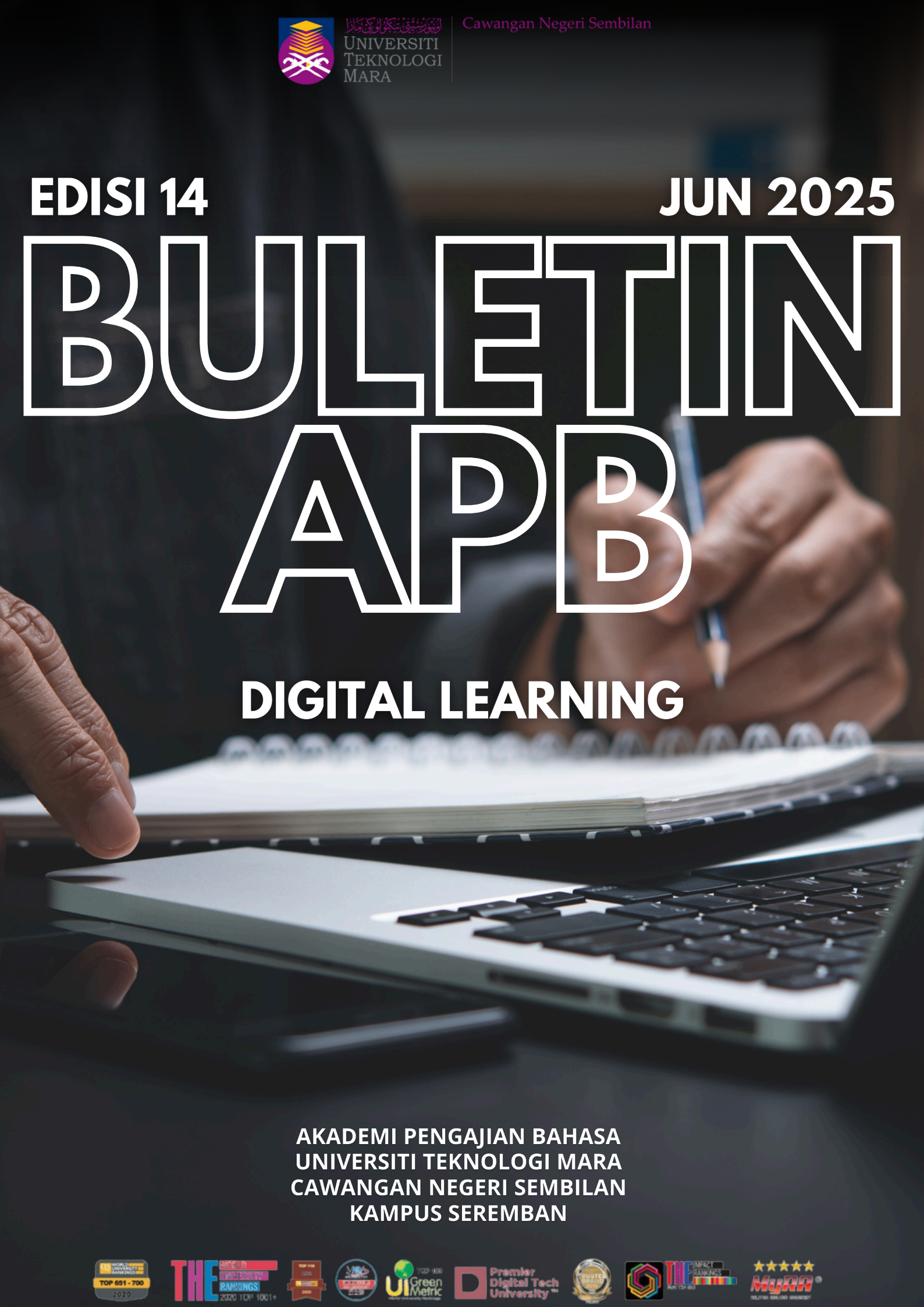
UNIVERSITI TEKNOLOGI MARA
Cawangan Negeri Sembilan

EDISI 14

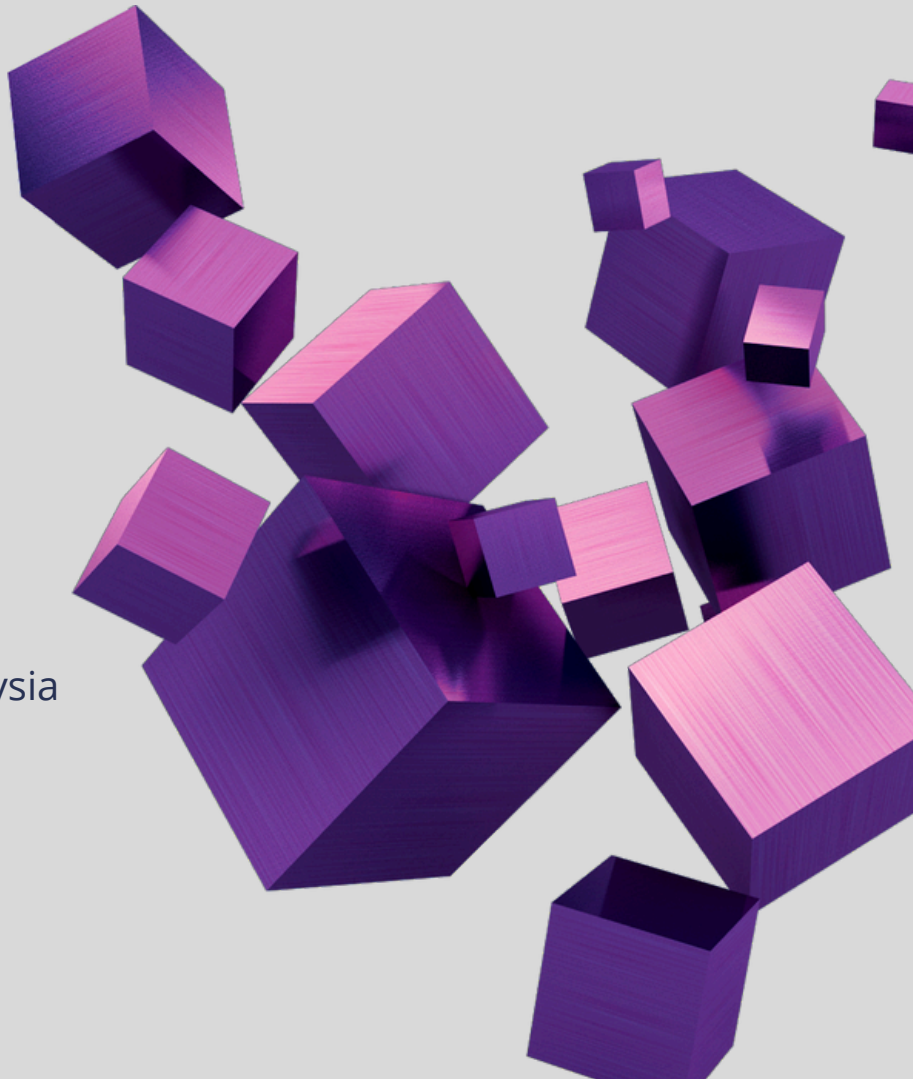
JUN 2025

BULETIN APB

DIGITAL LEARNING

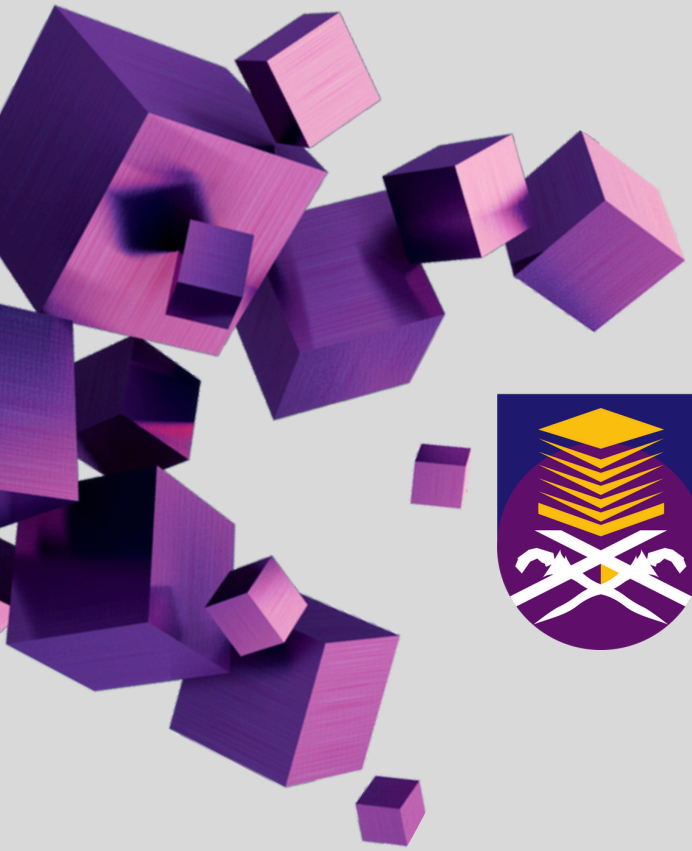


AKADEMI PENGAJIAN BAHASA
UNIVERSITI TEKNOLOGI MARA
CAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN



e-ISSN : 2682-7948
Perpustakaan Negara Malaysia

PENERBIT



CAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN
PERSIARAN SEREMBAN TIGA/1
SEREMBAN 3
70300 SEREMBAN
NEGERI SEMBILAN DARUL KHUSUS
MALAYSIA.

SIDANG REDAKSI

PROFESOR DR YAMIN YASIN
REKTOR
UiTM CAWANGAN NEGERI SEMBILAN

DR RAFIDAH KAMARUDIN
KETUA PUSAT PENGAJIAN
APB UiTM CAWANGAN NEGERI SEMBILAN

DR TUAN SARIFAH AINI SYED AHMAD
PENASIHAT
KOORDINATOR APB KAMPUS SEREMBAN

NURUL SYAFAWANI HALIM
KETUA PENYUNTING

FATIN ALIYAH HASSAN
PENOLONG PENYUNTING & GRAFIK

NOOR SHAHARIAH SALEH
PEMBACA PRUF

NUR HAKIMAH MD SALLEHUDDIN
PEMBACA PRUF

NUR AMIRAH NABIHAH ZAINAL ABIDIN
PEGAWAI PENYELARAS

RUHIL NADIAH ABU BAKAR
PENYUNTING KANDUNGAN

NIK MAHFUZAH NIK MAT
PENYUNTING KANDUNGAN

Isi Kandungan

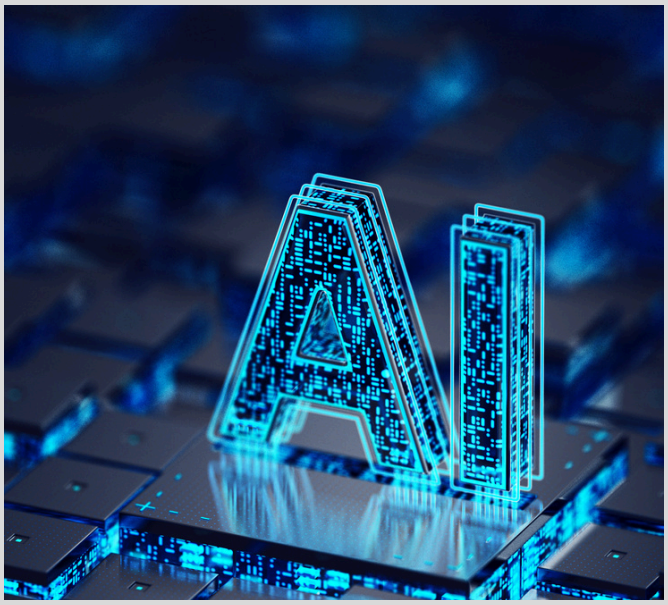
ARTIKEL

The Implications of AI Tools on Educational Practices

DR. IRMA BINTI AHMAD & NORASHIKIN BINTI MOKHTAR
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

In recent years, generative AI models have captured global attention for their impressive ability to create content that mimics human output. One such tool, ChatGPT, has gained particular popularity in educational settings. These technologies offer support to both educators and learners in areas such as problem-solving, question answering, and academic writing, as they can boost students' motivation, deepen understanding of complex subjects, and support skill development. The integration of AI not only benefits educators and learners but also plays a transformative role in four core areas of education—learning, teaching, assessment, and administration—reshaping the educational landscape.

One of the most transformative uses of AI lies in personalised learning. AI-powered adaptive learning platforms can adjust content and instructional methods in real time, based on student performance and engagement. Intelligent tutoring systems mimic one-on-one teaching and offer tailored feedback, making learning more engaging and effective (Zhu et al., 2023). Additionally, AI tools have been shown to enhance exam preparation and improve academic performance (Lo, 2023).



In Malaysia, educational institutions have begun integrating AI in various ways. For instance, Universiti Malaya and Universiti Teknologi Malaysia have launched pilot programs exploring the use of AI for personalised learning and online assessment (Bernama, 2021). AI chatbots are being trialled in some institutions to assist students with administrative queries and learning support. Moreover, Malaysia's Ministry of Higher Education has acknowledged the role of AI in the Malaysia Education Blueprint 2015–2025 (Higher Education), particularly under the emphasis on 21st-century learning and digital fluency (Ministry of Education Malaysia, 2015).

However, while the benefits are clear, several concerns exist regarding the adoption of AI in academic contexts. A major one is the potential for AI systems to reinforce bias or generate inaccurate or misleading content. Lo (2023) revealed that ChatGPT's performance varies significantly by discipline, performing better in areas like programming and economics, but less reliably in mathematics. Zhu et al. (2023) noted that AI chatbots can improve educational outcomes through personalised assistance and fostering critical thinking. Nonetheless, over-reliance on AI may hinder creativity, originality, and independent thought. A survey conducted in the United States found that while half of the students used ChatGPT minimally, a notable portion used it extensively, with some submitting work entirely produced by the AI (Welding, 2023).

In Malaysia, similar trends are emerging among university students. Anecdotal evidence and recent studies suggest a rise in AI usage for academic tasks such as essay drafting and assignment completion (Norizan & Nor, 2023). In response, some universities have updated their academic integrity policies, although the pace of change and systematic implementation vary (Ali & Isa, 2024).

Some institutions have responded by updating their academic integrity policies and introducing workshops on the ethical use of AI. However, the pace of institutional response varies, and more systematic approaches are needed.

German research by von Garrel and Mayer (2023) also shows that STEM students are the most active AI users—a trend echoed in Malaysia, where engineering and IT students are more likely to explore AI applications in their coursework. As AI use grows, questions about fairness, originality, and academic honesty become more pressing.

Ethical, legal, and transparency concerns have also come to the forefront. Issues such as bias, plagiarism, misinformation, data privacy, and improper citation have been widely documented. In Malaysia, discussions about the ethical use of AI in classrooms are gaining traction, particularly as educators strive to balance innovation with academic integrity. Eken (2023) warns that these issues may undermine the very values upon which education is built.

In response, researchers such as Abulibdeh et al. (2023) argue that education systems must evolve to integrate AI responsibly—this includes promoting lifelong learning, digital literacy, and collaboration with industry. Similarly, Malaysian universities are increasingly forming partnerships with tech companies to develop ethical AI literacy among students.

Perceptions of AI's impact on education also raise concerns about sustainability. A study by Okulich-Kazarin et al. (2023) revealed that students fear AI replacing teachers and destabilising safe learning environments. In Malaysia, while AI is welcomed as a tool to enhance learning, concerns have been raised among educators about job security and the potential loss of the human touch in education (ASEF, 2024). Addressing these concerns through training, dialogue, and policy frameworks is essential.

The adoption of AI in education is not uniform globally, nor even within Malaysia. Urban schools and well-funded universities typically have greater access to AI tools and infrastructure, whereas rural schools face challenges related to the digital divide. This disparity reflects a broader issue of unequal access to educational technology. As Smith and Jones (2022) found in their comparative study, countries and regions with fewer resources struggle to implement AI effectively. In Malaysia, bridging this digital divide is critical to ensure equitable benefits of AI in education.

Recognising the transformative potential of AI, several countries have launched initiatives to accelerate integration. China, for instance, introduced a strategic policy to integrate intelligent technology in schools (State Council of, 2017). In the United States and parts of Europe, institutions have received funding to develop AI-powered personalised learning platforms. Malaysia is also moving in this direction—initiatives such as the Malaysia Digital Economy Blueprint (MyDIGITAL) support AI development across sectors, including education (Economic Planning Unit, 2021).

In conclusion, AI tools offer powerful opportunities to transform educational practices through personalisation, efficiency, and innovation. However, these benefits must be balanced against ethical, legal, and social concerns. In the Malaysian context, a strategic and inclusive approach is necessary—one that ensures equitable access, promotes responsible use, and supports both educators and students. As AI becomes more embedded in our classrooms, we must guide its integration thoughtfully to preserve the integrity and purpose of education.

References

Abulibdeh, E., Alshurideh, M., & Al Kurdi, B. (2023). The transformative potential and moral issues of AI chatbots in education. *Education and Information Technologies, 28*(3), 1234–1256. https://doi.org/10.1007/s10639-023-11234-5

Ali, A., & Isa, Z. M. (2024). *Examining exemplar elements of selected Malaysian higher education institutions' academic integrity:* Policy document analysis based evidence. [ResearchGate preprint]. https://www.researchgate.net/publication/378679411

Asia-Europe Foundation (ASEF). (2024). AI's role in education: Teachers' concerns and the way forward. Asia-Europe Foundation *Education and Information Technologies, 28*(3), 1234–1256. https://doi.org/10.1007/s10639-023-11234-5

Asia-Europe Foundation (ASEF). (2024). *AI's role in education: Teachers' concerns and the way forward.* Asia-Europe Foundation https://asef.org/wp-content/uploads/2024/11/ASEF_ClassNet17_Publication_008_SINGLE.pdf

Bernama. (2021, April 14). Higher Education Ministry strives to create new learning ecosystem. https://www.bernama.com/en/thoughts/news.php?id=1928731

Economic Planning Unit. (2021). *Malaysia Digital Economy Blueprint (MyDIGITAL)*. Prime Minister's Department, Malaysia. https://www.ekonomi.gov.my/sites/default/files/2021-02/malaysia-digital-economy-blueprint.pdfMinistry of Economy+1Inter

Eken, M. (2023). Ethical concerns in AI-powered education: A critical review. *AI & Society, 38*(2), 345–360. https://doi.org/10.1007/s00146-023-01567-8

Lo, C. K. (2023). Evaluating ChatGPT's capabilities across disciplines. *Computers & Education, 186*, 104536. https://doi.org/10.1016/j.compedu.2023.104536

Ministry of Education Malaysia. (2015). *Malaysia Education Blueprint 2015–2025 (Higher Education).* https://www.um.edu.my/docs/um-magazine/4-executive-summary-pppm-2015-2025.pdf

Norizan, N. A., & Nor, M. H. M. (2023). Navigating AI ethics in Malaysian universities: Addressing privacy, integrity, and bias. *International Journal of Research and Innovation in Social Science (IJRISS), 7*(8), 44–49. https://rsisinternational.org/journals/ijriss/articles/navigating-ai-ethics-in-malaysian-universities-addressing-privacy-integrity-and-bias/

Okulich-Kazarin, V., Artyukhov, A., Skowron, Ł., Artyukhova, N., Dluhopolskyi, O., & Cwynar, W. (2024). Sustainability of higher education: Study of student opinions about the possibility of replacing teachers with AI technologies. *Sustainability, 16*(1), 55. https://doi.org/10.3390/su16010055MDPI+1MDPI+1

Smith, R., & Jones, L. (2022). AI adoption in global education: A comparative study. I*nternational Review of Education, 68*(5), 623–645. https://doi.org/10.1007/s11159-022-09987-6

State Council of the People's Republic of China. (2017). *New Generation Artificial Intelligence Development Plan.* http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm

Von Garrel, B., & Mayer, A. (2023). AI usage among German university students: A national survey. *International Journal of Educational Technology in Higher Education, 20*(1), 45. https://doi.org/10.1186/s41239-023-00345-2

Welding, L. (2023, March 17). Half of college students say using AI on schoolwork is cheating.

Zhu, M., Wang, X., & Li, Y. (2023). AI chatbots in education: Support and challenges. *Educational Technology Research and Development, 71*(4), 789–812. https://doi.org/10.1007/s11423-023-10123-4

Embracing the Future: The Power of Digital Learning in Modern Education

DR. FARAH ADILLA AB RAHMAN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Introduction

In today's rapidly evolving world, digital learning has transitioned from a futuristic concept into a current reality that is reshaping how we teach, learn, and grow. The transformation from traditional classroom environments to technology-enhanced education has unlocked vast opportunities for both educators and learners (McDiarmid & Zhao, 2022). As Zhang (2022) highlights, technology-based education, when supported by continuous professional development for educators, significantly enriches the learning experience.

Defining Digital Learning

Digital learning refers to the integration of technology into educational practices to facilitate and enhance the learning process. It encompasses various forms of digital interaction, such as online courses, virtual classrooms, mobile applications, and platforms powered by artificial intelligence (Timotheou et al., 2023). These tools allow for greater flexibility and personalisation in learning, offering students the ability to access educational content anytime and from anywhere (Mahdavi Ardestani et al., 2023).

The Benefits of Digital Learning

Digital learning brings numerous advantages to the education system. One of the most significant is its accessibility. Students from remote or underserved regions can participate in learning opportunities that were previously unavailable to them. Flexibility is another benefit, as learners can proceed at their own pace and revisit materials whenever necessary. Digital learning also enhances student engagement through the use of multimedia tools, interactive exercises, and gamified elements, making education more enjoyable. Furthermore, the use of data analytics allows educators to monitor student performance and tailor instruction to better meet individual needs (Mondal et al., 2025).

Impact on Educators and Institutions

Educators benefit from digital learning by gaining access to a diverse array of teaching resources and tools. These tools support innovative teaching methods and enable a deeper understanding of content delivery. Institutions also benefit as they can extend their reach beyond physical boundaries, offering courses to a broader and more diverse audience. As noted by Dang et al. (2024), the digital competence of educators plays a crucial role in enhancing students' perceived learning value, particularly in higher education, where digital interaction is a significant component of the learning process.

Figure 1
Educators' digital skills are key to enhancing students' learning value, especially in higher education, with its focus on digital interaction

Challenges in Implementing Digital Learning

Despite its advantages, digital learning also presents several challenges. One of the most pressing issues is the digital divide, which limits access for students who lack adequate technology or reliable internet. There are also concerns about screen fatigue, which can affect motivation and concentration. Moreover, both teachers and students require adequate digital literacy to navigate online platforms effectively. Without proper training and support, the benefits of digital learning may not be fully realised (Yadav, 2024).

Moving Forward: Embracing the Change

To maximise the effectiveness of digital learning, strategic investments must be made in several areas. Building a reliable digital infrastructure is essential to ensure access and continuity. Educators need ongoing professional development to stay current with digital tools and methodologies.

Ultimately, inclusive policies must be implemented to ensure that all students, regardless of their background, can benefit from digital education. Only through such comprehensive support can digital learning fulfil its potential as a transformative force in modern education.

Conclusion

Digital learning is more than just a temporary solution or an emergency response to modern challenges. It is a powerful and evolving tool that holds the promise of shaping more connected, informed, and adaptable learners. As the educational landscape continues to evolve, embracing digital learning through thoughtful planning and inclusive practices is crucial for fostering a more equitable and forward-thinking society.

References

Dang, T. D., Phan, T. T., Vu, T. N. Q., La, T. D., & Pham, V. K. (2024). Digital competence of lecturers and its impact on student learning value in higher education. *Heliyon, 10*(17), e37318. https://doi.org/10.1016/j.heliyon.2024.e37318

Mahdavi Ardestani, S. F., Adibi, S., Golshan, A., & Sadeghian, P. (2023). Factors influencing the effectiveness of e-learning in healthcare: A fuzzy ANP study. *Healthcare (Basel, Switzerland), 11*(14), 2035. https://doi.org/10.3390/healthcare11142035

McDiarmid, G. W., & Zhao (赵勇), Y. (2022). Time to rethink: Educating for a technology-transformed world. ECNU Review of *Education, 6*(2), 189–214. https://doi.org/10.1177/20965311221076493 (Original work published 2023)

Mondal, A., Kundu, D., & Chatterjee, N. (2025). The role of e-learning in modern education. *Journal of Scholastic Engineering Science and Management (JSESM), 4*(4), 9–15. https://doi.org/10.5281/zenodo.15194906

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., Monés, A. M., & Ioannou, A. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. *Education and Information Technologies, 28*(6), 6695–6726. https://doi.org/10.1007/s10639-022-11431-8

From Help to Hindrance: The Rising Overuse of ChatGPT by Students

MUHAMMAD AZRIL ROSLAN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

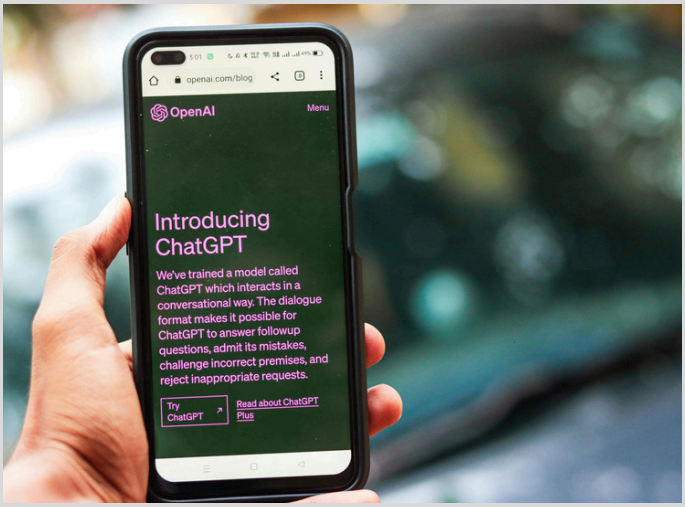
From Chalkboards to Chatbots: The Evolution of Learning

Digital learning has undergone a significant transformation of the educational landscape in recent years, particularly with the global shift to online and hybrid learning paradigms. One of the most revolutionary instruments to arise in this era is ChatGPT, a conversational AI model developed by OpenAI. As students globally adopt digital solutions to enhance their education, AI tools such as ChatGPT continue to grow, despite some negative consequences.

