Digital Education and Global Connectivity: Transforming International Relations in the 21st Century

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Abstract

This paper explores the transformative role of digital education and global connectivity in reshaping contemporary international relations. Focusing on the emergence of 'knowledge diplomacy' and the expansion of 'cross-border education,' the study analyzes how technology facilitates unprecedented transnational flows of knowledge, pedagogy, and culture. While digital platforms enhance student and educator mobility and promote intercultural understanding thereby strengthening diplomatic ties and advancing the Sustainable Development Goals (SDGs) they also reveal complex logistical and ethical challenges, including credential recognition and persistent digital divides. The findings underscore the dual nature of borderless education, arguing that successful knowledge diplomacy requires proactive strategies to mitigate barriers while maximizing the potential of Global Online Distance Higher Education (IODHE). Ultimately, digital education is shown to be a pivotal force, moving international relations toward a more interconnected and interdependent 21st-century paradigm.

Keywords: Digital Education, Global Connectivity, International Relations, Knowledge Diplomacy, Cross-Border Education, Digital Divide, Sustainable Development Goals (SDGs), Global Online Distance Higher Education (IODHE)

1. Introduction

Digital education and global connectivity are pivotal contemporary international relations. They drive knowledge diplomacy and enhance cross-border education and cultural exchange. Borderless education is complex because knowledge and pedagogy are not the only resources that cross borders; the barriers that education technology creates are the ones that education technology is supposed to solve. There are still

divides to integrate and barriers to remove. (Yasin et al. 2024) Diplomacy of knowledge is the integration of education and technology. The use of formal global connectivity and higher education to promote the common global good is expanded in education diplomacy. Liu (2024) emphasizes the importance of educational and cultural exchange programs to international relations and the reduction of cultural stereotypes through personal cultural observations (Arslan et al., 2022; Chand et al., 2023).

'Cross-border Education' as a term promotes inter-state collaboration to enhance education resources, mobility of students and educators, and intercultural understanding. Although logistical challenges in academic mobility and credential recognition exist, cross-border education diplomatically strengthens relations and is one of the means to achieve the SDGs (Lopes et al 2024). In addition, global online distance higher education (IODHE) can be expanded, but given the digital divide, it can also be risked as educational and cultural imperialism. Online education provided by IODHE institutions must implement educational safe spaces, taking into account host institutions, technologies, and pedagogical frameworks (Sadykova & Dautermann, 2019). In addition, the rapidly expanding digital economy is increasingly redefining international trade as commerce becomes more globalized, operational barriers decrease, and new business opportunities arise (Ahmedov, 2020). Increased global connectivity, in turn, enhances international trade and intercultural cooperation.
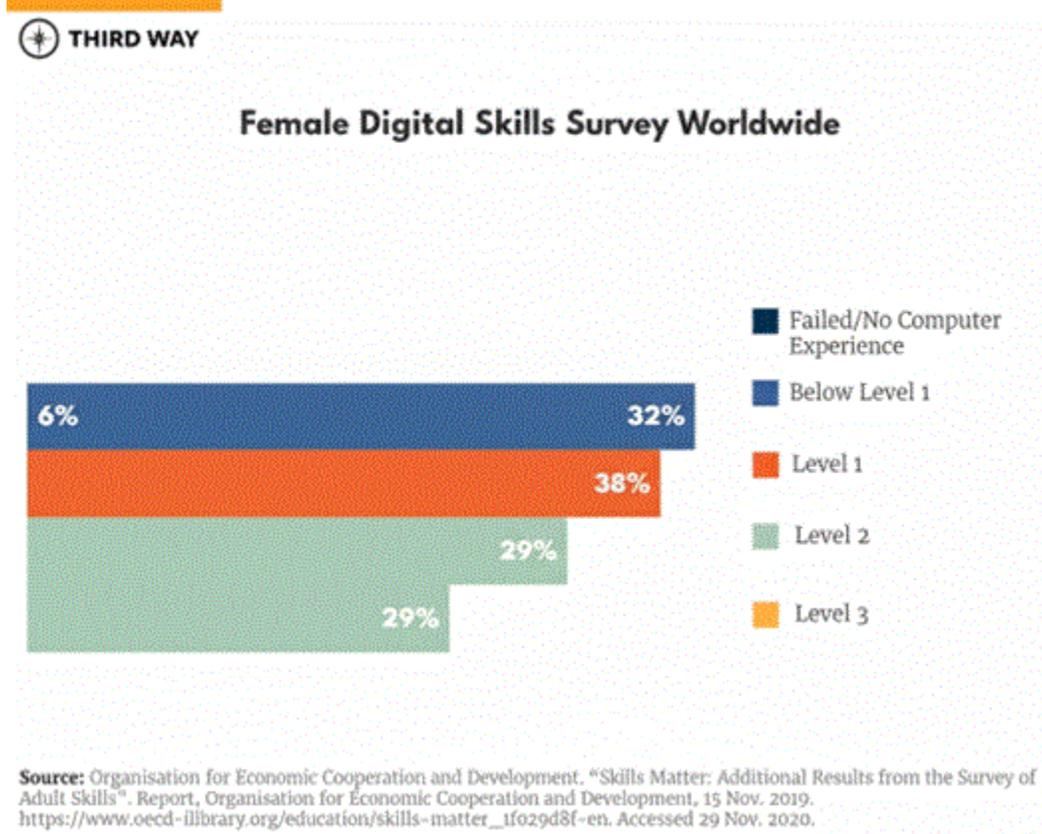
In digital learning, the strategic use of technology can increase the fairness and quality of an education system in the world and the many the world and provide more equitable and quality education. The world of education has been transformed by data-driven approaches, human-technology integration, and open sharing, which has fundamentally changed how teaching, assessment, and management of educational institutions. Digital education has made significant improvements in educational technology, which has made improvements that benefit the world of digital education. Challenges of privacy, data security, and unethical data use continue to present barriers which digital education has yet to overcome. (Hamadi et al., 2024; Hong et al., 2024)

