



# शोध भूमि

शिक्षा एवं शिक्षण शास्त्र विषय की पूर्व समीक्षित शोध पत्रिका

## Digital Education as a Policy Instrument: Evaluating the Futuristic Vision of NEP 2020 in India

**Dr. Ram Chandra,**

Assistant Professor,

Staff Training and Research Institute of Distance Education (STRIDE),

Indira Gandhi National Open University (IGNOU), New Delhi, India

E-mail:ramchandrainou@gmail.com

### Abstract

*The National Education Policy (NEP) 2020 represents a landmark reform in India's educational history, redefining the role of technology and digital learning within the national education framework. For the first time, online and digital education have been systematically integrated as core components of teaching, learning, assessment, and governance. This paper critically examines the futuristic vision of NEP 2020 with respect to online and digital education in India. It explores the conceptual foundations, institutional mechanisms, digital infrastructure, pedagogical transformation, teacher capacity building, multilingualism, and the ethical use of emerging technologies such as Artificial Intelligence. The paper also analyzes the challenges associated with digital transition, particularly the digital divide, infrastructural disparities, and regulatory concerns. It argues that while NEP 2020 offers a transformative roadmap for building a resilient and inclusive knowledge society, its success depends on equity-oriented implementation, sustained public investment, and ethical governance.*

**Keywords:** National Education Policy 2020, Digital Education, Online Learning, Blended Learning, Educational Technology.

### Introduction

Education systems across the world are experiencing profound and multidimensional transformations driven by rapid technological advancements, intensifying globalization, and the growing centrality of knowledge-based economies. In the contemporary era, education is no longer confined to the transmission of fixed bodies of knowledge within institutional classrooms; rather, it has become a dynamic process shaped by digital networks, interdisciplinary learning, and continuous skill development. Digital technologies-such as online platforms, artificial intelligence, learning analytics, and virtual collaboration tools-have fundamentally altered how knowledge is produced, disseminated, accessed, and evaluated, thereby challenging the long-standing dominance of conventional classroom-based education (Selwyn, 2016). These transformations have compelled states across the globe to rethink the

purpose, structure, and delivery of education in order to remain socially relevant and economically competitive.

Within this global context, the Indian education system has faced persistent challenges related to access, quality, equity, and regional disparities. While India has made significant strides in expanding educational enrollment, structural inequalities rooted in geography, socio-economic status, language, and institutional capacity continue to limit the realization of inclusive and high-quality education. The emergence of digital technologies has been widely perceived as both an opportunity and a challenge—offering new possibilities for democratizing education while simultaneously raising concerns about exclusion, digital divides, and commercialization (Kumar, 2019). It is against this backdrop that the National Education Policy (NEP) 2020 assumes critical significance.

The adoption of NEP 2020 represents a decisive policy intervention by the Indian state to align the education system with the demands of the twenty-first century. Unlike previous education policies, which largely viewed technology as a supplementary or supportive tool, NEP 2020 formally integrates online and digital education into the core architecture of educational reform. The policy explicitly acknowledges that access to quality education can no longer remain confined to physical institutions, fixed schedules, or geographical boundaries (Government of India, 2020). Instead, it envisions a flexible, technology-enabled learning ecosystem capable of reaching diverse learners across socio-economic and spatial divides.

The relevance of this vision was starkly reinforced during the COVID-19 pandemic, which disrupted educational systems worldwide and forced an unprecedented shift toward online modes of teaching and learning. In India, the pandemic exposed both the transformative potential and the deep structural limitations of digital education. On the one hand, online platforms enabled continuity of learning for millions of students; on the other hand, unequal access to devices, internet connectivity, and digital literacy revealed entrenched inequalities within the education system. These experiences underscored the urgency of a comprehensive, resilient, and future-oriented education policy capable of institutionalizing digital education while addressing issues of equity and quality (UNESCO, 2021).

NEP 2020 responds to these challenges by articulating a holistic vision of digital education that goes beyond emergency remote teaching. The policy emphasizes blended learning models, national digital platforms, open educational resources, teacher capacity building, multilingual digital content, and the ethical use of emerging technologies such as artificial intelligence. Digital education is thus conceptualized not merely as a mode of delivery but as a transformative instrument for reimagining pedagogy, curriculum design, assessment, and educational governance (Government of India, 2020). By embedding digital learning within a broader framework of flexibility, interdisciplinarity, and lifelong learning, NEP 2020 seeks to prepare learners for an uncertain and rapidly evolving future.

