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3rd WORLD GIFTEDNESS CENTER INTERNATIONAL CONFERENCE

The World Giftedness Center (WGC) of the Hamdan Bin Rashid Al Maktoum Foundation for Medical and Educational Sciences (Hamdan Foundation) is excited to announce the 3rd World Giftedness Center International Conference, taking place virtually from October 20 to 23, 2025!

This year's conference comes at a pivotal time as artificial intelligence and digital technology continue to reshape the world. These advancements present both challenges and opportunities in the field of gifted education and talent development, making this an essential event for researchers, educators, and experts in the field.

What to Expect

Join us as we bring together leading international researchers, practitioners, and experts to explore the latest innovations in gifted education. Through engaging presentations, thought-provoking discussions, and expert-led sessions, attendees will gain valuable insights into:

- Leveraging AI to enhance gifted education programs
- Developing innovative curricula to meet the needs of today's gifted learners
- Exploring best practices in talent development amid rapid technological change

Save the Date!

🗓️ When? October 20–23, 2025
🌍 Where? Virtual (Online)
🗣️ Language? English

Be part of this global gathering and help shape the future of gifted education and talent development!

For more details, follow us: @worldgiftednesscenter

Scan the Qr Code to register

August Editorial

Cultivating a Prosperous Future: AI in Gifted Education

Penina Kiss & Jennie Quinn

Welcome to the August edition of the WorldTalentWeb newsletter, a prelude to the highly anticipated World Giftedness Conference, which will take place virtually from October 20 to 23, 2025. This year's theme, "Educating the Gifted in the Era of Prosperous Artificial Intelligence," explores the transformative impact of Artificial Intelligence (AI) on talent identification and development strategies, promising to inform, challenge, and inspire.

In preparing this editorial, I found myself oscillating between unbridled optimism about AI's transformative potential and apprehension about its unforeseen consequences a position many of us find ourselves in as we navigate this new landscape. And to my surprise, some of the most insightful voices sharing concern appear to belong to our youngest adults, a generation acutely aware of the world they are inheriting.

So why the conflicting discourse, and importantly, why does it matter for gifted education?

The immediate benefits of large language models (LLMs) and other AI tools are undeniable. Reducing cognitive load and freeing up our time for more critical and creative thinking is most definitely a positive for us all. For gifted learners, AI's capacity to hyper-personalise and differentiate learning provides unprecedented access to advanced content, tailored pathways, and accelerated enrichment at scale.

AI tutors and virtual mentors can empower students to delve into niche areas of interest, simulating expert knowledge and providing immediate feedback. For educators, AI promises significant efficiency, automating administrative tasks and facilitating personalised guidance, allowing for a deeper focus on the nuanced needs of gifted learners.

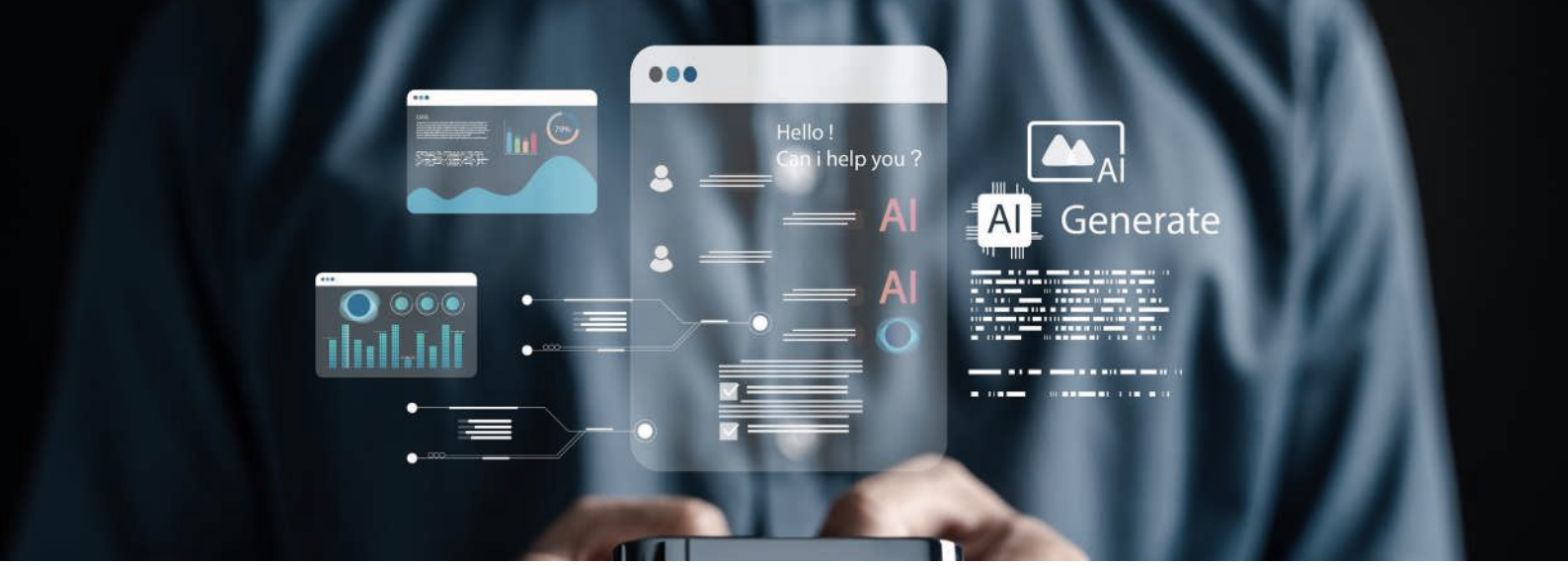
For our twice and multi-exceptional students, AI is emerging as a promising tool, offering adaptive scaffolding that addresses challenges while simultaneously nurturing strengths. Research by Ronksley-Pavia, Ronksley-Pavia and Bigum (2025) investigated how generative AI tools like ChatGPT, Claude, and NotebookLM can assist teachers in supporting twice-exceptional students. Their research found that while AI can help generate useful starting points for teaching strategies, it often requires careful prompting and human refinement to be effective, and can reflect cultural biases or lack context-specific insight.

