Building a sustainable future: The role of digital resources in achieving the Sustainable Development Goals (SDGs)

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Abstract

The article examines the role of digital resources in the realization of the Sustainable Development Goals (SDGs) and in building a sustainable future. It highlights the importance of understanding their context and the challenges associated with their achievement, and highlights the potential of digital technologies, along with a review of the most relevant digital resources. The article identifies the barriers and challenges that hinder the effective use of digital resources in the implementation of the SDGs and the impact of these resources on the process of achieving the goals. It also highlights the importance of investing in training and development of digital skills, promoting research and technological innovation, and fostering collaboration and exchange of good practices at the international level. There is significant development on the future potential of digital resources and recommendations are provided to promote their effective use in the realization of the SDGs. Successful implementation of the SDGs requires coordinated action at the global level, and digital resources are presented as valuable tools to drive progress towards these goals.

Keywords:

Technology; Digital resources; Innovation; Sustainability; Sustainable Delopment Goals.

Construir um futuro sustentável: o papel dos recursos digitais na consecução dos Objectivos de Desenvolvimento Sustentável (ODS)

Resumo: O artigo examina o papel dos recursos digitais na realização dos Objectivos de Desenvolvimento Sustentável (ODS) e na construção de um futuro sustentável. Sublinha a importância de compreender o seu contexto e os desafios associados à sua concretização, e destaca o potencial das tecnologias digitais, juntamente com uma análise dos recursos digitais mais relevantes. O artigo identifica as barreiras e os desafios que dificultam a utilização eficaz dos recursos digitais na implementação dos ODS e o impacto destes recursos no processo de concretização dos objectivos. Destaca ainda a importância de investir no desenvolvimento de competências digitais e na formação, promovendo a investigação e a inovação tecnológica, e fomentando a colaboração internacional e a partilha de boas práticas. Há um desenvolvimento significativo sobre o potencial futuro dos recursos digitais e são fornecidas recomendações para promover a sua utilização eficaz na realização dos ODS. A implementação bem sucedida dos ODS exige uma acção coordenada a nível global e os recursos digitais são apresentados como ferramentas valiosas para impulsionar o progresso em direcção a estes objectivos.

Palavras-chave: Tecnologia; Recursos digitais; Inovação; Sustentabilidade; Objetivos de Desenvolvimento Sustentável.

Construyendo un futuro sostenible: El papel de los recursos digitales en la consecución de los Objetivos de Desarrollo Sostenible (ODS)

Resumen: El artículo examina el papel de los recursos digitales en la realización de los Objetivos de Desarrollo Sostenible (ODS) y en la construcción de un futuro sostenible. Se destaca la importancia de comprender su contexto y los desafíos asociados a su logro, y se resalta el potencial de las tecnologías digitales, junto con una revisión de los recursos digitales más relevantes. El artículo identifica las barreras y desafíos que obstaculizan el uso efectivo de los recursos digitales en la implementación de los ODS y el impacto de estos recursos en el proceso de cumplimiento de los objetivos. Igualmente, se subraya la importancia de invertir en la capacitación y desarrollo de habilidades digitales, promover la investigación y la innovación tecnológica, y fomentar la colaboración y el intercambio de buenas prácticas a nivel internacional. Hay un desarrollo importante sobre el futuro potencial de los recursos digitales y se proporcionan recomendaciones para promover su uso efectivo en la realización de los ODS. La implementación exitosa de los ODS requiere una acción coordinada a nivel global, y los recursos digitales se presentan como herramientas valiosas para impulsar el progreso hacia estos objetivos.

Palabras clave: Tecnología; Recursos digitales; Innovación; Sostenibilidad; Objetivos de Desarrollo Sostenible.

