



Topic A: Bridging the Global Digital Divide in Education

Introduction

The global shift toward digital learning, significantly accelerated by school closures during the COVID-19 pandemic, revealed stark inequalities in access to technology that affect educational continuity and quality, posing a critical challenge to achieving Sustainable Development Goal 4 (Quality Education). UNESCO estimates that when schools closed in 2020, two-thirds of school-age children worldwide lacked internet access at home, leaving tens of millions unable to participate in remote learning and intensifying pre-existing disparities between and within countries.¹ The impacts have been particularly acute in low-income contexts; in Bangladesh, for example, fewer than one in five children were able to engage in remote education during prolonged closures due to limited household connectivity and device availability, with rural learners disproportionately affected compared to their urban peers.² In sub-Saharan Africa, approximately 89% of learners reported having no household computer, and 82% reported no internet access at home during closures, severely constraining opportunities for online learning participation and continuity.³

Responses have varied globally, with middle-income countries adopting hybrid and multi-modal approaches. In Peru, the Ministry of Education implemented the “Aprendo en Casa” programme—delivered via television, radio, and online platforms—to support students without reliable internet, illustrating efforts to broaden access where infrastructure alone is insufficient for fully digital learning.⁴ These diversified strategies reflect attempts to mitigate the impact of the digital divide on educational access and to maintain learning continuity amid infrastructural challenges.

The digital divide also affects developed countries in nuanced ways. While the majority of students in high-income economies have access to broadband and devices, disparities persist within and between populations. OECD analysis shows that, even across developed nations, socio-economic status influences access to digital resources at home, and disadvantaged schools are less likely to have the capacity to integrate digital technologies into teaching and learning

¹ UNESCO. (2024). *Startling digital divides in distance learning emerge*.

<https://www.unesco.org/en/articles/startling-digital-divides-distance-learning-emerge>

² UNICEF Bangladesh. (2023). *Survey confirms devastating impact of digital divide on children's learning*.

<https://www.unicef.org/bangladesh/en/press-releases/unicef-survey-confirms-devastating-impact-digital-divide-childrens-learning-during>

³ UNICEF & International Telecommunication Union. (2020). *How many children and young people have internet access at home?* <https://data.unicef.org/resources/children-and-young-people-internet-access-at-home-during-covid19/>

⁴ Teacher Task Force of the Global Education Coalition. (2020). *COVID-19 highlights the digital divide in distance learning*. <https://teachertaskforce.org/news/covid-19-highlights-digital-divide-distance-learning>



effectively.⁵ During periods of remote instruction, these gaps manifested as unequal ability among students to engage with online learning, revealing that digital equity encompasses not only connectivity but also the capacity to use technology meaningfully. Collectively, these disparities in infrastructure, pedagogical integration, and digital literacy underscore the challenge facing the international community in ensuring that the transition to digital education does not leave behind the most marginalized learners.

Current Situation

The global digital divide remains a central obstacle to equitable education and lifelong learning, with connectivity gaps, limited digital skills, and uneven policy implementation compounding educational exclusion. According to UNESCO, roughly 60% of primary schools globally lack internet connectivity, and a global survey found that fewer than 10% of schools and universities have established internal policies on the pedagogical use of technology, indicating structural and policy deficits in digital education systems.⁶ These disparities were a core focus of the 2022 Transforming Education Summit's *Call to Action: Assuring and improving quality public digital learning for all*, which highlighted the need for national strategies on competencies, content, and connectivity to support learners equitably.⁷

In response, UNESCO has worked with Member States to develop and implement digital education policies and master plans designed to integrate information and communication technologies (ICTs) into national education systems. These guidelines support ministries of education in formulating cohesive strategies that align ICT goals with SDG 4, including planning, evaluation, and cross-sector coordination to create enabling environments for digital learning.⁸ Additionally, UNESCO's Global Education Monitoring and Regional ICT in Education initiatives provide platforms for knowledge exchange, best practice identification, and capacity building across countries to strengthen policy coherence on digital inclusion.⁹ At the same time, projects such as *Technologies and Digital Innovations for Inclusive Learning* in Eastern Africa illustrate efforts to combine ICT infrastructure development, teacher training, and gender-responsive approaches to reduce barriers to digital education in underserved regions.¹⁰

⁵ OECD. (2023). *OECD Digital Education Outlook 2023*.

