

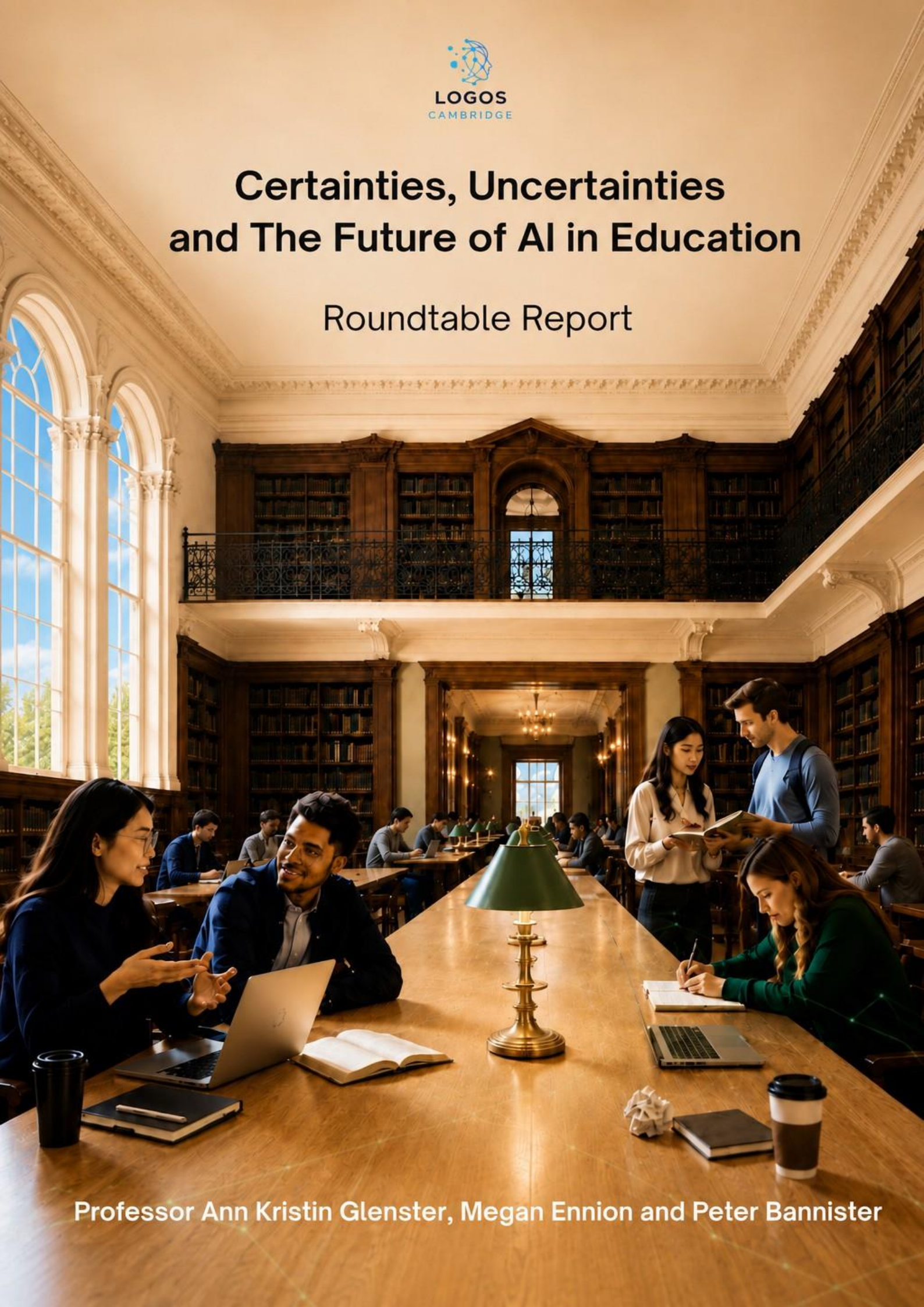


  
LOGOS  
CAMBRIDGE

# Certainties, Uncertainties and The Future of AI in Education

## Roundtable Report

Professor Ann Kristin Glenster, Megan Ennion and Peter Bannister



  
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This report presents findings from the roundtable held at Homerton College,  
University of Cambridge on 12 June 2026.

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## 1 Executive Summary

This report presents the findings of a LOGOS roundtable convened to examine what epistemic conditions must be protected as AI becomes embedded in education. Conducted under the Chatham House Rule and bringing together participants from academia, practice, civil society, and the civil service, the discussion moved deliberately away from questions of specific tools or applications and towards a more fundamental inquiry: what AI is doing to learners as knowers, and what conditions of trust, agency, and judgement must hold if education is to remain human-centred.

