed rather than exacerbate existing inequities and deeply seated advantage. This requires a whole sector approach.

Professor Rebecca Eynon (2020)¹⁹ highlights that we will not fix structural inequality by giving all students a laptop and that we also need to focus on people’s agency. She found that those who are better off, with more stable jobs and with a stronger educational background, tend to be more likely to use the Internet for lifelong learning and that younger, higher socio-economic status groups, report higher levels of digital skills and more benefits from learning online. This has implications for practice and policy, and we should not be overly focused on individual solutions, such as digital skills, and need to consider wider social structures.

To ensure equitable access to the benefits of AI in education, targeted policies and initiatives are needed to bridge the digital divide and promote inclusivity. This includes investments in data capability - affordable broadband access, comprehensive training programs for digital literacy, and collaborations between government, schools, universities, and industry.

ii) Workforce Capability

PPTA Te Wehengarua considers that the provision of quality professional learning for teachers is vital. Teachers need to understand how to use technology to better support students’ technical skills and digital fluency in a culturally responsive pedagogy that caters to diverse learners. A teacher’s ability will come through gaining confidence and practical skills.

Principal members struggle to see how teachers with a full workload will find the time to develop their skills in this area and know that both time and PLD are needed. Keeping up to date is a challenge with technology changing rapidly and there is the risk that we will learn through mistakes. The cultural responsiveness of the tools needs to be questioned.

¹⁸ Education for the Age of Artificial Intelligence seminar – Charles Fadel, 19 August, 2024, Wellington, NZ

¹⁹ Eynon, Rebecca, 2020/10/01, *Lifelong learning and the Internet: Who benefits most from learning online?*, 52, DOI10.1111/bjet.13041, British Journal of Educational Technology

EdTechNZ has a goal to improve access to and content of PLD for digital upskilling of teachers, calling for increased PLD funding.²⁰ EdtechNZ consider that they have much to offer in this area and this is something that should be explored by the Ministry of Education. PPTA has worked with some experts in this area, who have provided PLD to schools on GenAI and are interested in developing this further. PPTA supports these types of collaborations.

PPTA has sought views from members as to PLD possibilities in GenAI technology and how best to apply this. It will be no surprise that there are diverse levels in knowledge, ability and use of digital technologies in the classrooms across the motu and PLD would therefore need to be varied also. We think this divide may grow in the next 10-20 years without targeted PLD and support to upskill teachers.

There are suggestions being made to mitigate this issue. Oakley, B (2024) for example, suggests that we can support teachers by creating online courses that can reach out quickly to many teachers so that they can use AI to assist them in their teaching e.g. tool to write a good lesson plan.²¹

The Khan academy is often recommended to teachers, as this company is working on Kahnmigo, technology specifically developed for schools and learning. It is not clear to the PPTA how culturally appropriate the technology is and any recommendations need to be thought through with the programmes used appropriately. We consider this to be important work for the Ministry of Education.

The challenge of system readiness - PPTA Te Wehengarua knows there are challenges in systems and process readiness.

- **Whole of education system preparedness.**

Post-covid research in NZ found that to fully embrace the potential of digital technologies to enhance teaching, learning and administration, to help ensure education continuity in the event of widespread disruption, and, to better protect against cyber-attacks and privacy breaches, every part of the system must be aligned and connected.²² This is not presently the case.

The current rapid pace of technological change means keeping up to date is a challenge. At the NZQA hosted Assessment in the Age of AI symposium in May 2023, Dr George Slim (Office of the Prime Minister's Chief Science Advisor) admitted they are trying to catch up, with regulatory processes slow and technology fast.²³ NZQA and Ministry of Education admitted to being 'behind the 8-ball' and it is no surprise that many teachers feel unprepared to adapt assessment practice to ensure authenticity. There has been little explicit teaching of learners to use AI well and any responses are ad hoc.

Keeping up to speed, not leaving the teachers behind, will require time for relevant and effective PLD. In 10-20 years, we would hope that our education system is no longer behind in this area.

²⁰ [EdTech-Report-2021_digital_new.pdf](#)

²¹ [Webinar: AI in Education: Navigating the opportunities and risks](#)

²² [Review-Digital-technologies-in-education-during-the-COVID-19-pandemic.pdf](#)

²³ Dr George Slim (Office of the Prime Minister's Chief Science Advisor), 31 May 2023, A Science policy overview, Assessment in the Age of AI symposium, Wellington, New Zealand.

- **Process readiness - Rigor and validity of our qualifications.**

Issues of authenticity are readily apparent in 2024. Plagiarism through the use of AI, is a current concern as is the lack of critical analysis in the work produced by AI; Teachers question in the Age of AI - who owns the product and what about copyright issues?

Principal members consider that our approach to assessment will need to change (incorporating AI, oral assessments) but the focus must be on learning, not assessment. The relationship between teacher and learner is paramount, knowing your student' is essential and pedagogy is critical.