At the same time, the policy's futuristic orientation raises critical questions regarding implementation, governance, and social justice. Scholars have cautioned that without adequate public investment, regulatory oversight, and inclusive design, digital education may reinforce existing inequalities rather than mitigate them (Selwyn, 2016; Kumar, 2019). Issues related to the digital divide, data privacy, algorithmic bias, and the commercialization of education demand sustained critical engagement within policy and academic discourse.

Against this background, the present paper undertakes an in-depth analysis of NEP 2020 from a futuristic perspective, with a specific focus on its vision for online and digital education in

India. The study examines how the policy seeks to harness technology to promote inclusivity, flexibility, pedagogical innovation, and systemic resilience, while critically engaging with the structural, ethical, and governance challenges inherent in India's digital transition. By situating NEP 2020 within both global educational transformations and India's socio-economic realities, the paper aims to contribute to a nuanced understanding of digital education as a key pillar of India's educational future.

### **Conceptual Foundations of Digital Education in NEP 2020**

The National Education Policy (NEP) 2020 conceptualizes digital education not merely as an alternative or supplementary mode of instructional delivery but as a transformative force capable of reconfiguring the foundational structures of education in India. Rather than limiting technology to classroom enhancement, the policy envisions digital tools as integral to pedagogy, curriculum design, assessment practices, and institutional governance. This holistic approach reflects a paradigm shift from content-centric and teacher-driven models of education toward flexible, learner-oriented, and technology-enabled learning ecosystems (Government of India, 2020).

At the pedagogical level, NEP 2020 recognizes the potential of digital technologies to foster interactive, experiential, and inquiry-based learning. Online platforms, virtual laboratories, simulations, and digital repositories enable learners to engage with knowledge beyond textbooks and physical classrooms. Such tools encourage problem-solving, collaboration, and critical thinking, which are essential competencies in contemporary knowledge societies. By integrating digital libraries, open educational resources, and adaptive learning systems, the policy seeks to move away from rote memorization toward deeper conceptual understanding and application-based learning (Government of India, 2020).

A central conceptual pillar of digital education under NEP 2020 is the principle of learner-centric education. Digital technologies are viewed as enabling personalized learning pathways that accommodate diverse learning styles, cognitive abilities, linguistic backgrounds, and career aspirations. Unlike standardized and uniform curricula, digital platforms allow learners to progress at their own pace, revisit content, and choose interdisciplinary learning trajectories. This flexibility is particularly significant in a rapidly changing economic environment where skills become obsolete quickly and continuous learning is essential for individual and societal advancement (Altbach, 2015).

The policy's emphasis on learner autonomy also reflects a broader shift in the teacher-student relationship. In digitally mediated learning environments, teachers are envisaged as facilitators, mentors, and co-creators of knowledge rather than sole authorities. This reconceptualization of pedagogy aligns with constructivist and experiential learning theories, which emphasize active learner engagement and contextual knowledge construction. Digital education thus becomes a means of empowering learners rather than merely transmitting information.

Another foundational dimension of NEP 2020's digital education framework is its strong emphasis on lifelong learning. The policy recognizes that education can no longer be confined to a fixed period of formal schooling or higher education but must be understood as a continuous process spanning the entire life course. Online and digital platforms play a critical role in enabling reskilling, upskilling, and professional development, particularly in the context of automation, artificial intelligence, and rapidly evolving labor markets (UNESCO, 2021).

By promoting Massive Open Online Courses (MOOCs), online certification programs, and flexible credit accumulation and transfer systems, NEP 2020 seeks to create pathways for

learners to re-enter the education system at different stages of life. This approach aligns education with future workforce demands while also supporting social mobility and economic resilience. Digital education, in this sense, functions as a bridge between formal education, employment, and lifelong personal development.

Furthermore, NEP 2020 situates digital education within a broader governance and institutional framework. The policy proposes mechanisms such as the National Educational Technology Forum (NETF) to facilitate research, innovation, and evidence-based policymaking in educational technology. This reflects an understanding that digital transformation requires adaptive governance structures capable of responding to technological change, ethical concerns, and pedagogical innovation (Government of India, 2020).