<https://www.oecd.org/education/digital-education-outlook-2023.htm>

⁶ UNESCO. (2025). *Q&A: How UNESCO is driving digital learning and the transformation of education*.

<https://www.unesco.org/sdg4education2030/en/articles/qa-how-unesco-driving-digital-learning-and-transformation-education>

⁷ UNESCO. (2025). *Digital learning and education transformation*.

⁸ UNESCO. (2025). *Digital learning policies and planning support for Member States*.

<https://www.unesco.org/en/digital-education/policies>

⁹ UNESCO. (2025). *Digital learning policies and planning*.

¹⁰ UNESCO. (n.d.). *Technologies and digital innovations for inclusive learning in Eastern Africa*.

<https://core.unesco.org/en/project/3210182071>



UNICEF has also advanced international efforts to bridge digital divides through its Digital Education Strategy 2025–2030, which emphasizes equitable, scalable, and evidence-based digital learning solutions to reach marginalized learners and accelerate learning outcomes.¹¹ The strategy prioritizes teacher empowerment, foundational learning supported by adaptive digital tools, and the integration of inclusive content in local languages, reflecting a shift from isolated digital pilots to coordinated system-level interventions. Complementing these efforts, the Gateways to Public Digital Learning Initiative, launched jointly by UNESCO and UNICEF, seeks to establish open, curriculum-aligned, national digital platforms as public goods, enabling free access to quality digital teaching and learning resources and promoting international cooperation on norms and standards for digital content.¹² Together, these initiatives illustrate a multi-layered policy approach that combines infrastructure development, capacity-building, and governance frameworks to expand digital access and ensure inclusive, sustainable digital education, particularly in contexts where technological infrastructure, skills, and localized content remain limited.

Conclusion

Bridging the global digital divide in education remains a pressing challenge that extends beyond mere access to devices and connectivity, encompassing digital skills, pedagogical integration, and inclusive content. The COVID-19 pandemic highlighted the disproportionate impact of digital exclusion on marginalized learners, particularly in low-income and rural areas, and revealed that even high-income countries face inequities shaped by socio-economic disparities. Addressing these gaps requires coordinated, multi-level strategies that integrate infrastructure development, teacher training, policy coherence, and localized, inclusive digital content.

UNESCO, UNICEF, and national governments have demonstrated the effectiveness of multi-modal interventions, digital master plans, and public digital platforms in expanding equitable access while promoting sustainable learning outcomes. However, persistent connectivity gaps, limited digital literacy, and uneven policy implementation underscore the need for sustained international cooperation, investment, and evidence-based approaches. Ensuring that digital education benefits all learners—not only those with existing access—remains central to achieving Sustainable Development Goal 4 and fostering resilient, inclusive, and future-ready education systems worldwide.

¹¹ UNICEF. (2025). *Digital Education Strategy 2025–2030*.
<https://www.unicef.org/digitaleducation/digital-education-strategy>

¹² United Nations. (2025). *Gateways to Public Digital Learning Initiative*.
<https://www.un.org/en/transforming-education-summit/gateways-public-digital-learning>



Questions to Address

1. How should UNESCO strengthen its support to Member States in developing national digital education strategies that address connectivity, teacher training, and inclusive digital content?
2. What actions can UNESCO take to expand research and data collection on digital access, learning outcomes, and digital literacy gaps to better inform evidence-based policy under SDG 4?
3. How can UNESCO promote the integration of local languages, indigenous knowledge, and digital heritage into online learning platforms while supporting scalable digital education solutions?
4. In what ways should UNESCO coordinate with other UN agencies, governments, and the private sector to ensure that multi-modal learning approaches remain accessible in regions with limited digital infrastructure?

Topic B: Countering Disinformation and the Rise of Synthetic Media

Introduction

Recent advances in artificial intelligence have significantly reshaped the global information environment, enabling the widespread creation and dissemination of synthetic media, including deepfakes. Deepfakes—audio, images, or video generated or manipulated by AI—can blur the line between fact and fabrication, eroding public trust in verified information and complicating efforts to hold institutions and individuals accountable. UNESCO has underscored the risk that such technologies pose to informed public discourse, emphasizing that media and information literacy (MIL) must be strengthened to empower users to critically assess content and navigate an increasingly digital information ecosystem.¹³ This issue directly relates to Sustainable Development Goal 16.10, which calls for ensuring public access to information and protecting fundamental freedoms in accordance with national legislation and international agreements, as reliable and credible information is essential to transparent and accountable governance.¹⁴