Assessment guidelines need to be updated in relation to AI technology and PPTA sees this will be an ongoing issue. We need to have students in front of mind, clear messaging a priority, and ensure a focus on proving learning has happened rather than concentrating on proving cheating.

Students and parents (especially at the secondary level) equate educational quality with assessment outcomes. AI will enable better results in assignments but that's not necessarily evidence of better learning and knowledge. The Ministry of Education will need to consider how teachers and schools manage this into the future.

Other challenges include –

- **A connected curriculum**

The NZ curriculum refresh remains front and centre in our secondary schools and currently does not encompass the impact of the persistent advancements in generative AI. Our curriculum does emphasise the significance of fostering critical literacy, including digital literacy ²⁴ which will be an increasingly important area of skill development if young people are to be able to utilise the potential of AI whilst understanding its risks. How will we ensure our curriculum remains fit for purpose with rapid advancements in technology?

Teachers may need to adjust pedagogy to use AI. Teaching students what they can and can't do will be needed, and this has implications for curriculum content.

Teachers are concerned by a loss of skills and sense of effort in student learning. AI is faster to learn, with a better-quality output – so how to maintain motivation and enthusiasm to learn? A loss of confidence in the education system and the devaluing of teaching is possible. Other common questions voiced - will it discourage original thinking? Deep thinking? Can we maintain our cultural identity and sovereignty of ngā mea Māori katoa?

- **Ensuring digital technology is safe for all**

PPTA is concerned to ensure that the known harms of digital technology are addressed. The impacts of online harm fall and are felt differently and is particularly negative for women and other minority groups e.g., gender diverse, ethnic identity. Social media and search engines have become new tools for violence against women and other groups.²⁵ This needs to be considered in the long-term insights briefing.

²⁴ [New Zealand navigating the role of generative AI in education](#)

²⁵ [A union-action-guide-for-public-services-work-and-workers](#)

3. What would need to change to maximise the benefits of digital technologies in education?

A focus on maintaining quality public education

PPTA is committed to the advancement of quality public education. We question the place of technology in education – this is a tool on whose terms? PPTA considers that we cannot divorce technology from humanity but if it is about money and resources, education as a public good disappears. AI use will have both intended and unintended consequences by commercialising public education. Digital technology providers have control of content for profit, and this is problematic.

UNESCO 2020 warns that ‘Public education cannot be dependent on digital platforms controlled by private companies.’²⁶ However, in post Covid-19 responses, many governments have allowed the market to identify ‘solutions.’²⁷ There is competition in the intersection between the digital world and education, and the learner is not necessarily at the heart.

Aotearoa-New Zealand has trusted government, a collaborative culture, high education standards, and a commitment to biculturalism that respects different worldviews, so is well placed to address concerns and enhance the potentials of digital technologies. Our members want to see this done in an intentional way, rather than in an ad hoc manner.

Education roles and responsibilities need to be clear with coherence in the system

Any advice given to schools needs to be consistent. The office of the NZ Privacy Commissioner has updated their website advice²⁸ recommending government departments be transparent and think carefully about where they use digital technology and whether it is needed. It advises departments are clear and track technological use, and importantly in the AI age, have a human in the loop somewhere – humans need to make final decisions not machines. PPTA considers this advice to be applicable to the next 10-20 years.

Feedback from schools currently is that they want more support. PPTA considers that NZQA needs to lead on matters of authenticity and repercussions of using AI or the Internet, plagiarism, including mitigation and identification. We think MOE needs to advise on policy - ethical and data privacy considerations and equity. Using digital technologies and tools must be equitable and decision-making processes transparent. We believe these roles need to be clear now and in the future.

4. Do you think our long-term insights briefing should focus on the opportunities digital technologies offer for: students and their families; teachers and teaching; wider system issues; or something else?

Wider system issues - PPTA considers that the long-term insights briefing should focus on the opportunities and risks digital technologies offer for wider system issues (for example, changes to support the adoption of new technologies, and addressing issues relating to the responsible use of data).

²⁶ unesdoc.unesco.org

²⁷ Williamson, Ben & Hogan, Anna (2020) *Commercialisation and privatisation in/of education in the context of Covid-19*. Education International, Brussels, Belgium.

²⁸ [Guidance-resources/generative-artificial-intelligence-15-june-2023-update](#)

Discussion

Although teachers and teaching are important and there may be benefits from the examples given, (new learning analytics and AI tools, learning management systems, and data analytical tools), the present and possible future issue is underfunding of the system. There needs to be appropriate funding of the education system to ensure:

- Teachers are upskilled on technology and its best use
- All students are included when technology is utilised in our education system, regardless of ableness, gender, ethnicity and location
- Technology use is safe
- Technology improves student learning and outcomes

These wider system issues need to be addressed and unfortunately may remain a focus in the next 10-20 years.