To make the most of these tools, the study recommends using clear, targeted prompts, building reusable learner profiles and templates, and always combining AI-generated ideas with evidence-based practices and professional judgment. AI shows promise in easing teacher workload and personalising support, but it should be seen as a partner—not a replacement—in the teaching and learning process (Ronksley-Pavia et al., 2025)."

We are aware that AI's promise comes with inherent risks, demanding vigilance. Geoffrey Hinton, the 2024 Nobel Prize-winning scientist and "godfather of AI," famously departed Google to speak more openly about these very dangers. His warnings about AI's unforeseen consequences, its capacity to generate misinformation, and even existential risks, serve as a stark reminder that AI demands ethical consideration.

This is where the voices of our young adults resonate with particular force. Many in Gen Z are concerned about the carbon footprint and environmental impact of AI. The consumption of electricity and the water required for cooling presents an ecological challenge, and there is a demand to quantify this impact and actively seek sustainable solutions. Statistics from the Environmental and Energy Institute (2025) reveal that large data centres can consume up to 5 million gallons per day, equivalent to the water use of a town with a population of 10,000 to 50,000 people.

Professor Yong Zhao, a globally recognised education scholar whose work explores the intersection of technology, globalisation, and learning innovation, also weighs in on why some of our young adults are not happy. He points out that some in Gen Z, who have graduated, are not doing so well.



One of the reasons Zhao (2025) attributes this to is the failure of educators to prepare them to take advantage of the possibilities created by new technology to create prosperous and peaceful jobs. He shares a clear-eyed message on how educators can leverage AI;

"AI and technology make human educators more human, so they do not have to be instructional machines. Technology liberates them so they can become coaches, they can become facilitators, they can become project managers. They can do a lot more as a human, not an instructional tool. So that's the future I hope we can have (Rivero, 2025)"

A compelling concept; Hybrid Intelligence, championed by Cornelia C. Walther (2025) from Wharton's Neuroscience and AI Initiative, may help us embrace this new frontier with optimism and purpose. This approach seamlessly blends AI's analytical precision with natural intelligence, allowing machines to enhance human capabilities while humans provide essential ethical judgment, empathy, and contextual understanding. Walther emphasises that this synergy requires a dual literacy: Natural Intelligence Literacy, which involves understanding human emotions and social contexts, and AI Literacy, encompassing comprehending AI's functions, limitations, biases, and ethical considerations.

Without this balanced approach, individuals risk either missing AI's opportunities and failing to recognise the risks or creating robust technical systems that inadvertently disregard human needs and generate unintended social consequences. This framework offers a valuable guide for gifted education, enabling us to prepare students to harness AI's transformative power responsibly and ethically, understanding its broader societal implications.

We hope you enjoy our author's contributions to the August edition of the WTW Newsletter. David Nally discusses how AI can enable equitable learning opportunities for gifted and talented students. Professor Joseph Rensulli shares his thoughts on learner personalisation. We also share an interview with Matthew Esterman from the Next Word, who shares his insights on the benefits and challenges of AI for gifted and 2e learners.

We look forward to more key insights on this fascinating topic at the World Giftedness Conference from 20-23 October 2025.