Construire un avenir durable : le rôle des actifs numériques dans la réalisation des objectifs de développement durable (ODD)

Résumé: Cet article examine le rôle des ressources numériques dans la réalisation des objectifs de développement durable (ODD) et la construction d'un avenir durable. Il souligne l'importance de comprendre leur contexte et les défis associés à leur réalisation, et met en évidence le potentiel des technologies numériques, tout en passant en revue les ressources numériques les plus pertinentes. L'article identifie les obstacles et les défis qui entravent l'utilisation efficace des ressources numériques dans la mise en œuvre des ODD et l'impact de ces ressources sur le processus de réalisation des objectifs. Il souligne également l'importance d'investir dans le développement des compétences numériques et la formation, de promouvoir la recherche et l'innovation technologique, et d'encourager la collaboration internationale et le partage des bonnes pratiques. Le potentiel futur des ressources numériques est largement développé et des recommandations sont formulées pour promouvoir leur utilisation efficace dans la réalisation des ODD. La mise en œuvre réussie des ODD nécessite une action coordonnée au niveau mondial, et les ressources numériques sont présentées comme des outils précieux pour faire progresser la réalisation de ces objectifs.

Mots-clés: Technologie**;** Ressources numériques**;** Innovation**;** Durabilité**;** Objectifs de D**éveloppement** Durable.

1. Introduction

In the digital era in which we live, the use of digital resources has radically transformed the way we interact, learn and develop as a society. Technology has opened up new possibilities and opportunities to address global challenges, and one of the most urgent and transcendental is the achievement of the Sustainable Development Goals (SDGs) established by the United Nations. In this context, the role of digital resources has become critical in driving a sustainable future. The Sustainable Development Goals are an ambitious global agenda that seeks to address the most pressing issues of our time, such as poverty, hunger, inequality, climate change, quality education, gender equality, among others. These goals constitute a roadmap to ensure equitable, inclusive and environmentally friendly development. To achieve these goals, it is essential to take full advantage of the tools and resources provided by the digital revolution.

This article highlights how advances in technology and the digitization of various sectors have created unprecedented opportunities to promote sustainability. Digital resources, such as artificial intelligence, big data, the internet of things and digital platforms, can facilitate the monitoring, analysis and efficient management of natural resources, as well as foster citizen participation and global collaboration. The article also highlights how digital resources can play a crucial role in the implementation of the SDGs by providing tools for education, awareness raising, data collection, evidence-based decision-making and the creation of innovative solutions.

Digital resources facilitate the dissemination and sharing of knowledge. Through the Internet and digital platforms, information on the SDGs and best practices can be shared instantly, reaching global audiences and fostering collaborative learning. This accessibility promotes awareness and understanding of sustainable challenges, which in turn drives participation and action. In addition, digital resources provide innovative tools to monitor and evaluate progress towards the SDGs. The use of digital technologies allows data to be collected, analyzed and visualized in real time, enabling evidence-based decision-making, identifying areas where urgent action is needed and allowing for more effective allocation of resources. The originality of this approach lies in its ability to overcome geographic and socioeconomic barriers; digital resources make it possible to reach remote and disadvantaged communities, providing access to information and services that were previously unreachable. This digital inclusion democratizes participation in achieving the SDGs, empowering individuals and communities to become agents of change in their own realities.

To understand and leverage the potential of digital technology in achieving the SDGs, we have outlined three objectives in this paper. First, identifying the SDGs involves recognizing and understanding the 17 interrelated goals that address the most pressing challenges of our time, such as poverty, inequality, climate change and environmental

degradation. Second, recognizing the potential of digital technology offers innovative tools and solutions that can transform the way we address sustainable challenges. Finally, presenting the impact of digital resources on SDGs implementation can aid in data collection and analysis, improve evidence-based decision-making, promote citizen engagement, and foster global collaboration. By using digital assets strategically, we can accelerate progress towards achieving the SDGs and achieving a sustainable future.

2. The Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a global agenda adopted by the United Nations in September 2015 (Figure 1), which establishes a set of 17 interconnected goals that address the most pressing challenges facing our world, from eradicating poverty to protecting the environment (*Home - United Nations Sustainable Development*, n.d.). The Sustainable Development Goals represent a continuation and expansion of the Millennium Development Goals (MDG), which were established in 2000 and expired in 2015. However, the SDGs are much more ambitious and cover a wide range of thematic areas including poverty eradication, gender equality, climate action, quality education, and peace and justice, among others.

