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OECD Digital Education Outlook 2026: Exploring Effective Uses of Generative AI in Education

Monika Sangral* and Harish Mittu

School of Education, Lovely Professional University, Phagwara, Punjab, India
*Corresponding author: monasangral991@gmail.com

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ABSTRACT

This paper reviews and synthesizes the OECD Digital Education Outlook 2026: Exploring Effective Uses of Generative AI in Education, a landmark report examining the impact of generative artificial intelligence (GenAI) on teaching, learning, and education-system governance across OECD countries. The paper organizes the evidence into four key themes based on a synthesis of empirical studies, national surveys, and design experiments presented in the report: GenAI adoption rates and patterns; impacts on learning outcomes and metacognition; applications across three functional areas—student support, teacher support, and institutional and system-level support; and risks, equity concerns, and policy implications associated with unmanaged GenAI adoption. A major conclusion of the Outlook is that GenAI technology alone does not necessarily lead to improved learning outcomes; rather, the pedagogical intent underlying its use is crucial in determining whether it enhances or detracts from learning. The evidence is presented through explanatory tables and data visualizations and synthesized in a discussion of implications for policy, school leaders, and future research.

◆ **KEYWORDS:** Generative artificial intelligence; digital education; educational technology; teaching and learning; OECD; AI in education

1. INTRODUCTION

In only a few years, generative artificial intelligence (GenAI) has gone from research curiosity to a technology widely adopted by a significant portion of students and teachers in OECD countries. While the history of educational technology has seen various iterations like LMS systems, adaptive tools, and in-class devices, GenAI technologies like ChatGPT are open access, easy to use, and often used by students and teachers without any institutional decisions, procurement or curriculum requirements. This unmanaged bottom-up diffusion is the key aspect of GenAI as a policy problem in educational systems.

The OECD Digital Education Outlook 2026: Exploring Effective Uses of Generative AI in Education, published January 2026, is the OECD's bold attempt to shift the conversation around Generative AI in education from the hype and anecdote to an evidence-based narrative of the ways in which it helps, the ways in which it hinders, and the design and policy choices that make the difference between the two. The report draws empirical studies and national and cross-national surveys that were carried out, including the OECD's own Teaching and Learning International Survey (TALIS) 2024, as well as expert commissioned essays on the use of GenAI by students, by teachers and by education institutions and systems.

This paper offers a separate analysis and consolidation of that report. The paper does not copy and paste the text from the Outlook, but instead reorganizes and explains the key findings, includes new tables that cluster evidence thematically rather than leave each item on its own line, and generates new data visualizations from the statistics cited in the Outlook, to make the Outlook's central argument more accessible to a policy, teaching, or research audience. Both this review and the original report feature the simple yet powerful guiding question: When is generative AI effective in enhancing learning, and when does it just enhance the way things look?

1.1 Objectives of This Paper

1. To summarise how generative AI is currently being adopted by students and teachers across OECD education systems.

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2. To explain the mechanisms through which GenAI can both support and undermine genuine learning.
3. To organise the report's applications of GenAI into a clear framework covering students, teachers, and institutions.
4. To present the report's equity, integrity, and governance concerns alongside its recommended policy responses.
5. To translate selected statistics from the report into tables and charts that support quick comparison across countries and use cases.

2. Overview and Background

The 2023 edition of OECD Digital Education Outlook highlighted the wider digital education system landscape learning management platforms, student information systems, and digital assessment systems – as a key element of the digital transformation in education. The 2026 edition is focused on generative AI, which has been the focus of much discussion since the 2020 edition of the document, about the future of teaching and learning.

The report is structured around three overarching scenarios where GenAI can be used in the context of education: as a tool for students to learn subject knowledge; as a tool for students and teachers in collaboration with the classroom; as a tool for teachers independently for professional use, such as lesson planning, creating learning materials, and administrative work. The second line of analysis focuses on the role that GenAI can play in enhancing the efficiency of the entire education system and institution, such as in research, the analysis of learning pathways and supporting study and careers advisors.

In addition to evidence gathered from large-sample surveys, often nationally representative, of students and teachers use of GenAI (TALIS 2024 and various national surveys including the Estonian study of approximately sixteen thousand students), the Outlook draws on two other types of evidence: (1) evidence gathered from controlled or quasi-experimental studies that measure the impact of the use of GenAI on learning outcomes or teacher productivity and/or tutoring quality; and (2) evidence gathered from expert-authored chapters commissioned from researchers including Ronald Beghetto (on creativity) and Seiji Isotani (on learning in resource-constrained environments) to add context to the quantitative evidence within broader pedagogical and equity debates.