The roundtable was structured around four questions concerning the future of thinking and epistemic capability, the behavioural signals that indicate genuine learning rather than output performance, the conditions that sustain trust and agency when students turn first to machines, and the non-negotiable epistemic guarantees education systems should protect. Across these questions, a consistent picture emerged. Participants argued that current policy debate — focused on safety standards, access, and assessment integrity — has not adequately addressed the deeper question of what AI does to learners' capacity to evaluate claims, exercise judgement, and revise beliefs. They identified embodiment, social relationship, human cognition, agency, and curiosity as foundational conditions of learning that are put at risk not by AI as such, but by patterns of adoption that treat efficiency and output as substitutes for understanding. Participants also emphasised that these risks cannot be understood as technological issues alone: AI is entering education systems already shaped by assessment pressure, accountability, productivity, and distrust, while also raising urgent questions about who designs the tools, whose purposes they serve, and how teachers, learners, and communities can meaningfully shape educational futures.

The report sets out eight epistemic conditions that participants argued should underpin a proposed Learner Epistemic Rights Charter, spanning rights to embodied and social learning, independent cognition and agency, transparency about AI involvement, and meaningful contestability of AI-generated outputs. It concludes that the central policy task is not how to incorporate AI into education, but what forms of knowledge, judgement, and human flourishing educational systems should protect as they do so — a task participants situated squarely within human choice, public governance, and democratic deliberation rather than technological inevitability.

## 2 Introduction

This roundtable was convened as part of LOGOS's research supporting the development of a proposed **Learner Epistemic Rights Charter**, aimed at **ensuring that AI in education remains human-centred**. The discussion proceeded from the premise that, as AI increasingly mediates how learners encounter information, acquire knowledge, and form beliefs, **education must actively protect learners as knowers in their ability to assess reliability, justify claims, exercise judgement, and revise beliefs responsibly**.

The roundtable brought together stakeholders from academia, practice, civil society, and the civil service, and was conducted under the Chatham House Rule. Notably, the discussion did not focus on particular AI systems or specific educational applications. Instead, participants considered more fundamental questions concerning **what should be learned, how learning should take place, and how learning should be assessed**. The uniquely human features of **embodiment, agency, cognition, and social relationships** emerged as recurring themes. Participants also recognised that education and technology are **neither neutral nor inevitable**, but are shaped by social, economic, political, and institutional assumptions. Narratives of inevitability, participants argued, can obscure the choices through which technologies are designed, adopted, governed, and integrated into educational environments.

### Recommendations

Drawing from the discussion, several epistemic conditions were identified that could inform a **Learner Epistemic Rights Charter**:

- **A right to embodied learning**, including protection of the spatial, temporal, physical, and attentional conditions through which understanding develops.
- **A right to learn within educational environments** that recognise thinking and learning as fundamentally human, social, relational, and developmental activities.
- **A right to educational relationships grounded in trust**, including trust between learners and teachers, and conditions that avoid replacing professional judgement with suspicion, monitoring, or defensive accountability.
- **A right to individual human cognition, epistemic agency, independent thought, and judgement**, including opportunities to think, struggle, question, reflect, and revise before turning to AI.

- **A right to acquire the foundational knowledge** necessary to evaluate, contextualise, and challenge AI-generated claims.
- **A right to educational conditions that sustain curiosity, motivation, intellectual exploration, and human flourishing.**
- **A right to understand the provenance, authority, cultural assumptions, and limitations of knowledge** presented through AI systems.
- **A right to educational environments in which AI's role and limits are clearly specified**, and human agency, teacher judgement, and educational purpose, rather than the demands of the technology, remain the organising principles.
- **A right to transparency** regarding AI involvement in learning, teaching, assessment, and decision-making.
- **A right to meaningful contestability** of AI-generated outputs, assessments, and inferences.
- **A right to protection from AI systems** whose design may undermine attention, independence, judgement, or the capacity to think without continual technological assistance.
- **A right to safeguards** around how learners' questions, reasoning, mistakes, and developing understanding are captured, accessed, or used within AI systems.
- **A right to participate**, directly or through representative processes, in decisions about how AI is designed, procured, governed, and used in educational settings.
- **A right to an education that offers meaningful outcomes and supports learners to develop as knowers, citizens, and human beings**, rather than merely adapting them to technological change.

## Background

AI is moving into UK classrooms at pace. In January 2026, the Department for Education announced a £23 million expansion of the EdTech Testbed programme alongside plans to develop [AI tutoring tools for up to 450,000 disadvantaged pupils eligible for free school meals](#). The same month, the UK hosted the inaugural [AI for Education Summit](#), and the Children Wellbeing and Schools Act, which grants new ministerial powers over AI chatbots accessed by children, has since received [Royal Assent](#).