At a conceptual level, NEP 2020's digital education framework seeks to balance technological innovation with human values and social responsibility. While embracing emerging technologies, the policy implicitly acknowledges concerns related to access, equity, data privacy, and ethical use of digital tools. Digital education is thus framed not as an end in itself but as a means to enhance educational quality, inclusivity, and relevance in a rapidly changing world.

In sum, the conceptual foundations of digital education in NEP 2020 reflect a futuristic yet grounded vision of educational transformation. By integrating technology with learner-centric pedagogy, lifelong learning, and adaptive governance, the policy seeks to reposition education as a dynamic, inclusive, and forward-looking social institution capable of meeting the challenges of the digital age.

#### **Digital Infrastructure and National Educational Platforms**

A key futuristic dimension of NEP 2020 is its emphasis on strengthening India's digital education infrastructure to ensure equitable and high-quality learning across regions and social groups (Government of India, 2020). The policy envisions national platforms such as SWAYAM, DIKSHA, NPTEL, e-PG Pathshala, Virtual Labs, and the National Digital Library as integrated components of a unified digital ecosystem, catering to school, higher, and professional education.

By promoting Open Educational Resources (OERs) and MOOCs, these platforms democratize knowledge, enabling learners from rural, tribal, and marginalized communities to access standardized, credible resources, thereby reducing institutional and geographic disparities (Kumar, 2019). Platforms like Virtual Labs and the National Digital Library also facilitate experiential and inquiry-based learning, moving beyond rote methods toward globally aligned pedagogical standards. NEP 2020 further emphasizes institutional coordination and governance, proposing the National Educational Technology Forum (NETF) to foster research, innovation, and policy dialogue. NETF reflects a dynamic governance model that addresses ethical use, data privacy, cybersecurity, and accountability, recognizing digital education as an evolving process rather than a one-time intervention (Government of India, 2020).

However, achieving equity requires parallel investments in internet connectivity, affordable devices, and digital literacy; otherwise, digital initiatives risk reproducing existing inequalities (Kumar, 2019). Overall, NEP 2020's digital infrastructure framework provides a scalable, inclusive, and future-ready foundation capable of transforming India's education system by expanding access, enhancing quality, and fostering innovation.

#### **Blended Learning and Pedagogical Transformation**

One of the most significant pedagogical innovations endorsed by the National Education Policy (NEP) 2020 is the formal institutionalization of blended learning as a core instructional strategy. Rather than positioning digital education as a substitute for conventional classroom teaching, NEP 2020 advocates a judicious and context-sensitive integration of face-to-face instruction with online and technology-enabled learning. This hybrid model reflects an understanding that meaningful education is rooted in human interaction, dialogue, and mentorship, while simultaneously acknowledging the expanded reach, flexibility, and scalability offered by digital technologies (Government of India, 2020).

Blended learning under NEP 2020 represents a deliberate departure from rigid, time-bound, and teacher-centric pedagogical models. By combining synchronous and asynchronous modes of learning, the policy seeks to create adaptive learning environments that respond to the diverse needs of learners. Face-to-face interactions facilitate discussion, ethical reflection, and social learning, while online components enable self-paced study, access to global knowledge resources, and continuous assessment. This pedagogical synthesis aims to enhance learning outcomes by leveraging the strengths of both physical and digital learning spaces. A key dimension of blended learning in NEP 2020 is its alignment with interdisciplinary and modular curricula. Digital platforms allow students to engage with courses across disciplines and institutions, thereby breaking the silos that traditionally characterize higher education. Modular course structures supported by online delivery facilitate customized learning trajectories, enabling students to combine disciplines, explore emerging fields, and adapt their education to evolving academic and professional interests (Altbach, 2015). This flexibility is particularly relevant in a future-oriented education system where knowledge boundaries are increasingly fluid.

The policy also emphasizes online credit accumulation and transfer mechanisms, which are central to the operationalization of blended learning. Through digital academic banks of credit, learners can accumulate credits earned from various institutions and platforms over time. This system supports the policy's broader objectives of multiple entry and exits options in higher education, allowing learners to pause and resume their education without academic penalty. From a futuristic perspective, such flexibility recognizes the non-linear nature of learning and career trajectories in contemporary societies shaped by technological disruption and labor market volatility (Government of India, 2020).

