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AI use by Pupils in Schools workshop From Ban to Educate?

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What is Generative AI?

- *GenAI refers to the latest generation of AI systems that are trained on enormous amounts of data and can produce (rather than just analyse) human-like text, images, speech, music, video, computer code, and more by predicting the next unit of content. For example, Large Language Models (LLMs), such as ChatGPT, produce text by predicting the most likely next word in a sentence.*

Tillmanns et al. (2025)



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Teachers find AI helpful. Why not pupils?

- 50% of children aged 8–17 have used AI tools and 60% of teachers actively use generative (Ofcom, 2025)
 - Curriculum unit summaries
 - Student assessment rubrics
 - Class discussion topics
 - Lesson plans
 - Individualised differentiation for students
 - Learning resources
 - Classroom activities

In small groups discuss for 5 mins

- **Types of AI use in use for your school staff**
 - **How is/might AI be useful for your pupils?**
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How might AI tools be helpful to pupils?



Cognitive & Language skills - AI tools led to improvements in comprehension.
Risks of biases and stereotypes.



Social interactions – Can improve social skills. Young children appear to be less active, cooperative and attentive when communicating with AI agents.



Children's understanding of AI - children's tendency to anthropomorphize AI - acceptance of information and unrealistic expectations

Impact of Generative AI on young people - Cognitive

Gerlich (2025) Impact of AI on cognition

666 participants, 17+years, mixed-methods

(1) Increase in cognitive offloading (2) Decrease in Critical Thinking

Importance of guided, reflective use of AI to support critical thinking vs unstructured, heavy reliance on AI which encourages passive acceptance of AI results

Research limited - correlational, short-term research (not causal). We need to know more.

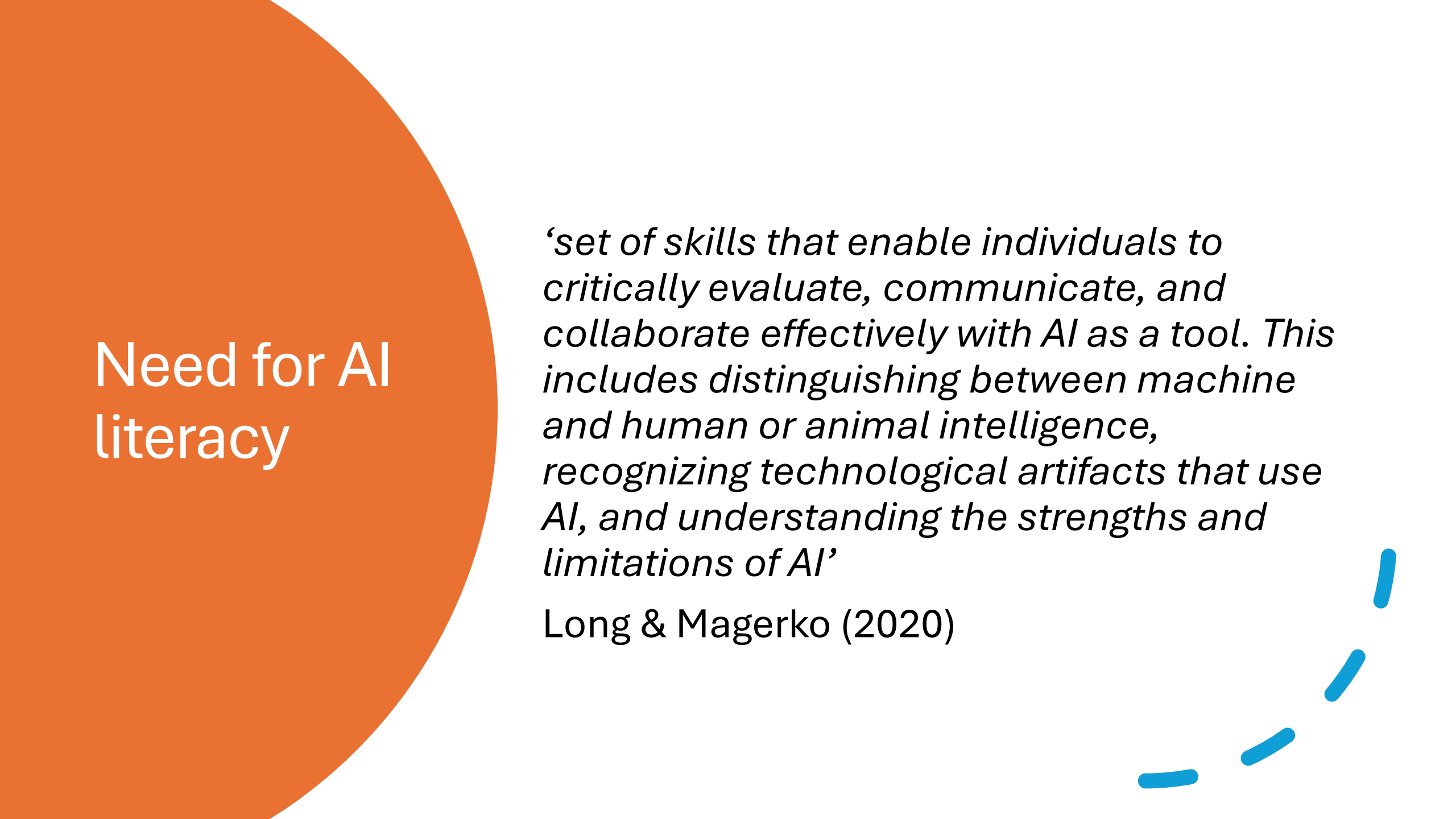
Impact of Generative AI on young people: Socio-Emotional