Against this rapid rollout and fast-moving policy response, there is a pressing need for a principled conversation about what education must protect as AI enters everyday learning. Current discourse centres on safety standards, access, and the future of assessment. There is a clear need to broaden the discussion to ask **what AI is doing to learners as knowers**, and what epistemic conditions must hold for **trust and relationships, clear boundaries around data and inference, transparency regarding AI involvement, meaningful contestability, and norms that prevent deference-by-default**. [The National Union's April 2026 survey of teacher members](#) found that 66 per cent of secondary teachers believe pupils' critical thinking has declined as a result of AI use, illustrating the urgent need for policy to catch up with the pace of technological adoption both within and beyond formal educational settings.

### Roundtable Questions

The roundtable asked what **epistemic conditions** should be present in everyday classroom practice, and how AI initiatives now entering UK schools, from EdTech Testbeds to large-scale AI tutoring, should be evaluated in terms of whether they strengthen or weaken learners' capacity to assess sources, justify claims, revise beliefs, and think critically.

To explore these themes, the roundtable discussion was structured around four questions:

- **Future of thinking and epistemic capability:** As AI Changes how students learn, what is the future of thinking, and what must learners do with knowledge – justify, question, revise – rather than only access it?
- **Behavioural signals:** What learning behaviours would indicate these capacities are developing – questioning and verification, persistence with difficulty, ownership of reasoning, willingness to revise, selective and reflective use of AI – rather than output performance alone?
- **Trust, judgement, and agency:** When students turn first to machine, what holds up trust, judgement, and agency – transparency about AI involvement, meaningful contestability, norms preventing deference-by-default?
- **The future purpose of education:** If a key purpose of education is to build individual and collective agency in relation to AI, what are the non-negotiable epistemic conditions schools should guarantee – and what would count as their unacceptable erosion?

### 3 Foundations of Learning

#### **Embodied and Social Learning: Space and Time**

A recurring theme throughout the roundtable was the need to **protect space for learning**. Participants used “space” broadly: not only physical classroom space, but also temporal, social, psychological, and digital conditions that allow learners to attend, reflect, question, struggle, discuss, and develop understanding over time.

Participants highlighted that **human learning is fundamentally embodied** and develops over time. They argued that spatial, temporal, relational, and embodied dimensions of learning are not merely educational preferences, but essential epistemic conditions through which learners develop understanding, judgement, and the capacity to form and revise beliefs. Discussion therefore focused on the need to protect learning spaces, opportunities for reflection, and the conditions that support deep intellectual engagement.

Participants highlighted the importance of physical learning practices such as notetaking and writing. They questioned how educational systems will assess thinking if writing is increasingly displaced by AI-generated outputs. Such developments, participants argued, raise important questions about the relationship between learning, assessment, and human embodiment.

Opportunities to think, reflect, and express themselves **without constant mediation through digital devices** were highlighted as essential for learners by participants. They emphasised the importance of preserving environments that support concentration, contemplation, and sustained attention, as well as time to explore uncertainty and develop intellectually without continual technological intervention or pressure for immediate outputs.

Protecting time for learning emerged as a critical theme. Participants cautioned that growing emphasis on productivity, efficiency, and measurable outputs risks undermining the conditions that make learning possible. Efficiency cannot substitute for the slower processes through which understanding develops, nor for the time required for questioning, experimentation, disagreement, discussion, and reflection. Participants also noted that time pressure can function as a form of power by limiting opportunities to challenge assumptions, consider alternatives, and participate meaningfully in educational decision-making. Protecting time for reflection was therefore seen as important not only for learning but also for sustaining autonomy, trust, and independent judgement.

## Social Relationships and Trust

Participants emphasised that **learning is fundamentally relational**, developing through human interaction, dialogue, and shared experience rather than through the acquisition of information alone. Education was therefore understood as depending not simply on knowledge or information, but on the relational conditions through which learners develop understanding, judgement, confidence, and the capacity to participate in shared inquiry.

A recurring view was that **epistemic development depends upon opportunities to engage with others, encounter different perspectives, and participate in shared processes of knowledge formation**. They therefore called for greater emphasis on relational and interpersonal capacities. Participants also discussed examples of models in which two adults or teachers are present in the classroom, allowing students to observe relational intelligence in practice through disagreement, negotiation, conflict resolution, and relationship repair. This was used to illustrate how forms of reasoning together can be made visible to learners. More broadly, participants argued that empathy, communication, emotional awareness, and conflict navigation should be re-centred within education, both to support individual wellbeing and to strengthen democratic participation, social cohesion, and collective problem-solving.