In addition to the innovative teaching approaches which data-driven methodologies improve, educational technology also advances educational management. The management of educational institutions and the provision of education have also made significant improvements in communication, the management of processes, and the global reach of education. Challenges which educational management has to deal that also have been improved by management educational technology include cyber-attacks and lack of digital skills (Karim et al., 2024). The expansion and improvement of digital education leave no doubt that it greatly advances education and learning. Access to educational materials and information greatly improves learning, engagement, and performance (M Alshehri, 2024). From a diplomatic perspective, the introduction of digital technologies, including social media, the internet, and other systems of information and communications technologies, has prompted the emergence of a new kind of diplomacy: digital diplomacy. This new diplomacy aims to modernize the practice of diplomacy in the attainment of a state's foreign policy objectives. While the above is true, digital diplomacy must still contend with threats to the digital world and challenges to the global environment, as noted by Rashica (2018). When discussing the integration of the internet and digital technologies in the practice of diplomacy, reference is usually made to blended diplomacy. This form of diplomacy involves the simultaneous use of established and contemporary practices in diplomacy. This particular combination has generated important scholarship on the relationship between the digital world and international relations, particularly in the formation of new norms, identities, and social relationships (Adler-Nissen & Eggeling, 2022). The science aspect of digital diplomacy has also become important as it seeks to form international partnerships to deal with intercontinental issues and reshape global socio-economic relations (Legrand & Stone, 2018).

The Oxford Handbook of Digital Diplomacy outlines the shifts in conventional diplomatic norms and practices brought about by digital technologies. Adapting to digital tools for the purpose of altering diplomatic and foreign affairs relations is instrumental in the mitigation of challenges such as disinformation targeting the digital landscape is of great interest to the book's authors (The Oxford Handbook of Digital Diplomacy,

2024). The above remarkable changes in the ways the world and the people in it interact and learn, and the changes to the nature of the relationships between world democracies, leads to a need for prompt and seamless changes in the practice of modern digital diplomacy. Digital technologies have great promises for the practice of modern diplomacy (Arslan et al., 2022; Chand et al., 2023).

Figure 1.1 Female Digital Competency Levels Across the World

Source: Organisation for Economic Cooperation and Development, "Skills Matter: Additional Results from the Survey of Adult Skills". Report, Organisation for Economic Cooperation and Development, 15 Nov. 2019. https://www.oecd-ilibrary.org/education/skills-matter__1f029d8f-en. Accessed 29 Nov. 2020.