The United Nations has recognized the threat posed by disinformation and AI-amplified misinformation in multiple fora. In its 2022 Human Rights Council resolution on disinformation, the Council affirmed the centrality of freedom of expression and access to diverse, reliable information while rejecting measures that could be used to unduly restrict legitimate speech in

¹³ UNESCO. (2024). *New UNESCO policy brief on Media and Information Literacy responses to Generative AI*. <https://iite.unesco.org/news/new-unesco-policy-brief-on-media-and-information-literacy-responses-to-generative-ai/>

¹⁴ SDG 16.10. (n.d.). *Ensure public access to information and protect fundamental freedoms*. <https://sdg16.unglobalcompact.org/target-16-10>



the name of countering falsehoods.¹⁵ Likewise, the UN General Assembly's Countering Disinformation report—requested by the Assembly and prepared by the Secretary-General—urges Member States to promote media pluralism, invest in media and information literacy, and protect freedom of expression while addressing the spread of harmful false narratives without impinging on human rights.¹⁶ These frameworks reflect a rights-based approach to countering disinformation that UNESCO has consistently promoted.

UNESCO has also advanced operational responses to the rise of disinformation and synthetic media through strategic action and capacity-building initiatives. In 2024, UNESCO released a policy brief on media and information literacy responses to generative AI, emphasizing the need to equip individuals with the skills to ethically engage with, analyze, and produce information in an AI-mediated environment.¹⁷ UNESCO has also developed campaigns and resources aimed at building MIL competencies among educators, students, and the public, including multilingual visual materials to help communities critically evaluate news and online content.¹⁸ Projects such as *Resilient Journalism in the Digital Age* strengthen the institutional capacity of journalists and media workers to counter online disinformation and protect independent reporting, which is essential for democratic resilience and societal cohesion.¹⁹ For UNESCO Member States and delegates, addressing the challenges posed by deepfakes and disinformation requires integrated strategies that combine policy guidance, education, media support, and digital literacy to sustain public access to trustworthy information and uphold democratic norms.

Current Situation

The rapid development of artificial intelligence–driven technologies has intensified global concerns regarding the integrity of information ecosystems. Synthetic media, including deepfakes, has increasingly been used to manipulate audio, visual, and textual content in ways that are difficult to detect, undermining trust in journalism, public institutions, and democratic processes. United Nations discussions on information integrity have highlighted how such technologies can be exploited during elections, armed conflict, and public emergencies to disseminate false narratives and distort public understanding.²⁰ These developments challenge Sustainable Development Goal 16.10, which emphasizes public access to reliable information as a cornerstone of transparent and accountable governance.

¹⁵ UNESCO/ARTICLE 19. (2022). *Human Rights Council resolution on disinformation*.

<https://www.article19.org/resources/un-human-rights-council-adopts-resolution-on-disinformation/>

¹⁶ United Nations. (n.d.). *Countering disinformation*. <https://www.un.org/en/countering-disinformation>

¹⁷ UNESCO. (2024). *User empowerment through Media and Information Literacy responses to the evolution of Generative AI*. <https://iite.unesco.org/news/new-unesco-policy-brief-on-media-and-information-literacy-responses-to-generative-ai/>

¹⁸ UNESCO IITE. (n.d.). *UNESCO-produced graphics on media and information literacy to counter disinformation*. <https://iite.unesco.org/news/unesco-produced-graphics-on-mil-to-counter-disinformation-on-covid-19/>

¹⁹ UNESCO. (2025). *Resilient Journalism in the Digital Age project*. <https://core.unesco.org/en/project/504MOR5000>

²⁰ United Nations. (2023). *Information integrity on digital platforms*. <https://www.un.org/en/information-integrity>



Several national contexts illustrate the real-world impact of disinformation and synthetic media. During the conflict in Ukraine, UN bodies have documented the circulation of manipulated media intended to spread false information and erode trust in official communications and independent journalism.²¹ Similarly, the dissemination of AI-generated audio impersonating political figures during the 2023 Slovak parliamentary elections raised international concern regarding electoral interference and voter manipulation. Such cases align with concerns raised in UN General Assembly Resolution 76/227 on access to information for sustainable development, which affirms that the availability of accurate, trustworthy information is essential for democratic participation and informed decision-making.²² These examples demonstrate the growing capacity of synthetic media to influence political processes and public discourse across different regions.