2.1 Report Structure at a Glance

Table 1 summarizes how the report's content, as reconstructed from its introductory chapter and expert contributions, maps onto the major themes covered in this review paper.

Table 1. Mapping of the OECD Digital Education Outlook 2026 to the structure of this review paper

Report Focus Area	Core Question Addressed	Section in This Paper
Uptake and prevalence	How many students and teachers already use GenAI, and for what?	Section 4
Learning effects	Does GenAI use translate into genuine learning gains, or only better-looking output?	Section 5
Student-facing applications	How can GenAI act as tutor, partner, or assistant for learners?	Section 6
Teacher-facing applications	How does GenAI affect teacher productivity, workload, and instructional quality?	Section 7
Institutional and system applications	How can GenAI support research, learning-pathway analysis, and advising?	Section 8
Creativity and equity of access	How does GenAI affect creative development, and how does it perform in low-infrastructure settings?	Section 9

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Risks and safeguards	What risks — integrity, bias, dependency, inequality — does GenAI introduce?	Section 10
Policy design	What design and governance choices make GenAI genuinely educational?	Section 11

3. What is Generative AI? Conceptual Clarification

The report begins by clarifying the difference between generative AI and other, longer-standing types of AI that are already being used in education. GenAI is a specific category of AI technologies that generates new textual, visual, video, audio, mathematical or computer code content, usually based on a request in natural language. They are produced by models trained on huge amounts of data to identify patterns that are widely distributed in the data, with a neural network architecture that closely follows the transformer architecture, including the Generative Pre-trained Transformer (GPT) family of models.

This is directly contrasted to earlier, non-generative AIs already incorporated into education technology, which are sometimes referred to as 'good old fashioned' or ‘rule-based’, predictive' or ‘pattern-based AI which are more focused on identifying patterns or relationships in information than creating new content. Such predictive systems are already being used in assistive technologies for students with special needs, in intelligent tutoring systems that cater to the needs of individual students, in automatic assessment systems and in early-warning systems that identify students who are at risk of dropping out of school. The purpose of making this distinction in the report is that GenAI opens up a new and mostly new opportunity and risk space because it produces new content and can interact with users, instead of simply categorizing or predicting from existing data.

3.1 Human–AI Collaboration Modes

Throughout the report, there is a recurring conceptual framework which distinguishes three ways of human-AI collaboration – replacing, complementing and augmenting. It's not about the level of sophistication of the tool, but about how the task is re-designed around the tool. Replacement is one of the modes of GenAI where the cognitive tasks that would normally be performed by a learner or teacher are done by the AI. The complementarity mode involves humans and GenAI collaborating on a task, with each partner contributing based on their comparative advantage. In an augmentation mode, GenAI is intentionally used to augment what the learner/teacher might achieve by themselves without GenAI, with the aim of maintaining or in some cases enhancing the learner/teacher's engagement and skill building with the task. This typology is summarized in Table 2 with its implications for education.

4. The Scale of Adoption: Students and Teachers

As the report continues to emphasize, one of the hallmarks of the spread of GenAI in education is that most of it is happening outside of institutional control. Students engage with general purpose Chatbots directly on their own devices, while many teachers use GenAI technologies that were not formally introduced, vetted or supported by their school or ministry. This uptake is quantified in the Outlook using several national and cross-national surveys.

Table 2. Modes of human–GenAI collaboration and their educational implications, as framed in the OECD Outlook 2026

Collaboration Mode	What Happens	Typical Educational Risk or Benefit
Replacement	GenAI performs the task in place of the learner or teacher, output is used largely as-is.	Risk: cognitive offloading, reduced metacognitive engagement, superficial performance gains.
Complementarity	Task is split between human and AI, each handling the part suited to them.	Mixed: efficiency gains possible, but learning value depends on which parts are offloaded.

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Augmentation	GenAI is embedded in task design to extend human capability while sustaining active engagement.	Benefit: potential for deeper learning, creativity, and productivity gains without skill erosion.

