

SCAN 2

Teachers and Students as Co-Creators of AI-Based Innovations in Teaching, Learning and Assessment

From students as creators of their own AI space toward shared authorship - and the question of who really holds the pen

Prepared for the Youth AI Research Network

This second scan moves from SCAN 1's question of what young people create toward what teachers and students build together. It is framed by the Network's twin questions of **Learning Well** and **Being Well**, and grounded in the design-justice argument of *AI Unplugged: The Hope and Hype in Education Futures* (Murgatroyd & Couture, 2026), which reframes the task as moving from designing *for* students to designing *with* them.

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Stephen Murgatroyd, PhD · Futures Leadership for Change

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1. Purpose and Framing

This is the second report in the Futures Leadership for Change series accompanying the Youth AI Research Network. SCAN 1 asked what young people create when they are positioned as designers of their own AI space. SCAN 2 turns to a harder and more interesting question: what do teachers and students build together, and who really holds the pen when they do. Co-creation is easy to celebrate and easy to fake, so the purpose of this scan is to give the Network a clear-eyed account of what genuine shared authorship looks like in teaching, learning and assessment, and where it shades into something thinner.

The scan takes its conceptual spine from *AI Unplugged: The Hope and Hype in Education Futures* (Murgatroyd & Couture, 2026), the critical K-12 study that frames AI not as a tool to be adopted but as contested terrain to be shaped. Its central move, that the task is to shift from designing *for* students to designing *with* them, is precisely what co-creation means when taken seriously. That book's design-justice argument runs through this report: co-creation is not a neutral good but a justice practice, one that asks whose voices are centred, who holds power, and whether what is built serves learning and wellbeing or merely efficiency and control.

The Network's twin questions remain the spine. Learning Well asks whether a co-created innovation deepens understanding or quietly hollows it out. Being Well asks what shared authorship does to relationship, trust, agency and the dignity of both teacher and student. A tool can be co-designed in form and still corrosive in effect, so both questions travel through every section that follows.

2. How to Read This Scan

As with SCAN 1, the honesty of this scan depends on naming its evidence. Three cautions apply. First, the documented base of genuine teacher-student co-creation is uneven. It is strongest in the United States and in the academic participatory-design literature, firmer in Australia, New Zealand and Germany among the Network's members, partial in Norway, and thin in Iceland, where current activity is largely teacher-facing. Second, much of what is published describes co-use dressed as co-creation: students using an adult-chosen tool, or consulted after the design decisions are made. This scan tries to hold that line rather than flatter it. Third, the primary voice of students reflecting on co-creating, as opposed to using, AI is still scarce, which is itself a finding and an opportunity the Network is positioned to address through its own participatory research.

3. What Co-Creation Means: Three Depths

Co-creation is not one thing, and treating it as one lets thin practice pass for deep. It helps to distinguish three depths, which differ not in tone but in where authorship and decision rights actually sit. The distinction matters because, as *AI Unplugged* argues of assessment, what counts is not token consultation but genuine co-design authority, and the same test applies across teaching and learning.

Depth	What it means	Where it shows in the evidence
Co-use	Students use a tool the teacher (or system) has chosen. Authorship of the innovation sits with adults; students are users, not makers.	Most national chatbots fall here - NSWeduChat in Australia, telli / AIS.chat across Germany, the teacher pilots in Iceland.
Co-design	Teacher and students together shape what the tool or task is and how it works. Students hold real design input, not token consultation.	WordFrame (New Zealand), fiete.ai (Germany), the AI Assessment Scale (Australia), and the Colleague AI classroom pilot abroad.
Co-governance	Students hold genuine decision rights over how AI is used, assessed and regulated in their school - governance treated as learning.	New York City schools, Nevada's Student Voice Group, HVL's student-co-written guidance, and the TDSB student leadership work.

Most national and commercial deployments sit at co-use, and there is nothing dishonourable in that so long as it is named accurately. The Network's distinctive contribution lies further down, in co-design and especially co-governance, where students help shape not only the artefact but the rules and the assessment around it. A useful discipline for every team is to ask, of any co-creation claim, which of these three depths it actually reaches.

4. The Design Justice Spine

AI Unplugged supplies the framework that turns co-creation from a slogan into a method. Its account of design justice, drawn from Costanza-Chock and adapted for schools, is a community-led practice that shifts power away from centralized institutions and credentialed experts toward the people most affected by a system. Applied to AI in education, it means refusing curricula, pedagogy and assessment shaped primarily by government departments, textbook publishers and technology vendors, and insisting instead that those most impacted help design them. This is the book's pivotal phrase made operational: the move from designing *for* students to designing *with* them (Murgatroyd & Couture, 2026).

Seven principles organize the work, and each reads directly as a test for co-creation: centre marginalized voices rather than merely include them; build collective power; prioritize impact over intent; design for liberation; practice accountability to those affected; share knowledge and tools openly rather than enclosing them; and recognize and challenge the power dynamics in the room. For the Network, these are not abstractions. They are the questions a team should put to its own co-creation: whose problem are we solving, who decided, who benefits, and who could be harmed.