The discussion suggested that AI can alter how students, teachers, and tutors understand one another's actions, intentions, and responsibilities. Relationships traditionally grounded in **professional judgement and mutual trust** risk becoming increasingly shaped by monitoring, verification, and suspicion. This, participants noted, places additional burdens on educators and is serving to undermine trust, particularly where institutions require staff to report student AI use and the consequences for learners are severe.

Participants described trust not merely as a desirable feature of education but as an essential epistemic condition through which learners develop confidence, judgement, and the willingness to question, revise, and defend beliefs. They argued that AI affects trust at multiple levels—between students and teachers, within educational institutions and assessment systems, and in the technologies themselves—while also reshaping the conditions under which trust is established and maintained.

The discussion also prompted reflection on **the purpose of education**. Some participants questioned whether current systems place excessive emphasis on individual attainment and competition, suggesting that learners might benefit more from collaboratively addressing real-world challenges and shared social problems.

## Human Cognition

AI's impact on human cognition was a persistent undercurrent of the roundtable, sharpening the question of what education systems must now protect and develop in human thinking. A recurring concern was that **AI may create a false sense of mastery**, enabling learners to produce sophisticated outputs without developing the underlying understanding associated with genuine competence. This distinction between performance and understanding was seen as a critical educational issue.

More fundamentally, participants questioned **what is meant by “thinking” itself**. Activities traditionally associated with learning, such as reading, writing, and discussion, can now be partially automated by AI systems, raising questions about which cognitive processes remain distinctively human and how educational institutions should cultivate them. Participants worried that learners may increasingly bypass the intellectual processes through which understanding develops, moving directly to AI-generated outputs without engaging in reasoning and reflection.

Participants also stressed that critical thinking depends upon knowledge. **Learners require foundational knowledge** to evaluate claims, identify errors, recognise misplaced confidence, and challenge inaccurate or biased outputs. Without it, they may lack the capacity to assess whether AI-generated information is reliable or misleading. Participants therefore argued that educational systems must continue to prioritise foundational knowledge as the basis for critical judgement, intellectual independence, and epistemic agency.

At the same time, participants were not wholly negative about AI's cognitive implications. Several argued that AI can support thinking when used appropriately by encouraging reflection on reasoning, comparing alternative arguments, identifying assumptions, and fostering metacognitive development. The key distinction, they argued, is between systems that **replace cognitive effort** and those that strengthen it.

This led to broader discussion about educational aims. Participants highlighted the importance of metacognition, meta-emotional awareness, and relational intelligence, arguing that learners need not only knowledge but also an understanding of how they think, learn, and engage with others. Education was therefore understood as developing **judgement, discernment, and intellectual capability**, preparing learners not merely to access information but to evaluate, question, justify, and revise knowledge claims.

Participants situated this concern within a wider question of **whose knowledge and ways of knowing are represented** in the first place. They emphasised that cognition and knowledge are shaped by culture and context. Discussion highlighted the influence of WEIRD (Western, Educated, Industrialised, Rich, and Democratic) assumptions within educational systems and the risk that AI may reproduce cultural and epistemic biases embedded in training data. Participants therefore stressed the importance of helping learners understand how knowledge claims are constructed, whose perspectives are represented or excluded, and how different intellectual traditions shape ways of knowing.

More broadly, participants noted that AI has renewed attention to longstanding questions about the **authority, provenance, and validation of knowledge**. Learners increasingly need to understand not only what a system says, but where its knowledge comes from, whose perspectives it reflects, and whose intellectual labour underpins it.

Participants also noted the practical challenge of already crowded curricula. As schools respond to AI, they cannot simply keep adding new content, competencies, or standalone AI literacy requirements without also attending to the dimensions of learning that are already under pressure. These include time for reflection, discussion, struggle, judgement, relational learning, and sustained inquiry. In this sense, protecting human cognition is not only about preserving individual thinking skills, but about **safeguarding the conditions through which understanding and judgement develop**.

### Human Agency

The importance of fostering and protecting human agency emerged as a consistent theme throughout the discussion. Participants argued that education should equip individuals to exercise judgement, make meaningful choices, and act purposefully in the world. Agency was viewed not merely as an individual attribute but as a core educational objective and epistemic condition. In increasingly AI-mediated environments, learners must retain ownership of their reasoning and the capacity for independent, informed judgement.

The discussion also emphasised that agency extends beyond individual decision-making. Participants highlighted the importance of recognising **multiple forms of agency**, including proxy, co-, and collective agency. Individuals frequently act through others, with others, and within wider social groups and institutions. Educational systems should therefore foster collaboration, collective deliberation, and meaningful participation in

shared decision-making. These capacities were seen as increasingly important in a world shaped by complex technological and social challenges.