4.1 Student Uptake

According to a national survey conducted in Estonia in 2024, approximately sixteen thousand students were surveyed and 74% of them in grade 7–8 and 90% in grade 9–12 reported using AI tools for their studies. ChatGPT was used by about 70% of all students, making it the most popular tool. According to a survey of over 7,000 12- to 17-year-olds in Europe that was carried out in several countries, including Germany, Greece, Portugal, Romania, Spain, Türkiye, and the United Kingdom, 48% of the students have used ChatGPT in 2024, of which nearly half have been explicitly asked to do so by their teachers. A study in France of approximately 4,500 students in higher education revealed that 55% used GenAI tools, consistent with the trend seen in older students in higher secondary and post-secondary institutions, though not as high; however, there are not yet many surveys of higher-education populations available in full.

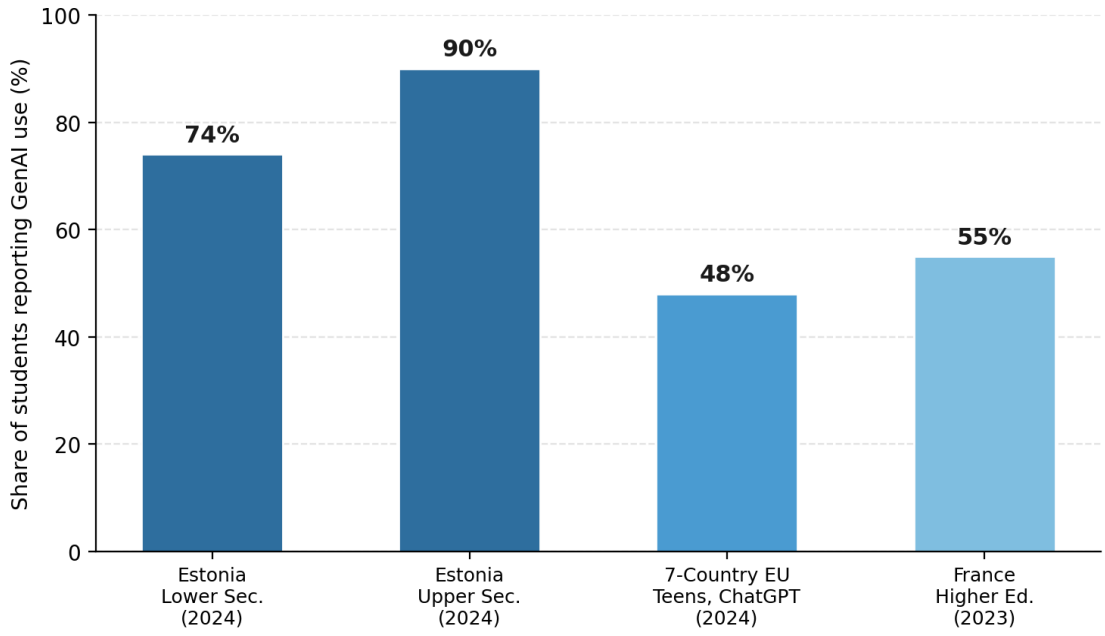


Figure 1. Reported rates of student GenAI use across four surveys cited in the OECD Outlook 2026. Sources: Estonian national student survey (Granström and Oppi, 2025); seven-country European teen survey (Vodafone Foundation, 2025); French higher-education student survey (2023).

4.2 Teacher Uptake

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From the teachers' perspective, 37% of teachers in OECD countries already use generative AI for work-related tasks, including learning about or summarizing topics they teach and assisting in lesson planning, according to the OECD's 2024 Teaching and Learning International Survey (TALIS). This average, however, masks significant cross-country differences, with fewer than 20% of lower-secondary teachers reporting GenAI use in some countries, such as France and Japan, compared with approximately 75% in Singapore and the UAE. Among teachers who use GenAI, a high proportion use it to learn about or summaries subject content, while a smaller proportion use it for purposes such as analytics or support in grading.