2. Conceptual Framework

The influence of technological developments and globalization on cumulative cross-border flows of information globalization has a transformative effect on global educational systems and the development of digital education systems. Education has become more accessible, more efficient, and offered in more innovative instructional formats in the form of e-learning (Burac et al., 2019). The development of e-learning globalization. Digital technology. The global economy. International relations. (Weymouth, 2023). Within educational global trends, educational management has the most significant influence. In educational management the global trend focuses on the development of strategic planning and the adaptive integration of technological systems toward communication improvement, access expansion, and the development and implementation of innovative pedagogical models as management (Karim et al., 2024). On the other hand, international academic collaboration and mobility, climate and environment foster digital literacy and ethical issues remain unsolved. (Karim et al., 2024).

Educational policies and practices must be shaped by globalization's unique cultural and socioeconomic implications. While globalization encourages the harmonization of educational practices and standards worldwide, the complexities of educational borrowing remain due to culture (Jackson, 2016). Unlike Asia, where globalization's transformative power is best illustrated by globalization's impact on the competitiveness

and global ranking of higher education institutions (Mok, 2015), other regions cannot compete on the same level. In closing, globalization's unique streams of digital education not only defy restriction within traditional borders but also the need for systems management to efficiently leverage the available technologies and the ongoing imbalance of global and local educational practices (Analysis of the Impact of Globalization Trends in the Digital Economy on Business Management and Administration Systems of Enterprises, 2024; Diana et al., 2024).

As a consequence of globalization, global integration of systems has altered the political, cultural, and educational interactions of nations. In global societies, various new forms of interactions that surpass traditional borders (Hamadi et al., 2024; Hong et al., 2024).

Table 2. 1. Evolution of Digital Education and Global Connectivity

Period	Key Technological Developments	Impact on Education	Influence on International Relations
Pre-2000	Internet emergence	Limited access, online resources	Early globalization of knowledge
2000–2010	E-learning platforms, MOOCs	Global access to courses	Strengthening educational diplomacy
2010–2020	Social media, cloud computing	Interactive, cross-border collaboration	Rise of digital diplomacy
2020–Present	AI, blockchain, IoT, VR	Personalized learning, smart universities	New digital governance frameworks

3. Political Exchanges

The enhancement of transnational networks, institutions, and exchange programs due to globalization has expanded political interactions. For example, exchange programs integrate 'soft power' into international relations and improve political influence and connections, relations, and diplomatic ties, illustrating the intertwining of international relations with cultural-political interchange (Scott-Smith, 2008). The framework of global governance, which consists of a patchwork of global and regional institutions, is designed to facilitate regulation and intervention in international public policy. It has evolved to include diverse transnational actors and activists that engage in global discourse and policymaking (Held & Mcgrew, 2009).

4. Cultural Exchanges

The global circulation of ideas, people, and capital fosters an environment in which the production and self-definition of culture can take new forms. The influence of globalization on cultural production also entails the convergence of the global and the local, the transnational imaginary, and the political and economic regulation (Johnson et al., 1998). This is the case when cultural specificities of different communities of the world intertwine, leading to the free flow of cultural values and practices (Kastoryano, 2000).

5. Educational Exchanges

The global reach of the world wide web has allowed an unprecedented exchange of ideas, teaching methods, and policies within the educational realm. Guided by global governance, educational multilateralism shifts the focus of international relations and the intertwined educational changes upwards to the global level (Mundy, 2007). In addition, internationalizing higher education and educational globalization due to cross-border socio-cultural leadership requires globalization of educational management. This includes collaboration around academic mobility, research, and the concordat of policies (Karim et al., 2024). To respond to the dynamic socio-economic contexts of the world, educational systems and the innovative

methods of teaching that are expanding quality and access through integrated systems globally refine the methodologies of instruction (Jackson, 2016). Finally, considerable global interconnectivity encourages the close exchange of political, culturally, and educationally diverse ideas to promote the cross-border collaboration and harmonization of politically and educationally diverse systems of the world, though it does necessitate proactive and purposeful management of the associated risks (Arslan et al., 2022; Chand et al., 2023).