Blended learning further facilitates the integration of experiential and skill-based education into formal curricula. Online simulations, virtual laboratories, project-based learning platforms, and industry-linked digital modules complement classroom instruction by providing learners with practical exposure and real-world problem-solving experiences. This pedagogical approach aligns education with employability and innovation while retaining the critical and reflective dimensions of academic learning. As economies increasingly value creativity, adaptability, and collaborative skills, blended learning becomes a crucial vehicle for nurturing future-ready graduates (UNESCO, 2021).

From a resilience and sustainability perspective, blended learning enhances the capacity of educational institutions to respond to disruptions such as pandemics, environmental crises, and demographic changes. The COVID-19 pandemic underscored the vulnerability of exclusively face-to-face education systems, while also revealing the limitations of fully online models. NEP 2020's blended learning framework offers a balanced and adaptive solution that ensures continuity of learning without compromising educational quality or social engagement.

---

At a deeper pedagogical level, blended learning under NEP 2020 fosters learner autonomy, critical thinking, and collaborative learning. Digital tools enable students to take greater responsibility for their learning, engage in peer-to-peer collaboration, and develop reflective practices. Teachers, in turn, assume the role of facilitators and mentors, guiding learners in navigating complex information landscapes. This transformation aligns with 21st-century educational goals that prioritize lifelong learning, ethical reasoning, and civic responsibility.

In sum, blended learning as envisioned in NEP 2020 represents a transformative pedagogical paradigm with strong futuristic orientation. By integrating digital flexibility with human-centered teaching, the policy seeks to create resilient, inclusive, and learner-driven education systems capable of responding to the uncertainties and opportunities of the digital age.

#### **Teacher Capacity Building and Digital Pedagogy**

NEP 2020 recognizes that the effectiveness of online and digital education depends primarily on the preparedness and empowerment of teachers. Accordingly, the policy emphasizes continuous professional development (CPD) through online and blended modes to enhance teachers' digital literacy, pedagogical competence, and interdisciplinary understanding (Government of India, 2020). The policy redefines teachers as facilitators, mentors, and co-learners, moving beyond the traditional role of content transmission. Digital pedagogy enables educators to design interactive learning environments, employ data-driven assessments, and provide personalized feedback, thereby fostering learner autonomy and critical engagement (Selwyn, 2016). This transformation reshapes the teacher–student relationship into a more participatory and collaborative model of learning.

NEP 2020 also highlights the need for systemic support during this transition. Without adequate training, institutional backing, and workload management, digital education may increase teacher stress and reduce pedagogical effectiveness. A sustainable digital education framework therefore requires continuous capacity building and recognition of teachers as central agents of educational transformation (UNESCO, 2021).

#### **Multilingualism, Inclusivity, and Cultural Sustainability**

A distinctive and forward-looking feature of the National Education Policy (NEP) 2020 is its strong emphasis on multilingual education and cultural inclusivity within digital learning environments. The policy advocates the use of Indian languages in online and digital education to ensure that linguistic barriers do not restrict access to educational opportunities, particularly for learners from rural, tribal, and marginalized communities (Government of India, 2020).

NEP 2020 recognizes digital platforms as powerful tools for the preservation and dissemination of indigenous and local knowledge systems. The digitization of traditional practices, oral histories, folk knowledge, and community-based learning represents a deliberate departure from Eurocentric and homogenized models of education. By integrating local epistemologies with digital technologies, the policy seeks to democratize knowledge production and validate culturally rooted forms of learning.

This synthesis of tradition and technology reflects India's civilizational philosophy, where knowledge is understood as a shared social good rather than a commodified resource. From a futuristic perspective, such an approach ensures that digital transformation enhances inclusivity and innovation without leading to cultural homogenization, thereby sustaining India's linguistic and cultural diversity in the digital age (UNESCO, 2019).

#### **Artificial Intelligence and Personalized Learning**

The National Education Policy (NEP) 2020 opens new pathways for the ethical integration of Artificial Intelligence (AI), learning analytics, and adaptive technologies in education. These tools enable the analysis of learner behavior, identification of learning gaps, and recommendation of personalized learning pathways, thereby enhancing student engagement, academic performance, and retention (Government of India, 2020).