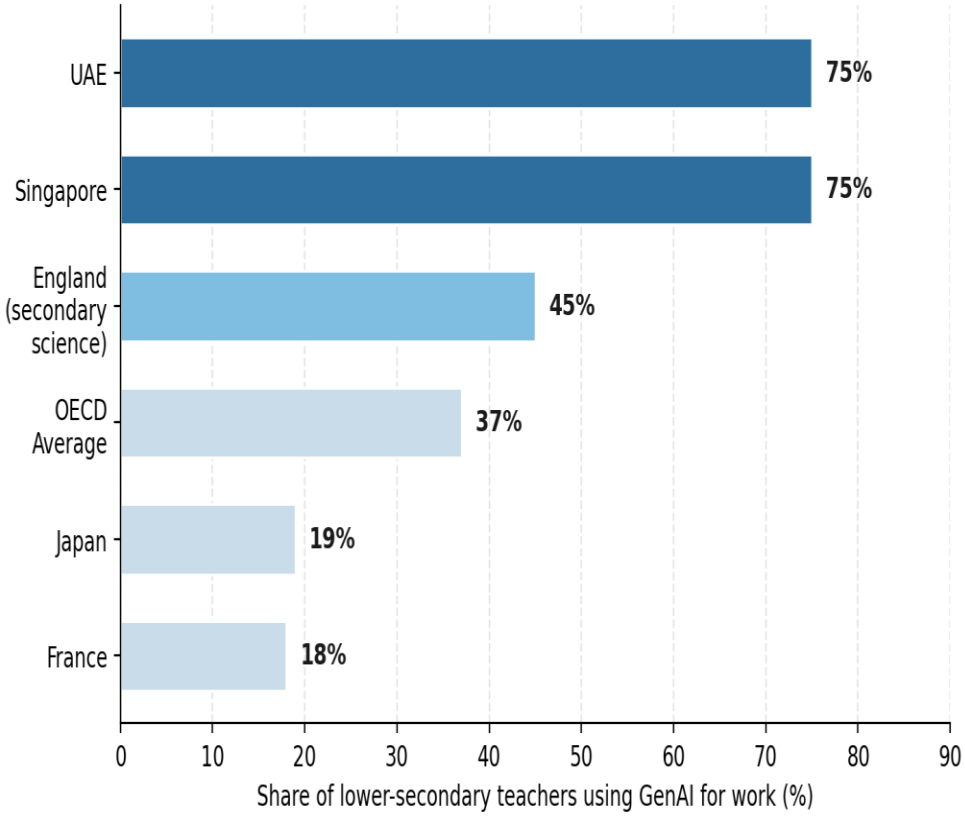


Figure 2. Share of lower-secondary teachers reporting GenAI use for work-related tasks, selected countries, TALIS 2024. Source: OECD TALIS 2024, as reported in OECD Digital Education Outlook 2026.

4.3 Interpreting the Adoption Gap

The report does not focus on the 'digital divide', but rather on the wide range of teacher adoption, from less than one-fifth to three-quarters of the teaching workforce across countries, as an indicator of the varying national reactions to existing behavior. Given that GenAI tools are freely available, low take-up in a country is not necessarily due to lack of access, but more likely due to variations in professional norms, training, institutional support, and trust. This will impact policy as discussed in Section 11: While it may be the question of when to introduce GenAI, most systems are already in unmanaged use for several years and the question is how to guide the use of GenAI which is already commonplace.

5. GenAI's Impact on Learning: Performance vs. Understanding

The most crucial analytical divide in the OECD Outlook 2026 is the one between task performance and learning. Performance is the extent to which a student can complete an assignment or assessment item, while learning is whether the knowledge, skill or

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understanding is learnt and can be applied in a new context. This synthesis of the growing experimental literature in the report reveals that these two outcomes can go in different directions if GenAI is used without pedagogical guidance.

The review presented in the report reveals that GenAI can help to scale personalized learning support, provide high-quality and timely feedback, and streamline some aspects of assessment. The downside of this convenience is that when students rely heavily on GenAI to deliver an outcome, their metacognitive efforts and self-monitoring strategies to ensure the shift from an answer to true understanding of the content diminish. This causes a discrepancy between the evidence of students learning in their work and what the student has learned. There are some studies reviewed in the report that demonstrate improved output as well as learning, some others demonstrate improved output with no corresponding learning gain, especially when the tool provides a direct solution, but not scaffolding the student's own reasoning process.

5.1 Conditions associated with genuine learning gains

The report does not suggest that the use of GenAI is always, or even necessarily, detrimental to learning, but rather that there are conditions under which learning is more likely or more unlikely to occur from GenAI use. This contrast is summarized in Table 3, based on the discussion in chapters one and two of the report on the patterns of the use of and design of tools.