- Adolescents are using chatbots and companion-style systems at scale; ChatGPT, Google Gemini, Snapchat MyAI, MetaAI
 - 2/3 using chatbots, 3/10 daily (USA - Faverio & Sidoti, 2025)
 - 2/3 aged 9-17 years (UK), commonly schoolwork and information (Bunting & Huggins, 2025)
- Emotionally engaged interactions are becoming common
 - Instrumental (homework, explanations, drafting)
 - Identity & Social Exploration (expressing selves, trying difficult conversations)
 - Relational (comfort, validation, companionship)
- 35% of children aged 9–17 report that chatting with an AI chatbot feels like “talking to a friend,” rising to 50% among “vulnerable” (Bunting & Huggins, 2025)
- 1/8 young people (12-21 years) using chatbots for mental health advice and 2/3 finding it useful (Bain et al. 2026)
- Adolescents’ sensitivity to social feedback and motivation means they can benefit disproportionately from structured support that scaffolds skills and self-reflection.
- Chatbot interventions show moderate effectiveness in reducing psychological distress in CYP (Wu et al. 2026)

Impact of Generative AI on young people – Educational Attainment

- Meta-analyses demonstrate that chatbot-based learning was more effective than traditional learning in terms of explicit reasoning, learning achievement, knowledge retention, and learning interest. Students using ChatGPT showed improvements in knowing, applying, and reasoning subskills.
- Personalised, reflective, subject specific tools showing promise in improving educational achievement, compared to usual classroom instruction alone.
- Example - AI used for personalised feedback across 4 History assignments improved grades for 9 disadvantaged (Pupil Premium) and SEN students (15yrs), helping close the attainment gap. Brunton (2025)



Need for AI literacy

‘set of skills that enable individuals to critically evaluate, communicate, and collaborate effectively with AI as a tool. This includes distinguishing between machine and human or animal intelligence, recognizing technological artifacts that use AI, and understanding the strengths and limitations of AI’

Long & Magerko (2020)