5. Do you think our long-term insights briefing should focus on the opportunities digital technologies offer for: early learning; schooling; tertiary; or the whole system?

Whole system - PPTA thinks that the long-term insights briefing should focus on the opportunities **and risks** that digital technologies offer for the whole system for the reasons stated above.

6. We are interested in any other comments you may have about our draft long-term insights briefing.

PPTA suggests the following should be included in the draft long-term briefing

Research and awareness of the impacts of digital technologies in education

Worldwide there has been study of the use of computers in education with Karlson (2022) finding that there was 'mostly no or weak evidence of increased achievement'²⁹ This should cause us to question the prominent place devices currently have in our educational programmes.

According to the New York Times, "a wariness that has been slowly brewing is turning into a regionwide consensus: The benefits of screens as a learning tool are overblown, and the risks for addiction and stunting development seem high."³⁰ There is a lack of research around the human cost of digital technology, young people's development, and what is gained or lost in the digital age.

Warning also comes from the Office of the US Surgeon general concerned at the almost universal (95%) number of teenagers on social media. The office states that there are critical gaps in our understanding of mental health risks to young people posed by social media and recommends that we engage in a multi-layered effort to maximise the benefits and reduce the risk of harm.³¹ We need system-wide approaches (inclusive of families) to strengthen safety standards, limit access, and require technology companies to be transparent and better assess the impact of their products.³²

²⁹ [Teaching-with-tech-the-role-of-education-unions-in-shaping-the-future](#)

³⁰ [The-place-of-technology-in-new-zealands-classrooms](#)

³¹ [Surgeon general priorities youth-mental-health/social-media](#)

³² [Surgeongeneral priorities youth-mental-health/social-media](#)

Pasi Sahlberg, Finnish education expert, points out that a decade ago paediatricians noticed a worrying trend that children's mental health was beginning to decline.³³ PPTA believes NZ would not be dissimilar to the key findings of his Australian research³⁴ which show the impact of digital technologies on young people's lives:

- spending 6 to 8 hours on digital screens every day,
- dependency on gadgets,
- walk, talk, and often also sleep with their smartphones, to keep up with what is happening around them

Sahlberg advises the need for digital wellness — responsible and healthy relationships with technology, as part of overall student wellbeing and an essential 21st-century skill. This digital well-being balances using and turning off devices; understanding opportunities and ethical responsibilities linked to technology; and building self-regulation to enhance safe use of digital devices.³⁵ PPTA thinks digital wellness is a useful concept for the draft long-term briefing to consider.

The use of technology does not automatically improve teaching and learning and PPTA supports the need for more evidence. McKnight (2024) advises that we do have research showing the harms of algorithms and that there is long-standing research demonstrating the dangers of chatbots and their capacity to harm human creativity and critical thinking.³⁶ We need to increase our understanding of these technologies, their impact, and our response. This should be part of the long-term briefing.

Worker rights

PPTA Te Wehengarua advocacy work continues to be needed to put teachers' perspectives forward; articulating the wellbeing concerns they have - work intensification, maintaining work-life balance, and the right to disconnect, as well as advocating for teachers to be upskilled, with both time and suitable resources.

Technologies inclusive of GenAI can negatively affect a wide range of our human rights with the problem compounded by a lack of transparency, accountability, and safeguards on how they are designed, how they work and how they may change over time.³⁷ The use of AI surveillance of workers is a concern and certainly teachers would want assurances that there is no place for this in our classrooms.³⁸ Worldwide we need agreement on evidence of the value of using intelligent AI in education and our workplaces.

Currently there is a worldwide teacher shortage, with low status, low salaries and hours of work being issues in Africa, Asia, Pacific nations, Europe and Latin America. There are nations hoping that getting AI into public education will help with the teacher shortage. PPTA believes that AI can provide some efficiencies for work, but AI should be an aide to the teacher, not a replacement for. PPTA considers that the long-term briefing should address the relational practice that teaching and learning require.

Comments about the draft long-term insights briefing:

PPTA has given feedback and advice to Minister Stanford, that is both consistent and informed. Our

³³ [What you need to know about childrens digital-wellness](#)

³⁴ [Teaching-changing children in the changing times](#)

³⁵ [What you need to know about childrens digital-wellness](#)

³⁶ [ELIZA—a computer program for the study of natural language communication between man and machine](#)

³⁷ [In era of artificial intelligence-safeguarding human rights](#)

³⁸ Ball, K., *Electronic Monitoring and Surveillance in the Workplace*, European Union, 2021.

briefing for Minister Stanford establishes a starting point and key recommendations - [*Examining the issue and uncovering next steps for Generative AI \(GenAI\) in New Zealand education*](#). Some of this material is repeated in the submission.