Table 3. Conditions associated with genuine learning gains versus performance-only gains from GenAI use, synthesised from OECD Digital Education Outlook 2026, Chapters 1–2

Dimension	Use Pattern Associated with Learning Gains	Use Pattern Associated with Performance-Only Gains
Type of AI output	Guided questioning, partial hints, scaffolded steps	Direct, complete answers or finished text/code
Student role	Active reasoning, evaluation, and revision of AI output	Passive acceptance or copying of AI output
Task design	Task explicitly redesigned to require reasoning with AI	Traditional task simply outsourced to AI unchanged
Pace of use	Slower, iterative exploration and reflection	Fast, single-pass content generation
Teacher involvement	Teacher monitors and structures AI interaction	AI used independently, outside teacher oversight

Table 4. Three roles of student-facing GenAI identified in the OECD Digital Education Outlook 2026

Role	Primary Purpose	Design Requirement for Educational Value	Key Risk if Poorly Designed
Tutor	Guide learning through questioning and feedback	Socratic, scaffolded interaction rather than direct answers	Becomes an answer-dispensing tool, reducing engagement
Partner	Support creative and exploratory work	Slow, iterative use; AI as collaborator, not content vending machine	Undermines originality via fast, one-shot generation
Assistant	Support routine, administrative study tasks	Clear boundary between routine tasks and core learning tasks	Core learning tasks are quietly outsourced as if routine

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6. GenAI in Teaching Practice

For teachers, the report presents evidence that GenAI can improve both productivity and, under the right conditions, teaching quality but it also documents ethical risks and a potential erosion of professional judgement when GenAI is used extensively for high-stakes tasks such as grading.

6.1 Productivity Evidence

Two figures anchor the report's productivity discussion. First, secondary science teachers in England who used GenAI support for lesson and resource planning saw a 31% reduction in time spent on that task. Second, in a tutoring context, low-experience tutors who used AI support saw a 9-percentage-point increase in the pass rates of the students they tutored, with smaller gains recorded for more experienced tutors implying that GenAI support may be particularly valuable for narrowing gaps between less and more experienced instructors, rather than uniformly boosting all instructors equally.

6.2 Teacher Perceived Risks

In addition to productivity benefits, the 2024 TALIS data also reveal that teacher concerns about GenAI are also prevalent; 72% of lower-secondary teachers say that using AI could negatively impact academic integrity when students submit AI-generated work as their own. While this concern is not necessarily alarmist, it is well-founded and is directly connected to the performance versus learning distinction that was discussed in Section 5 if the conventional assessment practices lose some of their diagnostic value because there is little difference between a student's work and the work produced by using GenAI, then students can be neither assessed nor taught using this approach.

6.3 The ability to make professional decisions and the design response

While it can save teachers time, it also has the potential over time to diminish teachers' professional judgement and autonomy of lesson planning and feedback in the long term, according to the report, if it is used extensively in tasks like marking, providing feedback, or lesson planning, where there is not enough design in place to protect it. It calls for a change in how educational GenAI systems are developed, both from their general use of consumer-focused applications, and from the way they fail to provide teacher oversight of student engagement with GenAI, as it is viewed as a black box.

7. GenAI for Institutions and Education Systems.

In addition to classroom applications, the report delves into the broader potential of GenAI in enhancing the efficiency of education institutions and systems. This covers academic and policy research, analysis of student learning pathways and support of study and careers advisors, including those in higher education.