It is essential to examine the origins of ChatGPT to fully appreciate its present significance to digital learning fully. The quest commenced with GPT-1 in 2018, which was succeeded by GPT-2 in 2019, which garnered attention for its capacity to produce surprisingly sensible text. Nonetheless, it was GPT-3 in 2020 that completely embodied a turning point. GPT-3 has the capacity to generate essays, solve problems, summarise texts, and simulate human-like conversations on a scale that has never been observed before, with 175 billion parameters.

Then, ChatGPT emerged as a chatbot engineered explicitly for dialogue and refined from GPT-3.5 and GPT-4. Within months of its launch in late 2022, it drastically gained global recognition, reaching millions of users. It benefited students by providing prompt, articulate, and frequently precise responses to various subjects.

ChatGPT offers numerous benefits for students in colleges and universities. Hasanein and Sobaih (2023) highlighted that ChatGPT enhances accessibility and provides personalised support, promoting independent learning. Additionally, it improves language skills and supports academic writing (Sullivan et al., 2023). This continuous availability facilitates immediate support for students, particularly during nocturnal study sessions or demanding assignments.



Secondly, ChatGPT aids students in mastering a second language with improved grammar, boosting vocabulary, and providing rephrasing support. It assists in brainstorming, generating essay outlines, elucidating complex subjects in simpler language, and aiding with coding and mathematical challenges. Thus, ChatGPT functions as an additional educational resource that stimulates productivity and promotes independence in learning.

The Misuse Spiral: When ChatGPT Replaces Real Thinking

ChatGPT's convenience could lead to complacency, despite its numerous benefits. Some learners have begun to abuse the tool by copying and pasting responses without sufficient understanding or validation, raising ethical concerns. Cotton et al. (2024) noted that such practices blur the line between legitimate academic assistance and academic dishonesty, thereby threatening the integrity of assessments. Furthermore, some students mistakenly assume that all ChatGPT outputs are accurate, although the model may

generate fabricated or misleading content (Sullivan et al., 2023). It promotes the avoidance of critical thinking and diminishes the motivation to interact with educational materials.

Some students incorrectly believe that all ChatGPT-generated content is precise, even though the model may sometimes generate factually inaccurate or misleading content. The distinction between academic dishonesty and academic assistance becomes increasingly ambiguous, and this misuse jeopardises the fundamental values of higher education.

Graduates Without Grit? The Long-Term Effects of AI Misuse

Significant repercussions are associated with this overreliance on ChatGPT. Research, critical thinking, and academic writing are just a few of the crucial academic skills that are being lost due to this. Students who rely heavily on AI tools risk graduating without the ability to construct arguments or solve problems independently. This over-reliance may weaken their critical thinking skills and academic resilience (Hasanein & Sobaih, 2023).

As a result, students are not adequately equipped to meet the workforce's requirements, which place a significant emphasis on analytical thinking and problem-solving skills. Furthermore, the principle of integrity in academia, which is the foundation of a reliable educational system, is being eroded by this trend. Qualifications may lose credibility if examinations do not accurately reflect students' true effort and capability.

The Pedagogical Challenge of ChatGPT

The misuse of ChatGPT presents significant challenges for educators, particularly in assessing authentic student understanding and ensuring fairness (Cotton et al., 2024; Sullivan et al., 2023). When AI-generated responses are submitted as original work, teachers struggle to evaluate students' real understanding. This requires an overhaul of assessment methodologies. To overcome these difficulties, educational institutions must be proactive. Instead of restricting ChatGPT, schools could incorporate AI literacy into their curriculum. Students must be taught to critically analyse AI-generated content, use it with integrity, and incorporate it into their learning process without jeopardising personal effort.

Institutions should also establish criteria for the ethical use of AI tools. This involves discussions about authorship, originality, and the implications of academic dishonesty. Assessment formats may require modifications, prioritising open-ended questions, reflective essays, oral presentations, or problem-based learning that assess understanding rather than repetition. At the same time, lecturers must be trained to spot indicators of AI misuse and provide assignments that foster genuine participation.

Striking the Right Balance

ChatGPT is a powerful learning tool when used ethically and critically. However, as noted by Hasanein and Sobaih (2023), institutions must guide students on its responsible use to ensure that AI enhances rather than replaces academic growth. Failing to do so could result in graduates who are unprepared for the complex demands of the workforce (Sullivan et al., 2023). Misuse or over-reliance can hinder critical thinking, lead to a shallow understanding, and ultimately weaken educational outcomes. Submitting AI-generated work without reflection risks producing graduates who lack genuine competence. To prevent this, students and educators must strike a balance between embracing innovation and upholding academic integrity. Institutions must guide learners in using AI ethically to ensure future graduates are knowledgeable, capable, ethical, and prepared for a digital world.

References

Cotton, D. R., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in education and teaching international, 61*(2), 228-239.

Hasanein, A. M., & Sobaih, A. E. E. (2023). Drivers and consequences of ChatGPT use in higher education: Key stakeholder perspectives. *European Journal of Investigation in Health, Psychology and Education, 13*(11), 2599-2614.

Sullivan, M., Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning

Assessing Digital Learning in Rural Malaysia: Issues and Governmental Approaches

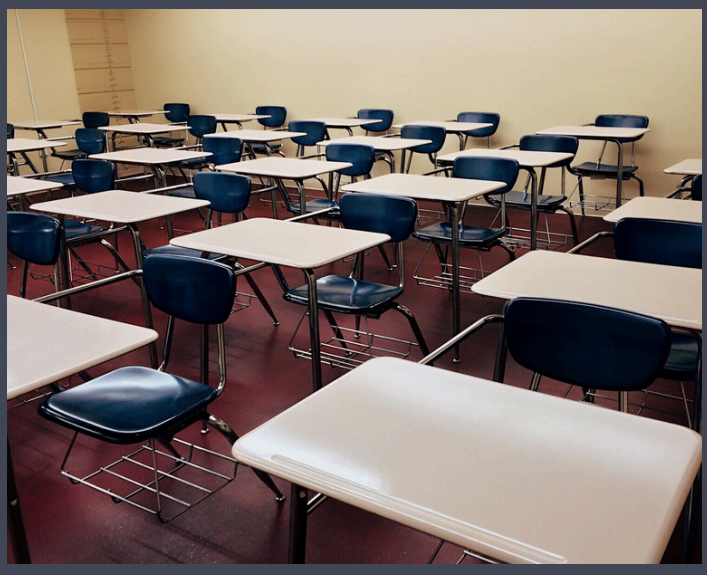
RUHIL NADIAH ABU BAKAR & NOOR SHAHARIAH SALEH
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Introduction

Digital learning has become a cornerstone of contemporary education systems, offering flexible and accessible modes of instruction. In Malaysia, integrating digital tools and platforms has been increasingly emphasised, particularly in response to the COVID-19 pandemic. However, while urban areas have adapted more readily to this shift, rural regions struggle to face significant barriers. This article will analyse the current state of digital learning in rural Malaysia, focusing on infrastructure, accessibility, educator readiness, and government policy interventions.

Digital Infrastructure and Connectivity

Access to reliable internet connectivity is a fundamental requirement for effective digital learning. In rural Malaysia, connectivity remains a critical issue. Although the government launched the Jalinan Digital Negara (JENDELA) initiative to enhance broadband infrastructure nationwide, implementation in remote areas has been inconsistent (The Malaysian Reserve, 2025). Many students and educators in these regions rely on mobile data or unstable wireless connections, which undermines the quality and continuity of online learning experiences.



Access to Digital Devices

Besides digital infrastructure and connectivity, another critical barrier is the limited availability of digital devices among rural students. Financial constraints mean that many families cannot afford laptops, tablets, or data plans required for digital learning. While the Peranti Siswa program was introduced to mitigate this issue by providing tablets to low-income students, the gaps in distribution and coverage still exist (The Malaysian Reserve, 2025). As a result, many students still rely on shared or outdated devices, resulting in inequities in learning outcomes.

Educator Readiness and Professional Development

Educator competency in digital pedagogy has a substantial impact on the success of digital learning initiatives. In rural areas, a significant number of teachers lack adequate training in understanding and utilising digital tools and platforms. This problem hinders the effective implementation of technologies such as artificial intelligence (AI), virtual reality (VR), and learning management systems (LMS). Consequently, the Ministry of Education (MoE) has introduced several programs, including Guru Jauhari Digital and collaborations with technology firms, to train teachers as certified digital educators (Malay Mail, 2024b). Despite these efforts, access to professional development opportunities remains uneven.

Digital Literacy and Student Competency

The digital divide between rural and urban students is evident in digital literacy levels. The Digital Competency Score (DCS) 2023 reported that rural students scored an average of 3.24 out of 5.00, compared to 3.34 among urban peers (Malay Mail, 2024a). While the number difference may appear relatively small, it indicates broader systemic issues in resource allocation and digital exposure. Addressing these gaps requires targeted interventions in curriculum design, teacher training, and infrastructure development.

Governmental Initiatives and Strategic Responses

The Malaysian government has taken several steps to promote digital inclusivity in education. Over 10,000 schools have been equipped with broadband access using fibre optics, 4G wireless, or satellite lines (Malay Mail, 2024a). Additionally, the MoE has introduced hybrid learning models in over 100 classrooms, with plans to expand this to 400 more (Weekly Echo, 2024). These smart classrooms integrate digital tools to support blended learning, enabling a more flexible and interactive educational experience. However, the effectiveness of these initiatives depends on continuous funding, monitoring, and community engagement.

Conclusion

In conclusion, digital learning in rural Malaysia remains in a critical state. While significant progress has been made through policy initiatives and infrastructural upgrades, relentless challenges in connectivity, device access, and educator readiness continue to deter full engagement. Bridging the digital divide requires a coordinated, multi-stakeholder approach involving the government, the private sector, and society. Only through continual investment and strategic planning can digital learning become an equitable and effective component of Malaysia's education system.

References

Malay Mail. (2024a, April 30). *Education Ministry admits gap in digital skills between rural, urban schools.* https://www.malaymail.com/news/malaysia/2024/04/30/education-ministry-admits-gap-in-digital-skills-between-rural-urban-schools/131622

Malay Mail. (2024b, May 16). *Fadhlina: Education Ministry to introduce initiatives for teachers to enhance capacity in digital technology*. https://www.malaymail.com/news/malaysia/2024/05/16/fadhlina-education-ministry-to-introduce-initiatives-for-teachers-to-enhance-capacity-in-digital-technology/134700

The Malaysian Reserve. (2025, January 3). Malaysia's education, business, healthcare & AI journey in 2024. https://themalaysianreserve.com/2025/01/03/malaysias-education-business-healthcare-ai-journey-in-2024/

Weekly Echo. (2024, October 10). *Digital skills: MoE plans to add 400 more hybrid classes next year.* https://www.weekly-echo.com/digital-skills-moe-plans-to-add-400-more-hybrid-classes-next-year/

Digital Revolution in the Arabic Language Teaching and Learning

NIK MAHFUZAH NIK MAT, RODHIAH AMZAH, NURUL SYAFAWANI HALIM, MOHD NUR FITRI MOHD SALIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN
WAN NURUL FATIHAH WAN ISMAI
UiTM CAWANGAN PERAK KAMPUS TAPAH

Digital technology has transformed the education landscape, including Arabic Language teaching, which used to rely on conventional methods such as rote memorisation, writing exercises, and drilling. Moreover, digital approaches enhance the learning experience through the use of multimedia, gamification, and online self-learning methods.

The digital learning approach in teaching the Arabic language offers various benefits. According to Badarudin et al. (2023), the use of digital storytelling and role-plays significantly aids Arabic vocabulary acquisition among students.

Additionally, learning becomes more flexible as learners can access learning materials at any time and from any location. The global multimedia materials also ease learning Arabic sounds, pronunciation, and contexts through various dialects and native speakers' speech available online.

i-Tahaddath is a local app for Arabic language learning, specifically developed for preschool students in Malaysia. This app has been proven to aid learners in building basic Arabic vocabulary and communicating effectively in everyday situations (Hamidin et al., 2024). There are also various apps designed to facilitate Arabic language learning, which are accessible on mobile phones and computers. Among them are applications such as *Duolingo* and *Memrise*. Both of these applications can enhance student engagement in learning and mastering the Arabic language, particularly in terms of vocabulary memorisation, sentence structure, and grammar (Hasan et al., 2025).

However, there are some challenges to these digital approaches. Students from low-income households may not have reliable internet access or devices. Furthermore, international learning apps do not align with the Arabic language syllabus in Malaysia and the local culture. Mohamad Soad (2023) found that teachers' acceptance level towards the use of technology, such as augmented reality, was intermediate, and they require continuous training and support in using technology. These challenges impact students' efforts to be proactive and motivated in self-learning.

To sum up, the acquisition of the Arabic language through digital methodologies has transitioned from being an optional choice to an essential requirement. Hence, educators, students, parents, and policymakers must collaborate to ensure the effective integration of technology in Arabic language education. Through the strategic utilisation of technological tools, the teaching and learning of Arabic can be improved to meet the educational demands of the twenty-first century and evolve concomitantly with other languages in this era of globalisation.

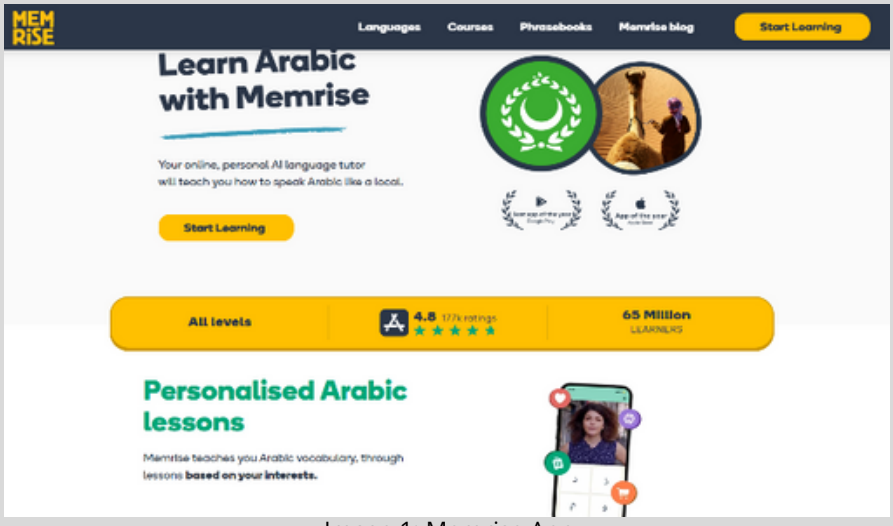


Image 1: Memrise App

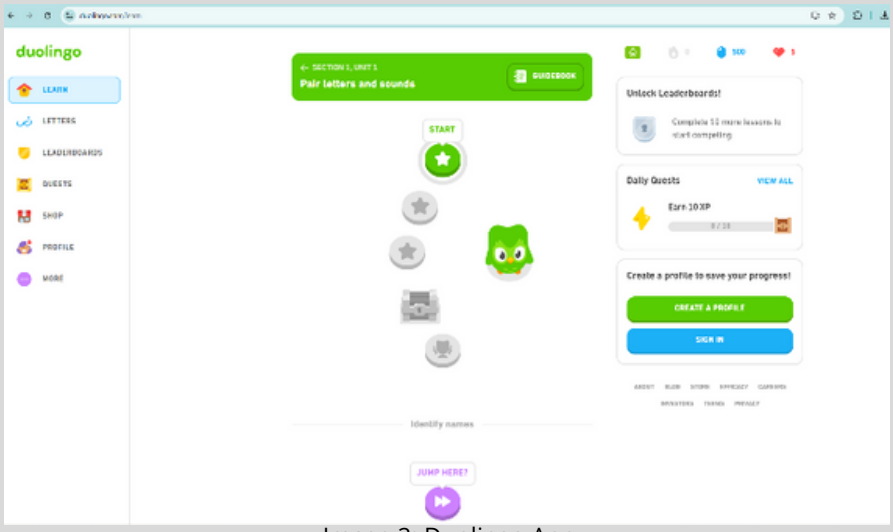


Image 2: Duolingo App

References

Badarudin, M. N., et al. (2023). Penggunaan Penceritaan Digital dan Lakonan dalam Pemerolehan Kosa Kata Bahasa Arab. *Asian Journal of Educational Research.*

Hamidin, N. M., et al. (2024). Keberkesanan i-Tahaddath dalam Pembelajaran Bahasa Arab Kanak-kanak Prasekolah. *Jurnal At-Tarbawiy, 9*(1).

Hasan, A., & Rahman, N. (2025). Mobile assisted learning in Arabic language education: A comparative study of Duolingo and Memrise. *Journal of Language and Education Technology, 17*(2), 112–129.

Kementerian Pendidikan Malaysia. (2022). Pelan Transformasi Digital Pendidikan 2021–2025.

Mohamad Soad, N. F. A. (2023). Penerimaan Guru Terhadap Teknologi Realiti Terimbuh dalam Pengajaran Bahasa Arab. UKM Institutional Repository.

Securing e-Learning: Challenges and Solutions for Cybersecurity in Higher Education

NORASHIKIN BINTI MOKHTAR, MOHD FAIZ ISMAIL, NIK MAHFUZAH NIK MAT & DR IRMA BINTI AHMAD
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

The digital revolution has profoundly impacted education by enabling flexible, personalised, and convenient learning through e-learning platforms. However, this transformation has also led to a significant rise in cybersecurity threats, which higher education institutions must urgently address (Sadiqzade & Alisoy, 2025).

Advancements in technology have enabled learning materials to transition from physical classrooms to online spaces, opening access and facilitating collaborative engagement among universities. However, such a shift also carries substantial operational risks. While students and teachers begin to use more digital tools, they are also exposing themselves to threats, including hacking, phishing, ransomware, and unauthorised access.

The COVID-19 pandemic has led to significant growth in online education. The abrupt and unplanned transition to distance learning posed unique challenges for both educators and students, who had to quickly adapt to unfamiliar digital environments (Al-Hunaiyyan et al., 2021). However, this shift also exposed a widespread lack of preparedness across many universities and colleges. Poor digital infrastructure and limited technical competency among faculty and students contributed to inconsistent and unequal learning experiences. Furthermore, the expanded digital footprint resulting from widespread remote access to educational resources increased the vulnerability to cybersecurity threats, including data breaches (Yaseen, 2022).

Numerous factors contribute to the rise in cybersecurity threats within the e-learning sector. First, the immediate shift to virtual learning left many institutions racing to implement digital architectures with little time for comprehensive security planning. This rush to adopt often meant the use of insecure platforms, outdated software, and poorly configured systems that were vulnerable to exploitation. Second, the heavy reliance on personal devices to access learning content raises security concerns due to their inadequate protection and the common practice of sharing these devices among family members. Third, the increasing placement of sensitive data on cloud-based platforms introduces additional threats of cyber attack if access controls and encryption mechanisms are inadequate.

Lastly, cybercriminals are becoming increasingly sophisticated, employing a practical social engineering approach that utilises methods such as phishing and impersonation as they target an underinformed user base of students and staff. These dangers have been exacerbated by the absence of a comprehensive, integrated approach across an entire system of cybersecurity within institutions (Buja, 2021), resulting in increased challenges in responding to threats. These threats can only be addressed on multiple fronts. Organisations should consider investing in robust authentication systems, such as multi-factor authentication, to protect against unauthorised access. It is vital to achieve real-time monitoring with the help of IDS and IPS systems. The encryption of data during transmission and at rest can provide secure communication, and incident response plans can limit the damage caused by violations (Rjaibi et al., 2013). Similarly, the educational aspect of cybersecurity studies is also essential (Hasan et al., 2024).

To summarise, ongoing education for students, faculty, and staff on recognising phishing scams, managing credentials, and following protocols is vital. An informed academic community functions as one of the most effective safeguards against cyber threats. Thus, ensuring the security of e-learning environments is a collective concern. By leveraging technology, effective policy, and user education, institutions can create robust digital learning environments that are secure, inclusive, and future-ready.

References

Al-Hunaiyyan, A., Al-Sharhan, S., Alhajri, R., & Alhudaib, A. (2021). E-learning during the COVID-19 pandemic: Experiences and perceptions of Kuwait's higher education faculty. *Education and Information Technologies, 26*(6), 6995–7015. https://doi.org/10.1007/s10639-021-10530-0

Buja, A. G. (2021). Cyber security features for national e-learning policy. *Turkish Journal of Computer and Mathematics Education, 12*(5), 1729–1735. https://doi.org/10.17762/TURCOMAT.V12I5.2169

Hasan, S. A., AlJazeeri, F. H., Abdulla, H. H., AlMahafdha, Z. S., & AlAmmary, J. (2024). *A systematic literature review of models and factors influencing e-learning cybersecurity awareness among university students.* 2024 International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT), 405–412. https://doi.org/10.1109/3ict64318.2024.10824546

Rjaibi, N., Rabai, L. B. A., Aissa, A. B., & Mili, A. (2013). Mean failure cost as a measurable value and evidence of cybersecurity: E-learning case study. *International Journal of Secure Software Engineering, 4*(3), 64–81. https://doi.org/10.4018/jsse.2013070104

Sadiqzade, Z., & Alisoy, H. (2025). Cybersecurity and online education – risks and solutions. *Luminis Applied Science and Engineering*. https://doi.org/10.69760/lumin.20250001001

Yaseen, K. A. Y. (2022). Digital education: The cybersecurity challenges in the online classroom (2019–2020). *Asian Journal of Computer Science and Technology*. https://doi.org/10.51983/ajcst-2022.11.2.3450

Dari Buku ke Bot: Literasi AI Bukan Lagi Pilihan, Tapi Keperluan

MOHD AIZAT ABD HALIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN (PTAR)

Kecerdasan buatan (*Artifical Intelligent*) telah menjadi pemacu utama dalam transformasi digital global. Dalam konteks pendidikan, teknologi AI telah diintegrasikan dalam pelbagai aspek, termasuk pengajaran dan pembelajaran bahasa. Menurut kajian oleh Song & Song (2023), penggunaan aplikasi berasaskan AI seperti ChatGPT telah meningkatkan motivasi pelajar dalam penulisan dan menyokong kefahaman mereka terhadap struktur bahasa secara lebih berkesan. AI yang digunakan sebagai penjana teks, penterjemah automatik, dan pemprosesan bahasa semula jadi (Natural Language Processing, NLP) telah memperluas kaedah pembelajaran serta sumber yang boleh diakses oleh pelajar dan pensyarah. Perpustakaan sebagai institusi yang menyediakan sumber, perkhidmatan dan kepakaran maklumat, kini berhadapan dengan tanggungjawab baharu untuk mendekatkan teknologi AI kepada komuniti akademik.

AI telah membawa banyak kemudahan dalam aktiviti pembelajaran. Aplikasi seperti Grammarly, ChatGPT, Google Translate, dan Text-to-Speech telah menjadi alat bantu utama pelajar dalam menghasilkan, menganalisis dan menilai penggunaan bahasa. Teknologi NLP membolehkan analisis semantik teks dan pembetulan tatabahasa secara automatik. Namun, menurut Zhang & Hyland (2023), pelajar hanya mendapat manfaat maksimum daripada AI jika mereka mempunyai literasi digital yang mencukupi untuk mentafsir dan menggunakannya dengan kaedah yang betul.

Perpustakaan akademik hari ini telah memperluas koleksi mereka dengan menyediakan akses kepada pangkalan data linguistik, alat AI untuk analisis teks, dan sumber pembelajaran kendiri dalam talian. Hal ini menjadikan perpustakaan sebagai hab digital yang penting dalam menyokong pembelajaran dan penyelidikan secara kendiri dan berinovasi.

Dalam era digital, literasi maklumat tidak lagi terhad kepada keupayaan mencari dan menilai maklumat, tetapi turut merangkumi literasi AI – iaitu kefahaman tentang bagaimana AI berfungsi, batasannya, serta penggunaannya secara beretika dan bertanggungjawab (Long & Magerko, 2020). Di sinilah peranan perpustakaan menjadi strategik.

Perpustakaan boleh menganjurkan bengkel literasi AI yang khusus kepada pelajar, seperti bengkel “Menulis Bersama AI”, “Etika Penggunaan AI dalam Penulisan Akademik” atau “Pemprosesan Bahasa Semula Jadi untuk Penyelidikan Linguistik”. Program ini bukan sahaja meningkatkan kemahiran teknikal, malah membantu pelajar memahami implikasi epistemologi dan etika dalam penggunaan teknologi.

Antara bengkel dan kursus berkaitan AI yang dianjurkan perpustakaan dengan kerjasama ahli akademik

Salah satu kebimbangan utama penggunaan AI dalam penulisan ialah isu keaslian dan plagiarisme. AI mampu menjana teks yang menyerupai hasil kerja asli pelajar, sekali gus menimbulkan persoalan tentang keaslian idea dan integriti akademik (Cotton et al., 2024). Oleh itu, perpustakaan perlu memainkan peranan sebagai agen pendidikan dalam mempromosi etika penulisan.