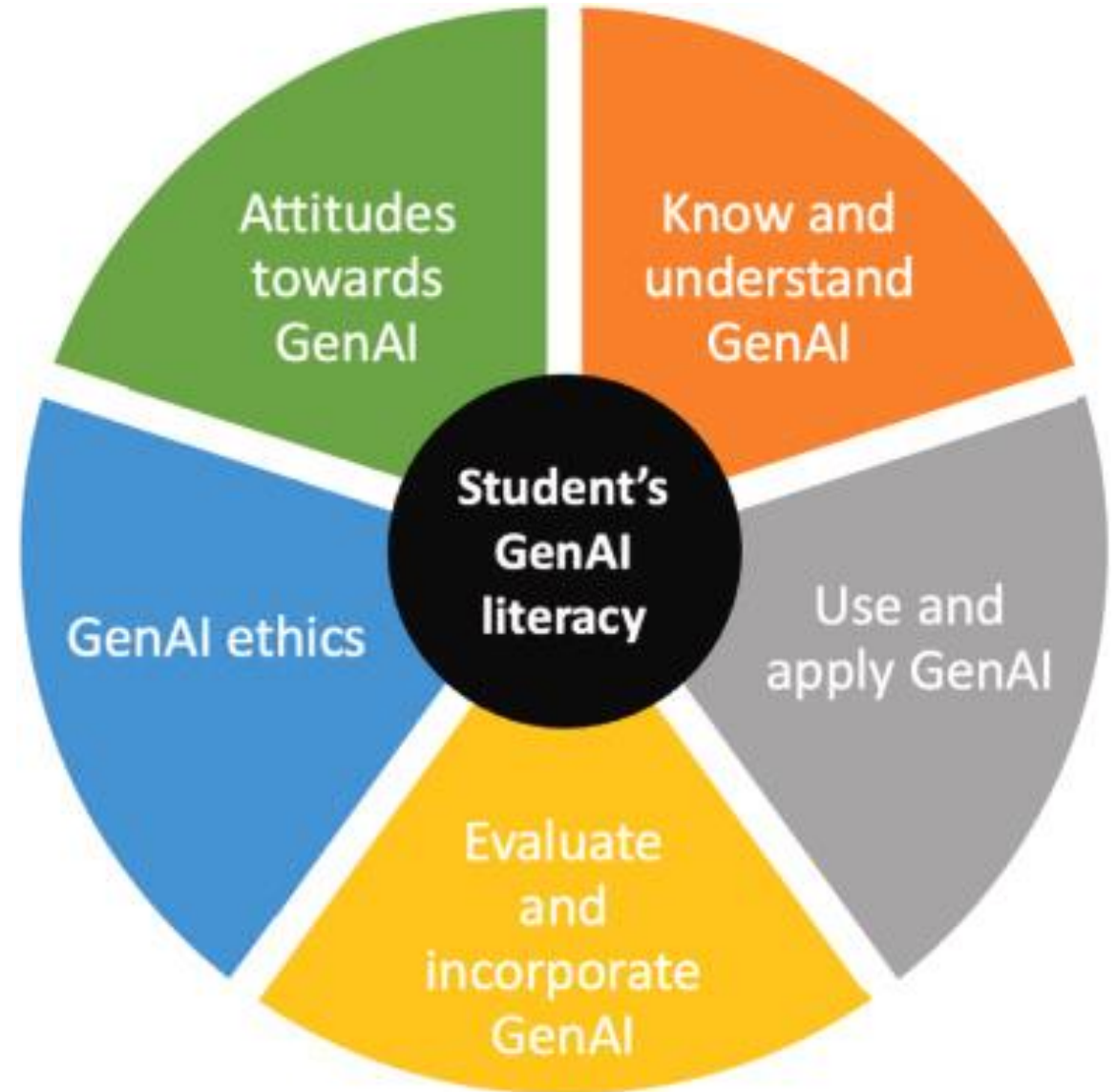
Generative AI literacy in schools

Only 1/5 teachers said AI taught in school (2025)

- Moderate understanding of AI concepts
- Problems with prompt engineering and critical evaluation of AI outputs
- Ethical considerations, particularly related to academic integrity, privacy, and data security, were highlighted as significant concerns
- positive student attitudes towards GenAI, including curiosity and self-efficacy, emerged as vital components enhancing engagement

<https://doi.org/10.1016/j.caeai.2025.100487>

Park (2025) SR of 51 studies



Five-step interaction model for engaged AI use

Park (2025)

Step	Description
1. Clarify the question	Define and clarify the question, breaking it down into key concepts where necessary
2. Think first	Attempt to answer or discuss the question <i>before</i> using GenAI
3. Interact with GenAI and shape responses	Ask GenAI chatbots about the specific question(s), refine responses by prompting
4. Evaluate and discuss	Cross-check and evaluate AI-generated responses through discussion, reliable sources and ethical considerations, and explore different perspectives
5. Incorporate and reflect	Responsibly incorporate AI-generated responses into original ideas or work and reflect on the process

Exercise: Case study use of AI



Year 9 pupils persistently use an AI tool to write an English literature essay. The resulting essays have a strong argument but use unoriginal vocabulary, and the pupil cannot explain the core themes of the book in classroom discussion.



Small Group Task:

Discuss the ethical dilemmas this scenario presents. How might you address these?

Redesign the assessment to incorporate both:

- English Curriculum Learning Outcomes
- Elements of AI Literacy and reflective use of AI

What's next?

- Better research on impact of AI on pupil learning and development. Overcome design limitations. Effects diverge sharply by **use pattern** (guided/reflective vs. passive/offloading) and by **pupil characteristics** (SEN, disadvantage, vulnerability), not just by "AI use" as a blanket variable
- DfE/i.AI are jointly developing sovereign education benchmarks and safe AI tools for schools, with a 2026 international summit on generative AI in education.
- DSIT launched a March 2026 consultation ("Growing up in the online world") explicitly covering AI chatbots alongside social media, following Ofcom findings that a third of 8–17s report worrying online content.
- NEU's 2026 member survey found 66% of teachers report no school-specific student AI use policy — a striking implementation gap given the scale of pupil use above.

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