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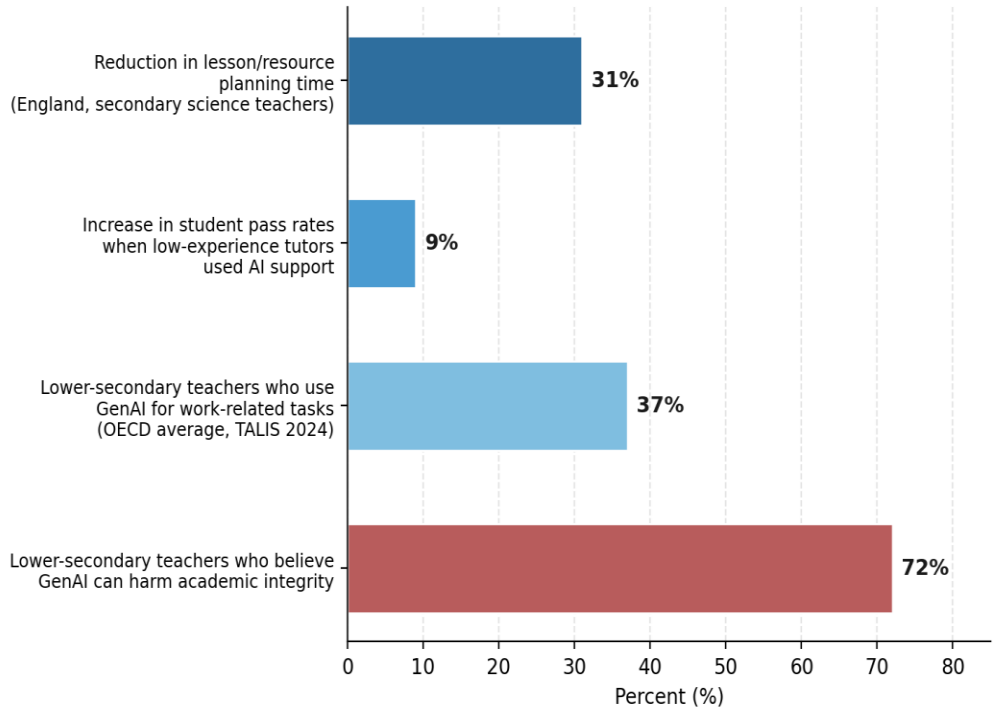


Figure 3. Selected measured effects and perceptions of GenAI in teaching cited in the OECD Digital Education Outlook 2026. Sources: TALIS 2024; England secondary science teacher study; tutoring pass-rate study.

7.1 Research and Institutional Workflows

Together with colleagues Zachary Pardos and Conrad Borchers, based on their experiences in the field of higher education, they describe some of the new affordances that GenAI can provide for institutional workflows, such as faster synthesis of literature, easier data analysis, or how institutions can use the large quantities of administrative and learning data they already gather. The report sees this as a "transformation of longer-term learning analytics work, with the added ability of GenAI to summaries, draft and interpret unstructured text and data at scale.

7.2 Learning Pathway Analysis and Advising

The report also explores the potential for GenAI to help understand learning pathways—the series of courses, choices, and outcomes that realize a student's journey through an education system—and its ability to aid study and careers advisors in aggregating this into guidance for individual students. This app integrates with previous non-generative predictive AI tools, such as those for early-warning and dropout-risk detection, outlined in Section 3, and introduces the ability to generate a natural-language explanation and personalized recommendations for the advisor and student based on pattern-based predictions.

7.3 System-Level Caution: Digitalization Is Not Transformation

There is a "caution" that is echoed across the institutional chapters accompanying the report; that while there have been rapid digitization trends across the board, the evidence base is still large-scale and technology is largely being used to replicate, not redesign, learning and institutional processes. Digital tools often replace analogue processes, but do not facilitate deeper change. The report indicates that, despite the potential of isolated GenAI tools or pilot projects, alignment between curricula, assessments, teacher development and, in vocational and technical education in particular, labor-market relevance is still lacking. Digitalization, in this sense, is considered as a design of systems, not an exercise of procurement.

8. Creativity, Slow Use and Resource-Constrained Contexts

8.1 Fast and Slow Uses of GenAI for Creativity

The report distinguishes between fast and slow uses of GenAI in creative work. Creativity researcher Ronald Beghetto has broken down the uses of GenAI into two types: the "fast" use, which is focused on 'making something', and the "slow" use, which is geared

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toward 'making something together'. The argument of the chapter, which is summarized in the commentary on the report, is that slow use is more conducive to true creative development, whereas fast use, generating content in one shot, could threaten originality because it short-circuits the process of exploration through which creative ideas are generally developed. This echoes the performance versus learning distinction of Section 5 but relates to creative and open-ended tasks.

8.2 Learning in Resource-Constrained Settings

The report also points to the magnitude of the infrastructure deficit that such solutions must address. The data cited in the report suggest that only approximately 16.63% of the population in low-income communities have stable internet access, while mobile-phone access is considerably more widespread. This highlights the potential relevance of offline-capable, lightweight models compared with GenAI tools that depend on continuous internet connectivity.