The Network's anchor case sits in the book itself

AI Unplugged centres the work of Black students in the Toronto District School Board who, working alongside their teachers, examined AI's promises and risks and

reached unambiguous conclusions: they documented far higher AI use among students than teachers, called for regulation rather than bans, named equity gaps and algorithmic bias, raised privacy and surveillance concerns, and demanded age-appropriate AI literacy. This is co-creation in its fullest sense - not a tool built, but a critique and a set of demands authored jointly by students and teachers. One student's line, that school should remain a place where it is ok to be a human, could stand as the motto for this entire report.

5. Co-Creation in Assessment

Assessment is where co-creation is most exposed and most needed, which is why *AI Unplugged* devotes a full chapter to it. The book's starting claim is bracing and correct: generative AI did not create the integrity crisis, it revealed what was always present, and the question is whether institutions respond with more surveillance or reimagine assessment itself (Murgatroyd & Couture, 2026). The surveillance response is failing on its own terms. Detection tools lag the models students actually use, are defeated by minor edits, flag non-native English writers at higher rates, produce devastating false positives, and, tellingly, even teachers misclassify student and AI writing more often than they correctly identify it.

The alternative the book offers, and that this scan endorses, is to redesign assessment through design justice. Students, as the people most affected by assessment, must be central participants with genuine co-design authority rather than token consultation. Assessment should be treated as an ongoing relationship rather than a discrete transaction, students and communities should retain ownership of their own learning data, and before reaching for new corporate tools, schools should look first to what already works at the community level - portfolios, exhibitions, learning narratives and student-led conferences. This is co-creation applied to the highest-stakes part of schooling.

The international evidence supports the move. A participatory co-design study of an AI-integrated assessment found that, when carefully scaffolded, building AI into the task itself can promote both technical fluency and ethical reflection, with teaching staff and students designing the approach together rather than policing it after the fact. Closer to the Network, the AI Assessment Scale, co-created by Perkins, Furze, Roe and MacVaugh and adopted in Saskatoon, gives teachers and students a shared language for being transparent about how AI was used, shifting assessment from compliance toward honest co-authored disclosure. [AI Assessment Scale](#).

6. The Agency Paradox

Co-creation has to answer a hard question that *AI Unplugged* poses directly: does building with AI deepen students' thinking or quietly erode it. The book names this the paradox of student agency. The same tools that promise personalization and feedback may also enable cognitive offloading, where students delegate the very thinking that

constitutes learning. The evidence the book marshals is sobering. Gerlich's 2025 study found a strong negative correlation between AI use and critical thinking, with cognitive offloading as the mechanism and younger users most exposed. Students adopt AI far faster than their teachers, with usage gaps of the order of 54 percent of students to 18 percent of teachers, and much of that adoption happens without scaffolding or critical awareness.

This is where co-creation earns its keep. The book shows that scaffolded AI use can preserve learning - a Kenyan writing-assistant study and a Chinese physics-simulation study both found gains when support was structured and gradually withdrawn - but that scaffolding demands teacher expertise, time and a culture that values deep learning over grade production, resources that are systematically denied. The lesson for the Network is that co-creation is not a way around the agency paradox but the way through it: a tool designed with students, around a question they own, with the teacher shaping the scaffold, is far likelier to demand thinking than a tool handed down for efficient answer-production. Being Well enters here too, since the book links the consumer, grade-for-effort orientation that AI can amplify to a loss of purpose and meaning that no device can restore.

7. Cases From the Network and Beyond

The following cases are offered, as in SCAN 1, as proof of possibility and material to interrogate, not as templates. They are grouped by the Network's members, with international anchors where the network evidence is thin, and each carries its own unresolved questions about how deep the co-creation really goes.

7.1 New Zealand - the strongest co-creation evidence

WordFrame, the AI writing-structure tool built by three Marlborough Boys' College students with their teacher as mentor, is as much a co-creation story as a student-led one, and bridges SCAN 1 and SCAN 2 directly. Around it sits a maturing infrastructure: the Scaffolded AI Literacy framework from the University of Canterbury, academyEX and AUT runs to an "Evaluate and Create" level; an EdTech hackathon positioned students as agents of change generating youth-led solutions; and the refreshed technology curriculum embeds AI - including its whakapapa, biases and ethics - as compulsory by 2027, with Māori data sovereignty foregrounded. [SAIL framework / NZ](#).

7.2 Australia - co-created transparency and student build routes

Australia's distinctive contribution is co-created assessment scaffolding. The AI Assessment Scale gives teachers and students a shared, transparent language for AI use, and the national framework's first principle is to engage students in learning about AI, including its limitations and biases, rather than merely permitting or banning it. These sit alongside the student-build routes documented in SCAN 1, Samsung's Solve for Tomorrow and the Day of AI competition. [Australian framework](#).