Garis panduan penggunaan AI dalam penulisan akademik harus dibangunkan secara kolaboratif antara perpustakaan dan ahli akademik. Garis panduan ini boleh merangkumi aspek seperti pendedahan penggunaan AI dalam tugasan, had penggunaan teknologi, serta bagaimana menyemak semula teks yang dijana oleh AI agar ia sejajar dengan objektif pembelajaran.

Perubahan landskap pendidikan kesan daripada AI memerlukan pendekatan kolaboratif. Perpustakaan perlu terlibat secara langsung dalam pengajaran dan pembelajaran melalui model *embedded librarianship*, model ini memerlukan pustakawan bekerjasama rapat dengan pensyarah dalam penyampaian kurikulum yang melibatkan penggunaan AI pihak ak. Kolaborasi ini boleh menjadikan perpustakaan sebagai pusat latihan AI, makmal sumber bahasa, dan tempat eksperimen literasi digital.

Kecerdasan buatan telah membuka peluang besar dalam dunia pendidikan, namun turut menuntut kefahaman baharu terhadap peranan perpustakaan sebagai pemudah cara teknologi dan penjaga etika akademik. Perpustakaan bukan sekadar penyedia maklumat, tetapi juga pemangkin kepada pembangunan literasi AI dalam kalangan pelajar dan pensyarah. Dengan pendekatan yang inklusif dan strategik, perpustakaan boleh menjadi pemain utama dalam memastikan AI digunakan secara bijaksana untuk memperkasa proses pembelajaran.

Rujukan

Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2024). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International, 61*(2), 228–239. https://doi.org/10.1080/14703297.2023.2190148

Long, D., & Magerko, B. (2020). What is AI Literacy? Competencies and Design Considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems,* 1–16. https://doi.org/10.1145/3313831.3376727

Shank, J. D., & Dewald, N. H. (2003). Establishing our presence in courseware: Adding library services to the virtual classroom. *Information Technology and Libraries, 22*(1), 38–43.

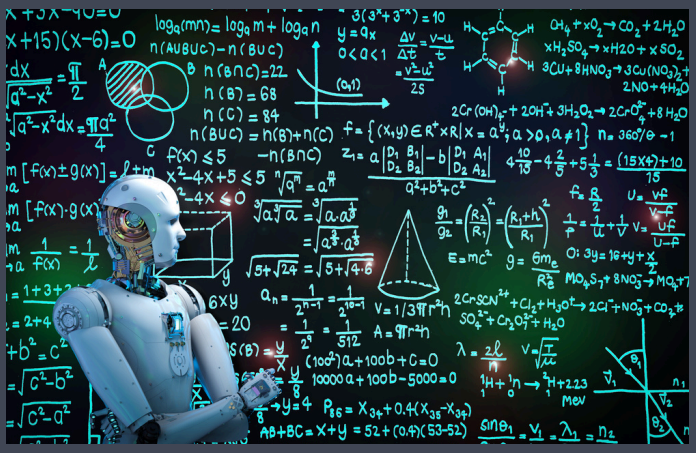
Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology, 14*. https://doi.org/10.3389/fpsyg.2023.1260843

Zhang, Z., & Hyland, K. (2023). The role of digital literacy in student engagement with automated writing evaluation (AWE) feedback on second language writing. *Computer Assisted Language Learning,* 1–26. https://doi.org/10.1080/09588221.2023.2256815

Changes in Behaviour Fueled by Digital Learning

NORASHIKIN BINTI MOKHTAR, DR MOHD FAIZ ISMAIL, NIK MAHFUZAH NIK MAT & DR IRMA BINTI AHMAD
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

The rapid integration of digital technologies into education has triggered significant shifts in human behaviour. Digital learning, through its personalised platforms, interactive tools, and data-driven insights, has reshaped how students engage with content, educators, and their learning strategies. These changes are not only evident in academic contexts but also extend to health behaviours, suggesting a broader impact on human decision-making and motivation. Ranging from mobile applications to virtual classrooms has shown positive effects on student motivation and learning outcomes.



Although other factors often mediate the relationship between digital learning and motivation, research has consistently indicated that educational technologies help improve learner engagement. For instance, Noor et al. (2022) found that tools such as educational apps and animated videos help stimulate students' interest, indirectly enhancing their academic performance and mindset. One of the most transformative aspects of digital learning is the ability to personalise the learning experience.

In personalised e-learning environments, students adapt their learning strategies, demonstrate improved goal-setting behaviour, and engage in more purposeful interactions with educational content. Yakovleva and Kulikova (2022) observed that students in digital learning contexts exhibited pragmatic self-regulation, set clearer academic goals, and approached learning tasks with greater instrumental motivation. However, collaborative behaviours such as peer interaction and group learning remained underutilised, indicating an area for further pedagogical development.

Digital platforms also have an impact on behaviour in health-related areas. According to research by Kim et al. (2021), a mobile-based intervention that included resources like digital mentors and dietary tracking significantly predicted weight loss outcomes in both the short and long term. This research highlights how engagement with digital tools can lead to sustained behavioural changes, suggesting that the principles of digital learning can be applied to health promotion and lifestyle management. The use of learning analytics has opened new avenues for understanding student behaviour. By analysing digital footprints such as clicks, session times, and help-seeking behaviour, researchers have identified distinct learner profiles. Krumm (2020) and Mouri et al. (2019) found that patterns such as persistence, time management, and proactive help-seeking were positively correlated with academic success. These insights enable educators to tailor interventions based on students' digital behaviour, creating more responsive and supportive learning environments.

Digital learning platforms have transformed the landscape of behaviour change communication. As noted by Udoudom et al. (2023), the capacity to customise content, enhance user interaction, and expand access to educational resources has positioned digital learning as a potent tool for shaping behavioural outcomes

among diverse demographics. These platforms serve not merely as instructional resources but also as instruments for advocacy, empowerment, and promoting equity in education.

Digital learning is reshaping human behaviour in meaningful and measurable ways. It enhances student motivation, promotes self-regulation, enables personalised instruction, and supports behavioural change both within and beyond the classroom. These developments require educators to cultivate new pedagogical approaches that align with the digital behaviours of modern learners. Ongoing research, especially leveraging behavioural data analytics, will be instrumental in designing adaptive, inclusive, and human-centered digital learning ecosystems.

References

Alexander, E. (2015). Behaviours of disengagement: Physical & digital in the university classroom.

Demy, O., Boyer, A., & Roussanaly, A. (2022). An adaptive metric in the context of students' digital behavior.

Hu, K., & Zhang, L. (2024). Patterns of students' learning behaviour in a digital English teaching environment.

Kim, J., et al. (2021). Mobile-based behavioral interventions for health behavior change.

Krumm, A. E. (2020). Learning analytics and the detection of behavioral patterns.

Mouri, K., Ren, Z., Uosaki, N., & Yin, C. (2019). Hierarchical evaluation of learning patterns using digital textbook log data.

Noor, U., Younas, M., Aldayel, H. S., Menhas, R., & Qingyu, X. (2022). Learning behavior, digital e-learning platforms and its influence on students' attitude and mindset development.

Noskova, T., Pavlova, T., & Yakovleva, O. (2021). Students' preferences regarding professors' teaching style in digital learning contexts.

Udoudom, M. E., Suyo-Vega, J. A., Meneses-la-Riva, M. E., & Fernández-Bedoya, V. H. (2023). *Digital behavior communication in diverse learning environments.*

Vitvitskaya, O., Suyo-Vega, J. A., Meneses-la-Riva, M. E., & Fernández-Bedoya, V. H. (2022). *Characteristics and attributes of digital natives through the teaching-learning process.*

Yakovleva, O., & Kulikova, S. (2022). *Personalised education in the context of educational behavior and student agency in digital learning.*

Embracing AI in Education: Shaping the Future of Learning

RODHIAH AMZAH, NURUL SYAFAWANI HALIM, NIK MAHFUZAH NIK MAT, MOHD NUR FITRI MOHD SALIM & ASMAHANIM HAJI YUSUF
UITM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

What are we without the internet? Can we live without it? Will it make a difference in education if we do not use it at all? There is no doubt that a mobile phone is a must-have item for everyone, and the digital world has made it impossible to live without one.

The use of Artificial Intelligence (AI) in education has expanded and become increasingly prevalent over the years. It has emerged as a transformative tool, working effectively across various fields and industries. Undoubtedly, AI has been widely accepted and normalised in education, with its use growing over time. AI is gradually becoming the new Google, as 69% of students reported using it as a search engine, with ChatGPT being the most popular AI tool, followed by Grammarly, Google Gemini, and Perplexity (Ward, 2024). Thus, AI has made a significant contribution to education by offering benefits and experiences that can enhance the learning process. Most educational institutions have nowadays adopted and adapted AI as part of the new era of digital learning.

Source: iStock by Gettyimages (https://www.istockphoto.com/id/foto-foto/artificial-intelligence-education)

AI is fundamentally revolutionising education, significantly transforming the learning process for students and enhancing their overall educational experiences in remarkable ways. It ensures that the ability to adapt to each student's needs is provided, creating personalised learning experiences that cater to their unique requirements. Moreover, AI tools have made education more accessible than ever, enabling students with disabilities or diverse learning styles to benefit from AI-powered assistive technology that offers tailored support and accommodations (Cohen, 2024).

However, there are also questions and concerns that arise due to the emergence of AI in education. Jose and Jose (2024) in their study concluded that among the risks faced by educators are: 1) replacing human services 2) discouraging thinking and learners' creativity 3) frustration related to providing feedback on learners' AI-assisted writing inputs and generated assignments for assessment purposes 4) causing errors in information as well as 5) creating opportunities to cheat, fostering laziness, and overrating AI platforms.

As educators, we believe that AI will not and cannot replace humans. Humans interact and touch souls, while AI is merely a tool to assist in that process. When students are caught cheating by using AI on their assignments, it discourages us as well, making us feel like singing "No Doubt- Don't Speak" to them. Our role as educators remains crucial; we are here to guide students' learning and serve as their support system, a role that AI cannot replicate. More studies and courses are being developed to implement and integrate AI as a digital tool for learners and students to engage with in the educational landscape, as it is believed to unlock their full potential and embrace the exciting possibilities of AI (Cohen, 2024).

References

Cohen, K. (2024, August 2). Best AI tools for students. https://www.iu.org/blog/ai-and-education/best-ai-tools-for-students/

Jose, J., & Jose, B. J. (2024). Educators' academic Insights on Artificial Challenges and opportunities. *The Electronic Journal of e-Learning*, 00. https://doi.org/10.34190/ejel.21.5.3272

Ward, M. (2024, September 10). *These 5 AI tools are the most popular among students.* https://www.iu.org/blog/ai-and-education/best-ai-tools-for-students/.

Digital Learning & Retirement Savings: A Smarter Future for Malaysians

ASMA' RASHIDAH IDRIS, ASIAH ALI, NURAIN FARAHANA ZAINAL ABIDIN, NOOR AZILA MOHD ZAID, ZULIANA ZOOLKEFLI, MASRUL HAYATI KAMARULZAMAN & NOOR AZILA SAHRIM

UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

Introduction

In today's digital age, retirement planning is no longer limited to paper statements and in-person consultations. Malaysians are increasingly turning to digital learning to boost their financial knowledge and ultimately, their savings. With easy access to online courses, mobile apps, and webinars, digital tools are transforming our preparation for our golden years. Retirement planning, once seen as a tedious and confusing process, is being reshaped through digital learning, making it more accessible, engaging, and personalised.

From online courses and mobile applications to interactive webinars and social media communities, digital resources are helping Malaysians of all ages and backgrounds build financial literacy, understand long-term savings strategies, and make informed investment decisions. Whether it is a young professional just starting to save or a middle-aged entrepreneur planning for life after work, digital platforms offer the flexibility to learn at one's own pace, on any device, from anywhere (Selvadurai et al., 2018).

This shift is not just about convenience, but also about empowerment. Malaysians are becoming increasingly proactive in managing their retirement savings, setting realistic goals, and utilising digital tools that offer real-time insights and personalised financial advice. As financial education becomes more democratised through technology, a smarter, more secure retirement is becoming a reality for many (Tiwari, 2024).

In this article, we explore how digital learning is revolutionising retirement planning in Malaysia, the key platforms driving this change, and how embracing digital tools today can lead to a more financially confident tomorrow.

Financial Literacy at Your Fingertips

Digital learning platforms such as Bijak Wang, InvestSmart by SC, and AKPK e-Learning provide free and interactive courses in Bahasa Melayu and English. These platforms help users understand EPF, PRS, ASB investments, and insurance planning, all of which are key to a solid retirement strategy. For instance, a single mother enrolled in an online course offered by AKPK during the MCO. She learned about compound interest and diversified her savings by investing in EPF and Tabung Haji. Today, she is more confident about her retirement and her daughter's education fund.

Empowerment Through Personalised Tools

Websites like EPF's i-Akaun and apps like MyTabung by BNM offer budgeting features and retirement calculators. Users can track their spending, set goals, and project how much they will have by retirement, which empowers them to adjust their financial habits accordingly.

Flexibility for Busy Lives

Digital learning offers flexibility for working adults and homemakers who cannot attend physical seminars. Whether it is late at night or during lunch breaks, users can study at their own pace, making retirement knowledge more inclusive and accessible.

Financial Planning for Special Groups

Digital platforms now cater to a diverse range of demographics, including micro-business owners, B40 families, and parents of children with special needs. Nowadays, there are dedicated digital courses and webinars covering important topics such as trusts and wills for children with special needs, lifetime insurance protection, establishing a Special Needs Trust Fund, and long-term savings that continue to support the child after the parents retire (Sapuan, 2021). Digital learning provides a flexible and accessible way for parents and caregivers to acquire essential knowledge on these topics without attending physical seminars, which can often be inconvenient or difficult to manage (Hong, 2024).

Conclusion

Digital learning is more than just a convenience. It is a lifeline to financial independence. For Malaysians, especially those juggling family and work, these tools offer hope and clarity in retirement planning. By embracing technology, we move closer to a future where every Malaysian can retire with dignity, confidence, and security.

References

Tiwari, S. K. (2024). The Future of Digital Retirement Solutions: A Study of Sustainability and Scalability in Financial Planning Tools. *Journal of Computer Science and Technology Studies, 6*(5), 229-245.

Selvadurai, V., Kenayathulla, H. B., & Siraj, S. (2018). Financial literacy education and retirement planning in Malaysia. MOJEM: *Malaysian Online Journal of Educational Management, 6*(2), 41-66.

Sapuan, N. M., & Basar, M. N. F. (2021, November). Developing Resilient Financial Wellbeing Among Elderly Citizens in Malaysia. In *International Conference on Business and Technology* (pp. 837-848). Cham: Springer International Publishing.

Hong, O. C. (2024). Adapting Communication Technologies to Enhance Social Support and Lifelong Learning for Older Adults. *Journal of Digitovation and information system, 4*(1), 32-47.

Revolutionise Mental Health: The Power of Digital Learning and Mental Health Kit

DR. RAJA MAYANG DELIMA MOHD BETA, DR. NUR NADIA DZULKIFLI, DR. PURNOMO M ANTARA, NORFARHANA ZULKIFLI, NASRULLAH ZAINAL ABIDIN & DR. NORANI AMIT

UiTM CAWANGAN NEGERI SEMBILAN

Today, wellness, particularly mental, is not just a personal issue but a pressing global concern that needs to be addressed immediately. We live in a digital, fast-paced world, where information is readily accessible to us, with little access to mental health care. Rising levels of mental health concerns and declining availability of trained counsellors have made such a new service necessary (World Health Organization, 2023). With the Mental Health Kit, we are introducing a transformative tool that fuses digital learning with mental health support for those in need, alleviates the burden on professionals, and empowers everyone.

The Mental Health Crisis: We Must Act

The situation in mental health is dire, however: reporting of cases rose by 30% in 2024, and there were more than 1,100 suicides that year (a 15 per cent increase on 2023), according to the Ministry of Health (Ministry of Health Malaysia, 2024). Nevertheless, with such alarming statistics, the ratio of counsellors to people is approximately 1:10,000, which is only half of the World Health Organisation's recommended ratio of 1:5,000 (WHO, 2023). This lack of mental healthcare providers only compounds the struggle faced by people of various backgrounds, particularly college students (Ibrahim et al., 2022). Periodically, the academic workload, financial responsibilities, and the unknown future add to their stress load. Upon graduating and entering the workforce, these topics evolve into workplace stressors, including long hours, job instability, and challenging colleagues. To respond to these challenges, students must be equipped with these skills and, critically, be able to cope with the academic or professional pressures that arise.

The Do-It-Yourself Mental Health Kit represents a revolutionary solution that empowers individuals to take control of their mental health. Combining digital and self-guided supports, the kit responds to various user demands through convenient, inclusive, and user-centred resources. Its elements, including e-learning modules and interactive tutorials, teach mindfulness, cognitive reframing, and stress management skills. There are empathetic therapy chatbots powered by artificial intelligence for individuals who feel uneasy about traditional therapy, as well as biofeedback devices and scenarios, such as role-playing, which allow individuals to assess their stress levels and practise coping techniques (Andersson et al., 2019). The software makes an ideal partnership between practising students and professional practitioners who must be ready to meet today's world's challenges.

Life at university is vital for developing a person's personal and professional life, making mental health support essential. The Mental Health Kit bridges the gap between academics and work-life to build resilience and adaptability for success in school and at work. Academic stress significantly impacts students' performance; however, when students utilise digital coping tools, they can also manage their stress levels, improve focus, and regulate emotions, ultimately contributing to enhanced academic success (Zainudin & Yusof, 2021). Transitioning from college to the workplace presents its challenges, especially for interns or recent graduates unfamiliar with the professional dynamics. The kit's scenario-based simulations enable students to practise managing workplace causes of stress in a safe environment in real-time, making them more prepared for employment.

Digital mental health offerings have transformed the way mental health support is provided. Contrary to traditional one-size-fits-all models, digital interventions have the potential to be tailored, scalable, and non-exclusive. This shift is best experienced with the Mental Health Kit, which

provides resources tailored to various types of learning and living, empowering users to prioritise mental well-being (Richards et al., 2020). Studies have shown that online mental health support is effective. A 2020 study found a 40% decrease in anxiety symptoms among users after just one month (Firth et al., 2020).

Counsellor vacancies are an urgent problem as well, leaving numerous people without the necessary mental health assistance, and the Mental Health Kit does something about it. The kit alleviates pressure on overstretched counselling services by providing timely intervention through AI-powered tools and digital resources (Richards et al., 2020). It also ensures that mental health care is accessible to those who need it. This is particularly important, as rising rates of suicide among young people require urgent attention. A toolkit for education and support is essential to motivate individuals to seek help and assistance without feeling judged (Ministry of Health Malaysia, 2024).

While the Mental Health Kit is highly effective, its implementation requires careful attention and collaboration. Content must be culturally appropriate to resonate with Malaysia's diverse communities. Collaborations among universities, the government, and the private sector are essential for raising awareness, obtaining funding, and expanding the kit's reach. Additionally, robust industry regulation is crucial for safeguarding user data and preventing the misuse of AI tools, thereby ensuring continued public trust in digital mental health solutions (Mellerman, 2024).

References

Andersson, G., Titov, N., Dear, B. F., Rozental, A., & Carlbring, P. (2019). Internet-delivered psychological treatments: From innovation to implementation. *World Psychiatry, 18*(1), 20–28. https://doi.org/10.1002/wps.20610

Firth, J., Torous, J., Nicholas, J., Carney, R., Pratap, A., Rosenbaum, S., & Sarris, J. (2020). The efficacy of smartphone-based mental health interventions for depressive symptoms: A meta-analysis of randomized controlled trials. *World Psychiatry, 19*(3), 350–358. https://doi.org/10.1002/wps.20736

Ibrahim, & Che Din, N. (2022). The prevalence and correlates of depression and anxiety among Malaysian university students. *Malaysian Journal of Psychiatry, 31*(2), 45–51.

Ministry of Health Malaysia. (2024). *National Health and Morbidity Survey 2024: Mental health findings*. Putrajaya: MOH.

Mellerman, J. (2024). Ensuring ethical AI in mental health: The global digital health dilemma. Digital Health Journal, 10(1), 89–94.

Richards, D., Duffy, D., Blackburn, B., Earley, C., Enrique, A., Palacios, J. E., & Timulak, L. (2020). Digital ICBT for depression and anxiety in adults: A meta-analysis of individual participant data. *Psychological Medicine, 50*(9), 1417–1430. https://doi.org/10.1017/S0033291719001351

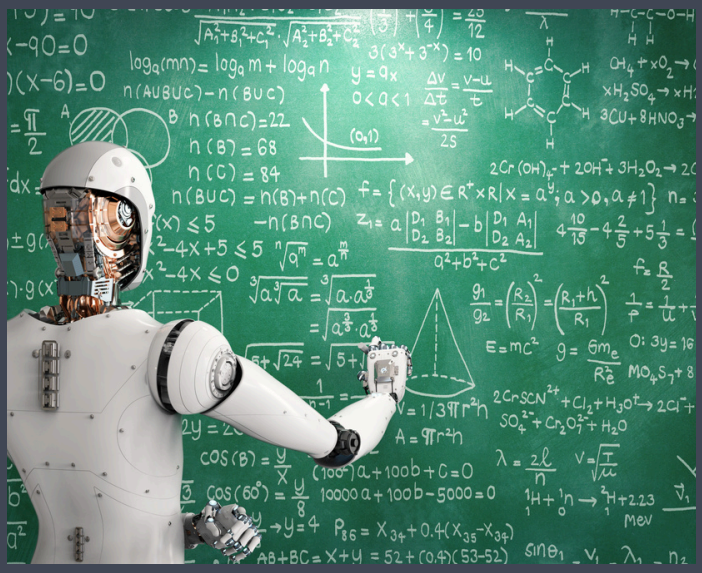
World Health Organization. (2023). Mental health: Strengthening our response. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

Zainudin, N. A., & Yusof, N. S. (2021). Coping strategies and mental health among Malaysian university students during pandemic-induced online learning. *Asian Journal of University Education, 17*(4), 56–65. https://doi.org/10.24191/ajue.v17i4.16115

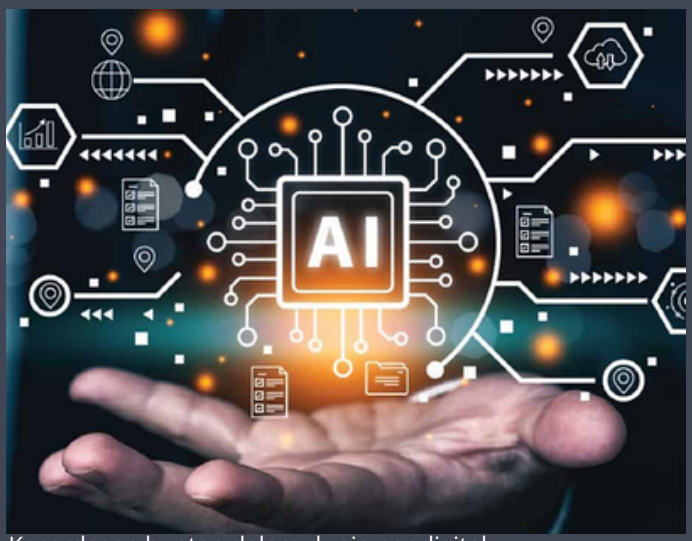
Revolusi Kecerdasan Buatan dalam Pembelajaran Digital Membentuk Masa Depan Graduan

NUR SYAZWANI ZULAIKHA SAFWAN
UNIVERSITI TEKNOLOGI MARA, SHAH ALAM, SELANGOR, MALAYSIA
MOHAMAD FIRDAUS AHMAD
UNIVERSITI TEKNOLOGI MARA, CAWANGAN NEGERI SEMBILAN, KAMPUS SEREMBAN
ELLAIL AIN MOHD AZNAN
UNIVERSITI TEKNOLOGI MARA, CAWANGAN PERLIS, KAMPUS ARAU
SITI SARA IBRAHIM
UNIVERSITI TEKNOLOGI MARA CAWANGAN NEGERI SEMBILAN, KAMPUS REMBAU
MUHAMAD HAFIZ BIN HASSAN
UNIVERSITI TEKNOLOGI MARA, CAWANGAN SARAWAK, KAMPUS SAMARAHAN, SARAWAK

Kemunculan digitalisasi dalam bidang pendidikan membolehkan pendidik dan pelajar mengakses bahan pembelajaran secara mudah melalui platform digital seperti internet. Perubahan ini turut mencerminkan peralihan paradigma dalam bidang pendidikan, di mana kaedah tradisional semakin kurang relevan untuk mempersiap pelajar menghadapi keperluan dan cabaran masa hadapan. Revolusi Industri 4.0 menuju ke arah Revolusi Industri 5.0 telah membawa transformasi kecerdasan buatan (*Artifical Intelligence*) sebagai satu alat berpotensi untuk meningkatkan keberkesanan proses pengajaran dan pembelajaran (Maola et al., 2024).



Ia bukan lagi sekadar alat teknologi yang digunakan dalam industri,malahan ia telah mengubah dunia pendidikan secara holistik, termasuk cara kita berfikir, bekerja dan mengembangkan potensi. Revolusi kecerdasan buatan telah membuka peluang baharu dalam menjadikan proses pendidikan lebih bersifat fleksibel dan responsif terhadap keperluan pelajar (Apriadi & Sihotang, 2023). Ini bukan sahaja memperkasa sistem pendidikan negara, tetapi juga turut membentuk profil graduan yang lebih bersedia untuk menempuh cabaran dalam ekosistem global.