Questions of agency were closely linked to learner choice. Participants argued that schools should equip learners with the knowledge, capabilities, and confidence needed to make informed decisions about how and when to use AI. Rather than treating learners as passive recipients of technology, education should enable them to exercise judgement about which tasks are appropriate for AI assistance and which are better undertaken independently. Supporting discernment and informed choice was therefore seen as a key component of educational agency.

Participants highlighted the importance of **empowering teachers and protecting their professional autonomy**, particularly over pedagogical decisions. Current patterns of AI adoption, some argued, may reduce opportunities for educators to exercise professional judgement and draw on their own expertise and teaching approaches. Several noted that teachers increasingly operate within systems of measurement, accountability, and ranking that discourage experimentation, professional discretion, and collective engagement. Questions of AI governance were therefore seen as inseparable from the broader empowerment of educators.

Participants challenged prevailing policy language surrounding **human oversight**. Several argued that greater clarity is needed about what “human-in-the-loop” requirements mean in practice. Some suggested that this framing risks defining human roles in relation to the needs of technology rather than educational goals. Instead, they proposed an “AI-in-the-loop” approach, in which the role and limits of AI are clearly specified while human agency remains the organising principle.

Participants further emphasised that agency depends on opportunities for **independent thought**. While often critical of current patterns of AI adoption, they rejected the assumption that AI inevitably diminishes human agency. Instead, they argued that the key question is not whether AI should be used, but how, when, and for what purposes. Participants also referred to research suggesting that the sequencing of AI use matters. In particular, they noted evidence that learners may benefit from thinking independently before turning to AI for assistance. This approach preserves opportunities for judgement, reasoning, and intellectual effort, while positioning AI as a supplementary rather than substitutive tool. Maintaining opportunities for independent thought was therefore seen as essential to preserving learners’ ownership of their reasoning and decision-making.

Overall, participants viewed the **protection and enhancement of human agency** as a guiding principle for future educational policy. The challenge is not merely to manage technological change but to ensure that learners and educators remain capable of exercising judgement, making choices, questioning assumptions, and shaping educational futures on their own terms.

### **Human Curiosity and Appetite for Learning**

Participants repeatedly returned to questions of **motivation, curiosity, and the desire to learn**. Many observed that the widespread availability of AI creates new challenges for education, as learners may increasingly question the value of undertaking intellectual tasks themselves when AI can perform them quickly and competently. This raises a fundamental question: if technology can generate answers, solve problems, and complete tasks, what motivates individuals to engage in these activities independently?

Answering this question, many argued, requires educators and policymakers to think more deeply about the purpose of learning itself. Several participants noted that students are more likely to invest effort when learning is connected to matters they care about. Learning was therefore understood not simply as the acquisition of knowledge or skills, but as something tied to meaning, purpose, identity, and engagement with the world. Educational experiences connected to real-world concerns, personal interests, and authentic challenges were seen as more likely to sustain motivation than those perceived as disconnected from learners' lives.

Relatedly, participants questioned how educational success should be understood in an AI-mediated society. As one participant observed, a key question is whether epistemic capability should be understood primarily as the ability to perform well within formal educational institutions or more broadly as the **ability to flourish**. Participants viewed this distinction as having significant implications for educational priorities, curriculum design, assessment, and policymaking, and generally favoured a broader conception linking learning to flourishing, purpose, agency, curiosity, and participation in society.

Participants contrasted earlier aspirations for education with what they saw as a **growing emphasis on efficiency, productivity, and measurable competencies**. Several expressed concern that educational systems increasingly prioritise what can be quantified, often at the expense of broader developmental aims. This concern extended beyond assessment to more fundamental questions about the nature of knowledge and learning. Participants worried that knowledge is increasingly

conceived as a set of measurable inputs and outputs rather than something developed through dialogue, interpretation, social practice, and participation in communities of learning. Such trends were seen as undermining the curiosity, exploration, and intellectual engagement that education seeks to cultivate.

Participants cautioned against **narrow accounts of intelligence** that reduce complex human capabilities to a collection of measurable indicators. There was concern that contemporary educational and technological approaches risk fragmenting intelligence into discrete assessments of behavioural, cognitive, or biological markers while overlooking the social, relational, cultural, and developmental dimensions of learning.

One notable gap in current policy concerns the motivation for learning itself. While education policy often focuses on curriculum content, assessment, and measurable outcomes, they argued that insufficient attention has been paid to the conditions that sustain curiosity and inquiry over time.