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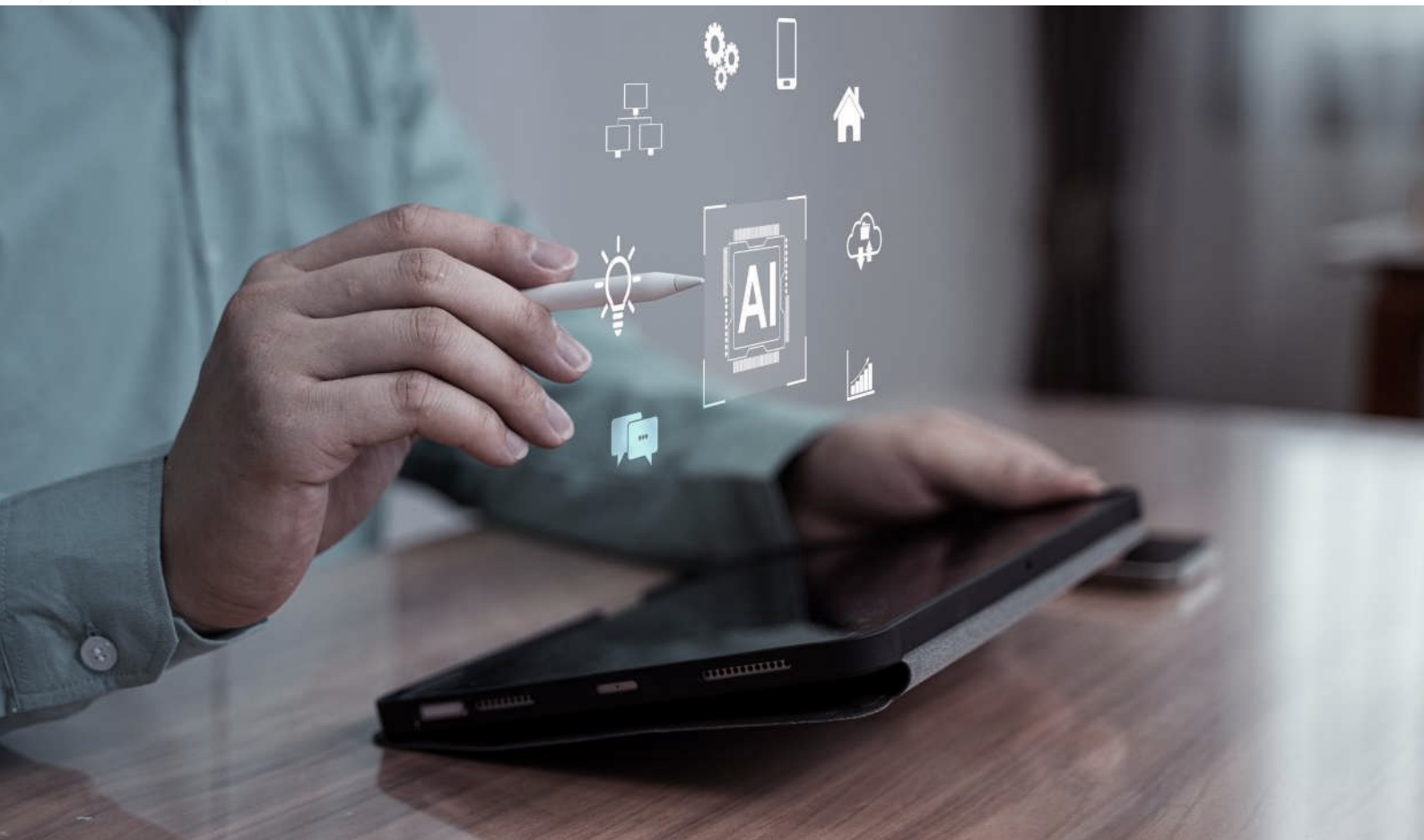


HOW CAN AI ENABLE EQUITABLE LEARNING OPPORTUNITIES FOR GIFTED AND TALENTED STUDENTS?

DAVID NALLY, UNIVERSITY OF NEWCASTLE

As part of an edited collection about post-COVID conditions, Frank Buongiorno pointed to Australian social trends becoming 'Benthamite' over the long term: Ideals of a common good are defined in terms of 'the greatest good for the greatest number.' (Buongiorno, 2025, p. 17) Education for gifted and talented, neurodivergent and high potential students are no exceptions to this rule. In a post-COVID context, artificial intelligence has emerged as a technology that may potentially resolve two tensions in this domain of education:

1. A catalyst for supercharging personalised learning, at a time of teacher shortages (Nietschke & Yang, 2025)

2. A means to make professional learning opportunities for teachers, in order to ensure expertise to enhance student achievement is more equitably and equally distributed (Southgate et al. 2019).

From this context, the question therefore arises: How can AI enable equitable learning opportunities for gifted and talented students? This think-piece surveys three elements of teacher practice: considerations of evidence, learning design, and pedagogical adjustments. Each of these topics are followed by provocations for what teachers might enact in their own contexts.

Considerations of Evidence

The use of generative AI tools in an Australian context has been touted as a potential means for making education more equitable (Loble, 2022), while its ability to do so is dependent on a valid and reliable set of source data. These considerations are accompanied by three areas of tension within the literature:

A. Such tools to provide an output based on a mean of the data foundations being drawn upon;
B. The data that informs the output of such tools is retrospective, rather than proactive; (Scholes, 2025; Zjako, 202)
C. Students who are neurodivergent, twice-exceptional, gifted and high potential already represent outliers in data sets, and therefore require teacher expertise in order to guide the personalisation of learning experiences.

In the domain of gifted and high potential education these points are closely related to the mis use of achievement data in an Australian context (national metrics such as NAPLAN are misappropriated, rather than the data itself being invalid; see Ladwig, 2019; Ronksley-Pavia, 2023).

The problem in all of these areas is that each is regarded in either/or terms, rather than being considered as part of a more holistic package of levers that might be adjusted to personalise learning experiences. This latter aim has been at the core of forays into using generative AI to address students' needs who are below expected achievement levels for their age groups. Thus far, they have featured girls boosting their performance in STEM-related subjects (Srinivasan, 2025).

There are however, mixed results. In Nigeria the World Bank has funded a program that has significantly increased achievement in Maths (de Simone et al., 2025); A case study of 1000 Turkish students however, found that students using AI to co-construct responses to tasks resulted in short-term, rapid formative growth, which significantly declined in summative tasks (Bastani et al., 2024).

As such, where there is a need for more test cases to be developed is in options for diversifying options for gifted and high potential students to use AI (and differentiate these from non-AI experiences), to broaden their engagement with Gagne's model of socio emotional catalysts (2005).

