

SCAN 5

Looking Ahead: Where Students and Teachers Think AI Will Be by 2030

A focused foresight scan - using the Futures Triangle and the Three Horizons - with concerns about AGI, quantum computing and empathic robots, and what they could mean for teaching, learning and assessment

Prepared for the Youth AI Research Network

This fifth scan looks ahead. Using two foresight frameworks - Inayatullah's *Futures Triangle* and the *Three Horizons* - it asks where students and teachers think AI is heading by 2030, and examines three frontier technologies the field is watching: artificial general intelligence, quantum computing and empathic robots. It is anchored in research and data, framed by **Learning Well** and **Being Well**, and built on the futures analysis in *AI Unplugged* (Murgatroyd & Couture, 2026). Its guiding question is not “what will technology enable?” but “what futures do we want, and how do we organize to create them?”

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Stephen Murgatroyd, PhD · Futures Leadership for Change

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1. Purpose and Framing

This is the fifth report in the Futures Leadership for Change series, and the one that looks forward. Where SCANs 3 and 4 reported what students and teachers say now, this scan asks where they think AI is going by 2030, and what three frontier technologies - artificial general intelligence, quantum computing and empathic robots - could mean for teaching, learning and assessment. It is a foresight document, not a forecast: its purpose is to widen the field of choice, not to predict a single future.

The method is taken directly from the futures analysis, which applies three complementary tools. The Futures Triangle (Inayatullah, 2008) maps the forces pulling and pushing on the future. The Three Horizons (Sharpe, 2013) sort what is present, emerging and transformative across time. And Stuart Candy's Thing from the Future (Candy & Dunagan, 2017) turns abstract scenarios into concrete, evaluable artifacts - the basis for the case vignettes in Section 6. Throughout, the guiding question is the book's: not what technology will enable, but what futures we want and how we organize to create them.

2. How to Read This Scan

Two cautions. First, on the technologies: the claims below are grounded in current research and expert forecasts, but the timelines are genuinely contested, and the education-specific evidence thins quickly the further out one looks. This scan flags confidence levels rather than implying certainty. Second, on the voice: the student and teacher views reported here are carried forward from SCANs 3 and 4 and the studies behind them; where this scan speculates - as in the vignettes - it says so plainly, in the spirit of experiential futures rather than prediction.

3. The Futures Triangle: Forces Shaping AI in Schools to 2030

Inayatullah's Futures Triangle reads any future as the tension among three forces: the push of the present, the pull of imagined futures, and the weight of barriers that resist change (Inayatullah, 2008). Applied to AI in schools, it shows why some 2030s feel inevitable and where the leverage to choose otherwise actually sits.

The push of the present

Powerful forces push schools toward deeper AI integration. The largest is market momentum: industry analysis put the global education-technology market at roughly USD 160-250 billion in 2024, with forecasts of USD 350-600 billion by 2030 (HolonIQ, 2024). To that, add institutional efficiency imperatives, credential anxiety, and the path dependency of past digital investment. These forces do not argue for any particular tool; they simply make adoption feel necessary and inevitable.

The pull of imagined futures

Pulling from ahead are competing visions, each attracting adherents: a corporate techno-utopia of seamless personalization; a democratic renewal using technology to widen access; a resistance-and-return toward human relationship and embodied learning; and a liberation vision of students directing their own learning with AI support (Murgatroyd & Couture, 2026). The question, as the book insists, is not which vision is correct but which the Network chooses to pursue.

The weight that resists

Against the push stand real barriers, and they are the Network's allies: teachers' professional power and judgment; privacy law and regulation; principled pedagogical conservatism that defends relationship and the value of struggle; the persistent gap between AI's marketing and its performance; and student agency, including the right to refuse. The student and teacher voice from SCANs 3 and 4 lives here - their worry about critical thinking, their insistence on the human core - and it is itself a force shaping 2030.

4. The Three Horizons to 2030

The Three Horizons framework sorts the future into the dominant present (H1), the zone of transition (H2), and the transformed future (H3), and asks not which will win but how to manage the passage between them (Sharpe, 2013). AI Unplugged places the frontier technologies of this scan squarely in the second horizon.