Several participants expressed concern that many children lose their **natural curiosity** as they progress through formal education. In their view, young children often display a strong desire to ask questions, explore, experiment, and discover. However, this curiosity may diminish during adolescence in part as a result of institutional pressures, hierarchical structures, accountability regimes, and educational practices that prioritise rote learning and performance measurement. The result, participants argued, can be an educational environment that suppresses rather than nurtures the qualities that make learning meaningful.

In this context, protecting curiosity was seen not merely as a question of motivation, but as part of preserving learners' capacity to **pursue knowledge, ask meaningful questions, and engage with the world as active and independent knowers**. Any future vision of education, participants suggested, should therefore remain attentive to the broader purposes of learning, human development, and flourishing.

## 4 Reimagining Education

### From Information Access to Knowledge Navigation

A significant theme emerging from the discussion was the changing relationship between formal education and the wider information environment. Participants observed that AI is accelerating a shift already underway, in which learners encounter information, explanations, and opportunities for skill development across multiple settings rather than only through schools, colleges, or universities. As learners gain access to vast amounts of information through digital technologies and AI, formal educational institutions can no longer be understood primarily as **repositories or gatekeepers of knowledge**.

This shift was seen as requiring a fundamental rethinking of the purpose and practice of formal education. Rather than serving primarily as providers of information, schools, universities, and educators may increasingly need to help learners navigate and make sense of complex knowledge environments. Participants argued that the central challenge is no longer access to information itself, but the ability to **interpret, evaluate, contextualise, and use it responsibly**. In this view, education becomes less about transmitting information and more about equipping learners with the intellectual tools needed to evaluate claims, identify gaps, understand context, recognise uncertainty, and exercise judgement in conditions of information abundance.

Participants repeatedly stressed that future education should focus on developing **methodological and structured forms of thinking** rather than simply delivering information. Key capabilities included source criticism, evaluating evidence, recognising gaps in knowledge, understanding different perspectives, identifying whose voices are present or absent, and navigating competing claims. These competencies were seen as increasingly important in an age of information abundance, where the quality, reliability, authority, and provenance of information are often uncertain.

The changing relationship between knowledge and authority was another recurring theme. Participants observed that educators have traditionally been regarded as authoritative sources of knowledge within the classroom. However, as learners gain more direct access to information through AI and digital technologies, the role of the teacher is evolving. Rather than acting primarily as providers of information, educators may increasingly serve as guides who help learners navigate and make sense of complex knowledge environments.

Participants emphasised that this transition should not be interpreted as diminishing the importance of teachers. Rather, it creates a need to **reconstitute educational authority** in new ways. In an environment characterised by information abundance and competing knowledge claims, educators remain essential in helping learners develop judgement, discernment, intellectual rigour, and an understanding of how knowledge is produced and evaluated. Participants therefore highlighted the importance of supporting teachers as they move from acting primarily as knowledge gatekeepers to facilitating understanding, critical inquiry, and epistemic development.

The discussion also highlighted the practical realities facing educators and families. Participants noted that many parents have concerns about the use of AI in schools. While these concerns were recognised as legitimate, participants argued that educational policy must acknowledge that **learners are already using AI** and are likely to encounter it throughout their lives beyond formal education. Educational systems should therefore focus not only on managing risks but also on preparing learners to engage with AI critically, responsibly, and effectively.

### **Education Systems under Strain and Need for Reform**

Several participants argued that the current education system is under significant strain and, in some respects, no longer fit for purpose. As one contribution put it, the problem is not AI alone, but **the education system into which AI is being introduced**. AI may heighten existing pressures around assessment, productivity, accountability, and trust, but those pressures long predate the technology itself. Many suggested that recent advances in AI have exposed these existing weaknesses, bringing long-standing tensions to a critical point.

Participants expressed particular concern about existing systems of assessment. They argued that AI has brought into sharper focus longstanding questions about **what assessment actually measures**. While assessment systems often claim to evaluate learning, in practice they frequently assess final outputs. This raises important questions about what aspects of learning remain invisible and what a final product genuinely demonstrates about a learner's understanding, reasoning, judgement, and intellectual development, particularly where AI may contribute to assessed work.

More fundamentally, participants questioned how educational systems might meaningfully evaluate process, discernment, judgement, and understanding rather than simply assessing outcomes. The discussion suggested that many contemporary assessment systems struggle to recognise those aspects of learning most closely associated with epistemic capability. Participants therefore argued that these challenges

should be understood not primarily as questions of individual student misconduct, but as **systemic issues requiring systemic solutions**.

In this context, participants suggested that assessment may need to attend more closely to **the processes through which learning develops**, rather than relying primarily on final written products. As AI makes final outputs less reliable as proxies for thinking, greater attention may need to be paid to indicators of reasoning, effort, revision, engagement, and process over time, including carefully and ethically considered evidence of how learners arrive at an answer.