In response, Member States and international organizations have emphasized approaches that uphold human rights while addressing the spread of disinformation. The Human Rights Council Resolution 49/21 on freedom of opinion and expression stresses that measures to counter disinformation must remain consistent with international human rights law and must not be used to justify censorship or undue restrictions on speech.²³ Within this framework, UNESCO has advanced media and information literacy (MIL) initiatives aimed at strengthening societal resilience to disinformation by improving critical thinking, journalistic standards, and public awareness. National efforts supported by UNESCO, including MIL capacity-building in countries such as India and public education initiatives in parts of Europe, reflect a preference for educational and preventive strategies over purely punitive regulation.^{24 25}

The issue also presents complex ethical challenges regarding truth, accountability, and freedom of expression. While synthetic media technologies can support legitimate uses such as artistic expression, satire, and accessibility, their misuse complicates the ability of societies to establish shared factual realities. UNESCO's Windhoek+30 Declaration: Information as a Public Good underscores the importance of trustworthy information ecosystems and calls for ethical governance of digital technologies to protect journalism and democratic discourse.²⁶ Furthermore, Human Rights Council Resolution 47/16 on new and emerging digital technologies highlights the need for transparency, accountability, and human-centered approaches to AI

²¹ UN. (2023). *Information integrity on digital platforms*.

²² United Nations General Assembly. (2021). *Resolution 76/227: Access to information for sustainable development*.
<https://undocs.org/A/RES/76/227>

²³ United Nations Human Rights Council. (2022). *Resolution 49/21: Freedom of opinion and expression*.
<https://undocs.org/A/HRC/RES/49/21>

²⁴ UNESCO. (2023). *Media and Information Literacy: Policy and strategy guidelines*.
<https://www.unesco.org/en/media-information-literacy>

²⁵ UNESCO. (2022). *Countering online disinformation while respecting freedom of expression*.
<https://www.unesco.org/en/freedom-expression/disinformation>

²⁶ UNESCO. (2021). *Windhoek+30 Declaration: Information as a public good*.
<https://www.unesco.org/en/articles/windhoek30-declaration-information-public-good>



governance.²⁷ For UNESCO and its Member States, the current situation requires balancing innovation with safeguards that preserve public trust, protect independent media, and ensure continued access to reliable information in an increasingly AI-mediated information environment.

Conclusion

The challenges posed by synthetic media and AI-driven disinformation underscore the urgent need for coordinated international action. The integrity of information ecosystems is not merely a technical issue but a central component of democratic governance, social cohesion, and public trust. As these technologies continue to evolve, societies face the dual imperative of fostering innovation while preventing the erosion of factual discourse that underpins political decision-making, civic engagement, and accountability. The examples from Ukraine, Slovakia, and other contexts illustrate that the effects of disinformation are not confined to individual nations but can reverberate across borders, highlighting the transnational nature of the threat and the need for collaborative solutions.

In response, the international community can pursue multi-pronged strategies that combine education, policy guidance, and technological safeguards. Strengthening media and information literacy programs globally can empower citizens to critically assess information sources, while international norms and voluntary codes of conduct for technology developers can help ensure ethical deployment of AI tools. Member States might also consider frameworks for cross-border cooperation in monitoring and mitigating the spread of harmful synthetic media, without infringing on human rights or freedom of expression. Ultimately, addressing this issue requires an approach that balances innovation, transparency, and accountability, ensuring that AI-driven technologies contribute to knowledge, public participation, and sustainable development rather than undermining them.

Questions to Address

1. How can UNESCO strengthen media and information literacy to combat disinformation and deepfakes?
2. What role should UNESCO play in developing ethical guidelines for AI-generated media?
3. How can UNESCO support independent journalism and fact-checking in vulnerable contexts?

²⁷ United Nations Human Rights Council. (2021). *Resolution 47/16: New and emerging digital technologies and human rights*. <https://undocs.org/A/HRC/RES/47/16>



4. How can UNESCO foster international collaboration among member states, technology companies, and civil society to effectively combat disinformation and the misuse of AI-generated media?
5. What strategies can UNESCO implement to monitor and evaluate the effectiveness of media literacy programs and fact-checking initiatives in reducing misinformation globally?