6. The Role of Digital Education in International Relations

The promotion of cross-cultural understanding and cooperation in digital education comes from the ability of technology to provide opportunities for students and teachers from different backgrounds to connect and engage in learning activities together. Online learning expands the possibilities for students to encounter a greater variety of cultural perspectives and experiences in ways that contribute to a greater understanding of diversity and a more profound appreciation of the world relative to their peers (Keo et al., 2024). Flexible and personalized digital educational resources and tools activities for learners (Kurniawan S Djibran et al., 2024). Regarding the transformation of global diplomacy and academic collaboration streams made possible by digital education technologies, the unbuilding and re-building of educational partnerships categorized by the educational system of a country allows greater ease of flow across and impacts the growth of cross-border academic partnerships. Educational resource and research collaboration, joint program development focused on educational outcome integration and enhancement, and educational global knowledge exchange (Akintayo et al., 2024). Such partnerships and collaborations foster greater diplomatic ties and partnerships within the global academic community (Sormunen et al., 2021). Institutions of higher education and other organizations have begun and are extending and expanding digital academic diplomacy. These efforts involve innovative uses of information technology combined with deliberate efforts aimed at diplomacy. One example of this is social entrepreneurship in higher education. Here, the focus is on the integration of various forms of information technology into student practice for skill development and the promotion of social entrepreneurship. These are aimed at enhancing students' academic results and social activism at the same time (Malhotra et al., 2023).

In addition, automated digital engagement scholarship metrics facilitate further development of digital scholarship and diplomacy. These metrics measure different dimensions of audience engagement and, consequently, determine the value of various digital elements of scholarship and diplomacy. Metrics of this nature and focus are invaluable for gauging digital diplomacy efforts and the extent to which various aspects of academic diplomacy have been siloed in audience engagement (Bazlutckaia et al., 2024). Digitally transformed higher education institutions are progressing towards a new model for digital universities. This is built on the dual foundation of new technology integration and the development of strategic organizational change. Such change enables institutions of higher education to pursue, for the first time in their organizational history, the implementation of a balanced digital strategy for enhancing the quality of education and improving its competitive position in the global academic sphere (Fernández et al., 2023). Additionally, overseas education is important in public diplomacy. Students studying at foreign universities contribute to the soft power of the host country. The experiences and skills they gain in their education influence the home and host country bilateral relations as a form of academic diplomacy (Mulvey, 2019). With the COVID-19 pandemic, many Saudi Arabian institutions tied long-term educational and digital advancements to the sustainable development goals, thus enhancing their global digital diplomacy (Alotaibi, 2022).

7. Global Connectivity and International Collaboration

Global interdependence continues to alter the nature of international relations. The proliferation of international networks and the activities of those actors who operate outside the state system (non-state actors) offer new means of collaboration and governance. Hence, new forms of cooperation are being made possible

driven by globalization and the rapid advance of communications technology (Hamadi et al., 2024; Hong et al., 2024) Global interdependence also promotes the form of cooperation pertaining to individuals. Research shows that participation in global networks contributes to the formation of an individual's global social identity, which in turn fosters the likelihood of cooperation with others in the world (Grimalda et al., 2018). This impact seems most pronounced in the least globalized countries.

New forms of cooperation are also illustrated through transnational protests and movements. These movements significantly disrupt the inter-state order while demonstrating the need for cross-national police cooperation for the control of public order in protests that are coordinated across several countries (O'Neill, 2004). The international system must also account for the impacts of transnational non-state actors, particularly multinational corporations and international non-governmental organizations (INGOs). The collaboration of state actors with non-state actors to respond to world problems demonstrates the global scope of state activities (Risse, 2007). Cross-border education denotes another phenomenon redefining state cooperation, particularly with respect to the movement of students and educators and the appreciation of diversity. Although this model of education encourages the building of relations, it poses hurdles, especially with regard to qualification recognition and the free movement of academics (Lopes et al., 2024).

As a unique phenomenon, the governance of the Internet illustrates how new and complex systems of control and oversight arise with global interconnectedness. The formation of new non-state actors in governance and the persistent fragmentation of control around communication and information policies opens numerous global governance opportunities and challenges. The issues of control over global policies of information and communication undoubtedly contain a mix of conflict and collaboration on international agreements on the regulation of cyberspace, intellectual property rights, and cyber-security and content regulation (Mueller, 2011).