Further, there currently needs to be more work on how motivation amongst gifted students might be enhanced and sustained, using frameworks such as Subotnik, Olszewski-Kubilius and Worrell's (2011) which frame activity in terms of benefits for social contexts through well-considered actions, in addition to the capacity of such experiences to broaden the perspectives of gifted students (Subotnik, Olszewski-Kubilius & Worrell, 2018).

This need is underlined by the majority of documented test cases about educational impacts of AI featuring sample sizes of university students (Tambunan, 2025); Therefore there is a dearth of data relating to the impacts of generative AI in school-age students.

At a more localised level, the present evidence-base on gifted and talented education varies widely at the level of individual schools. Some are highly developed, with university, business and community partnerships, providing enrichment and extension opportunities, while others are non-existent (Jawerth & Nally, 2024). The generation of localised test cases will therefore create the ability for educators to broaden their expertise and make more equitable judgements.

Taken together, current contexts in Australia vary widely from gifted and talented students being catered to effectively, by degrees of data availability and poverty. The impact of the latter is felt in absences, as the output of generative AI tools reflects a mean of all entries and data which is supplied to them. Therefore, any output needs to be weighed in terms of it being one source of data, and considered in relation to what other forms of knowledge and expertise might be available to help students transform their gifts into talents.

As AIs draw from open-source data sets, such tools represent an opportunity for schools and systems to pool resources, and recalibrate how a "common good" might be defined and then worked towards as part of realising the ethos pointed out by Buongiorno, via a technology-enabled, curriculum-driven change. Simultaneously, the emphasis on personalised learning opportunities would also ensure that there is a balance between respecting the heterogeneity of student cohorts, and ensuring a relational, community-based belonging (Zhao, 2016; Nally, 2024) The next sections of this think-piece turn to how these ideas might be implemented, as part of learning design and pedagogical relationships.

Learning Design

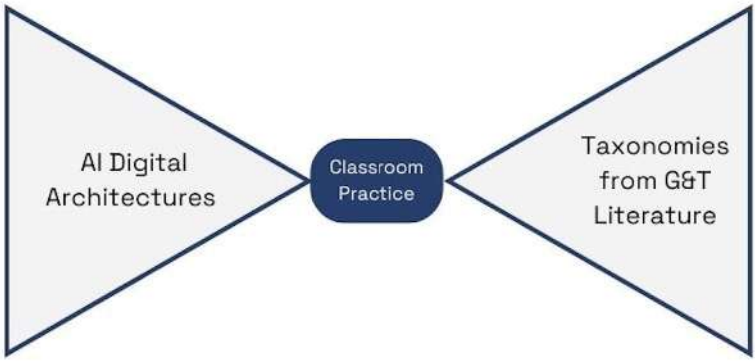
Modern education contexts have been increasingly based on measurable metrics to determine effective instruction and minimise gaps between achievement and potential, but at the cost of narrowing the focus of education to a more instrumental focus (Zhao, Basham & Travers, 2022). In an Australian context, such factors manifest as "what works best" discourse as part of an explicit teaching model (Rosenshine, 2012). These considerations as part of learning design do not always get factored in for how they align with the digital architecture of AI tools.

There are however, alternatives that can complement rather than supplant this focus on measurable metrics. Habits and theories of practice that have been advocated by Stephen Kemmis (see for example: Kemmis & Grootenboer, 2008; Kemmis, 2022) for instance detail the tracing of what preparation is required in different dimensions:

> … semantic space, physical space–time, and social space. Practices are composed in these three dimensions, in intertwined sayings, doings, and relatings that hang together in the projects (purposes) of practices. (Kemmis, 2022)

What Kemmis is advocating for here, is a more holistic framing of how practices tap into the personal contexts of people enacting them, as well as the knowledge networks that are used as a basis to justify choices. Applied to how generative AI impacts an educational context, there has been a trajectory in perceptions of AI, from a hopeful optimism (McKnight and Furze, 2023), to an educated caution (Kelan, 2023).

When connected with learning design for gifted and talented students, reports of perpetuating misinformation or hallucinations (Scholes, 2025) have been moderated by framing the use of AIs by the use of learning frameworks regularly cited in the literature. Figure 1 follows from this logic by showing classroom practice as a product of two "icebergs" (AI Digital Architectures and Taxonomies), educators have significant control in moderating the influence of these factors, based on their ability to identify the needs of their students (Davidson Institute, 2022).



The digital architecture of AI tools still constitutes a black box to the majority of users (Pedreschi et al., 2019). Likewise, in an Australian context there has been significant provision of gifted and talented professional learning, but these have not been equally engaged with or distributed. Since there has been no national statement on gifted education, state-based and regional jurisdictions have largely assumed responsibility for implementing such professional learning. In the writing context of this article, New South Wales, there has been more focus from two of the larger dioceses in the Catholic system of schools, from 2012, whereas in other regions the onus has been on teachers in local contexts to differentiate for the needs in their classrooms.

Notably, while there has been a push from the public sectors for teachers to engage with upskilling themselves, the details about how universally these learnings have been implemented remain at a local schooling level.