Kecerdasan buatan dalam dunia pendigital
Sumber : Jazro

Kemunculan digitalisasi dalam bidang pendidikan membolehkan pendidik dan pelajar mengakses bahan pembelajaran secara mudah melalui platform digital seperti internet. Perubahan ini turut mencerminkan peralihan paradigma dalam bidang pendidikan, di mana kaedah tradisional semakin kurang relevan untuk mempersiap pelajar menghadapi keperluan dan cabaran masa hadapan. Revolusi Industri 4.0 menuju ke arah Revolusi Industri 5.0 telah membawa transformasi kecerdasan buatan (*Artifical Intelligence*) sebagai satu alat berpotensi untuk meningkatkan keberkesanan proses pengajaran dan pembelajaran (Maola et al., 2024).

Kecerdasan buatan telah memperkenal pelbagai kaedah pembelajaran digital yang baharu di mana ia menjadikan pengalaman dalam dunia pendidikan lebih efektif dan sesuai dengan keperluan pelajar. Menurut Karyadi (2023), pembelajaran adaptif (*adaptive learning*) melalui platform *Duolingo* yang berasaskan web interaktif dapat menyesuaikan bahan pembelajaran dan latihan mengikut kemampuan bahasa setiap pengguna secara individu. Hal ini dapat membantu meningkatkan keberkesanan aspek pembelajaran seterusnya mempercepat proses penguasaan ilmu dalam kalangan pelajar. Di samping itu, penggunaan chatbot serta alat pembantu maya yang berasaskan kecerdasan buatan untuk mengakses maklumat secara pantas tanpa sekatan masa juga telah memberi ruang kepada pelajar untuk belajar dengan lebih fleksibel. Ini membolehkan mereka selepas bergraduat mempunyai tahap kebolehpasaran yang tinggi dalam menyelesaikan masalah serta mahir mengendalikan teknologi mengikut peredaran zaman. Ini disokong oleh *World Economic Forum* dalam *Future of Jobs Report* 2025, kemahiran utama yang dicari oleh majikan dalam mengambil graduan yang bekerja pada masa kini adalah graduan yang mahir dalam pendigitalan dan teknologi kecerdasan buatan. Oleh itu, pembelajaran digital dalam pendidikan hari ini bukan sahaja memberi pengalaman dan ilmu pengetahuan yang baharu, malah ia membina kemahiran insaniah para graduan agar lebih berdaya saing menghadapi persaingan dalam industri yang kompetetif.

Walaupun begitu, penggunaan kecerdasan buatan juga membawa cabaran kepada dunia pendidikan hari ini. Menurut Agil et al. (2024) kecerdasan buatan menimbulkan persoalan etika daripada sudut keselamatan, privasi maklumat dan kebimbangan peranannya terhadap manusia. Namun demikian, cabaran sebenar tidak terletak pada kebimbangan kecerdasan buatan yang akan menggantikan manusia, sebaliknya bagaimana kita dapat membina ekosistem yang membolehkan manusia dan teknologi bekerjasama secara harmoni. Ini menunjukkan bahawa graduan perlu mempunyai kemahiran yang melampaui kemampuan algoritmik agar mereka berupaya untuk membuat keputusan secara beretika dan membawa dimensi kemanusiaan dalam penggunaan teknologi. Justeru, penggunaan teknologi yang berhemah perlu ditekankan kepada graduan agar ia menjadi satu alat yang boleh membantu manusia untuk berdaya saing bukan sebagai alat gantian.

Kesimpulannya, kecerdasan buatan telah menjadi satu medium kepada perubahan yang signifikan dalam ekosistem pendidikan. Pembelajaran digital yang disokong oleh teknologi kecerdasan buatan bukan sahaja memberi kelebihan daripada aspek keberkesanan dan fleksibiliti pembelajaran, malah menjadi pemangkin kepada pembangunan graduan yang lebih bersedia, inovatif dan kompeten. Namun, manfaat ini hanya akan dapat direalisasikan sepenuhnya jika cabaran yang wujud ditangani dengan pendekatan inklusif dan strategik. Pendidikan masa depan bukan lagi tertumpu kepada penyampaian ilmu secara konvensional, sebaliknya ia harus berteraskan kepada integrasi teknologi pintar yang mampu memacu kecemerlangan insan dalam dunia yang semakin mencabar.

Rujukan

Agil, H., Ahmad, A. L., & Azlan, A. A. (2024). Peranan dan pengaruh kecerdasan buatan (AI) terhadap industri periklanan di Malaysia. *e-BANGI, 21*(2), 303-316.

Apriadi, R. T., & Sihotang, H. (2023). Transformasi mendalam pendidikan melalui kecerdasan buatan: Dampak positif bagi siswa dalam era digital. *Jurnal Pendidikan Tambusai, 7*(3), 31742-31748.

Karyadi, B. (2023). Pemanfaatan kecerdasan buatan dalam mendukung pembelajaran mandiri. *Educate: Jurnal Teknologi Pendidikan, 8*(02), 253-258.

Maola, P. S., Handak, I. S. K., & Herlambang, Y. T. (2024). Penerapan artificial intelligence dalam pendidikan di era revolusi industri 4.0. *Educatio, 19*(1), 61-72.

The Future of Jobs Report 2025. World Economic Forum. (n.d.). https://www.weforum.org/publications/the-future-of-jobs-report-2025/

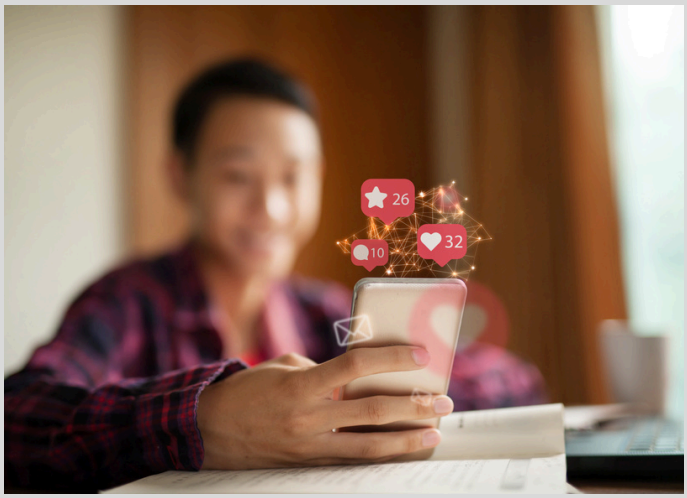
Media Sosial Pemangkin Pembelajaran Digital di Institusi Pendidikan Tinggi

NORHIDAYU MD YATIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

Media sosial sememangnya tidak asing lagi dan merupakan komponen utama yang digunakan dalam kehidupan seharian masyarakat global. Menurut Woodward (2025), kira-kira 58.4% daripada penduduk dunia menggunakan media sosial hari ini bersamaan dengan 4.26 bilion orang, yang mana purata penggunaan media sosial harian ialah selama 2 jam dan 27 minit. Penggunaan media sosial dilihat meningkat kepada kadar purata 13.5 peratus pengguna baharu setiap saat sepanjang tahun 2021 dan hampir 75 peratus penduduk dunia yang berumur 13 tahun ke atas menggunakannya dengan pelbagai cara. Secara umumnya, media sosial digunakan bagi mendapatkan maklumat berita terkini, mengisi masa lapang, dan menghubungi rakan serta ahli keluarga.

Di samping itu, penggunaan media sosial dilihat mampu menyokong pembelajaran digital di peringkat pendidikan tinggi, yang mana ia ternyata telah membuka banyak peluang kepada pensyarah dan pelajar dalam mempelbagaikan cara praktikal pengajaran dan pembelajaran secara digital serta merapatkan jurang pembelajaran dalam kalangan pelajar.

Kajian Pearson (2018) yang dijalankan oleh firma penyelidikan pasaran global yang berpangkalan di New York, *The Harris Poll* mendapati majoriti generasi *Gen-Z* yang berumur 14 hingga 23 tahun memilih Youtube dan video dalam talian sebagai alat perantaraan pembelajaran digital mereka berbanding buku bercetak. Malah, mereka turut mengakui bahawa media sosial telah menyumbang kepada proses pembelajaran mereka. Ini memperlihatkan peralihan ke arah media digital sebagai sumber pembelajaran yang digemari dalam kalangan pelajar muda seterusnya menyokong kepada pembelajaran digital. Manakala Johnson dan Veletsianos (2021) mendapati warga akademik fakulti yang menggunakan media sosial



lebih cenderung menggunakan aplikasi media sosial seperti Facebook dan Youtube untuk berkomunikasi dengan pelajar. Pensyarah dan pelajar di institusi pendidikan tinggi memanfaatkan media sosial dalam usaha meningkatkan amalan pengajaran dan pembelajaran serta berhubung dengan cara yang inovatif. Trend ini menggambarkan peringkat penglibatan dan penggunaan media sosial dalam kalangan pensyarah dan pelajar di insititut pendidikan tinggi telah membuka ruang kepada inovasi pengajaran dan pembelajaran ke arah transformasi pembelajaran secara digital.

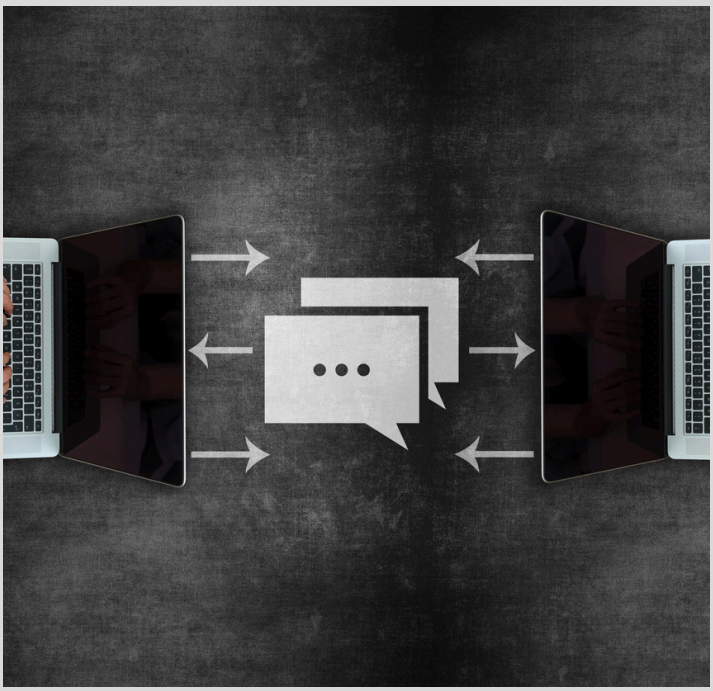
Media sosial berupaya mengubah dan meningkatkan pengalaman pembelajaran secara digital. Kelebihan utama media sosial dalam pembelajaran digital kepada pelajar termasuk:

1. **Media sosial meningkatkan penglibatan dan penyertaan pelajar.** Penggunaan media sosial dapat mengatasi dan mengurangkan halangan keterlibatan pelajar dalam sesi pengajaran dan pembelajaran, terutama bagi pelajar yang kurang selesa untuk bersuara di ruang kuliah yang besar. Media sosial memberi peluang yang sama kepada setiap pelajar untuk menyuarakan pendapat mereka melalui siaran atau komen. Di samping itu, media sosial terutamanya *Youtube, Instagram, Facebook* dan

Tiktok boleh menjadi zon neutral interaksi yang lebih selesa dalam perbincangan dalam talian berbanding secara bersemuka. Selain itu juga, media sosial memberi setiap pelajar peluang yang sama walaupun mereka mempunyai kepelbagaian personaliti dan latar belakang yang berbeza. Tambahan pula, media sosial dilihat mampu memastikan pelbagai perspektif dikongsi dalam proses pembelajaran digital. Hal ini dapat meningkatkan penglibatan keseluruhan pelajar jika pelajar aktif dalam perbincangan, terlibat membahas kandungan di dalam kumpulan sembang kelas seterusnya mewujudkan persekitaran pembelajaran digital yang inklusif.

2. **Media sosial menyediakan akses kepada pelbagai sumber pembelajaran digital di hujung jari pelajar.** Platform media sosial seperti Youtube mempunyai pelbagai video pengajaran seperti rakaman kuliah, tutorial cara kerja, dan video animasi penjelasan yang merangkumi pelbagai topik dan subjek. Kebanyakan video ini lengkap dengan penjelasan, ringkas dan mudah difahami. Sumber digital ini boleh diakses secara percuma dan boleh disesuaikan mengikut keperluan dan kesediaan pelajar. Hal ini membantu mengurangkan jurang pemahaman antara pelajar dan seterusnya membantu memenuhi gaya pembelajaran yang berbeza.

3. **Media sosial menyokong kepada pembelajaran perseorangan yang fleksible.** Media sosial tersedia secara 24/7 dan boleh diakses menggunakan peranti mudah alih. Oleh itu, dengan menggunakan media sosial, pengalaman pembelajaran boleh disesuaikan mengikut keperluan individu. Pelajar mempunyai fleksibiliti untuk belajar pada bila-bila masa dan di mana-mana sahaja. Justeru, jika kuliah mengelirukan, pelajar boleh menyertai sesi soal jawab melalui kumpulan sembang melalui platform *Whatsapp* atau *Telegram*. Pelajar juga boleh meneruskan minat individu mereka di luar sukatan pelajaran dengan mengikuti halaman atau saluran yang berkaitan. Selain itu, pelajar juga bebas meneroka dan mengetahui tentang penyelidikan baru melalui saluran komunikasi sains di *Twitter* atau *Facebook*. Penerokaan kendiri seperti ini dapat menjadikan pembelajaran sebagai proses yang berterusan.



4. **Penggunaan media sosial boleh meningkatkan kemahiran literasi digital dan komunikasi pelajar**. Penggunaan media sosial dalam konteks akademik boleh membantu pelajar membina dan meningkatkan kemahiran literasi digital dan komunikasi. Pelajar perlu mencari, mengenal pasti dan menyaring maklumat dalam talian, belajar untuk membezakan sumber yang boleh dipercayai, yang juga merupakan latihan berfikir secara kritis. Interaksi pelajar dalam forum atas talian dan pendedahan kerja secara berpasukan secara dalam talian boleh meningkatkan kemahiran komunikasi pelajar. Pelajar mempelajari etika komunikasi dalam talian seperti cara bertanya soalan secara berkesan melalui forum dalam talian dan cara kerja berpasukan melalui pengalaman mereka.

Secara keseluruhan, media sosial membantu memperkasa pelajar untuk mengambil peranan yang lebih aktif dan terlibat dalam proses pembelajaran. Ia boleh menghubungkan mereka dengan rakan-rakan dan maklumat melalui cara yang dapat menjadikan pembelajaran lebih berkesan dan menyeronokkan. Kuncinya, kelebihan-kelebihan ini boleh terhasil hanya apabila media sosial digunakan dalam pembelajaran secara sukarela dan seterusnya turut membantu merapatkan jurang pembelajaran digital yang biasa berlaku dalam kalangan pelajar.

Bagi merealisasikan manfaat media sosial kepada pelajar dalam pembelajaran digital, ianya memerlukan pelaksanaan yang bijaksana. Halangan seperti maklumat yang salah dan akses yang tidak setara perlu diurus melalui garis panduan dan sokongan yang jelas. Pensyarah dan warga pendidik perlu memastikan penggunaan media sosial dalam pembelajaran digunakan secara seimbang dan bertujuan. Ini kerana, apabila digunakan dengan bijak, media sosial boleh menjadi pemangkin yang kuat untuk perubahan positif ke arah kelancaran pembelajaran digital di peringkat institusi pendidikan tinggi. Diakui, bahawa media sosial mempunyai keupayaan untuk menjadikan pembelajaran digital khususnya lebih terhubung dan menarik. Ia membolehkan ilmu pengetahuan dikongsi secara percuma, menggalakkan kerjasama tanpa had, dan setiap pelajar mempunyai peluang untuk berkembang dalam era digital.

Rujukan

Johnson, N. & Veletsianos, G. (2021). Digital Faculty: Faculty social media use and communications. Bay View Analytics. files.eric.ed.gov/fulltext/ED617098.pdf

The Harris Poll. (2018). Beyond Millennials: The Next Generation of Learners. Pearson Global Research & Insights. https://www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/news/news-annoucements/2018/The-Next-Generation-of-Learners_final.pdf

Woodward, M. (2025, April 1). *Social Media User Statistics: How Many People Use Social Media?* SearchLogistics. https://www.searchlogistics.com/learn/statistics/social-media-user-statistics/

The Evolution of Digital Learning in Higher Education

HAZWATI HASHIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

Source: https://shorturl.at/dOrZy

The past two decades have witnessed a revolution in higher learning in the form of digital learning. What began as basic online resources and course materials has soon evolved into an interactive, technology-driven model that serves virtual classrooms, interactive spaces, and individualised learning environments. As institutions adapt to the demands of a digital age, the integration of technology in teaching and learning continues to transform the delivery and availability of knowledge.

Higher education has been deeply influenced by digital learning, which has opened the door to new, effective methods of teaching and learning that extend beyond classroom walls. With the integration of various online tools, students can now engage with content, collaborate with peers, and receive instruction from anywhere in the world. This shift has expanded educational opportunities, allowing for a diverse range of learners, from working professionals to international students, to pursue academic goals without the constraints of physical classroom settings. Watson and Watson (2007) state that systems such as Moodle and Canvas are Learning Management Systems (LMS) that enable instructors to make their lectures, materials, assignments, and communication, all available in one place. Furthermore, hybrid models are very common in higher education today. For instance, a university might offer weekly in-person lectures but also provide online discussion forums and quizzes to offer students greater flexibility and engagement (Graham, 2013).

Despite its development, digital learning also has some issues. One of the issues is the digital divide, where students from rural areas or low-income families may lack reliable internet access or the availability of laptops (OECD, 2020). For instance, during the COVID-19 pandemic, most students were unable to join online classes (UNESCO, 2020). In addition, instructors also lament maintaining students' interest in virtual surroundings. At the same time, the instructors new to tools like Zoom and Google Classroom may need some additional training to adequately use these tools (Trust & Whalen, 2020) and ensuring online courses are of the same level of academic challenge as classes are otherwise is an issue that persists (Means et al., 2014).

Nevertheless, there are still some exciting opportunities in digital learning. It makes education more accessible to every learner. Platforms like Khan Academy and Duolingo allow students to

learn at their own pace, tailoring lessons to suit their strengths and weaknesses. Higher institutions can reduce costs by offering digital textbooks and recorded lectures. For instance, in Malaysia, Universiti Teknologi MARA (UiTM) supports thousands of students through its i-Learn portal and blended learning strategy (UiTM, 2021). It has also launched the UFUTURE platform to offer Massive Open Online Courses (MOOCs) and open courses nationwide (UiTM, n.d.). In addition to this, Universiti Malaya (UM) facilitates digital learning through its SPeCTRUM platform (UM, n.d.) and integrates AI-enabled tools, such as the CADS.AI Skills Intelligence Platform, to support personalised learning and skill development (Universiti Malaya, 2023). Additionally, Universiti Sains Malaysia (USM) utilises the eLearn@USM platform to deliver online materials (USM, n.d.). It has used virtual lab simulations to support students in science and engineering subjects (Mohd Salleh et al., 2024). Hence, as technology continues to advance, digital learning will create new frontiers for innovation, accessibility, and lifelong learning.

To sum up, as technology advances, it is changing the way people learn in making education more flexible, inclusive, and individualised. Digital learning is helping to remove traditional barriers, such as location and cost, giving people of all ages the opportunity to learn in ways that work best for them. With exciting tools like AI, virtual reality, and personalised learning systems becoming more common, education is becoming more engaging and accessible. By embracing these changes, we are not only keeping up with the times but also building a future where learning is a lifelong journey that anyone can undertake, regardless of their starting point.

References

Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore Ed.), *Handbook of distance education* (pp. 333–350). Routledge.

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2014). *The effectiveness of online and blended learning: A meta-analysis of the empirical literature.* Teachers College Record, 116(1), 1–47.

Mohd Salleh, A. R., Ahmad, S. Z., & Lim, S. Y. (2024). Implementation of virtual labs in science education at USM. *EdulMED, 16*(4), 112-119. https://eduimed.usm.my/EIMJ20241604/EIMJ20241604_11.pdf

OECD. (2020). *Education responses to COVID-19: Embracing digital learning and online collaboration.* https://www.oecd.org/coronavirus/policy-responses/education-responses-to-covid-19-embracing-digital-learning-and-online-collaboration-d75eb0e8/

Trust, T., & Whalen, J. (2020). Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic. *Journal of Technology and Teacher Education, 28*(2), 189–199.

UiTM. (n.d.). *UFUTURE MOOC platform.* https://ufuture.uitm.edu.my/mooc/

UiTM. (2021). *i-Learn portal*. Institut Pendidikan Berterusan & Pengajian Profesional (iCEPS). https://ir.uitm.edu.my/id/eprint/59617/

UNESCO. (2020). *Global education monitoring report: Inclusion and education – All means all.* https://en.unesco.org/gem-report/report/2020/inclusion

Universiti Malaya. (2023, October 5). *Universiti Malaya and CADS join hands to advance the Malaysian data ecosystem.* https://www.um.edu.my/news/universiti-malaya-and-cads-join-hands-to-advance-the-malaysian-data-ecosystem-towards-a-digital-future-and-high-income-nation-status

USM. (n.d.). *eLearn@USM platform*. https://elearning.usm.my/

Watson, W. R., & Watson, S. L. (2007). An argument for clarity: What are learning management systems, what are they not, and what should they become? *TechTrends, 51*(2), 28–34. https://doi.org/10.1007/s11528-007-0023-y

Are Students Staying Engaged in Digital Learning? A Look at Its Benefits and Challenges

HAZWATI HASHIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

As technology continues to evolve, it has transformed the way education is delivered around the world. More universities, schools, and students are utilising online platforms, video lessons, and learning apps as part of their daily studies. Instead of sitting in a traditional classroom, many students now learn from home or other remote locations, using laptops, tablets, or even smartphones. This shift has made learning more flexible, allowing students to study at their own pace and access a wide range of resources with just a few clicks. However, while digital learning offers many new opportunities, it also raises an important question: are students truly engaged and motivated in this new way of learning, or are they struggling to stay focused behind the screen?

Digital learning brings several advantages that make education more accessible and adaptable. Dhawan (2020) states that students can attend classes from any location, revisit recorded lessons and use digital tools that match their learning styles. Interactive features such as quizzes, videos, and educational games often make lessons more engaging and easier to understand. For many, this type of learning encourages independence and develops digital skills that are highly valuable in the modern world (Kebritchi et al., 2017).

Additionally, digital learning has proven effective in numerous ways. It enables lessons to be delivered in flexible formats, allowing students to learn at their own pace. With the help of virtual labs, interactive simulations, and customised online platforms, digital learning can support a wide range of learning styles and abilities (Kebritchi et al., 2017). Instructors can also track student progress more easily through digital assessments and online feedback. In some cases, students who struggled in traditional classrooms have found greater success in digital settings.

Moreover, solving complex societal and environmental challenges requires leadership skills that extend beyond traditional management practices. Effective leaders must act as role models, offering younger staff members broader perspectives and innovative approaches to addressing contemporary issues (Haage, Voss, Nguyen, & Eggert, 2021). This kind of leadership not only fosters cross-institutional and global collaborations but also equips administrative staff to guide institutions through multidimensional challenges, preparing them for impactful roles within academia and beyond.

However, there are also clear challenges. According to Gillett-Swan (2017), many students struggle to stay focused due to distractions at home or a lack of a structured classroom environment. Xie et al. (2020) state that feelings of isolation can grow without daily face-to-face interaction with instructors and classmates. Hari Rajan et al. (2024) added that the absence of this social connection can lead to decreased engagement in studies. In some areas, limited access to the internet or digital devices creates unequal learning conditions (Van Lancker & Parolin, 2020). Additionally, not all students feel confident using online platforms, which can affect their participation and progress. At

the same time, not all students manage their time well, which can lead to falling behind in assignments or losing interest altogether. Thus, these factors make student engagement a key concern in the age of digital education.

Moreover, student experiences vary widely. Some students enjoy the freedom and comfort of studying from home and feel more confident using digital tools. For instance, some learners find that the ability to revisit recorded lectures and access a variety of online resources enhances their understanding and retention of course material (EducationDynamics, 2024). Others find it hard to concentrate without the structure of a physical classroom. Many students miss face-to-face communication with instructors and classmates, which plays a crucial role in motivation and learning support. These mixed experiences show that while digital learning has great potential, it also requires the right support, discipline, and resources to be truly effective for all students.

In conclusion, digital learning has transformed education by offering flexibility, accessibility, and diverse resources that cater to different learning styles. It allows students to learn at their own pace, review lessons, and acquire practical digital skills. However, it also creates challenges such as distractions, isolation, and disparity in access to technology. Although some students thrive under this environment, others are victimised by the absence of structure and socialisation of a traditional classroom. Overall, for digital education to be as effective as possible, it must be accompanied by the right tools, teaching methods, and strategies to engage and keep students motivated.

References

Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems, 49*(1), 5–22. https://doi.org/10.1177/0047239520934018

EducationDynamics. (2024). *Online College Students Report 2024*. https://www.educationdynamics.com/news/online-college-students-report-2024/

Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. *Journal of Learning Design, 10(1),* 20–30.

