



اَوْنِيسِيتِي تِكْنُولُوجِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA



BULETIN APB

EDISI 16

Jun 2026

AKADEMI PENGAJIAN BAHASA
UNIVERSITI TEKNOLOGI MARA
CAWANGAN NEGERI SEMBILAN
KAMPUS SEREMBAN

Digital Divide in the 21st Century: Rising Research Need for All to Address

NORHIDAYU MD YATIM

UiTM CAWANGAN NEGERI SEMBILAN KAMPUS REMBAU

Historically, the term 'digital divide' was widely used in the mid-1990s to describe the disparity between those with access to the Internet and those without (Pierce, 2018). Subsequently, the digital divide was defined as the gap or inequality in a community's access to Information and Communication Technologies (ICTs), including inadequate internet access, insufficient equipment, and limited skills to use the technology effectively. It is about the gap between different demographic or socioeconomic groups in accessing, using, and deriving benefits from digital technology or ICTs. Badiuzzaman (2024) defines the digital divide as the uneven distribution of access, skills, and usage, as well as the effects of digital technology and ICT, among individuals, organisations, or countries. Therefore, the digital divide is considered dynamic and requires constant redefinition, given its widespread use.

The digital divide is one of the areas of study that requires continuous attention, as the gap varies with new technologies introduced to the world and how people interact with them. This is supported by Gomez-Barroso et al. (2026), who argue that the digital divide is an emerging area of study because parts of the population lack the basic technological skills to use new ICTs effectively. This behaviour can be justified because people are naturally fascinated by new technology, even if they are not prepared for it. This is because technology offers numerous benefits. For example, ICTs enhance communication and collaboration, which contribute to the digital economy. Furthermore, ICTs support sustainable development, which is useful for handling crises and keeping the organisation going, as technology facilitates rapid recovery.

Therefore, the exponential growth of artificial intelligence (AI) as an advanced component of

ICTs has widened the digital divide among communities. The Microsoft AI Economy Institute (2026) confirms that AI is one of the fastest diffusing technologies in modern days, where AI global adoption has grown rapidly by the 2nd half of 2025, and pointed out that 16.3 percent of the world population, or about one in six people globally, had used a generative AI tool. The widespread adoption of AI globally and across sectors underscores the need for a new research area: the AI digital divide. UNESCO (2025) highlighted the AI digital divide, focusing on the unequal access to, benefits from, and opportunities offered by AI across regions, communities, and socioeconomic groups, which marginalises these communities. Similarly, Hanan (2026) indicated that AI use is spreading rapidly, and access to and benefits from it are uneven, potentially widening gaps based on income, geography, and opportunity.



The AI digital divide is widening, deepening the gap between people who benefit from technology and those who don't. Richer communities have better access to AI, while poorer communities might be left behind. Powerful AI tools are expensive, so only big companies and wealthy communities can use them. This leaves some groups out of AI opportunities. Hanan (2026) argues that AI is creating digital inequality that risks deepening existing social and economic gaps, especially for children and vulnerable communities. Not only



that, but people who are not using AI will also be affected by it. It is not simply about having technology; AI can influence a country's decisions on education, healthcare, welfare, economic development, and overall performance.

Countries that invested early in digital infrastructure will benefit more from AI. Microsoft AI Economy Institute (2026) indicated a significant widening gap between high-income countries such as the United States, Canada, and Western Europe, with 2 per cent AI adoption, and low- and middle-income countries such as Sub-Saharan Africa, Latin America, Southeast Asia, and Singapore, with 1 per cent AI adoption. These statistics suggest that AI adoption is accelerating globally, but its benefits are unevenly distributed. National policy, digital competencies, language localisation, and reasonable pricing strongly influence AI adoption.

Reducing the AI digital divide is fundamental to ensuring that all individuals, regardless of their geographic and economic backgrounds, can access AI technology and its benefits. Here are the four key reasons why we need to reduce the AI digital divide:

Access to Information and Technology: Ensuring everyone has access to AI tools, as it facilitates participation in the digital economy, AI can improve access to information, which is crucial for quality education and skills development.

Digital Inclusion: Ensuring everyone has access to and can use digital technology effectively and can gain benefits from AI.

Social inclusion: Ensuring and promoting equity for all individuals in society, where everyone has equal access and opportunity to participate in and lead in AI, enabling them to achieve their potential. Focus on using AI for inclusion, not exclusion.

Economic inclusion: Ensuring AI can reduce economic gaps by providing access to new job opportunities and services, making it a competitive advantage rather than a disadvantage

More research on the AI digital divide at the national level, especially in the education, economic, and social sectors, is crucial. This is because the research findings will help identify strategies and national policies to reduce the gap and eventually close the AI digital divide in communities so that everyone can benefit from AI. It is also particularly important, as it helps identify those already excluded from the digital economy, especially marginalised communities. It can also help a nation be better prepared through AI adoption and by mitigating the negative impacts of AI on communities.

References

- Badiuzzaman, M. (2024). *The digital divide among families of children with disabilities in technology-integrated family-school partnerships in Bangladesh* (Doctoral dissertation, University of New South Wales). UNSW Library. <https://doi.org/10.26190/unsworks/30670>
- Gómez-Barosa, J. L., et al. (2026). Revisiting the digital divide in Europe: The profile of those on the wrong side of the divide. *Telecommunications Policy*, 50(5), 1–15. <https://doi.org/10.1016/j.telpol.2026.103206>
- Hanan, J. (2026, January 29). AI divide: A new fault line we cannot ignore. UNICEF Digital Impact Blog. <https://www.unicef.org/digitalimpact/blog/ai-divide-new-fault-line-we-cannot-ignore>
- Pierce, J. (2018). Digital divide. In R. Hobbs & P. Mihailidis (Eds.), *The international encyclopedia of media literacy*. John Wiley & Sons. <https://doi.org/10.1002/9781118978238.ieml0052>
- Microsoft AI Economy Institute. (2026, January 8). *Global AI adoption in 2025: A widening digital divide*. Microsoft. <https://www.microsoft.com/en-us/corporate-responsibility/topics/AI-Economy-Institute/reports/Global-AI-Adoption-2025/>
- UNESCO. (2025, September 23). *AI literacy and the new digital divide: A global call for action*. <https://www.unesco.org/ethics-ai/en/articles/ai-literacy-and-new-digital-divide-global-call-action>