Notably, the landscape of artificial intelligence is marked by a national framework for the use of AI in schools (2023), which was created in South Australia as part of a highly consultative process. The degree of proficiency in the use of AI in education however, is quite varied. Each State and Territory in Australia now has a Digital Learning specialist who has a focus on AI; In New South Wales however, in the Catholic Sector the Diocese of Wollongong has demonstrated a markedly higher progression than other areas, with a position paper that clarifies roles, responsibilities, ethics and guardrails. No other Diocese has yet developed an equivalent document.

Attempts to personalise learning experiences through generative AI range from Scots College in Sydney working to develop an internal, responsive AI that will eventually mature alongside students, to the public sector's EduChat and the Catholic system's CEChat. These latter measures provide more localised data and security for users and therefore are designed with the intent to bridge gaps in the more general data that are drawn upon by open-source chatbot tools such as Claude, ChatGPT and Google Gemini.

These enablers need to be moderated with the consideration that outputs are based on: open source data (usually found within the first two pages of google searches) and, the most common data input from other users (Bell et al., 2023). The heterogeneity of gifted and high potential students however, indicates the potential for asynchronous development, and the influence of various socio-emotional factors can make it difficult to create the standardised data points that AI models typically rely on. Without clear and consistent data on what constitutes 'high performance' across different domains and for diverse profiles, it is challenging for AI to effectively model and support it.

We need to talk about Pedagogy

A core work that influenced the theoretical structure of Quality Teaching programs (NSW), Productive Pedagogies (Queensland) and later on, the national frameworks (AITSL), is James Ladwig's Academic Distinctions. As part of shifting a national agenda on education, he asserted that priorities that were local-global based needed to be balanced against one another as part of practice (1996). As part of this process, more abstract and transferrable concepts and skills should be mapped across an educational curriculum, but localised data should allow professionals to tap into the uniqueness of each student. In an Australian context, curriculum is mapped on to the projected society and designed to prepare students for it (Nally & Sharp, 2025); Pedagogy is about the relationships that students should be developing with other people, their environments, and their epistemologies.

Based on these guiding principles, mapping gifted and talented practices into local contexts that already have degrees of AI proficiency would need to accommodate factors that are shown in the table below. In the left column, each one is phrased as part of a reflective question, followed by a description about what practices it might involve.

Such considerations mean that as part of utilising these tools to their potential, human judgements need to be informed by forms of data literacy in conjunction with gifted and talented differentiation models.

Factor	**What are the risks posed by AI?** How might these inadvertently reinforce existing status dynamics within the classroom, particularly concerning access to and use of these technologies?
Rationale	Currently there is a need to treat data as descriptive rather than immediately confirmatory (particularly for Media Literacy and addressing misinformation; See Kyrychenko et al., 2025). This approach will shift usage of AI for students to suspend judgement in favour of cultivating curiosity.
How does AI fit with Gifted and Talented Education?	Balancing automation of data collation and narrow functions (such as extracting trends in quantitative data sets) These tendencies for users to anthropomorphise AI outputs (Kelly, 2023) could be addressed by deconstructing why such assumptions exist (e.g. a paradox debate being framed within the Williams model, to progress an analytical discussion from more concrete to transferrable and abstract)
Examples of Classroom Practice	Identifying instances where human interaction will elicit organic anecdotal responses (AI responses might inadvertently reinforce existing stereotypes or overlook nuanced perspectives. For instance, comparing AI outputs to materials that are sourced from non-open access). Providing a stimulus, and then instructing AI tools to perform narrow functions. These might include: - providing a series of considerations for students to modify the materials to suit their learning needs; - Prompt suggestions could include reducing/nuancing the lexical density; - Transforming a text into a series of multiple choice questions so they can check for understanding, - Extracting discussion questions about main ideas, that address a specific, real-world context

Factor	**How do human relationships, knowledge and a sense of place factor in the effective use of AI in gifted education?**
Rationale	The majority of literature on artificial intelligence frames this technology in terms of a co-intelligence (Mollick, 2023), it follows that a key area of future development in teacher (and student) expertise will be to broaden the considerations of how asynchronous development might be enabled.
How does AI fit with Gifted and Talented Education?	Balancing automation of data collation and narrow functions (such as extracting trends in quantitative data sets) These tendencies for users to anthropomorphise AI outputs (Kelly, 2023) could be addressed by deconstructing why such assumptions exist (e.g. a paradox debate being framed within the Williams model, to progress an analytical discussion from more concrete to transferrable and abstract)
Examples of Classroom Practice	Readings could be transformed as moral dilemmas (along the lines of Williams' model) to prompt discussion amongst students, or train a GPT (such as debate.ai) to be a dialogue partner.

Factor	How can educational approaches balance pedagogical relationships and the strategies used in classes?
Rationale	With the advent of "what works" discourse there is an emphasis on moderating risk linked with practices deemed less effective. That said, such approaches have resulted in a shift towards a technical approach to teaching, rather than considering ideas, relationships and practices in a more holistic way (Kemmis, 2022; Aubrey-Smith & Twining, 2024).
How does AI fit with Gifted and Talented Education?	Forms of Data Literacy training would shift interpretations to broaden a scope of expertise in accurately profiling students (see Sandoval-Ríos, Gajardo-Poblete & López-Núñez, 2025 for a review of the scope in training for data literacies).
Examples of Classroom Practice	The role of teachers is to determine what sort of pedagogical relationships AI is being used to augment (see Mollick and Mollick, 2023 for one list of ideas for using ChatGPT) The use of AI can be framed as a learning tool (which moderates the anthropomorphic view of it as a co-learner). Along these lines it can be used to re-shape recent events to suit usable scenarios, so teachers can rapidly co-construct contextualised resources.