Hari Rajan, M., Herbert, C., & Polly, P. (2024). Disrupted student engagement and motivation: Observations from online and face-to-face university learning environments. *Frontiers in Education, 8,* 1320822. https://doi.org/10.3389/feduc.2023.1320822

Kebritchi, M., Lipschuetz, A., & Santiague, L. (2017). Issues and challenges for teaching successful online courses in higher education. *Journal of Educational Technology Systems, 46*(1), 4–29. https://doi.org/10.1177/0047239516661713

Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: A social crisis in the making. *The Lancet Public Health, 5*(5), e243–e244. *https://doi.org/10.1016/S2468-2667(20)30084-0*

Xie, K., Hensley, L. C., Law, V., & Sun, Z. (2020). Self-regulation as a mediator in the relationship between online learning engagement and academic performance. *The Internet and Higher Education, 45,* 100721. https://doi.org/10.1016/j.iheduc.2020.100721

Virtual Classrooms and Real Connections: Nurturing Social Skills in the Digital Age

DR. SAZLIN SUHALMIE MOHD SHARIFF, MASILAH MOHAMAD
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS KUALA PILAH
DR. FATIN FARAZH YA'ACOB
UiTM CAWANGAN JOHOR KAMPUS SEGAMAT

The shift to virtual learning has transformed education, offering flexibility and access like never before. However, while these changes bring many benefits, they also present new challenges, particularly in developing children's social skills. In traditional classrooms, social interaction happens naturally through daily face-to-face engagement. In contrast, digital learning environments require deliberate effort to create those opportunities. As online learning becomes an integral part of modern education, we are exploring how to foster genuine connections and emotional growth for children in a virtual world.

One of the most pressing challenges in virtual classrooms is the reduced opportunity for spontaneous student interactions. These casual exchanges shape communication, collaboration, and conflict resolution abilities (Manohar, 2024). Without the physical presence of peers, children, especially those who are shy, may struggle to speak up or participate in group activities. Moreover, the absence of nonverbal cues, such as facial expressions and body language, makes it more difficult for students to fully grasp social nuances (Stone, 1993). Over time, this lack of interaction can lead to feelings of isolation, anxiety, and disconnection, particularly among younger learners who are still developing their social identities (Kamei & Harriott, 2021).

Despite these concerns, virtual classrooms can still support the development of social skills when structured carefully. Studies show promising results. For example, research found that nearly 73 per cent of high school students reported good social skills during online learning, especially when given structured opportunities to engage with others (Lestari et al., 2022). Group discussions, collaborative assignments, and online presentations often help students become more adaptable and proficient in digital communication (Yousaf & Masood, 2024). These activities improve social interaction and build confidence in using technology for meaningful exchanges.

To strengthen social engagement, educators can introduce a variety of strategies. Virtual extracurricular activities, such as online clubs or interactive games, enable students to collaborate outside the standard curriculum (Yousaf & Masood, 2024). Targeted programmes that teach social skills through digital platforms have also shown positive results, improving cooperation and emotional regulation among participants (Baker et al., 2009). One key solution is the integration of Social and Emotional Learning (SEL) into the virtual classroom. SEL helps children understand their emotions, develop empathy, and make responsible decisions. These skills are just as important online as they are in person.

The importance of SEL goes beyond virtual learning. Research indicates that emotional intelligence and interpersonal skills are often stronger predictors of academic and career success than traditional measures, such as IQ (Jones-Schenk, 2019). Thanks to the brain's ability to adapt, neuroplasticity, these skills can be developed at any age (Jones-Schenk, 2019). By teaching SEL in virtual settings through storytelling,

role-playing, and reflection, educators can help children practice empathy and build emotional resilience (Garcia, 2012; Roth & Erbacher, 2021).

Technology itself can be a powerful ally in this process. Tools such as Google Docs, virtual whiteboards, and breakout rooms create spaces for students to collaborate and interact meaningfully (Stacey, 1999). Starting lessons with simple check-ins, like asking students to share their feelings using emojis or brief prompts, helps build a sense of classroom community (Berry, 2019). Virtual social spaces, such as online hangouts or lunch sessions, can also replicate the informal interactions in hallways or cafeterias. Furthermore, teaching digital etiquette, including respectful language and active listening, encourages positive and inclusive behaviour online (Basso et al., 2013).

Parents and guardians play a crucial role in reinforcing these social behaviours outside the classroom. Frequent communication between parents and children, such as open conversations or shared storytelling, strengthens communication skills and emotional bonds (Moneva et al., 2020). Encouraging children to join digital peer groups or collaborate on household tasks teaches them responsibility, empathy, and teamwork (Sari et al., 2023; Amin & Eliasa, 2023). However, the use of technology must be balanced. While it supports communication, excessive screen time may reduce real-world interactions and increase social withdrawal if not monitored carefully (Sutrisno & Juariyah, 2024). Parental availability is another challenge, as busy work schedules can limit meaningful engagement with children (Moneva et al., 2020).

Many educators are adopting hybrid learning models that blend virtual and in-person instruction. This approach allows for flexible, personalised learning while preserving opportunities for real-world interaction. Research indicates that students in hybrid classrooms tend to exhibit greater engagement and achieve improved academic outcomes compared to their peers in traditional settings (Jusuf, 2019; O'Byrne & Pytash, 2015). These environments also promote deeper collaboration through immersive and interactive learning experiences. 3D virtual spaces, for example, help bridge the gap between digital and physical worlds by enhancing student collaboration and fostering authentic peer relationships (Reiners et al., 2009; Christopoulos et al., 2016).

In addition to academic benefits, hybrid classrooms provide a foundation for emotional and social growth. Students gain more freedom to express themselves, connect with others, and develop critical life skills, such as kindness, cooperation, and empathy (Skill & Young, 2002). Still, challenges remain, including ensuring equal access to technology and maintaining student motivation in flexible learning environments. These issues must be addressed to fully realise the potential of hybrid education.

In conclusion, building real connections in virtual learning spaces requires thoughtful planning, ongoing support, and collaboration among educators, parents, and students. By incorporating strategies such as SEL, fostering collaboration, and encouraging positive digital interactions, we can help children develop into emotionally intelligent and socially competent individuals. The future of education depends not only on what students know but also on how they connect, communicate, and care for one another.

References

Amin, A. A., & Eliasa, E. I. (2023). Parenting Skills as The Closest Teacher to Early Childhood at Home. *Jurnal Pendidikan Usia Dini*. https://doi.org/10.21009/jpud.172.09

Baker, J. K., Parks-Savage, A., & Rehfuss, M. C. (2009). Teaching Social Skills in a Virtual Environment: An Exploratory Study. *The Journal for Specialists in Group Work, 34*(3), 209–226. https://doi.org/10.1080/01933920903039195

Basso, M. V. de A., Bona, A. S. D., Pescador, C. M., Koehler, C., & Fagundes, L. da C. (2013). Redes sociais: espaço de aprendizagem *digital cooperativo, 18*(1), 135–149. https://dialnet.unirioja.es/servlet/articulo?codigo=4597631

Berry, S. (2019). Teaching to Connect: Community-Building Strategies for the Virtual Classroom. *23*(1), 164–183. https://doi.org/10.24059/OLJ.V23I1.1425

Christopoulos, A., Conrad, M., & Shukla, M. (2016). Between virtual and real: exploring hybrid interaction and communication in virtual worlds. *International Journal of Social Media and Interactive Learning Environments, 4*(1), 23–42. https://doi.org/10.1504/IJSMILE.2016.075038

Garcia, P. G. (2012). *Collaborative Learning Activities in Online Courses: Issues and Strategies.* https://ajodl.oum.edu.my/fajodl/201212/2107165101 ajodl v4 a1.pdf

Jones-Schenk, J. (2019). Social and Emotional Learning: Why Does It Matter? *Journal of Continuing Education in Nursing, 50*(2), 57–58. https://doi.org/10.3928/00220124-20190115-03

Jusuf, H. (2019). A hybrid learning strategy for facilitating learning and improving performance. 4(2), 20–23. https://doi.org/10.31580/APSS.V4I2.697

Kamei, A., & Harriott, W. (2021). Social Emotional Learning in Virtual Settings: Intervention Strategies. International Electronic *Journal of Elementary Education, 13*(3), 365–371. https://doi.org/10.26822/IEJEE.2021.196

Lestari, I., Haryanto, H., & Sukmawati, N. A. (2022). Analysis of High School Students' Social Skills on Online Learning During the COVID-19 Pandemic. Advances in Social Science, *Education and Humanities Researc*h. https://doi.org/10.2991/assehr.k.220129.073

Manohar, L. (2024). Exploratory Study On The Impact Of Online Virtual Classroom Education On Physical & Mental Health And Development Of Social Skills Of Children. *IOSR Journal of Humanities and Social Science, 29*(10), 38–48. https://doi.org/10.9790/0837-2910073848

Moneva, J. C., Bago, C. J. M., & Ycong, S. T. (2020). Guardianship: Parental Communication and Students Participation in School Activities. *International Journal of Social Science Research, 8*(2), 116. https://doi.org/10.5296/IJSSR.V8I2.16791

O'Byrne, W. I., & Pytash, K. E. (2015). Hybrid and Blended Learning. *Journal of Adolescent & Adult Literacy, 59*(2), 137–140. *https://doi.org/10.1002/JAAL.463*

Reiners, T., Dreher, C., Büttner, S., Naumann, M., & Visser, L. (2009). *Connecting Students by Integrating the 3D Virtual and Real Worlds:We Need 3D Open Source Spaces to Keep Socialization, Communication and Collaboration alive.* 2009(1), 3125–3126. https://www.learntechlib.org/p/32932/proceedings_32932.pdf

Sari, D. W., Putri, Y., Rahmawati, H., & Putri, L. azmiya. (2023). The Role of Parents in the Emotional and Social Development of Children in the Digital Era. *International Journal of Contemporary Studies in Education, 2*(2), 78–84. https://doi.org/10.56855/ijcse.v2i2.270

Skill, T., & Young, B. A. (2002). Embracing the hybrid model: Working at the intersections of virtual and physical learning spaces. *New Directions for Teaching and Learning, 2002*(92), 23–32. https://doi.org/10.1002/TL.76

Stacey, E. (1999). *Collaborative Learning in an Online Environment. 14*(2), 14–33. http://www.ijede.ca/index.php/jde/article/view/154/379

Stone, V. E. (1993). Social interaction and social development in virtual environments. *Presence: Teleoperators & Virtual Environments, 2*(2), 153–161. https://doi.org/10.1162/PRES.1993.2.2.153

Sutrisno, N. J. P. (2024). Komunikasi antar personal orang tua dengan anak usia dini dalam menjaga interaksi sosial akibat penggunaan ponsel. *Mediakom : Jurnal Ilmu Komunikasi, 6*(02), 248–263. https://doi.org/10.32528/mediakom.v6i02.1923

Yousaf, A., & Masood, S. (2024). Balancing Virtual Boundaries: Investigating the Impact of Online Learning on Socialization and Social Skill Development. *Asian Journal of University Educatio*n. https://doi.org/10.24191/ajue.v20i2.27031

Digital Learning in Malaysian Schools

MOHD NUR FITRI MOHD SALIM, ASMAHANIM HAJI MOHAMAD YUSUF, NURUL SYAFAWANI HALIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN
MOHAMAD SAFWAT ASHAHRI MOHD SALIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

The incorporation of online learning technologies into Malaysian schools, accelerated by the COVID-19 pandemic, represents a significant shift in teaching and learning methods. The widespread availability of modern digital tools has expanded the scope of learning beyond the traditional classroom. Students can now participate more actively through various interactive tools and platforms. Traditional and mobile applications, including DELIMa, Quizizz, Google Classroom, and many others, are used more frequently as part of the curriculum and offer personalised self-paced learning, which transitions away from content delivery (Mustapha et al., 2024). Teachers have adopted the role of guides and facilitators, and students can engage with the content through quizzes, videos, and group projects, which enable them to learn critical skills needed in the 21st century (Wan Mustapha, 2019).

Nonetheless, the shift to digital learning has highlighted more pronounced gaps in access and equity. A study conducted by the Malaysian Ministry of Education reported that nearly 50% of students used smartphones exclusively for online educational purposes due to a lack of personal computers, especially in rural areas (Krisnan et al., 2022). Sabah, Sarawak, and Kelantan are facing serious challenges due to infrastructural lack and low digital literacy levels (Nasri et al., 2020). There is an urgent need for more infrastructure and aid frameworks, despite government programs such as DidikTV KPM and community programs distributing laptops, which are geared towards solving these problems and providing equal opportunities for everyone to access digital educational materials.

Furthermore, adopting technology within an educational framework does not inherently lead to achieving desired learning outcomes. Attention paid toward pedagogical practices needs to be purposeful; educators require professional development that enables them to use technology in a manner that promotes constructive thinking and creativity (Sokman et al., 2022). Studies have shown that the use of responsive learning design, which considers students' individual circumstances, results in higher levels of engagement (Ramasamy et al., 2024). From a design perspective, educators need to possess more than just basic technological knowledge; they must also understand how to effectively utilise learning-enhancing digital tools.

Looking to the future, the most favourable option seems to be an educational approach that combines both online and face-to-face elements. This approach combines the benefits of direct teaching with the convenience provided by modern technologies, viewing technology not as a replacement for education, but as an enhancer that broadens access and options (Mazlan et al., 2024). Policymakers should design comprehensive frameworks that encourage digital literacy, improve technological frameworks, and promote entrepreneurial thinking and inquisitiveness among

learners (Nasri et al., 2020). Only then can the full potential of digital education in Malaysia be harnessed, ensuring it is accessible to all learners, regardless of their socio-economic status, thereby fulfilling educational and social obligations in this transformative period (Mustafa & Yaakub, 2021).

References

Adnan, A. H. M., Salim, M. S. A. M., Tsang, J., Shah, D. S. M., Tahir, M. H. M., & Salim, M. N. F. M. (2024). Supporting Postgraduate Students from China in Malaysia Through Learning Communities. *Asian Journal of Research in Education and Social Sciences, 6*(S2), 105-120. https://myjms.mohe.gov.my/index.php/ajress/article/view/28368

Krisnan, A. S. K., Paramasivam, S., Jamil, N. I., Ahmad, S. N. D., & Mohd Salim, M. N. F. (2022). Student perspective of ACE website to complete presentations in open and distance learning (ODL). *International Research in Education, 10*(2), 1–15. doi:10.5296/ire.v10i2.19885

Mazlan, N., Adnan, W., Ayub, S., & Zeki, M. (2024). Exploring missing learning phenomenon in preschool settings during covid-19 pandemic: teachers' perspectives. *Malaysian Journal of Learning and Instruction, 21*(1), 191-216. https://doi.org/10.32890/mjli2024.21.1.7

Mustafa, A. and Yaakub, R. (2021). An experimental approach by using WhatsApp for teaching and learning of Bahasa Malaysia to international students at engineering campus, Universiti Sains Malaysia (USM) due to pandemic of covid-19. *Pendeta Journal of Malay Language Education and Literature, 12*(Special), 1-9. https://doi.org/10.37134/pendeta.vol12.edisikhas.1.2021

Mustapha, R., Awang, H., Mahmud, M., Paris, T., Zakaria, J., & Ibrahim, N. (2024). Online learning in Malaysia amidst the COVID-19 pandemic (2020-2022): a bibliometric analysis. *Open Journal of Social Sciences, 12*(03), 278-292. https://doi.org/10.4236/jss.2024.123020

Nasri, N., Husnin, H., Mahmud, S., & Halim, L. (2020). Mitigating the COVID-19 pandemic: a Snapshot from Malaysia into the coping trategies for pre-service teachers' education. *Journal of Education for Teaching International Research and Pedagogy, 46*(4), 546-553. https://doi.org/10.1080/02607476.2020.1802582

Ramasamy, R., Mohamad, M., Sanmugam, M., & Hooi, C. (2024). A need analysis of incorporating new teaching approach via technology. *Journal of Communication Language and Culture, 4*(1), 175-193. https://doi.org/10.33093/jclc.2024.4.1.9

Sokman, Y., Azizan, N., Othman, A., Musa, M., Aziz, A., & Sakkanayok, K. (2022). Exploring online environment: the case for social cognitive theory. *International Journal of Academic Research in Business and Social Sciences, 12*(9). https://doi.org/10.6007/ijarbss/v12-i9/14761

Wan Mustapha, W. Z., Mohd Salim, M. N. F., Ahmad, I., & Paramasivam, S. (2019). A case study on Week Without Walls (WWW) in UiTM Negeri Sembilan: Critical reading and creative writing beyond the second language classrooms. *KnE Social Sciences,* 2019, 958–969. doi:10.18502/kss.v3i19.4920

Kemahiran Pelbagai Bahasa: Aset Generasi Digital Malaysia

NORLIZA AMIN
FAKULTI BAHASA DAN LINGUSITIK UNIVERSITI MALAYA
NUR HAKIMAH BINTI MD SALLEHUDDIN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Dalam era digital yang bergerak pantas ini, kemahiran pelbagai bahasa bukan lagi sekadar nilai tambah, bahkan ia merupakan aset yang amat berharga. Masyarakat global kini dihubungkan melalui teknologi, dan keupayaan untuk berkomunikasi menggunakan lebih daripada satu atau dua bahasa membuka lebih banyak pintu peluang, baik dalam bidang pendidikan, kerjaya, mahupun hubungan sosial rentas sempadan. Generasi digital Malaysia yang celik teknologi dan aktif di alam maya, berada dalam kedudukan strategik untuk menguasai pelbagai bahasa dan memanfaatkannya secara kreatif serta praktikal.

Platform digital telah merubah landskap pembelajaran bahasa. Pelajar kini tidak lagi terbatas kepada bilik darjah dan buku teks. Aplikasi seperti *Duolingo, Babbel* dan *Rosetta Stone*, serta kandungan interaktif di *YouTube, TikTok* dan *podcast* bahasa telah menjadikan pembelajaran lebih mudah diakses dan menyeronokkan. Penggunaan teknologi digital juga perlu diperkenalkan pada peringkat rendah sehingga ke peringkat IPT supaya pelajar mahir menggunakan alatan digital apabila melangkah ke alam pekerjaan. Kajian oleh Mansor et al. (2016) menekankan bahawa institusi pendidikan perlu menyediakan kemudahan digital dan galakan bersepadu untuk membentuk kemahiran pelajar. Sebahagian besar pelajar Malaysia memulakan minat terhadap bahasa asing melalui muzik, drama atau budaya pop seperti K-Pop, anime Jepun, filem Perancis atau siri Sepanyol di *Netflix*. Minat ini kemudiannya berkembang menjadi motivasi untuk mempelajari bahasa dan budaya dengan lebih mendalam.

Selain itu, pelbagai peluang pekerjaan hari ini meletakkan kemahiran pelbagai bahasa sebagai satu kelebihan kompetitif. Dalam bidang perkhidmatan pelanggan, pelancongan, pendidikan, diplomasi, dan teknologi maklumat, majikan mencari individu yang bukan sahaja mahir berkomunikasi, tetapi juga mampu memahami konteks budaya pelbagai pihak. Ng dan Lee (2019) meneliti bagaimana graduan universiti Malaysia menggunakan *translanguaging* dalam media digital untuk membina identiti dan memudahkan komunikasi. Kajian ini menunjukkan bahawa *translanguaging* membantu dalam mengekalkan identiti linguistik dan memudahkan proses kerja dalam persekitaran pelbagai bahasa. Dalam hal ini, pelajar yang mampu bertutur lebih daripada dua bahasa menunjukkan fleksibiliti kognitif, empati budaya, dan kemahiran penyesuaian yang tinggi. Semua ini adalah ciri-ciri penting dalam tenaga kerja masa hadapan.

Namun, pembelajaran bahasa asing juga datang dengan cabaran tersendiri. Tidak semua pelajar mempunyai akses kepada guru bahasa asing yang mahir atau peluang untuk berinteraksi dengan penutur asli.. Kekangan masa dan beban akademik turut menjadi faktor yang membataskan proses pembelajaran kendiri. Kajian oleh Rahman et al. (2023) menekankan bahawa penggunaan teknologi multimedia dalam pengajaran dapat meningkatkan keberkesanan pembelajaran dan kemahiran abad ke-21 dalam kalangan pelajar. Di sinilah pendekatan pembelajaran digital memainkan peranan utama. Ia memberikan fleksibiliti masa, kepelbagaian sumber, dan suasana pembelajaran yang lebih santai. Pelajar boleh memilih waktu dan gaya pembelajaran yang paling sesuai dengan mereka.

Bagi institusi pendidikan, penting untuk menyokong usaha pelajar ini dengan memperkenalkan program yang mendorong pembelajaran bahasa secara merentasi disiplin. Antara contoh inisiatif yang boleh dilaksanakan termasuklah projek kolaboratif rentas bahasa, pertukaran pelajar maya, dan kursus elektif yang mengintegrasikan bahasa dengan teknologi. Peranan pensyarah dan guru juga perlu diolah semula. Mereka bukan hanya sekadar penyampai ilmu, tetapi sebagai fasilitator yang membantu pelajar meneroka pelbagai sumber pembelajaran digital dan membina keyakinan dalam penggunaan bahasa.

Lebih penting lagi, kemahiran pelbagai bahasa turut memupuk daya fikir kritis dan pemikiran antara budaya yang diperlukan dalam menyelesaikan konflik serta membina persefahaman sejagat. Melalui pendedahan kepada pelbagai sistem bahasa dan wacana, pelajar berpeluang memperluas kerangka kognitif mereka, sekali gus menjadi lebih peka terhadap nuansa sosial, etika dan perbezaan nilai budaya. Kajian oleh Ismail et al. (2023) mendapati bahawa, penggunaan gabungan bahasa Melayu dan Inggeris dalam komunikasi digital adalah perkara biasa dalam kalangan Generasi Z, ia mencerminkan kreativiti dan adaptasi linguistik mereka dalam era digital. Generasi digital yang mampu menguasai bahasa global dan serantau akan menjadi jambatan penghubung antara komuniti tempatan dan antarabangsa. Oleh itu, pelaburan dalam pembangunan kemahiran ini bukan sahaja menguntungkan individu, tetapi juga membawa impak besar terhadap kemajuan negara dalam bidang diplomasi budaya, ekonomi kreatif dan inovasi berasaskan pengetahuan.

Di peringkat universiti, pelajar wajar digalakkan menyertai pelbagai program antarabangsa yang mengasah kemahiran bahasa seperti debat, simulasi diplomasi seperti contoh Model United Nations, dan bengkel pertukaran budaya. Penyertaan aktif dalam program seperti ini bukan sahaja menambah keyakinan dalam berkomunikasi, malah membuka peluang membina jaringan profesional di peringkat global. Universiti juga boleh menyediakan insentif dan ruang yang lebih luas untuk pelajar menjadi duta bahasa dan budaya Malaysia melalui platform digital. Pelajar yang terlibat secara aktif dalam kegiatan pelbagai bahasa akan lebih bersedia menjadi agen perubahan dan penyumbang kepada masyarakat antarabangsa.

Akhir kata, kemahiran pelbagai bahasa wajar dianggap sebagai pelaburan jangka panjang yang bernilai tinggi. Ia bukan sahaja memperluas keupayaan komunikasi merentas sempadan, malah membentuk generasi muda yang lebih terbuka, berfikiran kritis dan bersedia menghadapi cabaran global. Keadaan dunia moden yang saling berkait dan sentiasa berubah dalam adaptasi keupayaan untuk memahami dan menyampaikan pandangan dalam pelbagai bahasa akan menjadikan generasi digital Malaysia lebih yakin, fleksibel, dan relevan di pentas antarabangsa.

Rujukan

Ismail, N. H., et al. (2023). Kreativiti dan Impak Komunikasi Digital dalam Kalangan Generasi Z. *Akademika, 94*(3), 29–40.

Mansor, N., et al. (2016). Teori Kompetensi: Ulasan dari Perspektif Kemahiran Digital. *ResearchGate*.

Ng, L. L., & Lee, S. L. (2019). Translanguaging Practices and Identity Construction of Multilingual Malaysian University Graduates in Digital Media. *English Teaching & Learning, 43*(4), 105–123.

Rahman, N. A., et al. (2023). Penggunaan Teknologi Multimedia Terhadap Keberkesanan Pengajaran dan Pembelajaran. *Jurnal Inovasi dan Integrasi Pendidikan, 1*(1), 1–10

Global Trends in Digital Learning and Artificial Intelligence in Higher Education

ZAHRIL SHAHIDA AHMAD
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

Artificial intelligence (AI) is rapidly reshaping higher education by enhancing digital learning at scale. Generative AI tools like ChatGPT and DALL-E have experienced explosive growth, with ChatGPT reaching 100 million users within two months of its release. These AI systems can generate human-like text, images, and even entire applications, and are already incorporated into many educational products such as Microsoft 365 Copilot and AI-driven LMS features (Brown et al., 2023).

In 2024, digital learning professionals reported that Artificial intelligence (AI) / Machine learning (ML) "became mainstream," enabling instant generation of personalised materials, quizzes, and feedback (digitallearninginstitute.com, 2014). Such learning tools allow teachers and trainers to create and update content, for instance, text or video, more quickly. In addition, analytics platforms like Smart Sparrow and Docebo leverage AI to tailor learning pathways based on student data, enhancing engagement and learning outcomes. AI is also powering assessment systems, for example, Quizalize and PrepAI, that provide real-time digital feedback. Meanwhile, immersive technologies such as AI-driven Virtual reality (VR) /augmented reality (AR) simulation are expanding in sectors like health care and manufacturing, letting students practice skills such as surgery in safe virtual environments (digitallearninginstitute.com, 2014). These developments exemplify how higher education institutions worldwide are integrating advanced AI tools into teaching, learning, and administrative processes to improve engagement, personalisation, and efficiency.