Participants questioned whether education systems currently ask learners to devote too much of their time, energy, and thinking to individual attainment and grade performance. Some suggested that **collective engagement with real-world problems** may offer a more meaningful use of learners' capacities, particularly if education is understood as preparing young people not only to achieve individually, but to think, act, and solve problems with others.

Participants further expressed concern that educational debates are increasingly focused on identifying new competencies learners may require in the future, while paying insufficient attention to the conditions necessary for learning itself. Several questioned whether current forms of AI use adequately support learning as it is presently understood. They emphasised that activities such as reading, writing, discussion, reflection, and thinking with others remain foundational to education, regardless of technological change. Participants therefore cautioned against equating technological efficiency with educational value.

The discussion also touched on broader questions about the relationship between educational institutions and learners. One contribution framed this as a **social contract**: learners are asked to invest their time, effort, trust, and attention in education, on the understanding that this will lead to meaningful outcomes, such as further study, work, security, or a viable future. Participants questioned whether education systems are still able to uphold their side of this bargain. In particular, they asked whether existing educational models continue to provide the preparation, development, and opportunities learners increasingly expect in a rapidly changing technological and social environment. When that promise feels weakened, alternative routes to recognition, income, or status may appear more credible than schooling. These concerns pointed to a growing misalignment between what education asks of learners and what it can reliably offer in return.

In this context, participants also reflected on forms of learning that take place beyond conventional classroom settings. One contribution noted that important skills have long been developed through apprenticeships, workplaces, communities, and real-world experience. These examples opened up a further question: whether future education should draw more deliberately on **practical, situated, and purposeful forms of learning** that connect knowledge to real-world activity and motivation.

From here, the conversation turned towards the need for a more **positive and aspirational vision of education**. Participants expressed concern that contemporary educational and policy debates are often framed in terms of risk management, deficits, problems, or labour-market demands. While recognising the importance of addressing immediate challenges, they argued that education also requires a compelling account of its broader purpose. One intervention called for greater ambition in how educators, policymakers, and society imagine the future of education and what it should make possible for human beings. The task, they suggested, is not only to respond defensively to AI or to manage decline, but to dare to think more ambitiously about the kinds of learning, human development, and shared futures that education should make possible. Several called for a vision centred on **human development, flourishing, and possibility** rather than solely on solving immediate problems or meeting economic objectives.

In this view, educational reform should not simply adapt existing systems to technological change but create educational environments that **enable individuals and communities to thrive**, develop meaningful capabilities, exercise agency, and participate actively in society. AI may have exposed weaknesses in the current system, but it also provides an opportunity to reconsider the purposes of education, and the conditions learners need to flourish as knowers, citizens, and human beings.

## 5 Policy Implications

AI presents policymakers with a challenge that extends beyond technology adoption, regulation, or educational efficiency. At stake are the epistemic conditions upon which learning depends. As AI increasingly mediates access to information, knowledge production, and engagement with educational institutions, participants argued that policy must focus not only on what technologies do, but on how they reshape the conditions under which learners develop as knowers.

For participants, current policy debates do not yet do enough to address these broader questions. A particular worry was that insufficient attention is being paid to how AI may affect the epistemic conditions of learning, including trust, agency, intellectual development, human relationships, curiosity, and independent judgement.. Several participants suggested that policy discussions often assume technological adoption as a given, focusing on managing consequences rather than considering what **educational values** should guide decision-making in the first place.

The discussion also highlighted the need for national policy informed by **systems thinking**. Participants noted that many policy approaches address different aspects of AI adoption in isolation, despite the interconnected nature of educational systems. In particular, the use of AI by learners and educators is often treated separately in policy discussions, even though decisions affecting one group inevitably shape the experiences, expectations, and behaviours of the other. Participants therefore argued that policy should reflect the **relational and systemic nature of AI adoption** across educational environments.

Participants resisted forms of **technological fatalism** that present educational decline, automation, or diminished human involvement as inevitable consequences of technological progress. Several called for a renewed sense of aspiration within education—not aspiration narrowly defined by career preparation or labour-market outcomes, but one oriented towards human flourishing.

Throughout the discussion, participants resisted narratives that present AI adoption as inevitable or technologically determined. Instead, they argued that decisions about how AI is introduced into schools, colleges, and universities remain matters of **human choice, political judgement, and public governance**. In their view, policy should begin with questions about the purpose of education and the conditions necessary for human flourishing, rather than assumptions about the capabilities or commercial availability of specific technologies.