Ideas for Next Steps

This issue's theme is timely as there are significant inequities about access, provisions and competency for both gifted and talented education and the use of AI in this field.

What this think-piece suggests however, is that there are coordinated, localised efforts that are having effective results. At their core, there is a drive to build a localised set of case studies to show "what works" in specific contexts, which are then used to inform professional practice and learning by teaching staff in schools. Additionally, the schools in these contexts are not an institution within a society, but a more porous identity, with relationships that are established with community groups, business, cultural, scientific and educational institutions.

This networked approach in school contexts is a step in the right direction for allowing gifted and talented students to take advantage of personalised learning experiences afforded by AI (when used as a co-intelligence), while still valuing human contributions to knowledge.

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A SHORT GUIDE TO PERSONALIZED LEARNING

Joseph S. Renzulli
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True personalization requires more than just looking at achievement levels and trying to compensate for deficiencies. There are conferences for just about everything these days, but because of my interest in personalized learning, it appeared that this one on redesigning personalized learning would be just the ticket for gaining new insights into how learning can be more responsive to the divergent needs and diverse populations in today's schools.

Most educators agree that the one-size-fits-all curriculum needs addressing, and this by-invitation-only "summit" showed so much promise that I wangled an invite. Resplendent with all the buzzwords of the personalization and differentiation mystique ("flexible," "student-driven," "authentic," "everywhere learning," "systemic redesign"—to mention a few), the event would be staffed by the gurus of school reform and attended by education power brokers and CEOs from the public and private sectors. Wow! And the expectation that technology was a major answer to this promise of a revolution in personalizing learning made the conference even more appealing.

The emergence of technology in education has certainly created a renewed interest in personalizing learning and providing teachers with the tools necessary for differentiating curriculum. In addition to achievement levels, information about student interests, learning styles, and preferred modes of expression allow us to make decisions about personalization that take multiple dimensions of the learner into account.

This information can easily be gathered and analyzed using computer generated profiles and from search engines that match multiple categorized resources from databanks containing vast quantities of highly interactive online material.

Teachers can use this technology to infuse into any and all standards-driven curriculum highly engaging enrichment materials that can make any lesson or unit of study more exciting, engaging, and enjoyable. Students can gain a greater appreciation and understanding of ancient Egyptian culture when they do a virtual dissection and preservation of their own mummy. The differentiation of content requires adding more depth and complexity to curriculum rather than transmitting more or easier factual material.

Expression-style preferences can be accommodated by giving students opportunities to communicate visually, graphically, artistically, and through animatronics, multimedia, and various community-service involvements.

The biggest enemies of differentiation are time and the over-prescription of learning. Before the availability of computers and the Internet, teachers simply did not have the time to find and direct customized resources to individual students. Our most recent work is an online personalized learning program that provides profiles of each student's academic strengths, interests, learning styles, and preferred modes of expression.

This unique program also has a search engine that matches multiply coded resources with student profiles. Teachers also use the program to select and infuse high engagement enrichment activities into any and all standardized curriculum topics. This resource can be found at https://renzullilearning.com.

Our obsession with content mastery and Skinner's behavioral theory of learning are slowly but surely giving way to an interest in personalization and differentiation. We can do the same thing to enrich the entire learning environment by capitalizing on a broader spectrum of learner characteristics, creating comprehensive computer-generated student profiles, and using the interactive capabilities of today's technology to revitalize learning.

Navigating a New Frontier: AI and Gifted Education

An Interview with Matthew Esterman

Matt Esterman is an educator with many years of experience and the founder and director of The Next Word, a consultancy focused on training, support, and strategy for schools and other organisations. Matt empowers users to take their AI use to the next level by delivering keynotes, running workshops, conducting reviews and assisting with policy and strategy development. His work spans Australia and the international arena.

The Next Word partners with a range of organisations to help spread the word about the thoughtful use of technologies, and more information on this can be found at our website www.nextwordnow.com

The landscape of education is undergoing a seismic shift, driven by the rapid advancements in Artificial Intelligence. For those of us dedicated to nurturing the unique talents of gifted and twice-exceptional (2e) learners, this presents both unprecedented opportunities and significant challenges. To explore this evolving dynamic, we sat down with Matt Esterman, a leading voice in the application of AI within educational settings. With a background deeply rooted in school-based experience and now impacting higher education, Matt offers a compelling perspective on how AI is reshaping the support we provide to our most advanced students.

Jennie: Matt, thank you for joining us. Your journey into the realm of AI in education is quite fascinating. Can you start by sharing how you initially became involved with Artificial Intelligence and its learning potential?

Matt: My entry into AI wasn't through a traditional tech pathway, but rather through a deep-seated belief in personalised learning and the need for scalable solutions in education. Working in schools, I constantly wrestled with the challenge of truly individualising learning experiences for every student, especially those at the extremes of the bell curve.

I saw the incredible potential of technology to differentiate, but it often felt clunky or required immense teacher effort. When the current wave of generative AI tools began to emerge, I immediately recognised their capacity to address some of these long-standing pedagogical hurdles. It was less about the technology itself and more about how it could fundamentally enhance learning, particularly for those who needed a more tailored, dynamic approach. My focus has always been on practical application – how can this tool genuinely make a difference in a teacher's day and a student's learning journey?