At present, some universities are issuing new AI use guidelines, adapting assignments, for example, asking students to review AI-generated drafts and training faculty to use AI as a teaching partner rather than seeing it as a threat (Brown et al., 2023; Quinn, 2024). However, surveys indicate that most campuses are still scrambling to develop policies. According to a 2024 survey of provosts, only approximately 20% of colleges had formally published AI policies, although many institutions indicated that policies were in development. Similarly, just 14% had reviewed curricula for AI literacy, even as 63% plan to develop guidelines (Quinn, 2024). These findings suggest higher education is rapidly adopting AI tools even as it plays catch-up on governance and faculty training. Thus, AI's integration into education is a key global trend, offering personalised and creative learning opportunities as institutions adapt policies and curricula to use it responsibly.

Today, AI-driven generative tools are being used to augment nearly every aspect of teaching and learning. For example, generative AI can draft textbook-quality writing, create illustrative images or videos, and even generate practice problems. Digital learning experts note that content creation tools powered by AI, such as ChatGPT, DALL·E, and Education Copilot, have made the greatest impact by enabling educators to generate personalised learning materials, quizzes, and feedback almost instantly (digitallearninginstitute.com, 2024). This rapid content generation allows educators to develop a wide range of materials for broad dissemination. AI-enhanced assessment platforms like Quizalize and PrepAI automatically evaluate

student performance and provide real-time feedback, enabling teachers to promptly identify knowledge gaps and intervene effectively. Several e-learning platforms are also embedding AI to personalise learning pathways, for instance, systems like Smart Sparrow analyse user data to tailor content and pacing to each learner. These AI applications make learning experiences more interactive and relevant, as courses adapt in real time to student needs (digitallearninginstitute.com, 2024).

In parallel, emerging technologies for digital learning often incorporate AI to expand pedagogy. Text-to-video tools such as Synthesia use AI avatars to convert written material into narrated video lessons within minutes, allowing quick editing and translation into multiple languages (digitallearninginstitute.com, 2024). Immersive learning is a growing trend, with AI-powered VR and AR environments enabling students to participate in "virtual field trips" and simulations. Companies like Stivr and Labster develop realistic training scenarios, such as virtual surgical procedures or industrial simulations, where learners can safely practice hands-on skills (digitallearninginstitute.com, 2024). These experiences use AI to adapt scenarios in real time and provide feedback, making experiential learning accessible even when physical labs or travel are limited. Alongside trends like microlearning and skills-focused curricula, AI technologies are empowering educators to deliver just-in-time, learner-centred content. Therefore, AI applications from chatbots and adaptive quizzes to immersive simulators are enhancing engagement, personalisation, and scalability in higher education digital learning (digitallearninginstitute.com, 2024).

Looking forward, AI's role in education is set to expand further. Experts predict that AI features will become ubiquitous in everyday learning apps. Already, major software such as MS Office, educational content systems are incorporating AI assistants (Brown et al., 2023), and we can expect learning management systems (LMS) to embed generative features (automatic content creation, question-answer tutoring) as standard. Research on AI tutors and adaptive learning will advance, enabling more personalised instruction. Future tools may monitor student performance and adjust curriculum or pacing, while language models could gain improved capabilities like multimodal understanding and better context awareness to enhance learning support (Brown et al., 2023).

Institutions are also planning strategically for these shifts. Many universities now recognise that "AI is here to stay" and cannot be ignored (Quinn, 2024). Provosts are beginning to incorporate AI literacy into curricula and professional development, teaching students and faculty not only subject matter but how to critically evaluate and "co-use" AI tools. Globally, consortia and policy groups are drafting frameworks to guide ethical AI use in education. There is also interest in hybrid systems combining human and artificial intelligence, for example, pairing students with AI tutors under teacher oversight.

Eventually, emerging technologies will increasingly integrate with AI. The Digital Learning Institute (2024) report highlights VR/AR and microlearning as key trends, with AI expected to power virtual labs and customised bite-sized modules. Advances in explainable AI may help educators trust AI recommendations. Researchers will study the impact of AI on learning outcomes and equity, while institutions are likely to increase investments in training, infrastructure, and educational technology partnerships to harness AI's potential responsibly.

Ultimately, AI is reshaping higher education by enabling personalised, scalable digital learning through generative tools and new teaching methods. While offering opportunities like richer content and adaptive instruction, it also raises ethical and quality challenges. Institutions must adopt AI thoughtfully, ensuring human oversight and strong policies. By blending advanced AI with sound learning science and continuous evaluation, universities can effectively enhance teaching and learning globally.

Reference

Brown, H., Crawford, S., Miffitt, K., Mendolia-Moore, T., Nevins, D. & Weiss, J. (2023, December 6). 7 things you should know about Generative AI. EDUCAUSE Review. https://er.educause.edu/articles/2023/12/7-things-you-should-know-about-generative-ai on May 10th, 2025

Digital Learning Institute. (2024). *Digital learning 2024 highlights.* Retrieved from https://www.digitallearninginstitute.com/blog/digital-learning-2024-highlights on May 10th, 2025

Quinn, R. (2024, April 16). A*nnual provosts' survey shows need for AI policies, worries over campus speech*. Inside Higher Ed. Retrieved from https://www.digitallearninginstitute.com/blog/digital-learning-2024-highlights on May 10th

From Clicks to Connections: Quizizz and the Future of Interactive Global Classrooms

SITI NUR DINA HAJI MOHD ALI, ANIS SHAHIRA BAZLAN, DZEELFA ZAINAL ABIDIN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS KUALA PILAH
MOHD HAFIZUL ISMAIL
UNiKL (MIIT)

The adoption of digital technology has changed the landscape of education worldwide. It is reported that higher education is the subsector with the highest rate of digital technology adoption, with online management platforms being used to replace face-to-face teaching and learning (UNESCO, 2023). Technology-assisted teaching tools have been widely used in teaching and learning, allowing educators to create, adapt, and utilise interactive features for classroom use. Online digital tools provide valuable insights for creating assessments that support in-class practices and homework (Ali & Ismail, 2022). The terms "digital learning" and "online learning" have been used interchangeably to indicate any teaching and learning conducted non-face-to-face. However, it is worth noting that digital learning refers to a broad range of digital tools and resources that facilitate the learning process. This includes the use of various tools, such as multimedia content and virtual classrooms. Learners can access the materials and sources via tablets and smartphones for practical learning sessions through online videos. The use of digital tools enables learners to engage with the materials at any time and from anywhere.

In an era of rapid technological advancement and global interconnectedness, the classroom has evolved into a dynamic, borderless environment. Traditional teaching methods no longer suffice to meet the diverse needs of 21st-century learners, especially in multicultural and multilingual educational settings. This aligns with the Education for Sustainable Development (ESD) framework's key idea of transforming learning environments globally (UNESCO, 2024). As English is often regarded as a challenging subject among learners, the use of online quizzes for post-class purposes can help students enhance their language skills. Thus, digital tools such as Quizizz, a gamified learning and assessment platform, are reshaping how educators teach and how students interact with the tasks.

Quizziz has transformed passive screen time into active, social, and reflective learning experiences across global classrooms. At first glance, Quizizz appears to be just another quiz generator where users can create a quiz from scratch or utilise the ready-made quizzes available. However, its interactive, gamified, and data-rich design sets it apart, offering a unique online learning experience. For example, language instructors can create engaging quizzes with multiple-choice, fill-in-the-blank, or open-ended questions, and students can participate live or at their own pace.

Its accessibility across devices, integration with learning management systems (LMS) platforms, and multilingual support make it an ideal tool for diverse and global classrooms. The key features of Quizizz are real-time response tracking and performance analytics. Additionally, it offers interactive power-ups, memes, and leaderboards to boost motivation, along with custom avatars and nickname generators for increased engagement. Students can complete the assigned practice for flexible learning and monitor their progress through feedback.

As learning a language can be challenging for students with poor language proficiency, the use of Quizizz can help them engage more in grammar-based practices, allowing them to improve their language proficiency through this platform. This is further supported by Lee and Yunus (2021), who found that learners' level of proficiency increased exponentially with the aid of the online learning platform. It is learnt that gamified platforms, such as Quizizz, promote higher engagement and emotional involvement in learning, which is essential for long-term retention and deeper understanding (Licorish et al., 2018).

At its core, Quizizz transforms assessment into interaction. Instead of being isolated test-takers, students become active participants who receive instant feedback, compete playfully, and collaborate with peers. This shift aligns with modern learning theories that emphasise constructivism, where students build knowledge through active engagement and social interaction. Most students perform best in response to external factors (i.e., rewards and punishments) rather than internal factors. This enables them to track their progress and identify areas where they need improvement. Therefore, learning strategies can also be adjusted through feedback (What is Digital, 2024). At the institutional level, digital learning can accommodate a large number of participants without requiring additional resources or physical infrastructure. Hence, educational institutions and organisations consider digital learning ideal, particularly for large-scale training programmes.

The use of technology extends beyond points and prizes. Educational tools, such as Quizizz, foster a positive culture, as students can learn about other cultures, which can positively impact their perspective on the world (Ali et al., 2024). Customised memes, humour, and avatar selection make the learning process an enjoyable experience for students from diverse backgrounds. These playful interactions help break down cultural and linguistic barriers among students, fostering a more inclusive classroom environment. As global education continues to evolve, platforms like Quizizz will play a central role in how we assess learning materials. Despite technological advancements, concerns persist regarding technological barriers, such as Internet connection and device availability, which can limit access to learning materials (Lee & Yunus, 2021). The future of digital learning is not just about delivering content; it is connecting people.

References

Ali, S. N. D. H. M., Abidin, D. Z., Bazlan, A. S., & Ismail, M. H. (2024). Beyond literacy and numeracy: Cultivating global mindsets in Malaysian education. *Buletin APB Edisi 13,* 20–21.

Ali, S. N. D. M., & Ismail, M. H. (2022). Making Grammar Practices Interactive through Quizizz. In T. S. A. S., Ahmad (Ed.), *Compilation of Teaching and Learning Innovations* (pp. 131 – 134), Universiti Teknologi MARA Cawangan Negeri Sembilan.

Lee, T. M., & Yunus, M. M. (2021). Teachers' perception towards the use of Quizizz in the teaching and learning of English: A systematic review. *Sustainability, 13*(11), 6436. https://doi.org/10.3390/su13116436

Licorish, S. A., Owen, H. E., Daniel, B., & George, J. (2018). Students' perception of Kahoot!'s influence on teaching and learning. *Research and Practice in Technology Enhanced Learning, 13*(1), 9. https://doi.org/10.1186/s41039-018-0078-8

United Nations Educational, Scientific, and Cultural Organization (2023). *2023 GEM Report: Technology in education – A tool on whose term?* Retrieved from UNESDOC Digital Library website: https://unesdoc.unesco.org/ark:/48223/pf0000386165

What is Digital Learning in Education vs E-Learning? (2024, Jun 2). EdTech. https://www.mitrmedia.com/resources/blogs/what-is-digital-learning-in-education-vs-e-learning/

Digital Silence and Linguistic Invisibility: Muted Participation in Online Learning

ANIS SHAHIRA BAZLAN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS KUALA PILAH
AMIRAH ATHIRAH AMIR YAZID
UiTM CAWANGAN PERAK KAMPUS SERI ISKANDAR

When universities across Malaysia shifted their classes online during the COVID-19 pandemic, educators and students faced a new reality, which is teaching and learning through screens. Through these events, something else quietly emerged in those virtual classrooms: silence. It was not just any occasional quietness but a persistent absence of voices. A few students engaged in class discussions, and none unmuted their microphones or turned off their cameras. At first glance, it may appear to be disengagement, but for many of us who teach, observe, and reflect, we have realised that this 'digital silence' is not just about laziness or distraction. It is far more layered.

As educators, we might recall posing a straightforward question in our online language classes. "Can someone explain the meaning of this paragraph to me?" Silence. Then, a quiet "not sure, Miss" appeared in the chat box, followed by a smiley emoji, or there was generally no emoji given at all. No voices. We received no further responses. This repeated scenario led us to look deeper. Why were the students not speaking? Why did they prefer to stay muted? What did we overlook?

Research reveals that linguistic insecurity has a significant impact, particularly in online classes where English is the primary language (Hongnaphadol, 2023). In the Malaysian context, students frequently expressed anxiety about being judged for their pronunciation or grammar when learning English (Mahmud et al., 2023). For many, the pressure to sound "correct" in English overrides the desire to contribute.

Many students choose to use the chat box rather than speaking. They would type quickly, often in short phrases, and frequently use emojis. It is not that they have nothing to say, but typing feels safer. It gives them time to think, edit, and avoid mistakes. Moreover, they preferred asynchronous tasks or chat-based interactions as they were less stressful and embarrassing (Abdullah et al., 2022). In this situation, the chat box becomes a safer place for students who feel linguistically inadequate when using the language.

What is more fascinating is how this digital silence manifests differently for each student. Some students remain silent due to poor connectivity or a lack of private space to speak. Others do not feel confident when speaking in a language which they are not fully comfortable with.

We, too, as educators, contribute to the development of these dynamics. Our language choices have a significant influence on classroom dynamics and student engagement. We have heard ourselves say, "Why is no one answering?" – a question that, while innocent, might appear accusatory to anxious students (Bernardo, 2019). Instead, changing our language to something like "Take your time, and you are welcome to type or unmute when you are ready" can encourage participation rather than force involvement. This kind of shift exemplifies the symbolic power of

language, as mentioned by Bourdieu (1991), highlighting how language can either empower or intimidate students.

Educators need to start treating silence as a meaningful experience. Chimbo et al. (2023) found that the students reported insufficient support, virtual engagement, and online participation during online learning. This suggests that students encounter specific challenges with online engagement and that educators must foster online communities through a strong online presence. Silence should thus be seen as a message, not as a void. Students might be telling us, "I am not confident" or "I need more time". These are some doable changes that might be beneficial:

1. Allow students to respond with text, emoji, or bilingual messages.
2. Use tools like Mentimeter, Padlet, or Kahoot to make participation less intimidating.
3. Acknowledge and validate all forms of communication, either spoken or written.
4. Integrate multilingual prompts, allowing students to connect concepts in their preferred language.

Digital silence is not a failure of online education, but it is a clue. It tells us about who feels heard, who feels confident, and who feels excluded. By paying closer attention to this silence and modifying our digital teaching practices, we can turn invisible students into active, visible learners. After all, our job as educators is not just to fill the silence but to understand it.

References

Abdullah, T., Zukepeli, N. Z., & Samat, N. (2022). A mixed method study of students' experiences with online and distance learning during the covid-19 pandemic in Malaysia. *International Journal of Academic Research in Progressive Education and Development, 11*(2). https://doi.org/10.6007/ijarped/v11-i2/12974

Bernardo, A. (2019). *Teaching Anxious Students : Reimagining Library Pedagogy for the Age of Anxiety.* https://library.ndsu.edu/ir/bitstream/10365/29521/1/Bernardo_TeachingAnxiousStudents_ACRL2019.pdf

Bourdieu, P. (1991). Language and symbolic power. Harvard University Press.

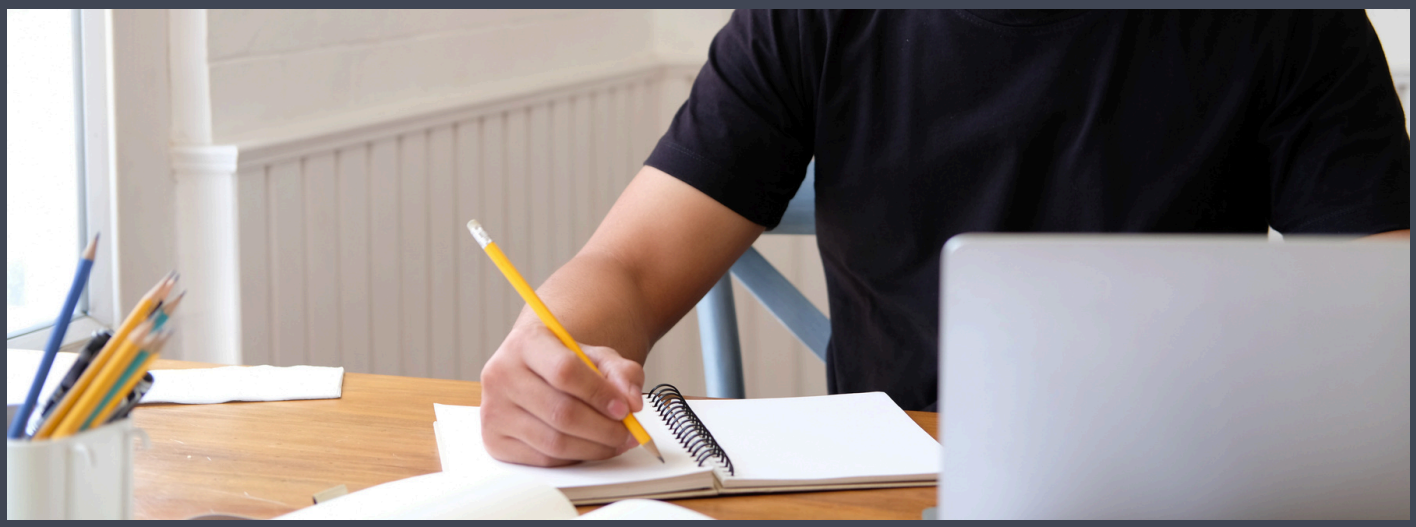
Chimbo, B., Mutezo, A. T., & Maré, S. (2023). Postgraduate students online learning challenges during COVID-19 within the CoI framework context. *Cogent Education, 10*(2). https://doi.org/10.1080/2331186X.2023.2254673

Hongnaphadol, W. (2023). Online language anxiety in higher education: Evidence from exploratory and confirmatory factor analyses. *rEFLections, 30*(2). https://doi.org/10.61508/refl.v30i2.267213

Mahmud, N., Mazeree, N. S. Q., & Mahmud, N. (2023). Language Learning Anxiety in Online Learning: Malaysian ESL Undergraduates' Perspectives. *ELTALL*. https://doi.org/10.21154/eltall.v4i02.5766

AI-Generated Thinking: Are Students Learning or Just Completing Tasks?

DR SAZLIN SUHALMIE MOHD SHARIFF, MASILAH MOHAMAD
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS KUALA PILAH
DR. FATIN FARAZH YA'ACOB
UiTM CAWANGAN JOHOR KAMPUS SEGAMAT



Artificial intelligence (AI) has undergone rapid evolution in recent years, reshaping not only industries but also the way we approach teaching and learning. Tools such as ChatGPT, Grammarly, and Quillbot have gained popularity among students for their ability to support writing, research, and coding tasks. For some educators, these tools raise serious concerns about academic integrity. For others, they represent valuable aids that can enhance learning and engagement. This growing divide prompts an important question for educators and institutions alike: Should AI tools be banned from student use, or should they be thoughtfully integrated into the future of education?

The increasing presence of AI in classrooms presents both challenges and opportunities. While concerns over plagiarism and misuse are legitimate, these tools also offer powerful advantages in personalising support, improving efficiency, developing real-world skills, and promoting inclusivity. Navigating this complex issue requires a balanced perspective that acknowledges the risks without overlooking the benefits.

One of the most widely voiced concerns is the potential threat to academic honesty. AI tools can produce polished and coherent assignments that may not reflect a student's own effort or understanding (Davies et al., 2024; Črček & Patekar, 2023). In response, some universities have imposed strict bans and reverted to more traditional assessments, such as in-person exams, to preserve the credibility of student work (*ChatGPT in Higher Education*, 2023). These actions reflect a broader concern that technology could undermine the core values of education.

However, when used ethically, AI can be a powerful learning companion. Tools like Grammarly and ChatGPT can help students brainstorm ideas, clarify their writing, and summarise key concepts (Črček & Patekar, 2023; Uhlig et al., n.d.). These platforms are particularly helpful for students learning English as a second language. By providing instant grammar and style corrections, they help build confidence and improve communication skills (Sulistiyo, 2024; Jegede, 2024). Much like calculators in mathematics, AI tools can enhance learning when used appropriately.

This brings up the important issue of ethical use. While many students are comfortable using AI for idea generation or basic editing, they often draw the line at submitting AI-generated work as their own (Črček & Patekar, 2023; John et al., 2024). Their cautious approach highlights the need for clear academic guidelines that define appropriate usage. As AI technologies continue to advance, institutions must stay ahead by adapting their academic policies to address this evolving landscape (John et al., 2024).

Beyond concerns about integrity, AI offers a wide range of educational benefits. One significant advantage is personalised learning. AI platforms can analyse student writing patterns and offer customised feedback, making learning more targeted and effective (Sulistiyo, 2024). They also save time by automating tasks such as proofreading and summarising, allowing students to focus more on analysis and creativity (Role of Artificial Intelligence in Facilitating English Language Learning for Non-Native Speakers, 2024; Jegede, 2024). This efficiency is invaluable for many students balancing academics, work, and other responsibilities.

In addition, AI literacy is becoming a vital skill for the modern workforce. As businesses increasingly adopt AI tools, students who are comfortable with these technologies will be better prepared for future careers (Guo & Zaini, 2024). Teaching students how to use AI responsibly equips them to handle similar tools in professional settings, where ethical decision-making is just as important. AI can also help bridge gaps in accessibility and inclusion. Students with disabilities benefit from features such as real-time feedback, text-to-speech functions, and alternative input methods. These innovations support more equitable participation in classroom activities (Sulistiyo, 2024; Jegede, 2024), helping ensure that all students have an opportunity to succeed.

Despite these advantages, it is essential to remain aware of the potential drawbacks. One significant concern is the temptation to misuse AI for academic dishonesty. Reports show that AI-generated content has even been accepted in peer-reviewed settings, raising alarms about the authenticity of student work (John et al., 2024). Over time, this could damage trust in educational qualifications. Another risk is the decline in critical thinking. Students who rely too heavily on AI to complete assignments may stop engaging deeply with the material (John et al., 2024; Kővári, 2025). The learning process then becomes passive, undermining the development of essential analytical and creative skills.

Moreover, AI tools are not infallible. They can produce biased or inaccurate information, and there have been instances where non-native English writing was wrongly flagged as AI-generated (Byrne, 2024). Such errors can lead to unfair consequences and further complicate the educational experience.

In addition to these concerns, access to these tools is not equal. Some students may lack reliable internet access or personal devices, which can impact how AI tools are utilised and who benefits most from them (Kővári, 2025). Without adequate support, these disparities could contribute to widening educational gaps. Considering these challenges, removing AI from the classroom entirely might not be the most practical or effective approach.

A more constructive solution involves regulating its use through clear policies, educational programs, and updated assessment methods. Setting boundaries on how AI can be used helps uphold academic integrity while recognising its potential. For instance, schools might allow AI-assisted proofreading but prohibit the use of AI to write entire essays (Liang, 2023). This encourages students to view the technology as a support tool rather than a shortcut. It is also beneficial to help learners understand the role and limitations of AI in education. When students grasp how AI works and where it may fall short, they are better equipped to use it thoughtfully (Artificial Intelligence Literacy Education in Secondary Schools, 2023). Just as calculators helped students learn math more effectively, AI can enhance learning without replacing it.

In line with this perspective, assessment methods must also evolve. Shifting toward in-class activities, project-based work, and oral presentations can reduce overreliance on AI while fostering original thought (Liang, 2023). These formats encourage students to apply knowledge in real-world contexts that AI cannot easily replicate. Promoting transparency is another effective strategy. When students are asked to reflect on how they use AI tools, they become more aware of their learning habits and take greater responsibility for their work (Duarte et al., 2023).

This openness helps foster an environment where ethical use of AI is supported rather than penalised. However, some educators suggest that overly strict regulations limit national innovation. A more balanced approach may be needed, as it allows room for experimentation and adaptation while upholding academic standards (Vavekanand, n.d.).

AI tools like ChatGPT are here to stay, and resisting their presence entirely may do more harm than good. Instead of restricting the use of these technologies altogether, it may be more productive to encourage responsible and meaningful use of AI in the classroom. AI can enhance education rather than undermine it when integrated with care and purpose. The ultimate goal of education is not just to produce correct answers but to develop independent thinkers, ethical citizens, and problem solvers. With thoughtful policies and intentional integration, AI can support a learning environment where students thrive alongside evolving technologies.