AI-driven personalized learning represents a significant departure from standardized, one-size-fits-all educational models. By supporting individualized learning trajectories, digital platforms can accommodate diverse learning needs while maintaining academic standards and institutional accountability. From a futuristic perspective, such technologies have the potential to align education with lifelong learning and rapidly evolving skill requirements (UNESCO, 2021).

However, the deployment of AI in education also raises critical ethical concerns, including data privacy, surveillance, algorithmic bias, and learner autonomy. NEP 2020 implicitly acknowledges the need for robust ethical governance frameworks to ensure that technological innovation remains aligned with human development, equity, and democratic values. Responsible and transparent use of AI is therefore essential to ensure that personalization enhances, rather than undermines, inclusive and emancipatory education (Selwyn, 2016).

### **Equity and the Digital Divide**

Despite its visionary and reform-oriented outlook, the implementation of digital education under the National Education Policy (NEP) 2020 faces significant structural challenges, foremost among them the persistent digital divide. Unequal access to digital devices, reliable internet connectivity, and digital literacy continues to undermine the goal of inclusive and equitable education (Government of India, 2020).

Learners from rural, tribal, and economically disadvantaged backgrounds are disproportionately affected by infrastructural deficits, limiting their ability to participate meaningfully in online and blended learning environments. Gender disparities, regional inequalities, and socio-cultural constraints further exacerbate these challenges, revealing the uneven social terrain on which digital education reforms operate (UNESCO, 2021).

From a futuristic policy perspective, bridging the digital divide requires a multi-pronged strategy, including large-scale public investment in digital infrastructure, affordable internet and device accessibility, community-based digital literacy initiatives, and the inclusive design of digital platforms sensitive to linguistic, cultural, and accessibility needs. Without sustained and coordinated interventions, digital education risks reproducing and intensifying existing social inequalities rather than serving as a tool for democratization and social mobility (Selwyn, 2016).

### **Governance, Regulation, and Ethical Concerns**

The rapid expansion of online and digital education under the National Education Policy (NEP) 2020 raises critical questions related to governance, regulation, and ethical accountability. As digital platforms increasingly mediate teaching, learning, and assessment, the policy emphasizes the need for robust mechanisms of quality assurance, accreditation, and regulatory oversight to maintain academic standards and public trust (Government of India, 2020).

Key ethical concerns include cybersecurity, data protection, intellectual property rights, algorithmic transparency, and platform accountability. In the absence of clear regulatory frameworks, digital education risks exposing learners and institutions to surveillance, data misuse, and commercial exploitation. NEP 2020 implicitly recognizes these challenges by advocating institutional coordination and evidence-based policy responses.

The proposed National Educational Technology Forum (NETF) is envisioned as a central platform for research, dialogue, and policy innovation in educational technology. By facilitating collaboration among policymakers, educators, and technologists, NETF is expected to guide ethical governance and adaptive regulation in a rapidly evolving digital landscape.

From a futuristic perspective, an effective digital education system must strike a careful balance between technological innovation and democratic accountability. Ensuring that digital platforms function in the public interest—rather than being driven solely by commercial imperatives—is essential for safeguarding equity, academic integrity, and the social purpose of education (Selwyn, 2016).

### **Digital Education and Global Engagement**

The National Education Policy (NEP) 2020 situates India's digital education strategy within an increasingly interconnected global knowledge ecosystem. Digital and online platforms enable cross-border academic collaboration, international credit transfer, joint research initiatives, and global knowledge exchange, thereby expanding the global reach of Indian higher education institutions (Government of India, 2020). Through MOOCs, online degree programs, and virtual academic partnerships, Indian institutions can engage international learners, enhance educational accessibility, and strengthen India's intellectual and cultural soft power. Digital education thus becomes a strategic tool for positioning India as a global knowledge hub while promoting academic diplomacy and intercultural dialogue (Altbach, 2015).

At the same time, NEP 2020 emphasizes that global engagement must remain grounded in local realities and national priorities. The policy envisions a globally connected yet culturally rooted education system—one that contributes to global knowledge production while addressing domestic developmental challenges. From a futuristic perspective, this balanced approach ensures that internationalization through digital education enhances inclusivity, relevance, and cultural sustainability rather than reinforcing dependency or homogenization.