8.3 Equity is not just about access

Another aspect emphasized in the commentary to the report is that the digital inequality that exists today is more a function of differences in effective pedagogical use of the technology when it is available, than of differences in access to the technology itself. It is described that teachers play a pivotal role in ensuring that access is realized with educational value, and that without the capacity and contextualization of teachers access to GenAI tools alone will not close the learning gaps, in some circumstances it can exacerbate these gaps if these tools can be better exploited by more digitally confident students and teachers, and these more digitally confident students and teachers are best placed to exploit them.

9. Risks, Equity and Academic Integrity

The report does not shy away from discussing risk as it accompanies its own narration of the potential educational benefits of GenAI. Instead of using GenAI in education because of the risks, the risks are identified and addressed. Table 5 brings together the main risk categories mentioned throughout the report in the chapters.

10. Policy Recommendations and the Role of Design

The policy message in the report can be expressed as a single statement: design and governance decisions are more important in establishing the educational value of GenAI than technology. It reframes the policy question from "should" GenAI be used in schools? (which may be answered in the affirmative, but as shown in Section 4, a large proportion of both schools and parents are already using GenAI in some way) to "how can" GenAI be used to augment rather than replace.

Table 5. Principal risk categories associated with GenAI in education, as identified in the OECD Digital Education Outlook 2026

Risk Category	Description	Illustrative Evidence from the Report
Academic integrity	Students may present GenAI-generated work as their own, undermining the validity of assessment.	72% of lower-secondary teachers believe GenAI can harm academic integrity.
Cognitive offloading	Overreliance on GenAI for direct answers reduces active engagement and metacognitive effort.	Studies show improved task performance without corresponding learning gains when tools give direct solutions.
Erosion of professional autonomy	Heavy use of GenAI for grading, feedback, or planning can gradually narrow teachers' independent judgement.	Report calls for teacher-designed systems that preserve monitoring and oversight of AI use.
Digital and infrastructure inequality	Learners in low-connectivity settings cannot access cloud-dependent GenAI tools on equal terms.	Approximately 16.63% of people in low-income communities have stable internet access.

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Pedagogical-use inequality	Even where access exists, gaps in teacher capacity and digital confidence shape whether GenAI use translates into learning gains.	Digital inequality increasingly attributed to differences in effective use rather than access alone.
Bias and content quality	GenAI outputs reflect patterns in training data and can propagate errors, omissions, or skewed perspectives if unchecked.	Motivates recommendation for purpose-built educational tools over unmodified general-purpose chatbots.

10.1 Recommendations Directed at Governments and Ministries

Focus on investing in purpose-built learning systems using GenAI, in collaboration with teachers, instead of the unmodified consumer versions in classrooms. Employ TALIS style monitoring to monitor not only the use of GenAI by teacher(s) and student(s) but also in how it is used; i.e., in the roles of tutor, partner or assistant, and in the generation of simple answers. Develop and invest in teacher professional development to enhance their current proficiency with GenAI tools and deepen their grasp of the technology; most GenAI tools currently provide some type of training, though the extent of this training and its quality are not uniform. Explicitly tackle infrastructure inequality and provide support for offline and lightweight models, especially in low connectivity environments, not assuming a uniform level of connectivity.

10.2 Recommendations Directed at Institutions and School Leaders

Rethink assessment requirements to be more robust to work with GenAI, not relying on the assumption of unaided student work. Provide clear, task-level guidance for pupils between routine assistant-type tasks and core learning tasks where it is required that they work independently. Do retain teachers' oversight over student-AI interactions, ensure that GenAI is not completely invisible and out of view in the classroom.

10.3 Recommendations Directed at Developers of Educational GenAI

Eleven recommendations were offered for developers of educational GenAI. For tools designed for tutoring, developers should favour scaffolded, Socratic interaction patterns over the direct generation of answers. Creative or exploratory applications should support ‘slow use’ through iteration and reflection rather than simply generating finished content. Educational GenAI should also include capabilities to monitor and report how the tool is being used, ensuring that teachers retain oversight of student AI interactions, consistent with the augmentation mode of human AI collaboration described in Section 3.