Lastly, the role of science diplomacy as an aspect of international relations is notable. Science diplomacy is the collaboration of all branches of science and technology and the scholars that pursue them as they attempt to address the most pressing issues of the world. In this sense, the world and the states in them have developed new routes and opportunities concerning influence, and opportunities concerning diplomacy (Arslan et al., 2022; Chand et al., 2023). Concerning the other types of democracy that have been discussed, the other aspect structural democracy has been affected is by the rise of social media democracy as well. Structuring social democracy has really changed how social media is being used concerning international relations. Social media has become a means for the world to become a single integrated global community. All social media become the integrated bridge to the gap concerning the means to gain fundamental community democracy and social honesty (Hamadi et al., 2024; Hong et al., 2024)

Social media fosters globalization in a democratized manner by assisting people in international and global networking (Bonsón et al, 2015). Social media and other networking platforms provide individuals with opportunities to bridge attention and networking gaps which foster direct communication, and routing attention and democracy across the globe. Within international and global social democracy, particular attention is placed to Twitter which aims to decentralization, and open opportunities for digital democracy. Twitter has become a direct line of communication, which fosters and entertains the discussion of global issues, and means to approach them. worldwide open channels, an index of world wide web, and other channels using cyber space for open democracy, and direct means of social relations. Twitter encourages open and direct channels that allow the social networking of individuals for democracy. Twitter social network encourages and authorizes open channels and means of communication to provide a direct means of social community relations.

By using Twitter, the communication routes can be direct and streamlined to achieve democracy. Most importantly, the Twitter social network provides democracy to individuals under the definition of social democracy (Hamadi et al., 2024; Hong et al., 2024). Through cooperative and socially aware actions that go above and beyond national priorities, social media engages public diplomacy on a global scale. Social problem

communications have become a core component of these practices, aimed at addressing communication efforts on target global problems (Fitzpatrick, 2017). Nonetheless, prospects for dialogue remains unexploited since foreign ministries largely use social media to share non-interactive press releases and ignore conversation (Kampf et al., 2015). In addition, the emotional and identity aspects of communications of governments on social media bring a new dimension to digital diplomacy. While such communication can foster conditions to open or close doors to a conflict, passionate or hostile sentiments may provoke harmful actions and undermine relations. This points to the need to expand the understanding and practice of digital diplomacy to include challenges such as disinformation (Duncombe, 2019). Bridging educational and geopolitical divides between developed and developing countries involves identifying and exploiting various opportunities offered by technology. The most important of these opportunities is the role of educational ICT which is the most integrated and likely the most transformative of technologies. ICTs, rapidly expanding educational technologies, and the increased availability of educational resources and materials online offer unprecedented opportunities for integration of innovative teaching and learning approaches, increased student engagement, and learning equity. While traditional teaching approaches emphasize the passive assimilation of predetermined learning goals set by the instructor, educational ICT encourages students to actively participate, learn, and, most importantly, collaborate in transcending geographical and cultural barriers to learning, resulting in borderless learning and cultural exchange. (Anastasopoulou et al., 2024).

Especially in higher education, the educational technologies in learning systems and frameworks of teaching and curricula have the potential to transform and improve learning outcomes. Integrated technologies for online learning and collaboration, course management, and digital educational simulations have increased student engagement, improved retention of knowledge, and have promoted the development of higher order thinking skills. The successful exploitation of these technologies' hinges on purposeful integration into instruction and curriculum, the alignment of pedagogical approaches, and adequate and sustained support for teachers (Akintayo et al., 2024).

The implications of the digital divide indicate the enduring lack of equity in the use of technologies in education. Geography, socio-economic differences, and gender gaps in the use of technologies contribute to the digital divide. This gap can only be filled through cooperation from the government, public administration, education, and the technology sector. Closing the digital divide requires significant investments in infrastructure, digital literacy, education, community partnerships, and teacher training and education, as well as subsidized access to devices and the internet (Memon & Memon, 2024). On the other hand, technology and the internet can help improve the social and economic position of developing countries. Technological advancements improve connectivity and productivity in education, healthcare, agriculture, and other economic sectors. This, in turn, promotes economic growth and job creation. Technologies like artificial intelligence and automation advance personalized education and healthcare, thus improving overall economic conditions. Nevertheless, developing countries still face significant policy, cultural, and infrastructure challenges, along with gaps in professional skills, to effectively use and benefit from these technologies. Thus, there is a need for cooperation from public policy, the non-profit sector, and private businesses to address these issues through inclusive and contextual technology governance (Samuel-Okon & Abejide, 2024).

Disparities continue despite globalization contributing to bridging gaps by enabling emerging economies to ascend the technological ladder. Advanced economies continue to uphold their technological dominance through specialized trajectories which makes it difficult for developing nations to fully close these divides (Kemeny, 2009).