### **Critical Evaluation of NEP 2020's Futuristic Vision**

While the National Education Policy (NEP) 2020 presents a comprehensive and forward-looking framework for digital and online education, its transformative potential is contingent upon effective and sustained implementation. Translating policy vision into practice requires strong policy coherence, inter-ministerial coordination, and long-term public investment across central and state levels of governance (Government of India, 2020).

A critical concern is the tendency to view digital education as a cost-efficient alternative to conventional education. NEP 2020 cautions against such an approach by implicitly emphasizing that digital technologies must complement rather than replace physical institutions, trained human resources, and community-based educational engagement. Without adequate investment in teachers, infrastructure, and institutional capacity, digital initiatives risk becoming superficial or exclusionary.

From a futuristic policy perspective, the success of NEP 2020 depends on treating digital education as a public good rather than a market-driven service. Sustained funding, participatory governance, and continuous evaluation are essential to ensure that technological innovation strengthens educational equity, quality, and democratic accountability rather than reinforcing existing structural inequalities.

### **Conclusion**

The National Education Policy (NEP) 2020 articulates a bold and forward-looking vision for online and digital education in India, positioning technology as a central enabler of educational

---

transformation. By integrating flexibility, inclusivity, multilingualism, and cultural rootedness with digital tools, the policy aims to create an education system that is adaptive, learner-centric, and globally connected while remaining sensitive to local realities (Government of India, 2020). Initiatives such as blended learning, national digital platforms, AI-driven personalized learning, and open educational resources collectively reflect a comprehensive approach to preparing India's learners for the dynamic challenges of the 21st century.

However, the realization of NEP 2020's futuristic objectives require more than mere technological adoption. Effective implementation depends on equitable access to digital infrastructure, teacher capacity building, robust governance, and ethical oversight, ensuring that digital transformation does not exacerbate existing socio-economic inequalities (Kumar, 2019; Selwyn, 2016). Democratic and participatory governance, sustained public investment, and institutional accountability are essential to maintain the quality, relevance, and ethical integrity of digital education initiatives.

From a strategic perspective, digital education under NEP 2020 has the potential to democratize knowledge, empower learners across socio-economic and geographical divides, and foster lifelong learning and critical thinking skills. By leveraging technology to enhance accessibility and pedagogical innovation while safeguarding cultural diversity and ethical standards, India can emerge as a global leader in education for the digital age (UNESCO, 2021). In essence, NEP 2020 envisions a resilient, inclusive, and future-ready knowledge society, where digital education complements human-centered learning, strengthens institutional capacities, and contributes to sustainable social and economic development.

#### References:

- Acharya, S. C. (2025). Digital application of NEP 2020 in higher education: An open university case. *ShodhGyan-NU: Journal of Literature and Culture Studies*, 3(1), 15–28. <https://doi.org/10.29121/shodhgyan.v3.i1.2025.38>
- Altbach, P. G. (2015). *Global perspectives on higher education*. New York, NY: Johns Hopkins University Press.
- Cuban, L. (2001). *Oversold and underused: Computers in the classroom*. Cambridge, MA: Harvard University Press.
- Government of India. (2020). *National Education Policy 2020*. Ministry of Education, Government of India. <https://www.education.gov.in/nep-2020>
- Kumar, A. (2019). Digital divide and education in India: Challenges and prospects. *International Journal of Educational Development*, 66, 1–9. <https://doi.org/10.1016/j.ijedudev.2018.09.005>
- Prakash, A., Singh, I., Mittal, P., Hayavadana, J., & Khurana, P. (2025). A policy review on NEP 2020's vision for online & blended learning models for

digital transformation in Indian classrooms. *Journal of Informatics Education and Research*, 5(4).

- Roblyer, M. D., & Doering, A. H. (2013). *Integrating educational technology into teaching* (6th ed.). Boston, MA: Pearson.
- Selwyn, N. (2022). *Education and technology: Key issues and debates* (3rd ed.). London, UK & New York, NY: Bloomsbury Academic. [search.geaugalibrary.net](https://search.geaugalibrary.net)
- Tatnall, A. (Ed.). (2020). *Encyclopedia of education and information technologies*. Cham, Switzerland: Springer Nature. [Springer Link](#)
- UNESCO. (2019). *Global education monitoring report: Migration, displacement, and education*. Paris, France: UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000368452>
- UNESCO. (2021). *Artificial intelligence in education: Challenges and opportunities for sustainable development*. Paris, France: UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000376707>