7.3 Germany - teacher-led co-creation

Germany offers the clearest teacher co-creation case. [fiete.ai](#) was developed by teacher Hendrik Haverkamp with software developer Malte Hecht to give students individualized feedback against the teacher's own criteria - a tool authored from inside the profession rather than imported. The student-founded initiative KI macht Schule runs AI workshops and camps for school students across the German-speaking world, including an Erasmus+ teacher training delivered in Finland, putting young people in the position of teaching AI as well as learning it. [fiete.ai](#).

7.4 Norway - school-built tools and a co-governance signal

Norway's picture is more teacher- and educator-led, but two signals matter. The login-free classroom AI in the Randaberg schools, created by Odin Nøsen, shows a school system building its own GDPR-safe tool for use with students. And at the tertiary level, Western Norway University of Applied Sciences wrote its AI guidelines through a group that included student representatives - a small but genuine instance of co-governance the Network's schools could emulate. [Randaberg / Norway](#).

7.5 Iceland - an honest gap

Iceland is the thinnest case, and it is more useful to say so than to inflate it. Current activity is teacher-facing: a national pilot led by the education directorate with the teachers' union is giving hundreds of teachers access to AI tools for planning through to April 2026, and a school development project at Egilsstaðaskóli is building teacher capacity to adapt materials for diverse learners. No clear student co-creation case surfaced. As with the Finland and Sámi finding in SCAN 1, the participatory infrastructure exists, so this is a gap the Network could help close rather than a verdict. [Iceland AI pilot](#).

7.6 International anchors

Three anchors strengthen the frame where network evidence is thin. Digital Promise's synthesis of twenty-eight K-12 projects concludes that human-centred co-design with educators, students and communities produces more useful and culturally responsive tools. New York City's schools guidance holds that student participation in AI decisions is itself the practice of critical thinking and democratic participation, so governance is not separate from learning. And a secondary-school co-design pilot positioned teachers as co-design partners while AI acted as a third classroom agent, preserving teacher authority across more than six hundred students. [Digital Promise](#).

8. Competencies for Co-Creation: Agency, Not Compliance

If co-creation is the practice, what capacities does it require, and here *AI Unplugged* offers a deliberately uncomfortable answer. The book argues that the dominant skills discourse - AI literacy, prompt engineering, digital fluency - is not neutral but political: it individualizes responses to systemic change, treats AI integration as inevitable, and channels energy into adaptation rather than transformation. Worse, it can obscure how AI systems deskill rather than upskill, reducing the teacher from designer to implementer, from professional to technician (Murgatroyd & Couture, 2026).

For co-creation, this reframes the competency question. The capacities that matter are not only those for using AI but those for interrogating, evaluating and, where warranted, refusing it - what the book calls **critical AI literacy**. And they are collective as much as individual: competencies for democratic control over educational technology, for defending professional judgment, and for shared decision-making between teachers and students. A team that co-creates a tool but cannot question who profits from it, whose data it extracts, or whether it should exist has learned compliance, not agency. The Network's co-creation cycles should therefore build in the competency of refusal alongside the competency of use.

9. Implications for the Network's Co-Creation Work

Drawing the book and the evidence together, several working propositions follow for teams as they move into co-creation cycles. They are prompts for the action research, not instructions.

1. **Name the depth honestly.** For any co-creation, ask whether it reaches co-use, co-design or co-governance, and resist the temptation to call consultation co-design.
2. **Start from those most affected.** Following the first design-justice principle, begin with the students a tool or task most affects, not with the tool. Centre, do not merely include.
3. **Make assessment the test case.** Co-design how AI use is disclosed and judged, treat assessment as relationship rather than detection, and let students hold genuine authority over the rules they are assessed by.
4. **Build the scaffold, not just the tool.** Because the agency paradox is real, design the support that keeps thinking in the loop, and withdraw it as competence grows, rather than letting the tool do the thinking.
5. **Include the competency of refusal.** Equip teams to interrogate and, where warranted, decline a tool, so co-creation builds agency rather than compliance.

10. Gaps and the Next Scans

This scan establishes the framework and the strongest cases; it does not close the questions. Three gaps should shape what comes next. The first is geographic: Iceland and, for genuine student co-governance rather than teacher-led tools, much of Europe remain thin, and Ireland is best carried forward as the creative-arts co-creation opportunity identified in SCAN 1. The second is the scarcity of primary student voice reflecting on co-creating rather than using AI - a gap the Network's own participatory research is uniquely placed to fill. The third is longitudinal: almost nothing yet tracks whether co-created innovations sustain learning over time, which is exactly the knowledge the Network can begin to generate ahead of ICSEI 2027.

A sensible sequence for the series would move from SCAN 1's landscape, through this account of co-creation, toward a synthesis grounded in the Network's own emerging action research, carrying the Learning Well and Being Well frames and the design-justice

spine throughout, so the reports accumulate into a coherent argument rather than a set of snapshots.

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References follow APA 7th edition style and reflect the conceptual source and the live evidence gathered for this report.

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