Horizon	Timeframe	What it holds for AI in schools
H1	The present	Today's system: chatbots used for homework and planning, detection-based integrity, uneven policy. Valued for human relationships and authentic learning, but under growing strain.
H2	2027-2035	The zone of transition. AI Unplugged names its emerging signals precisely: early AGI applications, quantum-enhanced analytics, and empathetic AI companions - alongside both corporate platforms and democratic, teacher-and-student-built alternatives.
H3	The transformed future	Three plausible destinations: corporate techno-optimism, democratic co-creation, or principled refusal centred on relationship. The H3 we choose now shapes what we build.

The strategic point is this: the H3 a community envisions shapes what it builds in the present. If the Network can articulate a preferred 2030 - one centred on Learning Well and Being Well, on teacher and student co-creation - it can work backwards from that vision rather than drifting into whichever future the push of the market delivers.

5. Three Frontier Technologies and Their Impact

The second horizon names three technologies worth watching. Each is examined here with its honest timeline and its plausible impact on teaching, learning and assessment.

Artificial general intelligence

AGI is the most consequential and the most contested. The forecasts diverge sharply by who is asked: technology entrepreneurs cluster their estimates near 2030, while the largest survey of AI researchers puts the median for human-level machine intelligence around 2047, a timeline that has nonetheless compressed by more than a decade since 2022 (80,000 Hours, 2025; RAND Corporation, 2026). A 2026 expert panel found the median specialist assigning a fifty-percent chance, by 2030, that AI could complete eight-hour expert software tasks - capable, but short of general intelligence (Forecasting Research Institute, 2026). The responsible reading for schools is therefore: meaningful AGI-adjacent capability by 2030 is plausible; full AGI by 2030 is possible but far from settled.

The impact would fall hardest on assessment. If a widely available system can do much of the cognitive work a task demands, the question shifts from detecting misuse to rethinking what is worth assessing at all - exactly the design-justice argument of SCAN 2. For learning, AGI would sharpen the agency paradox that the students themselves named in SCAN 3: capability without struggle. For teaching, it would intensify the deskilling fear of SCAN 4, making the defence of professional judgment more urgent, not less.

Quantum computing

Quantum computing is the most over-hyped of the three for education and the least likely to touch classrooms by 2030. The credible roadmaps converge on a transition out of today's noisy era toward early fault tolerance by 2030, with genuine but narrow utility - molecular simulation, certain optimization problems - rather than general-purpose power (Forrester, 2026). Its near-term educational relevance is the speculative "quantum-enhanced analytics" that *AI Unplugged* places in the second horizon: faster modelling behind adaptive and predictive systems, with all the surveillance and equity concerns those already raise. For the Network, quantum is a signal to track, not a near-term classroom reality, and the report says so plainly to avoid adding to the hype.

Empathic robots

Empathic, or social, robots are the most immediate of the three in classrooms, and the most double-edged. A substantial research base finds that socially expressive robots can lift motivation, attention and engagement, and a recent Delphi study of human-robot-interaction experts sees generative AI accelerating their move into education, including embodied support that improved wellbeing for children with autism over a multi-week classroom deployment (Belpaeme et al., 2018; Generative AI-powered social robots in education, 2025). The promise is real, especially for inclusion (Zheng & Dautenhahn, 2023).

But the concern is equally real and goes to the heart of Being Well. Critics argue that children cannot develop genuine, reciprocal affect toward a machine, and that substituting a responsive robot for human relationships risks the very social-emotional

development that schooling exists to support (“Do robotic tutors compromise the social-emotional development of children?”, 2022). It is difficult to “make kin” with machines. This echoes SCAN 3’s connection theme and SCAN 4’s relationship worry: an empathic robot may engage a child while quietly thinning the human bonds that matter most.

6. Case Vignettes: Things From the Future

Following Candy’s method, the three vignettes below render abstract futures as concrete artifacts a school might actually encounter, each tagged by its arc, terrain, object and mood. They are illustrative - one grounded, one imagined, one aspirational - and are offered as material for the Network’s own futures conversations, not as predictions.