11. Discussion

The OECD Digital Education Outlook 2026 challenges two simplified narratives surrounding generative AI in education: that GenAI will inevitably transform learning for the better, or that it primarily threatens academic standards and should therefore be resisted. Instead, the evidence supports a more conditional interpretation. The educational value of GenAI depends substantially on how it is designed and implemented, the pedagogical purposes it serves, and the institutional and policy environments in which it is used. The same technology may therefore support learning or undermine it depending on whether it augments human learning processes or replaces meaningful cognitive engagement (OECD, 2026).

This distinction is particularly important when interpreting the adoption patterns discussed earlier in this review. High rates of GenAI use among students or teachers should not themselves be regarded as evidence of educational progress. Adoption needs to be considered alongside evidence concerning the relationship between task performance and genuine learning. A system with comparatively lower GenAI uptake but well-designed educational tools, appropriate teacher oversight, and clearly structured learning tasks may derive greater educational value than one characterized by widespread use of general-purpose chatbots with limited pedagogical guidance.

The report also presents equity as a more complex issue than access to devices and connectivity alone. Although infrastructure remains important, particularly in resource-constrained contexts, access to GenAI does not automatically translate into educational benefit. Teacher capacity, digital confidence, pedagogical design, and the ability to integrate AI meaningfully into teaching and learning

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influence whether access contributes to improved outcomes or reinforces existing inequalities. Consequently, policies addressing equity in GenAI-enabled education should consider investments in teacher capacity and effective pedagogical use alongside infrastructure and connectivity (UNESCO, 2023, 2025).

Finally, the evidence base should be interpreted cautiously. Much of the evidence concerning the effects of GenAI on learning remains relatively new and unevenly distributed across countries, educational levels, and disciplines. Some evidence discussed in the Outlook derives from country- or context-specific studies, while representative cross-national evidence particularly for higher education remains limited. The findings should therefore be understood as an evolving body of evidence that identifies important patterns and directions rather than as universally generalisable effect sizes (OECD, 2026).

Conclusion

The OECD Digital Education Outlook 2026 provides a comprehensive, evidence-informed analysis of the implications of generative AI for education systems across OECD countries. Its central contribution lies not only in documenting the growing adoption of GenAI among students and teachers, but also in reframing the discussion around the conditions that determine whether its use contributes to genuine learning. The report's typology of tutor, partner, and assistant roles provides a useful framework for understanding how student-facing GenAI can support learning while also introducing risks when poorly designed or used. For teachers, the evidence points to potential benefits in productivity, lesson planning, and instructional support, alongside important concerns related to academic integrity, professional judgement, and autonomy. At the institutional and system levels, the report cautions that GenAI adoption may simply reinforce existing practices unless it is accompanied by meaningful changes in curriculum, assessment, teacher development, and educational governance. Overall, the key policy implication is that widespread adoption of GenAI should shift attention from whether the technology should be used to how it can be used effectively and responsibly. Purposeful tool design, thoughtful redesign of learning and assessment tasks, and sustained investment in teacher capacity are therefore central to ensuring that GenAI augments rather than replacing meaningful human learning.

References

Comby, J.-B. et al. (2023). Survey of generative AI use among French higher education students. As cited in OECD (2026).

Granström, K. and Oppi, P. (2025). National survey of AI tool use among Estonian secondary school students. As cited in OECD (2026).

OECD (2024). Teaching and Learning International Survey (TALIS) 2024. OECD Publishing, Paris.

OECD (2023). OECD Digital Education Outlook 2023: Towards an Effective Digital Education Ecosystem. OECD Publishing, Paris.

OECD (2026). OECD Digital Education Outlook 2026: Exploring Effective Uses of Generative AI in Education. OECD Publishing, Paris. https://doi.org/10.1787/062a7394-en

Pardos, Z. A. and Borchers, C. (2026). AI in institutional workflows: Learning from higher education to unlock new affordances for education systems and institutions. In OECD Digital Education Outlook 2026, Chapter 11. OECD Publishing, Paris.

UNESCO (2023). Guidance for Generative AI in Education and Research. UNESCO, Paris.

UNESCO (2025). AI and the Future of Education: Disruptions, Dilemmas and Directions. UNESCO, Paris.

Vodafone Foundation (2025). Cross-country survey of generative AI use among 12–17 year-olds in Germany, Greece, Portugal, Romania, Spain, Türkiye, and the United Kingdom. As cited in OECD (2026).

Worlddidac (2026). OECD Digital Education Outlook 2026: When Technology Does Not Equal Transformation. Worlddidac commentary, 27 January 2026.

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