Figure 1
Sustainable Development Goals (SGDs)
Source: United Nations (2023)

The main objective of the SDGs is to achieve sustainable development in three fundamental dimensions: economic, social and environmental. Recognizing the interconnection between these three aspects, the agenda seeks to promote inclusive and equitable growth that does not compromise the ability of future generations to meet their own needs. Achieving these goals requires the participation of all actors in society: governments, the private sector, civil society, international organizations and other citizens; it emphasizes the importance of partnerships and alliances to address global challenges together and harness the power of cooperation (Thore & Tarverdyan, 2021). A salient feature of the SDGs is their integrated and universal approach; the goals are not only designed for developing countries, but also apply to developed countries. furthermore, the SDGs seek to address existing inequalities and gaps, prioritizing those who are vulnerable.

The SDGs agenda is ambitious and challenging, but it also provides a great opportunity to transform the planet. The SDGs not only focus on solving current problems, but also seek to prevent them and address their root causes. This implies profound changes in our policies, practices and mindsets, and to achieve the SDGs, it is crucial to adopt an approach that integrates economic, social and environmental aspects in all decisions and actions (Roy, 2020). This involves rethinking our forms of production and consumption, ensuring equitable access to basic services, promoting gender equality and women's empowerment, investing in education and health, protecting and restoring ecosystems, and addressing climate change.

2.1 Background and context

To understand the context and background of the SDGs, it is necessary to go back to the 1990s and look at previous efforts. In 1992, the Earth Summit was held in Rio de Janeiro, Brazil, where Agenda 21, a comprehensive plan of action for sustainable development, was adopted (*United Nations - Earth Summit+5*, n.d.). This event marked an important milestone in the recognition of the interconnection between economic development, environmental protection and social equity. However, as the new millennium progressed, it became clear that much remained to be done to address global challenges effectively.

In this context, in 2000, the Millennium Development Goals (MDG) were established, comprising eight specific targets to address problems such as extreme poverty, hunger, poor education, and child mortality (Liimatainen, 2013). Although the MDGs made significant progress in several areas, there was also criticism that they did not adequately address other major challenges, such as climate change, inequality, and environmental degradation. In 2015, the United Nations held the Sustainable Development Summit in New York, where the Sustainable Development Goals were adopted.

These goals consist of 17 targets and 169 indicators, and were established with a comprehensive and holistic approach covering all aspects of sustainable development.

The SDGs address a wide range of issues, such as poverty eradication, food security, quality education, gender equality, access to clean energy, climate action, conservation of marine and terrestrial ecosystems, among others. These goals are designed to be interdependent and balanced, recognizing that sustainable development requires addressing economic, social and environmental challenges in an integrated manner. A relevant aspect of the SDGs is their focus on the participation and engagement of multiple stakeholders, including governments, the private sector, civil society and citizens at large. In addition, it is recognized that implementation of the SDGs requires the mobilization of financial, technological and human resources at the national and international levels (von Feigenblatt, 2015).

2.2 Challenges and opportunities in the implementation

The implementation of the SDGs is a complex and ambitious challenge we face globally. The SDGs represent a set of targets and commitments to address the most pressing social, economic and environmental challenges of our time. However, their implementation brings with it a number of challenges and also offers significant opportunities for achieving a sustainable future (Sinha et al., 2020). One of the main challenges in implementing the SDGs is the need for an integrated and multidimensional approach. The SDGs are interconnected and address a wide range of issues, from poverty and hunger to gender equality and climate action. This requires effective coordination between different sectors, disciplines and actors, both nationally and internationally. It also involves overcoming political, economic and cultural barriers to achieve true integration of the SDGs into development policies.

Despite the challenges, SDGs implementation also offers significant opportunities. The SDGs provide a global framework that unites countries around common and shared goals; this fosters cooperation and the exchange of best practices between nations, promoting a mutual learning approach. In addition, the SDGs offer an opportunity to drive innovation and the adoption of sustainable technologies, which can help address the challenges more efficiently and effectively (Khattak et al., 2022). Moreover, the SDGs allow for greater participation and empowerment of civil society, local communities and other key stakeholders. The implementation of the SDGs requires participatory and transparent governance, where diverse stakeholders are involved, and this can generate greater commitment and accountability, as well as greater legitimacy in the decisions and actions taken.