Vignette 1 · “Milo,” the empathic classroom companion (grounded, 2030)

In a Year 2 classroom, a small social robot greets each child by name and runs a five-minute morning check-in, reading facial expression and tone to gauge mood and flag a withdrawn child to the teacher. For an autistic student, it offers a calm, predictable partner for practising conversation. Arc: Growth. Mood: hopeful, but watchful. The teacher values the extra pair of eyes - yet keeps the check-in hers, because the point of asking a child how they are is that a person cares about the answer. The vignette dramatizes both the inclusion promise and the relational risk of empathic robots.

Vignette 2 · “The assessor that never sleeps” (imagined, 2030)

The second vignette imagines an AGI-class assessment system, rendered through Candy’s four dimensions in the table below.

Dimension	Vignette 2 · “The assessor that never sleeps” (imagined, 2030)
ARC	Discipline - assessment tightens as an AGI-class system marks, monitors and flags every piece of student work in real time.
TERRAIN	A Year 10 classroom in any of the Network’s countries; the system is procured nationally and runs on every device.
OBJECT	An always-on co-assessor that scores drafts continuously, predicts final grades, and alerts teachers to suspected AI use - and to students judged “at risk.”
MOOD	Anxious. Students write for the machine; teachers feel reduced to validating its judgments; the relationship at the centre of assessment thins.

This is the assessment future SCAN 2 warned against, arrived at by a different road: surveillance dressed as rigour, with teacher judgment and the student-teacher relationship squeezed out. Naming it concretely makes it easier to refuse.

Vignette 3 · The co-governed AI charter (aspirational, 2030)

In the third vignette, a Network school refuses the always-on assessor and builds something else: a one-page AI charter co-authored each year by students and teachers, setting out where AI helps learning and where it is set aside, with an elected student-

teacher panel reviewing tools before adoption. Arc: Transformation. Mood: empowering. It is a small artefact, but it embodies the H3 the book calls for - students and teachers as co-authors of the rules - and several of its seeds already exist in the co-creation cases of SCAN 2.

7. What Students and Teachers Say About 2030

Pulling the voice forward, a consistent picture emerges. Students approach 2030 holding hope and dread together: a large majority remain optimistic about their futures even as most believe AI has worsened their job prospects, anxiety runs high, and only a tiny fraction feel well prepared (Junior Achievement & Citizens, 2025; Gallup & Walton Family Foundation, 2026). They are not asking to be shielded from these technologies but to be made ready for them, and - as the Toronto youth researchers insisted - to help write the rules (Francis et al., 2025).

Teachers approach 2030 warier still, their concern centred on what AGI-class tools and automated assessment would do to professional judgment and to the relationship at the heart of teaching. Across both groups, and across all three frontier technologies, the same plea recurs that ran through SCANS 3 and 4: whatever arrives by 2030, protect the human core of school. That plea is itself the most important datum in this scan.

8. Implications for the Network's Work

Several propositions follow, offered as prompts toward ICSEI 2027.

- 1. Choose an H3, then work backwards.** Articulate a preferred 2030 grounded in Learning Well and Being Well, and let it guide present choices rather than drifting with the market's push.
- 2. Use the vignettes as inquiry tools.** Candy's method lets student and teacher teams build and critique their own artefacts from 2030, making distant possibilities concrete and discussable.
- 3. Track the three signals honestly.** Treat AGI, quantum and empathic robots as weak signals to monitor against the evidence, resisting both hype and dismissal - quantum furthest off, empathic robots nearest.
- 4. Make assessment the test case again.** Because AGI's sharpest impact is on assessment, the Network's co-creation work on what is worth assessing is the best preparation for whatever 2030 brings.
- 5. Protect the human core as a design rule.** The one thing students and teachers agree on across every scan is the priority of relationship; let that be the constraint every imagined future is tested against.

9. Closing: The Series and the Road to 2027

With SCAN 5, the series has moved from the landscape of student creation, through teacher-student co-creation, the student voice and the teacher voice, to the future as both groups see it. The thread that ties all five together is a single conviction, drawn from AI Unplugged and confirmed by the evidence: the future of AI in schools is not coming, it is being made, by identifiable actors with particular interests - and students and teachers can help make it. The next step is the Network's own: to turn these scans into shared inquiry, carrying the Learning Well and Being Well frames and the design-justice spine toward ICSEI 2027.

References

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The future of AI in schools is not coming; it is being made - and students and teachers can help make it.