The growing influence of **proprietary AI systems** within educational environments was identified as a significant issue. Educational interactions, learner data, assessment practices, and knowledge production increasingly take place within commercial infrastructures whose design choices, business models, and governance arrangements are often opaque to educators and learners. Participants questioned the implications for educational autonomy, public accountability, data sovereignty, and long-term access to knowledge. They argued that policy should pay closer attention to the **dependencies and power relationships** that may arise when essential educational functions become tied to privately controlled technological systems.

The issue was both institutional and epistemic. Learners may become dependent on proprietary AI systems for knowledge, explanation, and intellectual support. If students are taught through these systems, they may find it harder to judge knowledge independently of the systems that are teaching them. Their own questions, reasoning, mistakes, and developing understanding may also take place inside externally owned tools, raising questions about who has access to that learning and how it may be used.

Participants also noted that AI systems used in education should not be understood simply as neutral tools for accessing information. Large language models can influence how learners ask questions, interpret evidence, evaluate claims, and form judgements. This is particularly significant where systems are designed within commercial environments that may reward engagement, retention, and repeated use. Such incentives can sit uneasily with educational aims that depend on independence, discernment, productive struggle, and the capacity to **think without continual assistance**.

Participants therefore argued that policy must ask not only whether AI tools are effective or safe, but what educational futures they make more likely, and whether those futures align with the purpose of teaching learners to value human judgement, agency, relationship, and understanding. Protecting learners' epistemic rights therefore requires attention not only to the accuracy or safety of AI outputs, but also to how these systems shape attention, trust, reliance, and judgement over time.

Participants further observed that educational institutions are navigating rapid technological change with limited strategic coordination. Schools, colleges, universities, and individual educators are often left to make independent decisions about which technologies to adopt, how they should be used, and what educational purposes they should serve. This was seen as creating inconsistency, uncertainty, and duplication of effort across the sector. Participants therefore argued for **a more coherent national framework** that supports educational institutions while remaining sensitive to local contexts and professional judgement.

A recurring theme throughout the discussion was the **importance of participation**. Participants argued that educational policy should be informed not only by technical expertise, industry perspectives, and technological forecasts, but also by the practical knowledge of teachers, educational leaders, learners, and communities. They noted that those responsible for implementing AI technologies often have limited influence over decisions concerning their design, procurement, evaluation, and governance. Participants therefore called for more **participatory and deliberative approaches** to policymaking that enable those most affected by technological change to play a meaningful role in shaping educational futures.

Finally, participants argued that policy development is constrained by significant **gaps in evidence and understanding**. While AI technologies are being deployed rapidly across educational settings, many questions about their long-term cognitive, social, developmental, institutional, and democratic implications remain unresolved. Participants therefore called for sustained independent research examining not only whether educational technologies improve immediate outcomes, but also how they affect the wider conditions of learning, human development, and educational purpose. Strengthening this evidence base was seen as essential to ensuring that policy remains guided by educational values rather than technological momentum.

Ultimately, participants argued that the future of education should be approached not primarily as a technological challenge, but as a question of **governance, human development, and democratic choice**. The central policy task is not simply to determine how AI can be incorporated into education, but to decide what forms of learning, knowledge, judgement, agency, and human flourishing educational systems should protect and promote in an AI-mediated world.

## 6 Conclusion

This roundtable examined the urgent question of what **human epistemic conditions** must be protected as AI becomes embedded within learning environments? Participants repeatedly expressed the view that the most important issues raised by AI are how learners develop knowledge, exercise judgement, think independently, participate in society, and flourish as human beings.

Across the discussion, participants emphasised that **education is more than the transmission of information or the production of measurable outputs**. Learning was understood as a human, social, and developmental process that depends upon relationships, reflection, dialogue, embodied experience, and opportunities for independent thought. As AI becomes increasingly integrated into educational environments, the central challenge is not simply how to deploy new technologies, but how to preserve the conditions that enable learners to become **knowledgeable, discerning, and autonomous** individuals.

Participants also argued that AI is reshaping education at a moment when many existing systems are **already under strain**. In this sense, AI often exposes longstanding tensions around assessment, educational purpose, authority, agency, and the relationship between learning and information. At the same time, participants rejected both technological optimism and technological fatalism. Educational futures, they argued, remain matters of **human choice, public governance, and democratic deliberation**.

The discussion therefore points towards a broader challenge for educators, policymakers, researchers, and technology developers. Policy must begin with questions about what education is for and what forms of knowledge, judgement, agency, and human flourishing educational systems should seek to protect and promote.

For this reason, many participants saw value in the development of a **Learner Epistemic Rights Charter**. Such a framework could provide a principled basis for evaluating educational technologies according to the conditions they create for learning, rather than their functionality alone. Its purpose would not be to resist technological change, but to ensure that technological change remains compatible with the conditions necessary for **human epistemic flourishing**.



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