

## Briefing: AI in Education - Embedding AI into our school curriculum

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### Introduction:

The development of Artificial Intelligence is not a replacement of human labour but merely a co-pilot to make each one of our lives easier. The capability of AI is growing faster than ever and as other countries capitalise on its opportunities, the UK is being left behind. Saudi Arabia, Singapore and China are currently leading the new era by adopting Artificial Intelligence into their education system where students and teachers can benefit from AI. From targeted learning for students and reduced administrative tasks for teachers – AI is already improving education systems worldwide. By integrating AI into our education system in the UK, we can improve student performance, support teachers in the classroom and create a more effective academic environment.

### Background:

Having recently completed my high school years - I was confused by the disapproval over Artificial Intelligence within schools. Teachers tend to ridicule AI as they see it is a form of 'cheating,' and throughout all my subjects, not once were we taught how to make full use of AI tools in our education. This is the wrong approach to take towards students as they are undermining the potential it has. As AI evolves and becomes more involved with our everyday lives, it would be unreasonable to not teach our students how to utilise its capabilities. I found it confusing – and frankly concerning – that such a prominent topic such as AI, was almost non-existent in my education. It is time we deviate from the pessimistic view towards Artificial Intelligence and embrace it into our education system so that my generation will be prepared for an AI focused future. The UK is starting to invest into Artificial Intelligence through the programme "TechYouth" – backed by £24 million of government funding which will give 1 million students over three years across every secondary school in the UK the chance to learn about technology and gain access to new skills training and career opportunities<sup>1</sup>. This is a positive step for AI education in the UK and is beneficial for the growth of students, however, this shouldn't just be a one-off investment.

### AI to support intellectual disparity in students:

AI- powered learning platforms will allow lessons to be adapted to each student's needs - whether that is the way they understand material, how fast they learn or their skill level in the classroom. This customised approach will help to reduce regional disparities, especially in areas where there is a higher level of student-to-teacher levels. The AI platforms can also be accessed outside of the classroom to allow students to learn and understand the concepts at their own pace. Targeted support will mean students can learn in ways that teachers are unable to achieve alone. Singapore have already started to introduce AI into schools and test the effect on students and teachers. They state their advanced systems analyse real-time data to

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<sup>1</sup> <https://www.gov.uk/government/news/pm-launches-national-skills-drive-to-unlock-opportunities-for-young-people-in-tech#:~:text=At%20the%20heart%20of%20the%20skills%20drive%2C,for%20the%20tech%20careers%20of%20the%20future.>

provide customised learning paths, ensuring that you are neither overwhelmed by overly challenging content nor bored with material that is too easy. Their Smart Tutoring System (STS) programme that was implemented in 10 secondary schools, STS improved student engagement by 25%, with a 15% increase in exam scores over one academic year<sup>2</sup>. Even though Singapore has a very different education system to the UK, this still outlines the potential impact that introducing AI could have on our own.

### **AI to support resource inequalities in schools:**

In today's education system, many students face inequalities due to limited resources, support and guidance. Artificial Intelligence has the potential to reduce these barriers in the classroom and allow every student to have access to the same opportunities. Not only will adopting AI into school benefit students but also provide significant advantages for teachers too. While teaching is fundamentally about building rapport and relationships with your students, an increasing workload for teachers makes it harder to do so. In the UK, teachers continue to work longer hours and face more intense demands, there is no better time to tackle teachers' excessive workloads in the workplace<sup>3</sup> says the National Education Union. There are now fewer people than ever wanting to be teachers and this is particularly worrying as workload is often cited as the main reason why teachers leave the profession<sup>4</sup>. It is important that we support and retain our teachers so we can continue to ensure quality education for our youth. By implementing Artificial Intelligence into our education system, teachers can spend less time on administrative tasks and more time to focus on building important relationships with their students. Contrary to the common fear that AI will replace human roles, its intention is to collaborate with workers to improve efficiency and reduce stress in the workplace. AI can assist teachers by helping to source lesson material and even identifying students with learning difficulties who will need more support. Saudi Arabia are currently pioneering the AI space as the Saudi Data and Artificial Intelligence Authority (SDAIA) prioritises the enhancement of national competencies in data and Artificial Intelligence by implementing advanced training and development programs. Over 11,000 teachers have been trained in these technologies and received a suite of educational and developmental programs in data and Artificial Intelligence, fostering a generation capable of advancing the Kingdom's global standing and fostering the industry of intelligent future leaders<sup>5</sup>. This allows the teachers to adapt to new learning styles by increasing their digital literacy. We must follow in the footsteps of Saudi Arabia and provide teachers with the adequate training to incorporate AI tools into the classroom.

### **Integrating AI into early education:**

Early exposure to Artificial Intelligence will not only teach students how to get the best from AI as a service but also advance students entrepreneurial skills to thrive in the next era of employment. To coincide with this digital evolution, the future workforce will need to adapt in order to keep up with the AI-driven economy. To achieve this and to remain globally competitive, implementing AI into our education is vital. China has announced a groundbreaking initiative to make AI education mandatory for all primary and secondary school students. Schools may offer AI as a standalone subject or embed it into existing courses like science and IT. Additionally, AI education is encouraged in after-school programs and research initiatives to foster collaboration between industry, academia, and research institutions<sup>6</sup>. The aim is to

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<sup>2</sup> <https://mylearnomics.com/iaied-singapore-pioneering-ai-in-education/>

<sup>3</sup> <https://neu.org.uk/advice/your-rights-work/teachers-workload-and-working-hours>

<sup>4</sup> <https://www.schoolmanagementplus.com/human-resources/why-do-so-few-graduates-want-to-get->

<sup>5</sup> <https://riyadh.sa/en/item/article/26924>

<sup>6</sup> <https://theaitrack.com/china-mandates-ai-education/>

develop a generation of technologically literate students who will lead in the AI revolution and remain at the forefront of global AI innovation. In order for the UK to compete with countries like China, we must adopt similar procedures that will ensure we stay relevant in the international market.

**Recommendations:**

Corporations across the globe are increasingly embracing automation and digitalisation, with Artificial Intelligence (AI) driving faster decision-making and innovation. As the job market transforms, small and medium-sized enterprises (SMEs) will become even more vital, with many businesses relying heavily on AI. To keep pace with this global shift, the UK would benefit from introducing AI-focused education early in schools, helping to rapidly develop a skilled workforce for the future. This would give SMEs access to a wider pool of talent, enabling them to compete more effectively with larger firms and international markets. Building stronger partnerships between schools and SMEs is key—equipping students with practical AI skills while nurturing a new generation of innovators. By learning from countries such as Singapore, Saudi Arabia, and China, the UK can strengthen its competitiveness and build a future-ready economy.