Jennie: That practical focus is certainly appreciated in the field. Before your current work, how did you see your efforts in schools impacting gifted and 2e students through technology, and how has that evolved with the advent of AI?

Matt: In my school-based roles, whether it was curriculum design or direct instruction, I was always seeking ways to extend and enrich learning beyond the standard. For gifted students, this often meant curating additional resources, designing complex problem-solving scenarios, or facilitating independent research projects. For 2e students, it was about finding pathways to leverage their strengths while scaffolding their areas of challenge – think text-to-speech tools for dyslexic gifted writers, or visual organisers for those with executive function difficulties.

The impact was there, but it was often labour-intensive for teachers. With the advent of AI, that impact has been magnified exponentially. What used to take hours of manual differentiation now can be generated in minutes. AI can act as a tireless assistant, capable of creating endless variations of a task, summarising complex texts to different reading levels, or generating creative prompts for divergent thinkers. It's truly accelerating the delivery of differentiated and personalised learning at a scale we simply couldn't achieve before.

Jennie: So, how does your current work, now extending into higher education, continue to impact gifted and 2e students, including those pursuing advanced studies?

Matt: My work now is much more about systemic integration and capability building. In schools, I'm helping educators develop practical strategies for using AI as a tool for differentiation, enrichment, and targeted adjustments. For gifted students, this means showing teachers how AI can provide virtual mentorship, simulate complex real-world scenarios, or generate highly specific, challenging inquiry questions that push their critical thinking beyond typical classroom limits. For 2e students, it's about leveraging AI for adaptive scaffolding – whether that's providing alternative explanations, generating simplified summaries, or offering multimodal learning options that cater to their diverse learning profiles.

In higher education, the implications are even broader. Gifted university students often seek out opportunities for deep dives, interdisciplinary connections, and advanced research. AI can serve as an unparalleled research assistant, helping them synthesise vast amounts of information, generate novel hypotheses, or even draft initial literature reviews (with proper attribution and critical oversight, of course).

For 2e higher education students, AI can be transformative for accessibility and study support. Think of AI-powered tools that help organise complex research notes, provide alternative formats for dense academic papers, or even offer personalised study guides tailored to their specific learning challenges. It's about empowering them to tackle rigorous academic demands by mitigating their areas of weakness and amplifying their considerable strengths.

Jennie: This all sounds incredibly promising. However, with new technologies come new challenges. From your perspective, what are the greatest challenges you see for teachers working with gifted students in the area of AI and education?

Matt: Absolutely. While the benefits are immense, the challenges are equally significant and require thoughtful navigation.

Firstly, teacher AI literacy and confidence is a major hurdle. Many teachers, understandably, feel overwhelmed or intimidated by AI. They need practical, accessible professional learning that moves beyond the hype and shows them tangible, ethical ways to integrate AI into their existing pedagogy. Without this, the tools won't be effectively utilised, especially for specialised populations like gifted learners who require nuanced applications.

Secondly, maintaining human connection and critical thinking. Gifted students thrive on deep intellectual dialogue and mentorship. There's a risk that over-reliance on AI could diminish the crucial human interaction and expert guidance that truly stretches a gifted mind. Teachers need to model how to use AI as a tool for thinking, not a replacement for thinking. This includes teaching critical evaluation of AI outputs, recognising bias, and understanding its limitations.

Thirdly, equity and access. While AI offers incredible personalisation, there's a digital divide. Not all students, particularly those from disadvantaged backgrounds or rural areas, have equitable access to the best AI tools or reliable internet. This could inadvertently widen the achievement gap if not addressed proactively.

Finally, ethical considerations and academic integrity. How do we teach gifted students to leverage AI's power responsibly without resorting to plagiarism? How do we design assessments that are AI-resistant or, better yet, AI-integrated in a way that truly measures their higher-order thinking? This requires a paradigm shift in assessment design and a strong emphasis on digital citizenship and ethical AI use from an early age. Teachers need support in navigating these complex ethical landscapes.

Jennie: And on the flip side, what do you see as the greatest benefits of using AI with gifted and 2e students?

Matt: The benefits are truly transformative, especially for our gifted and 2e learners, who often benefit most from tailored and accelerated learning.

Firstly, hyper-personalisation and differentiation at scale. AI can adapt content, pace, and complexity in real-time to match a student's exact needs and interests. For a gifted student, this means immediate access to advanced topics, deeper dives into areas of passion, or challenging problem sets when they've mastered a concept. For 2e students, it means getting the precise scaffolding or multimodal presentation they need without feeling singled out or held back. This truly unlocks individualised learning pathways.

Secondly, enhanced inquiry and creative output. AI can act as an incredible brainstorming partner, research assistant, or creative muse. Gifted students can use it to generate diverse ideas for projects, simulate complex scientific experiments, or even help structure intricate narratives. For 2e students, it can lower barriers to expression – for example, helping organise thoughts for a written essay or providing a verbal outlet for students with dyslexia. This empowers them to produce more sophisticated and original work.

Thirdly, virtual mentorship and expert simulation. AI can mimic subject matter experts, allowing gifted students to engage in Socratic dialogue, pose "what if" questions, and receive immediate, deep feedback on complex ideas – essentially providing a tireless, always-available mentor. This is invaluable for students who learn at an accelerated pace or have highly specialised interests not always met by traditional classroom resources.