References

Artificial intelligence (AI) literacy education in secondary schools: a review. (2023). Interactive Learning Environments. https://doi.org/10.1080/10494820.2023.2255228

Byrne, M. D. (2024). ChatGPT Without a Safety Net. *Nursing Education Perspectives, 45*, 63–65. https://doi.org/10.1097/01.nep.0000000000001225

ChatGPT in higher education: Considerations for academic integrity and student learning. (2023). *Journal of Applied Learning and Teaching, 6*(1). https://doi.org/10.37074/jalt.2023.6.1.17

Črček, N., & Patekar, J. (2023). Writing with AI: University Students' Use of ChatGPT. *Journal of Language and Education.* https://doi.org/10.17323/jle.2023.17379

Davies, J. E., Forster, R., Menzies, L., Tickle, M., & Misopoulos, F. (2024). Artificial Intelligence in education: Let's ChatGPT about it. *Developing Academic Practice*, 1–6. https://doi.org/10.3828/dap.2024.2

Duarte, N., Montoya Pérez, Y., Beltran, A. J., & Bolaño García, M. (2023). Use of Artificial Intelligence in Education: *A Systematic Review*. https://doi.org/10.46254/sa04.20230169

Guo, H. Y., & Zaini, S. H. (2024). Artificial Intelligence in Academic Writing: A Literature Review. *Asian Pendidikan, 4,* 46–55. https://doi.org/10.53797/aspen.v4i2.6.2024

Jegede, O. O. (2024). *Artificial Intelligence and English Language Learning: Exploring the Roles of AI-Driven Tools in Personalising Learning and Providing Instant Feedback.* 01(02), 06–19. https://doi.org/10.70315/uloap.ullli.2024.0102002

John, K. M., Hussin, S. N., Yusoff, R. M., Rocky, N. A. R. M., Nawi, M. N. M., Hussain, S., & Mutalip, S. S. M. (2024). Mini review on the ethical use of AI bots in academic writing. *International Journal on E-Learning and Higher Education, 19*(2), 65–72. https://doi.org/10.24191/ijelhe.v19n2.1924

Kővári, A. (2025). Ethical use of ChatGPT in education—Best practices to combat AI-induced plagiarism. *Frontiers in Education, 9*. https://doi.org/10.3389/feduc.2024.1465703

Liang, Y. (2023). Balancing: The Effects of AI Tools in Educational Context. *Frontiers in Humanities and Social Sciences, 3*(8), 7–10. https://doi.org/10.54691/fhss.v3i8.5531

Role of Artificial Intelligence in Facilitating English Language Learning for Non-Native Speakers. (2024). *Nanotechnology Perceptions*, *20*(S9). https://doi.org/10.62441/nano-ntp.v20is9.102

Sulistiyo, U. (2024). *A Systematic Review of Artificial Intelligence in Enhancing English Foreign Learners' Writing Skills.* https://doi.org/10.59175/pijed.v3i2.299

Uhlig, R., Jawad, S., Sinha, B. R., Dey, P. P., & Amin, M. (n.d.). *Student Use of Artificial Intelligence to Write Technical Engineering Papers – Cheating or a Tool to Augment Learning.* https://doi.org/10.18260/1-2--44330

Vavekanand, R. (n.d.). *Impact of artificial intelligence on students and ethical considerations in education. Social Science Research Network*. https://doi.org/10.2139/ssrn.4819557

Integrating Artificial Intelligence (AI) Tools with Flipped Learning in Higher Education: Prospects and Challenges

RUHIL NADIAH ABU BAKAR & NOOR SHAHARIAH SALEH
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Introduction

Flipped learning, also referred to as a flipped classroom, is a teaching approach in which students study newly acquired knowledge (such as lectures) outside of class and then apply it in class under the guidance of the teacher. It is a form of blended learning that changes the traditional roles of teacher and student. It represents a transformative model in higher education by shifting direct instruction outside the classroom and using in-class time for deeper cognitive engagement (Bergmann & Sams, 2012). While this approach increases student participation and accountability, it also poses new challenges, specifically in providing personalised feedback and supporting students during their self-paced learning. Artificial intelligence (AI), especially with the rise of large language models and adaptive learning systems, offers significant potential to address these challenges. Integrating AI tools into flipped learning can enhance learning instruction, facilitate continuous assessment, and provide active student support.

AI Integration in Flipped Classrooms

AI tools in flipped learning environments serve various functions, from personalised content recommendations to automated feedback systems. For instance, generative AI applications such as ChatGPT are being used by students for content summarisation, clarification, and practice, which enhances comprehension of pre-class materials (Zawacki-Richter et al., 2023). Adaptive video platforms, such as Edpuzzle, powered by AI, analyse learner behaviour to adjust pacing, suggest supplementary resources, and identify knowledge gaps (Kwon et al., 2023).

Furthermore, AI-enhanced flipped classrooms also benefit from intelligent tutoring systems (ITS) and AI-powered chatbots. These tools provide real-time support and simulate human tutoring by answering questions and guiding learners through problems (Lee & Kim, 2023). Additionally, AI-based learning analytics tools provide instructors with data dashboards that track student engagement, identify at-risk learners, and inform timely interventions (Zhou et al., 2024).

Benefits of AI in Flipped Learning

The integration of AI into flipped learning environments presents multiple pedagogical advantages. Firstly, it promotes **personalised learning**, where all students typically engage with the same materials regardless of individual readiness. AI tools can create resources and shape instructional content based on a student's learning profile (Wang et al., 2023). Secondly, AI enables **accessible formative assessment**. Generative AI systems can evaluate student input, including open-ended responses, and provide real-time, detailed feedback. This instant response capability helps students to rectify misconceptions before class, ensuring more meaningful participation during synchronous activities (Chen et al., 2023). Thirdly, AI encourages **greater student engagement**. Conversational instruments and intelligent tutoring systems transform the often-passive nature of pre-class

activities into dynamic, interactive experiences. As reported in a study by Chen et al. (2023), university students engaging with AI-supported flipped modules demonstrated significantly higher motivation and self-efficacy.

Challenges and Ethical Considerations

Despite its potential, integrating AI into flipped learning comes with challenges. A major concern is **equity of access**. Students from marginalised backgrounds may lack access to the high-speed Internet or modern devices required for AI-supported platforms, exacerbating the digital divide. Moreover, **data privacy and algorithmic transparency** also pose significant ethical problems. Many AI systems rely on large-scale data collection and obscure decision-making processes. There is growing concern about how these systems handle sensitive student information, prompting a call for clear institutional policies and ethical guidelines (Lopez et al., 2024). Additionally, the **faculty's readiness** remains a barrier. Successful integration of AI into pedagogy requires instructors to understand both the technical and pedagogical affordances of AI tools. Faculty development programs are essential to equip educators with the skills necessary to design, implement, and evaluate AI-supported flipped learning (Lopez et al., 2024).

Future Directions

The future of AI in flipped learning lies in creating more immersive, context-aware, and equitable learning environments. Emerging technologies such as em**otion-aware AI**, **multimodal learning analytics**, and **AI-generated personalised video content** may further enhance the flipped learning experience. However, further empirical research is needed to assess the long-term effects of these tools on learning outcomes, student satisfaction, and teaching practices. Collaborative design approaches, involving students, instructors, and AI developers, are recommended to align technological innovations with ethical educational goals.

Conclusion

In conclusion, artificial intelligence offers transformative opportunities for enhancing flipped learning in higher education by fostering personalised learning experiences, facilitating real-time feedback, and increasing student engagement. However, successful integration requires addressing challenges related to equity, data privacy, and faculty training. With thorough implementation, AI-enhanced flipped classrooms can contribute significantly to more effective and comprehensive tertiary education.

References

Bergmann, J., & Sams, A. (2012). Flip Your Classroom: Reach Every Student in Every Class Every Day (pp. 120-190). Washington DC: International Society for Technology in Education.

Chen, Y., Li, H., & Sun, Z. (2023). Enhancing student engagement with AI-driven flipped learning: A quasi-experimental study. *Journal of Educational Technology & Society, 26(*2), 44–58.

Kwon, S., Lee, M., & Han, J. (2023). Adaptive video learning with AI in flipped classrooms: A design-based approach. *Interactive Learning Environments*. https://doi.org/10.1080/10494820.2023.2195698

Lee, H., & Kim, Y. (2023). The effectiveness of AI chatbots as learning companions in university flipped classrooms. *British Journal of Educational Technology, 54*(5), 1128–1144.

Lopez, G., Moreno, J., & Fernandez, D. (2024). Faculty readiness for AI in flipped learning: Insights from a cross-institutional survey. *Computers & Education: Artificial Intelligence*, 5, 100147.

Wang, T., Zhao, X., & Liu, Y. (2023). Formative feedback with generative AI: An evaluation of large language models in higher education. *AI and Education Journal*, *1*(1), 25–39.

Zawacki-Richter, O., Jung, I., & Bozkurt, A. (2023). ChatGPT in higher education: Blessing or curse? *International Review of Research in Open and Distributed Learning*, *24*(2), 1–9.

Zhou, M., Tan, H., & Hwang, G.-J. (2024). Applying learning analytics in flipped university classrooms: Current practices and future directions. *Educational Technology Research and Development*, *72*, 211–230.

Buffering to Brilliance: Fixing the Digital Learning Divide

MOHD FAIZAL MOHD RAMSI, SUFY RABEA ADAWIYA IDRIS & SITI KHAIRIYAH NORDIN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

The integration of digital technology in education has grown substantially in recent years, further accelerated by the COVID-19 pandemic. Educational institutions worldwide adopted various digital platforms to ensure the continuity of learning, resulting in a notable shift towards online and blended learning models (UNESCO, 2020). In Malaysia, the implementation of the Movement Control Order (MCO) in March 2020 necessitated a rapid transition to online learning for schools and universities, with limited preparation time. This sudden shift highlighted both the potential and the limitations of digital learning.

While digital learning offers numerous advantages, such as flexibility, accessibility, and the ability to customise educational content, it also underscores existing educational inequalities and introduces new challenges, including maintaining meaningful student engagement.

Digital Divide in Malaysia

The digital divide refers to the disparity between individuals who have adequate access to digital technology and those who do not. In Malaysia, this issue is particularly apparent between urban and rural areas, as well as between high- and low-income households. A study by the Malaysian Communications and Multimedia Commission (MCMC, 2020) reported that while internet penetration in urban areas was above 90%, rural regions, particularly in Sabah and Sarawak, lagged significantly behind. Additionally, many households from the B40 income group lacked access to appropriate devices such as laptops or tablets, relying instead on shared mobile phones, which made participation in online classes difficult (KPM, 2021).

Figure SEQ Figure * ARABIC 1: An illustration highlighting the digital divide contrasting urban students with rural students.

A widely reported case that symbolised this issue involved Veveonah Mosibin, a university student from Sabah, who had to climb a tree to obtain a stable internet connection to sit for her online examinations. Her story, which went viral in June 2020, highlighted the severity of digital access issues in rural Malaysia and prompted nationwide discussions on the importance of developing digital infrastructure in underserved areas.

To ensure equitable access to digital education, the Malaysian government and educational institutions must continue investing in infrastructure improvements, particularly in rural and remote areas. Programs such as the Jalinan Digital Negara (JENDELA) initiative aim to improve internet connectivity and expand broadband access nationwide (MCMC, 2021). In addition, device assistance programmes like Peranti Siswa Keluarga Malaysia, which provides free tablets to eligible students from B40 households, represent positive steps toward reducing device disparities. Universities and schools can also consider setting up localised digital learning hubs or community internet centres, where students from areas with limited connectivity can access learning resources in a safe and supportive environment.

Digital literacy initiatives should also be prioritised to ensure both students and educators are well-equipped to navigate digital platforms effectively. Providing training in digital teaching tools and online classroom management will empower educators to design more effective and inclusive digital learning experiences.

Engagement in Digital Learning

Student engagement is a crucial factor in determining academic success. In conventional classroom settings, engagement is fostered through direct interaction, peer discussions, and immediate feedback from teachers. However, online learning environments often present barriers to such interactions, leading to feelings of isolation, decreased motivation, and difficulties in maintaining concentration (Tan, 2021).

In Malaysia, a study conducted by Looi (2025) revealed that university students faced significant challenges, including internet disruptions, a lack of interactive online lessons, increased screen fatigue, and home distractions, all of which negatively impacted their engagement and academic performance. The study also highlighted that many students preferred a blended learning approach, combining both face-to-face and online elements, as a more effective and engaging alternative. Research suggests that integrating interactive tools, collaborative activities, and multimedia resources can enhance engagement in virtual classrooms (Huda, 2024).

Additionally, considering Malaysia's culturally diverse and socio-economically varied student population, adopting culturally responsive and inclusive digital teaching strategies is crucial to accommodate the differing needs and preferences of students. Maintaining student engagement in virtual environments requires thoughtful instructional design and culturally sensitive practices. Malaysian educators should employ a variety of strategies, including breakout discussions, live polls, interactive quizzes, and collaborative projects, to foster active participation. Incorporating localised content, case studies, and culturally relevant examples can enhance the relevance and relatability of lessons, fostering deeper interest among students.

The use of familiar platforms such as Google Classroom, Microsoft Teams, and local learning management systems like UFuture and OpenLearning has become widespread in Malaysia. By leveraging the collaborative features of these platforms and integrating multimedia resources, such as educational videos, simulations, and virtual labs, educators can create more dynamic and immersive learning experiences. Furthermore, offering a blend of live and recorded learning options is essential to accommodate students with varying internet access and personal responsibilities.

Digital learning represents a significant advancement in the accessibility and flexibility of education in Malaysia. However, the challenges posed by the digital divide and the difficulties in sustaining student engagement must be addressed to ensure that all learners benefit equally from digital education. By investing in digital infrastructure, promoting digital literacy, and adopting innovative, culturally responsive teaching strategies, educators and policymakers can foster a more inclusive and engaging digital learning environment for Malaysian students. Moving forward, a blended approach that combines the strengths of both online and face-to-face learning is likely to be the most effective model in ensuring educational equity and quality in Malaysia.

References

Huda, M. (2024). Between accessibility and adaptability of digital platform: investigating learners' perspectives on digital learning *infrastructure, Higher Education, Skills and Work-Based Learning, 14*(1), 1-21. https://doi.org/10.1108/HESWBL-03-2022-0069

Kementerian Pendidikan Malaysia (KPM). (2021). *Laporan kajian pengajaran dan pembelajaran di rumah (PdPR) 2021.* Putrajaya: KPM.

Looi, K.H. (2025). Transition from emergency ICT-enabled education to blended education for future emergency preparedness and sustainability: A cross-sectional survey in Malaysia. *International Journal of Information and Learning Technology, 42*(2), 129-146. https://doi-org.uitm.idm.oclc.org/10.1108/IJILT-04-2024-0074

Malaysian Communications and Multimedia Commission (MCMC). (2021). *Jalinan Digital Negara (JENDELA) 2021*. Retrieved from https://www.mcmc.gov.my

Tan, C. (2021). The impact of COVID-19 pandemic on student learning performance from the perspectives of community of inquiry. *Corporate Governance*, 21(6), 1215-1228. https://doi-org.uitm.idm.oclc.org/10.1108/CG-09-2020-0419

UNICEF Malaysia. (2021). *Families on the edge: Two-steps forward, one step back*: The new normal for Malaysia's urban poor? https://www.unicef.org/malaysia

Digital Banking: Is It Convenient for Everyone?

AZILA SAHRIM, DR ASIAH ALI, DR ASMA' RASHIDAH IDRIS, MASRUL HAYATI KAMARULZAMAN & NURAIN FARAHANA ZAINAL ABIDIN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

Back in those days, we still remember accompanying our parents to the bank, getting a queue number and waiting for it to be called. It is time-consuming, but we can ask the bank officer directly if there are any problems or if we need more information regarding any services offered by the bank. Even though some of our parents are illiterate, they do not have any trouble doing money transactions or withdrawals, with the assistance of the teller.

Today, the rise of digital technology has significantly transformed the norms of conservative banking into digital banking. Conservative banking is being replaced by digital platforms that offer faster and convenient access to financial services. It is undeniable that the digitalisation of banking services is very practical in today's world. However, we cannot deny the fact that digital banking somehow complicates the accessibility of banking services to a certain group of people.

WHICH GROUP IS AFFECTED BY DIGITALISATION OF BANKING SERVICES?

Digitalisation inflate the complexity of banking services to multiple groups of people which are baby boomers who are unfamiliar with technology, low-income group, whose income only enough to cover for their basic needs, rural communities, who receive least exposure about digital banking compared to those who live in urban area, and people with low literacy level, who take longer time to learn anything new. These individuals are heavily dependent on physical bank branches and bank officers, even though these channels are time-consuming and can be costly.

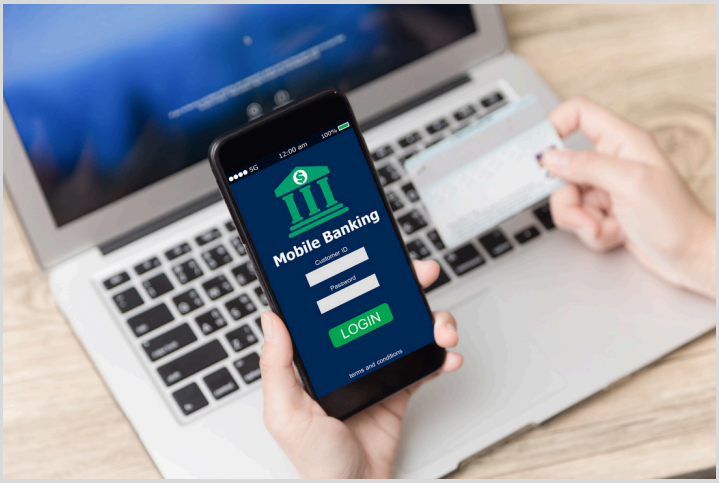
There are numerous things to learn in digital banking, ranging from using gadgets to connecting them to the internet, and finally installing banks' applications on gadgets and using them. Baby boomers and individuals with low literacy levels often struggle to adapt to the transformation of banking services and comprehend the terms used in digital banking applications, making them vulnerable and susceptible to exploitation or scams when using digital banking. On the other hand, people from rural areas and low-income groups are often left out when the government provides financial assistance through digital payments or when banking institutions introduce new financial products that could be beneficial to them due to the lack of access to gadgets and internet connections. Not only banking applications, but even some people today are still struggling to use an automated teller machine (ATM) and a cash deposit machine (CDM).

WHY DOES IT MATTER?

Why do we need to make sure that everyone in our society has sufficient knowledge about digital banking? This is because, with the rapid advancement of technology, we can expect that someday, physical banks may disappear. All banking services will be provided online. What will happen to those people who rely on physical banks and need a bank officer to assist them? If we do nothing to assist these people today, they will likely struggle even more in the future.

HOW CAN WE NARROW THE DIFFERENCE?

To promote digital inclusion for everyone, it is essential to identify the sources of the issue for each affected group. As for baby boomers and the illiterate group, their main issue is that they have a problem with learning and adapting to new knowledge and information. They need to learn from the basics and be introduced to computers and other gadgets. How to achieve this? The government and banking institutions could collaborate to develop a campaign that serves as a medium to promote digital literacy workshops, targeting baby boomers and individuals with low literacy. The government could also provide incentives to banking institutions to enable the 'Digital Literacy Workshop' to be conducted regularly, at least once a month. Each branch of a banking institution can hire its own staff or temporary workers to share information about digital literacy and its importance.



For individuals who have difficulty accessing internet connections and gadgets, our government could team up with internet providers such as Telekom Malaysia, TIME, YES, and other internet service providers to expand their coverage, especially in rural areas. Other than that, our government could collaborate with gadget shops around Malaysia to offer lower-priced gadgets to the targeted group, especially low-income families, so that it becomes affordable to own a gadget. This will simplify the process of achieving digital inclusion.

CONCLUSION

Digitalisation is a part of our process to become a developed country. It is irreversible, and we can only go forward. The implementation of digital banking is actually to make it easier for everyone to do business. Thus, the government and society need to collaborate and take action, providing a proper channel so that everyone in the country can learn and adapt to the functions of digital banking. By doing so, we believe this could reduce the number of people who are being exploited or scammed through digital banking.

Sources: https://university.segi.edu.my/the-emergence-of-digital-bank-in-malaysia/

The Gamification Dilemma: Balancing Enjoyment with Essentials

MUHAMMAD AZRIL ROSLAN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Play to Learn? The Emergence of Gamification in Education

Gamification, a term describing the integration of game design elements into non-game contexts, such as education, is one of the most captivating trends in the rapidly evolving field of digital learning. Educators utilise gamification to enhance learning outcomes, engagement, and motivation, as students grow up in a digital environment that is highly saturated with games, social media, and instant gratification.

Kahoot!, Quizizz, Duolingo, and Classcraft are gamified learning platforms that are gaining prominence due to their ability to transform mundane content into interactive experiences. These tools have been shown to increase student engagement in online environments when used with variety and surprise elements (Raju et al., 2021). These tools use points, badges, leaderboards, challenges, and awards to make education competitive and goal-oriented. As interest grows, questions arise: does gamification improve learning or lower academic rigour?

Understanding Gamification: More Than Just Games

Playing games is not the same thing as gamification. Rather, gamification involves utilising game mechanics such as challenges, feedback loops, and tracking progress in a strategic manner to influence user behaviour and engagement. In the context of education, this means making lessons more captivating, quizzes more interactive, and classrooms more engaged.

According to Jose et al. (2024), effective gamification aligns with the self-determination theory, which highlights autonomy, competence, and relatedness as core psychological needs that drive learning. When gamified features address these needs, they can foster deeper engagement. This is what gamification is based on in the classroom. Well-designed gamification meets these needs by providing students with choice (by allowing them to select tasks), tracking progress (through levels and rewards), and fostering social connection (through collaboration or competition with other players).

When executed effectively, gamification has multiple benefits. It may enhance student motivation, especially among individuals who have become bored with traditional learning methodologies. Immediate feedback, such as quiz scores or virtual incentives, reinforces good responses and encourages self-improvement. Raju et al. (2021) demonstrated that leaderboards and XP-based systems can encourage both individual competitiveness and team collaboration, leading to improved motivation and performance. Additionally, platforms that allow real-time adjustment of difficulty and personalised tracking can meet the diverse needs of learners (Saleem et al., 2022).

Gamification additionally aids in personalised learning. Platforms can meet the diverse needs of learners by tracking individual progress and adjusting difficulty levels accordingly. Moreover, when learning a language or participating in rote memorisation activities, regular repetition with gamified apps enhances retention while preventing the experience from becoming monotonous. Gamification meets the expectations of digital-native students for involvement and fast feedback, making education more relevant and engaging. Teachers also benefit from real-time data analytics, which enables them to identify

struggling learners, analyse performance patterns, and tailor strategies for teaching as needed.

The Hidden Costs of Gamified Learning

Gamification is not without flaws, even if it offers advantages. The risk of oversimplifying complex subjects is a big concern. A significant challenge, as highlighted by Jose et al. (2024), is that gamification often promotes extrinsic motivation—students engage to earn badges or outperform their peers, rather than to truly understand the content. Such approaches might result in surface-level knowledge, where factual memory takes centre stage over critical thinking or conceptual mastery. Furthermore, the risk of fostering "ghost students"—learners who are present physically but disengaged mentally—remains a troubling phenomenon (Jose et al., 2024).

Another issue is external motivation replacing intrinsic drive. Students may learn to acquire badges or outperform friends, not because the information is relevant. The "gamification fallacy" occurs when rewards are removed, killing motivation. Gamified environments are not for all students. Leaderboard comparisons might demoralise low-confidence students. Competitiveness may cause stress or inspire cheating in the classroom. Poorly implemented gamification tools may become distractions for educators, especially if they are not closely linked to learning outcomes.

Striking a Pedagogical Balance

The design of gamification must be deliberate and pedagogically effective to make a significant contribution to digital learning. Instead of focusing on flashy interfaces, teachers need to ensure that game features align with cognitive goals. For example, the distinction between motivation and comprehension can be bridged by establishing a connection between rewards and critical tasks such as problem-solving or incorporating reflection after an assessment. Educators should also avoid over-reliance on gamified methods and diversify assessment formats. Saleem et al. (2022) suggested that educators should align rewards with meaningful tasks such as critical thinking and reflection to avoid shallow learning. A balanced mix of gamified and traditional methods caters to multiple learning preferences.

It is equally crucial to instruct students on the most effective methods of learning with gamified instruments. The usage of apps or platforms by educators must be presented as tools to reinforce comprehension, encourage practice, and stimulate curiosity, rather than purely as entertainment. This stimulates the development of digital literacy and cognitive skills, which are necessary for navigating the broader digital learning setting.

Positioning Gamification as Support Rather Than Solution

Gamification enhances digital education, not replaces it. It requires careful integration, ongoing feedback, and curricular alignment to be effective. Gamification is a powerful supplement to digital learning when carefully planned and assessed. Raju et al. (2021) emphasised that regular shuffling of team members, diverse quiz tools, and dynamic feedback mechanisms help sustain student interest throughout a semester.
As education shifts to hybrid and online platforms, the intriguing potential of gamification must be balanced with academic integrity and depth. As Jose et al. (2024) cautioned, over-reliance on external motivators can undermine intrinsic learning goals if not continuously evaluated and personalised. Like any educational innovation, its value depends on the people who create, execute, and adjust it for meaningful learning.

References

Jose, B., Cherian, J., Jaya, P. J., Kuriakose, L., & Leema, P. R. (2024, November). *The ghost effect: How gamification can hinder genuine learning*. In Frontiers in Education, 9. 1474733. Frontiers Media SA.

Raju, R., Bhat, S., Bhat, S., & Singh, A. B. (2021). Effective usage of gamification techniques to boost student engagement. *Journal of Engineering Education Transformations*, 713-717.

Saleem, A. N., Noori, N. M., & Ozdamli, F. (2022). Gamification applications in E-learning: A literature review. *Technology, Knowledge and Learning, 27*(1), 139-159.

Empowering Education and Society Through Digital Literacy

NURUL SYAFAWANI HALIM, SHARINA SALMI AZMI, RODHIAH AMZAH, NIK MAHFUZAH NIK MAT & MOHD NUR FITRI MOHD SALIM
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

In today's digital environment, the ability to navigate and critically evaluate digital information has shifted from an optional skill to an essential requirement. Digital literacy encompasses the competencies needed to assess online content critically, understand digital ethics, and utilise digital tools responsibly. As digital technologies continue to reshape education, it is imperative that individuals develop these skills to remain relevant in an increasingly complex information landscape. This need is particularly pressing in an era marked by widespread misinformation and digital manipulation, where strong critical thinking and evaluative abilities are vital for making informed decisions. Therefore, fostering digital literacy is essential not only for enhancing teaching and learning but also for equipping individuals with workforce-relevant competencies, promoting equitable access to education, and preparing individuals to participate in a digitally interconnected society.

A core element of effective teaching and learning in the 21st century is recognising digital literacy as a fundamental skill. It involves the ability to identify, assess, and utilise information from diverse online sources efficiently. Traditional education, which primarily emphasises reading and writing, no longer suffices when most information is accessed digitally. Thus, educators must expand their teaching approaches by incorporating technology into their lessons, despite the challenges this integration may present. Many educators encounter barriers, including limited access to technology, insufficient professional development, and the rapid technological advancement of digital tools, all of which complicate the adoption of technology in teaching. Addressing these challenges requires comprehensive systemic support, including infrastructure investment, sustained professional development for educators, and curriculum reforms that prioritise digital competencies alongside traditional practices.