3. Digital technology and its potential for implementation of the SDGs

Digital technology has emerged as a powerful tool with significant potential for the implementation of the SDGs. As we move towards an increasingly interconnected world, digital technology becomes a key enabler to address these issues more efficiently and effectively (Popkova et al., 2022). One of the areas where digital technology can have a significant impact is data collection and analysis. Information and data are critical to understanding and monitoring progress towards the SDGs. Thanks to digital technology, data can be collected in real time and on a large scale, providing valuable information for informed decision-making and identifying priority areas. In addition, data analytics technologies such as machine learning and artificial intelligence can extract useful insights and patterns from massive data sets, helping to optimize strategies and approaches to achieve the SDGs.

3.1 Description of digital technologies relevant to SDGs implementation

The Internet of Things (IoT) is a technology that enables the connection of physical objects through the network, providing the ability to collect, and analyze data in real time. IoT can contribute to multiple SDGs, such as efficient management of natural resources, monitoring air and water quality, precision agriculture, and improving health and safety in cities, among others (Lopez-Vargas et al., 2020). Artificial intelligence (AI) is another digital technology relevant to the SDGs. AI refers to the ability of machines to perform tasks that require human intelligence, such as voice recognition, complex data analysis, and autonomous decision-making. This technology can be used in a variety of fields, such as healthcare, energy management, personalized education, and climate change mitigation.

Big data is essential to understanding and addressing SDG-related challenges (MacFeely, 2019). This technology refers to the processing and analysis of massive data sets to obtain valuable information. Big data analysis can provide insights into patterns and trends in areas such as poverty, health, education, and resource consumption, enabling more informed and effective decision-making (Aparicio-Gómez & Aparicio-Gómez, 2021). Blockchain technology also has significant potential for SDGs implementation. This technology enables the creation of secure and decentralized digital records, which increases transparency and trust in transactions. In the context of the SDGs, blockchain can be used to track the supply chain of products, ensure traceability and authenticity of medicines, and facilitate financial inclusion through secure and accessible payment systems. Likewise, virtual reality (VR) and augmented reality (AR) offer immersive and enriched experiences, which can be used to raise awareness and educate about SDG-related challenges and solutions. VR and AR can simulate situations of poverty, natural disasters or climate change, which can generate empathy and awareness in users and encourage positive action.

3.2. Examples of successful cases of the application of digital technologies in the implementation of the SDGs

The implementation of the SDGs is a global challenge that requires innovation and collaboration across all sectors of society. In this sense, digital technologies have proven to be a powerful tool to advance the achievement of the SDGs, as they allow driving efficient, scalable and sustainable solutions. In the field of health, the application of digital technologies has demonstrated a great impact on the achievement of SDG 3: Health and Well-being. For example, in countries such as Rwanda, a drug delivery system using drones has been implemented (Nisingizwe et al., 2022). These drones transport medicines and medical supplies to remote, hard-to-reach areas, which has significantly improved access to medical care and reduced waiting times for vital treatments. In SDG 4: Quality Education, digital technologies have made it possible to expand access to education and improve the quality of learning in various parts of the world. One prominent example is the "One Laptop per Child" program, which has provided digital devices to rural and low-income communities in countries such as Uruguay (Ceibal, 2017). This initiative has provided students with access to online educational resources, strengthened their digital skills and promoted equal educational opportunities.