Fourthly, diagnostic precision and targeted support for 2e learners. AI tools can analyse patterns in student work and performance far beyond human capacity, potentially identifying underlying learning differences or dual exceptionalities more precisely. For 2e students, this can lead to more accurate identification of their unique profiles and the provision of targeted interventions that truly address their combined strengths and challenges.

Finally, efficiency for educators. While not directly a student benefit, the ability of AI to automate administrative tasks, assist with lesson planning, and even provide initial feedback on student work frees up invaluable teacher time. This allows educators to dedicate more energy to what truly matters for gifted and 2e students: deep one-on-one mentorship, facilitating complex discussions, and fostering their social-emotional development.

Jennie: Matt, your insights have been incredibly valuable. It's clear that while the path forward requires careful consideration, the potential for AI to revolutionise gifted and 2e education is immense. Thank you for sharing your expertise.

Matt: My pleasure. It's an exciting time in education where, if harnessed wisely, AI can truly support talent development.

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Articles could take the shape of an interview with a specialist in the field, a report on research or a recent event, a book or resource review etc. The guidelines for the article are listed below.

Please submit your article to the following email: WorldTalentWeb@ha.ae

Guidelines for submitting an article for the WorldTalentWeb newsletter:

1. A submitted article should be between 800 to 2000 words, not including references.
2. WorldTalentWeb newsletter caters to the international community and thus, all articles should be written in English.
3. American or British spelling is accepted.
4. All non-native English speakers should make sure to check their articles for language accuracy before submitting them.
5. The article should be in Times New Roman font, size 12 pt.
6. Authors should avoid using footnotes.
7. Authors should adhere to the APA style and/or formatting guidelines provided in the APA Manual, 7th Edition.
8. The article should be submitted with embedded photos, and tables, and figures if relevant.
9. The article should be submitted as an email attachment as a Microsoft Word document.
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11. Authors should strictly observe the copyrights-requirements and cite the work of others correctly.
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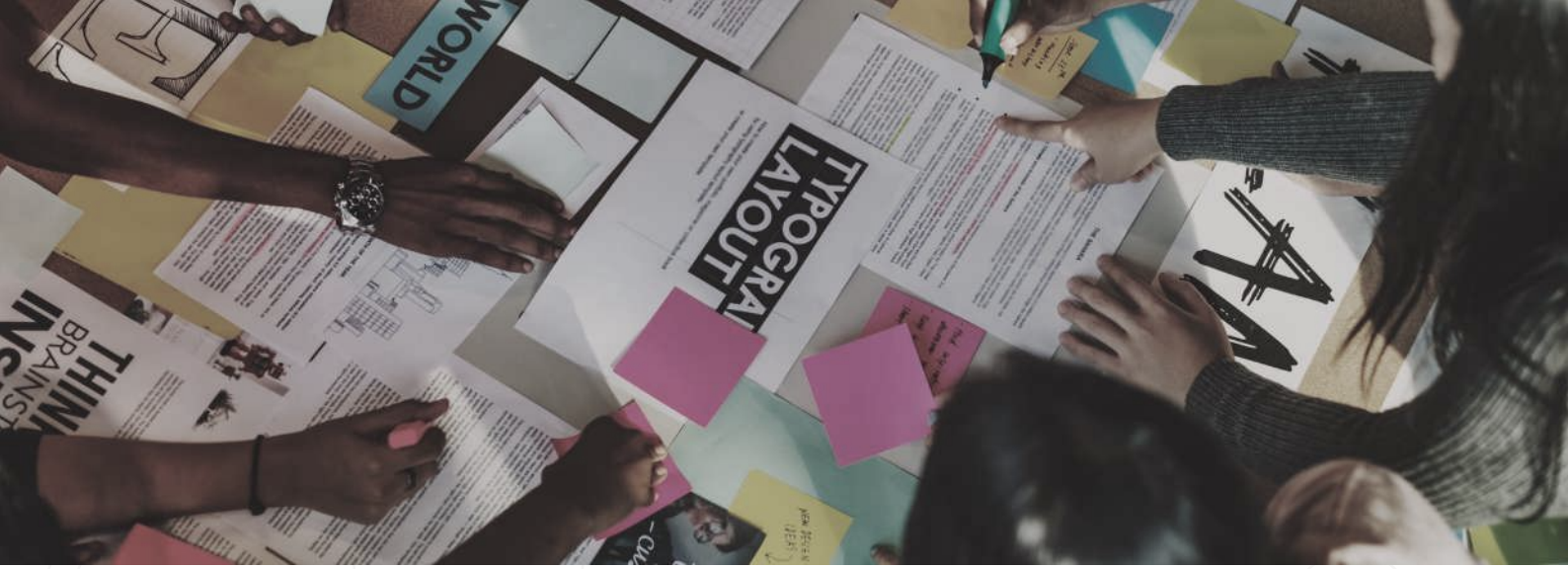

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NEWSLETTER
August 2025
A newsletter of the World Giftedness Center

AI & PERSONALISED LEARNING

The WorldTalentWeb newsletter is bimonthly published by the World Giftedness Center (WGC) of Hamdan bin Rashid Al Maktoum Foundation for Medical and Educational Sciences.
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