Figure 7.1 Core Components of Digital Literacy in the Modern Digital Ecosystem

8. Challenges in the Digital Era

Global education and collaboration face a technology gap and issues with digital security. The technology gap consists of inequalities of access to digital technology with implications for education. Socio-economic, geographic, and infrastructure inequalities underlie disparities in access to technology and differences in the use of technology (Afzal et al. 2023; Cheshmehzangi et al. 2022). This gap is mainly within low socio-economic groups, isolated areas, and underprivileged communities. The lack of high-speed internet access and digital tools in these groups is a barrier to educational participation and success (Mateos-González & Wakeling, 2021; Radovanović et al., 2015). The lack of resources to defend systems and the poorly designed educational cyber security infrastructure and systems themselves add another debilitating layer. Cyber security threats that can be crippling in educational systems include data breaches and phishing attacks, and the lack of sufficiently aggressive cyber security policies can result in educational systems and cooperation being disrupted in a cascading manner (Watini et al., 2024). To build trust in digital environments for education, the cyber security of educational data must be protected, and cyber security policies must encourage educational participation and cooperation (Watini et al., 2024).

In addition, misinformation, unequal access, and distorted perceptions create unequal barriers to international participation. During and after the COVID-19 pandemic, misinformation restricted public understanding and the ability to make reasoned decisions (Van Huijstee et al., 2021). The expansion of digital platforms has accelerated the dissemination and entrenchment of misinformation (Cook et al., 2015). The socio-economic dimension of the digital divide aggravates the problem by restricting access to dependable information, which includes people from certain countries and regions from the global information and knowledge sphere

(Qaribilla et al., 2024). Misinformation and unequal access pose unique challenges that can be countered with specific approaches. Addressing the digital divide prompted some countries to initiate expansion of the internet infrastructure and promote digital literacy to create equitable access to technology (Ahuja, 2023). Watini et al., (2024) proposed that educational institutions implement siloed systems with encryption, multi-factor authentication, and other advanced security mes-ures to prevent cyber threats and build resilient cyber-aware cultures. The proposed measures to counter misinformation embrace fact-checking, digital literacy, and advanced algorithms designed to suppress the dissemination of misleading information (Hoes et al., 2024; Traberg et al., 2024).

9. Opportunities and Future Prospects

Overlapping factors within the prism of digital education and digital connectivity are also factors the influences the augments of the positive prospects of peace education and peace architecture to foster and develop pace education and peace architecture. Overall, the focus on peace education allows people to focus on instrumental and core values to engage civically and transform the communities within which people live. This also helps develop critical and innovative approaches to address global issues by global citizens. Inter-peace and conflict- building negates and shape relational patterns and interactions. Digital education can focus on global citizenship and understand differences which can promote peace and conflict avoidance (Wahyudin, 2018).

Equally important are issues of digital connectivity that aid communication advancements, and promote access to educational materials, information and resources to pursue education and create opportunities on various educational levels within the framework of sustaining the SDGs. The relationship to education, health and economic growth within the SDGs are also the focus priorities of developing functional health synergy paves the way for the new learning. Also, the incorporation of information and communication technologies within education practices which alleviate learning gaps and educational activities during health crises such as the COVID-19 pandemic (Alotaibi 2022). Lastly, the case for incorporating digital technologies into future SDG frameworks is the ability to foster participation through an inclusive digital economy and a democratic system during a crisis. The case for an additional SDG on digital connectivity has been described as the most important development goal, as it advocates for the equitable distribution and access to digital technologies and infrastructures for sustainable development (Clark et al., 2022).

Technologies that include artificial intelligence, blockchain, and the Internet of Things (IoT) enhance economic savings, conserve resources and promote equity within society. These technologies facilitate the achievement of goals that target economic growth and environmental sustainability (John et al., 2025). The absence of digital technologies within the financial system does not permit the unlocking of resources that target sustainable growth (Hoang et al., 2022). B Digital government initiatives contribute to the SDG agenda in a transformative way by including economic sustainability and social exclusion in the definition of sustainability. These initiatives promote the concept of digital governance as a systematic component of the 2030 agenda defined by the UN (Medaglia et al., 2021).