In Malaysia, the government recognises the importance of this shift. The Prime Minister, Datuk Seri Anwar Ibrahim, has affirmed the nation's commitment to digital transformation and emphasised efforts to raise public awareness about enhancing digital and artificial intelligence (AI) literacy (BERNAMA, 2024). Within this context, educational institutions play a critical role in fostering digital competence. By incorporating digital tools, online resources, and educational software into the classroom, educators can enhance learning through increased interactivity and accessibility, ultimately improving academic outcomes. Students tend to be more motivated when they engage with digital tools such as educational games, simulations, and multimedia content, creating a dynamic and engaging learning environment.

Furthermore, integrating technology into the classroom equips students with essential skills required in the modern workforce and civic life. Skills such as online collaboration, digital information management and data analysis have become increasingly vital across various professional sectors and societal contexts. By embedding these technological proficiencies within the educational curriculum, educators are better equipped to prepare students for the demands of a digitally interconnected world. This not only enhances students' technical capabilities but also cultivates critical thinking, problem-solving, and adaptability.

Additionally, equipping individuals with the necessary skills to navigate, evaluate, and responsibly engage with digital information and technologies is essential for bridging the digital divide in contemporary society. The goal is to reduce or eliminate the gap between individuals, communities, and countries that have access to modern information and communication technologies. It also provides individuals with the skills to utilise digital technologies effectively. This capability promotes continuous professional and personal growth, as digital platforms offer various opportunities, such as online courses, virtual lectures, and learning resources that may not be readily available locally. Ultimately, digital literacy enables fair access to high-quality education, regardless of geographical location.

Beyond education, digital literacy also empowers individuals to confidently engage in online commerce and manage everyday tasks. Activities such as communication, banking, shopping, and scheduling appointments increasingly rely on digital platforms, underscoring the pervasive role of technology in modern life. Without adequate digital skills, individuals face growing obstacles in managing these basic functions. This digital gap can contribute to social and economic exclusion, particularly among older adults and underserved communities. Hence, promoting inclusive digital education is essential to ensure equal participation in today's society and to achieve this, governments, educational institutions, and technology providers must collaborate to implement accessible and effective initiatives.

In conclusion, digital literacy has become a fundamental skill set essential for success in today's technology-driven society. By embracing it among diverse populations, addressing implementation challenges, and applying effective instructional strategies, societies can promote greater equity, social inclusion, and economic participation in the digital era. Consequently, cultivating these competencies will be critical in shaping informed, adaptable, and responsible digital citizens.

References

BERNAMA. (2024, January 16). *Govt serious about digital transformation, promoting AI literacy– PM Anwar*. https://www.bernama.com/en/news.php?id=2262853BERNAMA+1

Buchan, M.C., Bhawra, J. & Katapally, T.R. (2024). Navigating the digital world: development of an evidence-based digital literacy program and assessment tool for youth. Smart Learn. *Environ 11*(8) https://doi.org/10.1186/s40561-024-00293-x

Sulaiman, Salsuhaida & Shaifuddin, Norshila & Samsudin, Ahmad. (2024). Navigating New Horizons: Challenges of Malaysian secondary school teachers in cultivating digital information literacy (DIL) competencies. E*nvironment-Behaviour Proceedings Journal,* (9) 89-95. 10.21834/e-bpj.v9iSI18.5463.

Why Digital Skills Are the New Literacy?

NOOR AZILA MOHD ZAID, DR HAZIRA MOHD NASIR, AINI HAYATI MUSA, DR RAJA MAYANG DELIMA MOHD BETA & DR ASMA' RASHIDAH IDRIS
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

1.0 Introduction

Basic reading and writing skills are no longer sufficient in today's rapidly evolving digital world. A new form of literacy, referred to as digital literacy, is emerging. Digital literacy encompasses several key components, including technical skills, critical thinking and evaluation, communication and collaboration, as well as the safe and ethical use of technology. It is essential for successful participation in the digital society and is crucial for many users, particularly those in educational settings. Within the realm of education, digital literacy has attained paramount importance, spanning from primary education to higher education. It facilitates study, research, and professional growth by empowering students to proficiently utilise digital resources and tools (Cordell, 2013). Educational frameworks and curricula have been revised to incorporate digital literacy as an essential element.

2.0 Why are Digital Skills so Important Now?

Following the COVID-19 pandemic, digital skills have become increasingly important as education has transitioned to an online format. Students and teachers need to adapt quickly to the changes. Those with digital skills will easily adapt to the changes, while those without will face problems (Wigati et al., 2022). During the pandemic, the use of online platforms became popular. Lecturers in universities and teachers in schools are adopting a new, innovative platform for teaching, which includes Google Classroom, Microsoft Teams, and Zoom.

Despite the importance of digital skills in education, they are also essential in the job landscape (Tomczyk et al., 2020). Many jobs now require basic knowledge of technology, even in sectors such as agriculture. Farmers nowadays are using apps to monitor weather and market prices. Other sectors, such as retail and services, also require basic technology knowledge, whereby retail workers now manage online bookings and respond to customer queries through chat apps.

Nowadays, lifelong learning is undergoing a digital transformation. Numerous free online courses and eBooks enable anyone to continue learning new things without limits. Therefore, everyone must have digital skills to access all those online sources and excel in these digital skills and knowledge.

3.0 Strategies to Enhance Digital Literacy

The significance of digital skills now influences society to improve its capabilities in these areas. All levels of society require exposure to increase awareness and educate individuals about digital knowledge. Digital skills should be introduced as early as primary school. Teachers ought to take action to teach the fundamentals from a young age, ensuring that students are familiar with basic computer usage, such as typing and searching for reliable information on the internet. Students should also be introduced to online communication via email and messaging platforms.

Furthermore, students should have the opportunity to explore new apps, platforms, and tools to foster creativity and independent learning. This exploration allows students to discover new learning styles, thereby developing critical skills (Marin et al., 2023). Such exposure can prepare them for real-world digital environments and enhance their academic experience.

Educators, as trainers, should receive ongoing training, as they require support to remain updated on emerging technologies and digital skills. Moreover, students and communities in rural areas must be exposed to and educated about these digital competencies. The government must ensure that rural and underserved communities have access to devices and the internet to prevent them from being left behind.

4.0 Conclusion

In conclusion, digital literacy encompasses a broad and dynamic range of skills necessary for navigating the digital world. Digital skills are now essential for learning, working, and thriving in contemporary society. This involves technical abilities, critical thinking, and the ethical use of digital technologies that empower individuals to succeed in education, careers, and everyday life. Without these skills, one risks falling behind academically and socially.

References

Cordell, R. M. (2013). Information literacy and digital literacy: competing or complementary? *Comminfolit, 7*(2), 177. https://doi.org/10.15760/comminfolit.2013.7.2.150

Marin, V. I. & Castaneda, L. (2023). Developing digital literacy for teaching and learning. Handbook of Open, Distance and Digital Education, 1089-1108. https://doi.org/10.1007/978-981-19-2080-6_64

Tomczyk, L. & Eger, L. (2020). Online safety as a new component of digital literacy for young people. *Integration of Education*, *24*(2), 172-184. Education, 1089-1108. https://doi.org/10.1007/978-981-19-2080-6_64

Wigati, I. and Fithriyah, M. (2022). *Post-COVID-19 strategy through supporting teacher digital literacy as a sustainable decision to enhance the education system: Indonesia case study*. 2022 International Conference on Decision Aid Sciences and Applications (DASA), 851-857. https://doi.org/10.1109/dasa54658.2022.9765309

Gamified Learning: Merging Education and Entertainment

SHARINA SALMI AZMI, NURUL SYAFAWANI HALIM, ANGELINE RANJETHAMONEY VIJAYARAJOO & AFNI ANIDA ADNAN
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

The combination of entertainment and education, known as edutainment, has transformed education by making it more engaging, interactive, and enjoyable. Introducing game-like features, such as points and badges, into the learning process has made learning more captivating and pleasurable for students. Compared to traditional techniques, where students often become bored and lose interest in their studies, the combination of entertainment with education has proven highly beneficial in improving student motivation and engagement.

Edutainment makes learning more enjoyable, and gamification encourages student participation and teamwork. The rise of edutainment makes traditional teaching methods less appealing because edutainment has developed a new learning style for the learning process. It offers an interactive environment, makes learning enjoyable and ultimately draws them back to the learning environment. Students are required to engage closely with the course material through activities such as Kahoot and Quizziz (Das, 2023).

In addition to that, educational gamification promotes the development of essential skills, including communication, collaboration, and problem-solving. Active participation in gamified learning environments encourages students to engage critically with the content, thereby enhancing their critical thinking abilities and deepening their understanding of the subject matter. Moreover, gamification enables students to learn at their own pace and practice according to their individual levels of comprehension (Supaprawat et al., 2023).

In conclusion, edutainment has transformed students' perceptions of education by making the learning process more dynamic and engaging. With continuous technological advancements, game-based learning has become increasingly interactive and immersive. As such, gamified learning serves as a valuable educational approach, equipping students with the skills and mindset necessary to navigate the complexities of the modern world.

References

Das, S. (2023, October 23). *Edutainment Unveiled: Merging Education And Entertainment Online. ELearning Industry*. https://elearningindustry.com/edutainment-unveiled-merging-education-and-entertainment- online/amp

Siripipatthanakul, S., Muthmainnah, Siripipattanakul, S., & Jaipong, P. (2023). *Gamification and Edutainment in 21st Century Learning. Yayasan Corolla Education Centre.* https://www.researchgate.net/publication/368720222_Gamification_and_Edutainment_in_21st_Century_Learning

Alleviating Writing Anxiety through Artificial Intelligence: A Digital Shift in Global Education

SITI NUR DINA HAJI MOHD ALI
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS KUALA PILAH
MOHD HAFIZUL ISMAIL
UNiKL MIIT

The introduction of artificial intelligence (AI) in digital education has brought about a transformative shift in how writing is taught and experienced worldwide. Writing is indeed tough and challenging for students as they need to put effort into using grammatically correct sentences and organising the ideas with sound judgment (Shen et al., 2024). As institutions strive to equip students with 21st-century skills, the adoption of generative AI-powered tools is garnering interest around the globe, raising a growing concern about how these technologies can support students in overcoming the fear associated with academic writing. To what extent does AI allow students to overcome their writing anxiety?

Writing anxiety is a prevalent issue, especially among students for whom English is a second or foreign language. L2 students' writing anxiety is significantly influenced by how they measure their own anxiety for the target language (Ali & Ismail, 2021). As the writing process itself involves complex sentence structures, students must put effort into their writing. Fear of judgment and a lack of confidence, coupled with linguistic insecurity, often inhibit students from expressing themselves in writing. The efforts invested in writing reflect the students' cognitive process of conveying their thoughts into words (Hayes, 2000). However, AI-based writing assistants such as Grammarly, QuillBot, and ChatGPT, to name a few, are changing this narrative. These tools provide real-time grammar correction, vocabulary suggestions, and idea-generation support, enabling students to build fluency and reduce the cognitive load associated with drafting.

The integration of artificial intelligence into writing instruction represents a critical evolution in digital pedagogy. AI-based writing tools offer real-time feedback on grammar, sentence structure, coherence, and even tone. Huang et al. (2023) stated that AI-assisted writing is effective for revising and enhancing students' writing skills as it creates a low-risk environment where students can revise their drafts based on the feedback. Human feedback, on the other hand, may take time to receive the intended feedback, which might impede the overall writing process. Thus, AI provides instant, non-threatening suggestions that allow for self-paced learning.

Hawanti and Zubaydulloevna (2023) asserted that there was a decrease in students' anxiety during English writing classes among Indonesian students with the use of AI Chatbot-based instruction, as they received immediate feedback. The tools allow students to visualise and correct their errors, which indirectly fosters metacognitive awareness and linguistic autonomy (Shen et al., 2023). On the part of students, this type of support helps them internalise grammatical rules and vocabulary use in context, leading to improved linguistic competence. Recent research has shown that AI tools serve not merely as corrective agents but as scaffolding mechanisms that foster learner autonomy. By offering immediate feedback, AI allows students to experiment with structure, tone, and coherence without fear of criticism.

From a global perspective, digital learning provides access to education worldwide, particularly in areas with limited infrastructure. The availability of AI tools enables students to utilise technological skills globally through collaboration (Ali et al., 2024). Beyond individual classrooms, the impact of AI on writing instruction is being felt on a global scale. Digital learning platforms and mobile applications are now accessible in regions that previously lacked educational infrastructure. With many AI tools available online and on mobile devices, students in remote or underserved areas are gaining access to high-quality writing support tools (UNESCO, 2023). Nevertheless, it is important to recognise the unequal pace of AI adoption. Some institutions, especially in developing nations, face systemic challenges, including limited Internet bandwidth, low digital literacy among instructors, and a lack of institutional policies on AI integration in teaching and learning.

The adoption of artificial intelligence into education marks a pivotal transformation in writing. AI-based tools can be an effective antidote to writing anxiety, as they enable students to express themselves more clearly and confidently. Thus, educators need to guide students not only in mastering writing skills but also in navigating the complex intersection of technology and global education. Hence, AI can enhance both academic performance and emotional well-being, helping students to overcome their writing anxiety.

References

Ali, S. N. D. H. M., & Ismail, M. H. (2021). Investigating students' levels of writing anxiety in local tertiary institution. *e-Proceedings of the International Conference on Language, Education, Humanities and Social Sciences, Malaysia.* 550–555, eISBN 978-967-2447-06-

Ali, S. N. D. H. M., Abidin, D. Z., Bazlan, A. S., & Ismail, M. H. (2024). Beyond literacy and numeracy: Cultivating global mindsets in Malaysian education. *Buletin APB Edisi 13*, 20–21.

Hayes, J. R. (2000). A new framework for understanding cognition and affect in writing. In R. Indrisano & J. R. Squire (Eds.), *Perspectives on writing: Research, theory, and practice* (pp. 6–44). International Reading Association.

Hawanti, S., & Zubaydulloevna, K. M. (2023). AI chatbot-based learning: Alleviating students' anxiety in English writing classroom. *Bulletin of Social Informatics Theory and Application, 7(*2), 182-192, ISSN 2614-0047

Huang, X., Zou, D., Cheng, G., Chen, X., & Xie, H. (2023). Trends, research issues and applications of artificial intelligence in language education. *Educational Technology and Society, 26*(1), 112–131. https://www.jstor.org/stable/48707971

United Nations Educational, Scientific, and Cultural Organization (2023). *2023 GEM Report: Technology in education – A tool on whose term?* Retrieved from UNESDOC Digital Library website: https://unesdoc.unesco.org/ark:/48223/pf0000386165

Shen, X., Ismail, L., Jeyaraj, J. J., & Feng, T. M. (2024). Metacognitive strategies, writing self-efficacy and writing anxiety in different learning modes: A two-wave longitudinal model, *System*, 126, 103485, https://doi.org/10.1016/j.system.2024.103485

Separating Fact from Fiction: The Truth About Digital Education

NOOR SHAHARIAH SALEH & RUHIL NADIAH ABU BAKAR
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN

Teaching used to be simple. There was once upon a time when students did not expect much from educators, and educators were free to decide how to handle the class based on the syllabus given. Following the pandemic, a transition is underway in teaching, particularly with the integration of digital lessons into the educational system as alternatives to conventional lessons. This has caused havoc not only among educators and students but also among parents. This is due to different sides of beliefs and misconceptions that were passed down. The misconceptions need to be highlighted and enlightened to enable society to understand and accept the future endeavour of digital learning in local education institutions.

Low social interaction

One of the top myths about teaching is that it involves low social interaction or lacks an interactive online classroom. This becomes an excuse for the educators to avoid holding classes online. Educators claim that they do not want students to suffer the consequences of teachers having insufficient knowledge and skills related to digital lessons. The truth is that digital learning can be more interactive and engaging if educators are willing to invest their time and energy to improve their skills in handling online classes. The fact is, digital classrooms can be significantly more interactive and engaging, as numerous activities can be conducted in class. The evidence is apparent when many learning platforms incorporate breakout sessions to facilitate group discussions, one-to-one communication with individual learners, and other elements that promote interactive lessons (Connick, 2023). Therefore, it enables instructors to periodically assess students' participation and understanding by incorporating small activities between pop quizzes, ensuring students stay engaged and take online classes seriously.

Cheaper cost

When the higher institutions implemented digital classrooms, many said that the fees would be cheap, as no face-to-face meetings would be required. However, reality does not seem to agree with that. Among the things that the government needs to invest in is the technology of the system. As we transition to digitalisation, we shift from relying on hardcopy documentation to electronic forms, necessitating the sharing of a larger database among the workforce. Additionally, new platforms should be considered to help educators centralise teaching materials, syllabi, documentation, and observations for online classes (Chopra, 2024). Moreover, according to individual educators, there is a need to equip them with effective and sufficient devices that support digital education. This does not include internet connectivity, which is necessary for online learning and teaching to be possible. The Ministry of Education also allocates a

budget to support the installation of devices and facilities, preparing institutions for digital classrooms. This does not include the maintenance of such facilities and expenditures for training purposes. Considering all these factors, it is not surprising that future educational fees and expenditures will increase, and more funds will be needed to enhance and support the educational system in Malaysia. Therefore, the fees are to be revised, and, indeed, the citizens will also be affected.

Technology can replace teachers

One of the prevalent misconceptions in society nowadays is the role of teachers in technological education. The ideology has started to spread that with the implementation of digital education, instructions will soon or later be provided by computers or artificial intelligence (AI), making actual teachers no longer needed. The introduction of generative AI systems, such as ChatGPT marked the climax. Society has begun to believe in its reliability. However, this false statement needs some enlightenment. AI, like any other educational system and resource, is a valuable reference for students learning online. The integration of technology, guided by teachers, can lead to more interactive and dynamic learning experiences (Horton, 2024).

Teachers provide a human touch to the learning process, which makes the lessons more personalised and adaptable to various learning styles. Moreover, there are worthwhile insights that teachers can share in the online learning that technology cannot offer. Therefore, digital learning should serve as the primary medium of instruction to develop abilities and skills while also allowing students to express their creativity in alignment with their interests in specific domains.

To sum up, refuting the above myths unravels the true concept of digital learning. Technology can serve as a powerful tool to aid learners in educating themselves. It also helps reveal the potential of quality education for learners. When integrated thoughtfully, technology can bring out the best in learners and prepare them for the world of work.

References

Chopra, Y. (2024, September 16). *11 Common Myths About Technology in Education (Debunked). PrepAI.* https://www.prepai.io/blog/myths-about-technology-in-education/

Connick, S. (2023, August 25). *Myths About Digital Education*. Digital Ed Awards. https://www.digitaleducationawards.com/post/myths-about-digital-education

Horton, M. (2024). *Myths About Technology in Education Debunked by TSU SMART*. Ai-Tnstatesmartcenter.org. https://ai-tnstatesmartcenter.org/blog/myths-about-technology-in-education-debunked-by-tsu-smart

Paving Malaysian Education for Digitalisation: What Do We Miss?

NOOR SHAHARIAH SALEH, RUHIL NADIAH ABU BAKAR
UiTM CAWANGAN NEGERI SEMBILAN KAMPUS SEREMBAN
SITI AISHAH TAIB
UiTM CAWANGAN NEGERI JOHOR KAMPUS PASIR GUDANG

The world revolution has shown a rapid movement towards digitalisation. The process has expanded the use of digital technologies, not only by transforming business operations but also by increasing productivity and shaping new values across various domains. These changes impact not only industries but also educational institutions, paving the way for the application of digital technologies. To cater to the needs of industry, higher education has begun to integrate digital technologies into teaching and learning. Digital learning is becoming an integral part of the education process currently, yet there are inherent challenges faced by the parties involved that need to be considered. This is due to supporting Malaysia's opening gambit in providing, enhancing, and reshaping skills for the labour force in the digital landscape (Sharon, October 17, 2024). Therefore, it is crucial to review the loopholes in the process of digitalising the Malaysian education system for teaching and learning.

Greater attention should be paid to the cost involved in making digital education a full run. Dr. Shanina Sharatol Ahmad Shah from the Faculty of Education at Universiti Malaya states that Malaysia needs to allocate a significant amount of funds to prepare classrooms with digital equipment (Rajaendram, 2024). The cost will cover the expenses needed to develop the amenities, as well as to install and upgrade the internet connectivity and devices required for teaching and learning. Malaysian higher institutions are observed to deal with the lack of digital facilities, as are schools, regardless of whether they are in urban or rural areas nationwide. Moreover, training for the educators and technical staff is equally essential to the allocation of the budget. If digital learning is to be fully enforced, the Ministry of Malaysian Education must be ready to prioritise the educational sector's financial stability and funds so that the quality of education can be secured.

Moreover, the adequacy of skills and readiness among educators is another lacking contributing element in the success of cultivating digital teaching and learning in Malaysian education. Nor et al. (2019) have long stressed the importance of having educators ready to teach learners in a digital environment. The educators' readiness in teaching in classrooms equipped with digital technology facilities is the starting point to navigate students' performance and positive learning experience. However, research conducted by Khatirveloo (2024) has identified that some educators resist the implementation of digital classrooms, particularly blended learning. The faculty's insufficient incentives and limited access to facilities contribute to this resistance. This situation raises the question of the effectiveness and quality of online lessons for a long-term impact if educators are made compulsory without any personal interest. This suggests that integrating digital technologies into academics and ensuring that educators fully accept and apply them is not an overnight process; however, with clear instructions and a proper plan, it can be achieved in the near future. Thus, providing related training and learning opportunities, along with sufficient incentives for educators, will open the space to narrow the gaps in the education system.

Another concern regarding the endorsement of digitalisation in teaching practices in Malaysia is the decline of focus and health among both educators and students. To cater to the vast demand of the educational system, particularly due to the COVID-19 pandemic, educators and learners are experiencing dramatic changes. When educators are forced to alter the lessons abruptly, learners push themselves to adapt, yet their efforts may result in despair as individuals handle the situations differently (Chen et al., 2023). Jaafar et al. (2023) highlighted that one of the challenges in applying e-learning faced by students, especially during the COVID-19 pandemic, is maintaining attention due to the unstimulating approaches employed. Besides, not to mention instructors, learners also experience numerous health issues like neck pain, fatigue, and headaches (Chen et al., 2023). This is due to excessive exposure to digital devices when dealing with online classes and related tasks. What makes this situation worse is when the technology takes a toll on time, as individuals are no longer able to put a fine line between professional and personal life, leading to severe stress (Buda & Kovacs, 2024). While Mohd Bahar et al. (2024) addressed the importance of maintaining digital well-being, which covers the mental and bodily state among learners, Buda and Kovacs (2024) stressed the importance of educators enhancing competency in encompassing digital learning in the lessons to lessen their technological well-being issues and minimise the time of screening. This scenario highlights the importance of seeking medical attention and aids for both educators and learners who require them.

In conclusion, the main overlooked factors in establishing digital education in Malaysia are health, digital competency and readiness, as well as cost. These issues are in serious need of attention and prompt action from the higher education ministry and administrators of higher institutions. The failure to cater for needs and resolve problems jeopardises not only the individuals involved but also the quality of the future of the Malaysian educational system.

References

Buda, A., & Kovács, K. (2024). The digital aspects of the well-being of university teachers. *Frontiers in Education*, *9*. https://doi.org/10.3389/feduc.2024.1406141

Chen, A.-H., Roslan, N., Hoe, C., & Teoh, S. (2023). Online Learning and Its Short-term Impact on Digital Engagement and Digital-related Health Symptoms Amongst University Students During the COVID-19 Pandemic. *Malaysian Journal of Medicine and Health Sciences, 19*(3), 138–144. https://doi.org/10.47836/mjmhs19.3.18

Jafar, A., Ramli Dollah, Mittal, P., Idris, A., Kim, J. E., Abdullah, M. S., Eko Prayitno Joko, Dayangku Norasyikin Awang Tejuddin, Nordin Sakke, Zakaria, N. S., Mapa, M. T., & Hung, C. V. (2023). Readiness and Challenges of E-Learning during the COVID-19 Pandemic Era: A Space Analysis in Peninsular Malaysia. *International Journal of Environmental Research and Public Health*, *20*(2), 905–905. https://doi.org/10.3390/ijerph20020905

Kathirveloo, P. (2024). Assessing Institutional Readiness for Blended Learning Management and Implementation Malaysian Higher https://doi.org/10.37134/mrj.vol13.2.5.2024

Mohd Bahar, F. H., Roslan, N. S., Ping, N. P. T., & Yusoff, M. S. B. (2024). Digital Well-Being among Learners in Higher Education: A Scoping Review Protocol. *Education in Medicine Journal*, *16*(4), 181–186. https://doi.org/10.21315/eimj2024.16.4.14

Nor, K. M., Razali, M. M., Talib, N., Ahmad, N., Sakarji, S. R. Saferdin, W. W. W. M., & Nor, A. M. (2019). Students' problems in learning English as a second language among Mdab students at UiTM Malacca. *International Journal of Humanities, Philosophy and Language, 2*(7), 1-12.

Rajaendram, R. (2024, October 19). *Digital learning a costly affair*. The Star. https://www.thestar.com.my/news/education/2024/10/20/digital-learning-a-costly-affair

Sharon, A. (2024, October 17). *Malaysia: More Hybrid Classrooms to Boost Digital Learning – OpenGov Asia*. Opengovasia.com. https://opengovasia.com/2024/10/17/malaysia-more-hybrid-classrooms-to-boost-digital-learning/

Tamat

AKADEMI PENGAJIAN BAHASA
UiTM CAWAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN
2024