Several anticipated trends in the contemporary world will influence worldwide learning and international relations in the future. Since the beginning of the digital revolution, the rapid evolution of new digital technologies and the rapid globalization of the world economy have had profound influences on the learning technologies used by individuals and institutions, as well as the strategies used for international relations (Arslan et al., 2022; Chand et al., 2023). Transforming strategies into digital higher education as one of the most significant trends and one of the greatest technologies of our time. Innovations in and the improvement of reinforcing education management strategies are critical for universities as they respond to globalization and digitalization. The resulting challenges to higher education institutions's strategies competitive frameworks and learning mechanisms are profound and evolutionary (Mohamed Hashim et al., 2021).

Artificial Intelligence (AI) will shape future global learning. The educational sector will experience the greatest shift as AI develops new technologies for personalized learning and adaptive systems as well as automating educational institutions's administrative functions. AI educational innovations such as intelligent tutoring and AI formative assessments will greatly improve educational outcomes, although they will raise new challenges such as ethical and practical issues of algorithmic bias and privacy (Kayyali, 2024). Content that can be easily consumed and understood offers new opportunities for acquisition of knowledge. This content can be small, and "microlearning" techniques help contribute positively to modern education. Incorporating mobile learning and video learning promote and encourage educational facilities to engage and offer flexible learning systems that respond to the learning environment that quickly adapts to and evolving digital environment. (Alias & Razak, 2024; Maqbool et al., 2024).

The digital age and technological competition is redefining the power relations in international relations. The new bipolarity of the US-China relationship is in stark contrast to the Cold War ideological competition, as it relates primarily to the digital and technological competition. The digital competition directly affects international relations and arguably the most sensitive issues of national security, thus impacting the economic and political order of the world and placing the the geopolitical focus on the digital economy, global governance, and cybersecurity (Xuetong, 2020).

Unequal access to digital technology contributes to the global digital divide and profoundly inequitable globalization. The digital divide and the innovation divide represent two separate and contradictory policy frameworks. The first deals inequitable access to technologies, while the latter focuses on the inequ technologies rights and leadership (Drori, 2010).

Table 9.1 Opportunities and Challenges of Digital Education

Aspect	Opportunities	Challenges	References
Accessibility	Global reach, inclusivity	Unequal access	Afzal et al. (2023)
Innovation	AI, IoT, blockchain	Ethical & privacy concerns	Kayyali (2024)
Diplomacy	Cultural exchange	Misinformation	Duncombe (2019)
Sustainability	SDG integration	Digital governance gaps	Clark et al. (2022)

10. Conclusion

In the 21st century, digital education and global interconnectedness are bringing changes to the nature of international relations. Changes in the digital technology paradigm have provided new means to open and access education to new markets, as well as approaches to cross border education. For example, institutions of higher learning recognized the importance of distance education as a means to cross geographic borders and as a way to access new and varied student populations. Such initiatives contribute to international collaboration and the understanding of different cultures (Sadykova & Dautermann, 2019). The global reach of distance education initiatives is a sign of the growing importance of digital education in the formation of global citizens who possess fundamental skills required in the 21st century (Lopes et al., 2024).

Education is not the only field to be revolutionized by digital technology. The new, fully digitalized, and fully integrated 21st century instruments of global game changing technologies have shifted the paradigm of 21st century digital diplomacy. The use of social media, artificial intelligence, and virtual meetings of diplomats transforms the way world powers and international institutions exercise control (The Oxford Handbook of Digital Diplomacy, 2024). Changes in paradigm of international commerce is also telling of the changes in global commerce. Digital commerce and the internet enhance cross border trade and commerce and lower transaction and trade barriers (Shlapak et al., 2023).

For building a more inclusive and interconnected global society, collaboration across digital spaces is vital. The digital economy offers unprecedented opportunities for collaboration and communication across borders.

Technological tools allow people from diverse backgrounds and cultures to engage and work together in real-time. This interaction is pivotal in fostering inclusivity and global opportunity equity, particularly within education and commerce (Hamadi et al., 2024; Hong et al., 2024). Cross-border education opportunities pose a situation of fostering academic enrichment and, in additional to that, intercultural understanding, which is vital for inclusive global society formation (Lopes et al., 2024). In addition to that, digital collaboration goes a long way in addressing the digital divide as equal access to technology, and to the economy and education, is the foremost aspect of inclusivity globally (Memon & Memon, 2024). For example, and in relation to the various Fintech innovations, the reach of digital tools to economically empower certain regions enhances economic inclusivity (Ebirim & Odonkor, 2024).

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