In SDG 7: Affordable and clean energy, digital technologies have played a key role in the adoption of renewable energy and energy efficiency. For example, in Denmark, a smart energy management system, known as "Smart Grid", has been implemented, which uses digital technologies to optimize energy production and distribution (Nyborg & Røpke, 2015). This has enabled greater integration of renewable sources, a reduction in energy consumption and better planning of energy supply. In relation to SDG 9: Industry, innovation and infrastructure, digital technologies have driven the transformation and modernization of various productive sectors. A prime example is the use of Artificial Intelligence (AI) in agriculture (Streich et al., 2020). By analyzing large volumes of data, sensors and monitoring systems, it is possible to optimize agricultural processes, predict crop yields, improve water management, and reduce the use of pesticides, contributing to more sustainable agricultural production. Finally, in SDG 11: Sustainable Cities and Communities, digital technologies have enabled the development of smarter and more efficient cities. For example, in Barcelona, Spain, a real-time sensor and monitoring system that collects data on traffic, energy consumption and air quality has been implemented. This data is used to make informed decisions about city management, improve mobility, reduce pollution, and improve the quality of life of residents (Teh & Rana, 2023).

3.3 Challenges for the use of digital technologies in the implementation of the SDGs

One of the main challenges is equitable access to technology. Despite advances in connectivity, significant digital divides still exist in many parts of the world, especially in

rural areas and developing countries. Lack of access to technological devices, reliable internet connectivity and adequate digital skills limits the ability of communities to fully harness the potential of digital technologies in implementing the SDGs. Moreover, data privacy and security is a critical challenge (Cuzzocrea, 2014). The use of digital technologies involves the collection, storage, and sharing of large amounts of data. It is essential to ensure that this data is used ethically and responsibly, respecting the privacy rights of individuals and protecting them from potential vulnerabilities and cyberattacks. The lack of clear regulations and policies in this area can hinder the effective use of digital technologies in the implementation of the SDGs.

Another important challenge is training and digital literacy (Radovanović et al., 2020). As digital technologies advance rapidly, it is crucial to ensure that people have the necessary skills to use them effectively. This involves both training in the use of digital tools and an understanding of key concepts related to the SDGs. Lack of digital literacy can lead to exclusions and further widen existing gaps in access and participation in SDGs implementation. In addition, the sustainability of digital solutions is a challenge to consider. Digital technologies evolve rapidly and can become obsolete in a short time. Therefore, it is necessary to ensure that the solutions implemented are scalable, adaptable and sustainable in the long term. This involves considering aspects such as maintenance cost, compatibility with different platforms and the ability to update and continuous improvement.

Collaboration and coordination between different actors are also relevant challenges. Implementing the SDGs requires the participation of multiple stakeholders, such as governments, non-governmental organizations, the private sector, and civil society. Effective integration of digital technologies in this context requires close collaboration, alignment of objectives and coordination of efforts. Lack of coordination can lead to fragmented, redundant and inefficient solutions. Finally, ethics and equity are key ethical challenges in the use of digital technologies for the SDGs. It is important to ensure that these technologies do not perpetuate existing inequalities, biases or discrimination. Clear ethical frameworks and principles must be established to guide the implementation and use of digital technologies, ensuring that they are used in a manner that is inclusive and respectful of human rights.

4. Impact and potential of digital resources in the implementation of the SDGs

Digital resources, including information and communication technologies (ICT), online platforms, mobile applications and other digital media, have a significant impact on the implementation of the SDGs (Tjoa & Tjoa, 2016). First, the availability of online information and access to the Internet has enabled greater awareness and understanding of the SDGs around the world. People can now access key documents, reports, studies

and educational resources related to the SDGs, helping them to better understand the importance of these goals and act towards their achievement. In addition, digital resources provide opportunities for collaboration and citizen participation in the implementation of the SDGs. Through online platforms, people can join virtual communities, share knowledge, exchange best practices and collaborate on SDG-related projects. This fosters the creation of global networks of engaged citizens, non-governmental organizations and governments working together to achieve a set of goals.

4.1 Impact of digital resources on the implementation of the SDGs

The impact of digital assets on the implementation of the SDGs is a crucial issue in the digital age in which we live. In this context, digital assets play a key role in providing tools and technologies that can contribute to the achievement of the SDGs. These resources include mobile applications, online platforms, geographic information systems, artificial intelligence, virtual reality, among others. Their impact on SDGs implementation can be understood from different perspectives (ElMassah & Mohieldin, 2020). First, they can facilitate the collection, analysis and visualization of SDG-related data. Digitization of information allows for greater efficiency in data collection and subsequent analysis, which in turn helps to identify priority areas for intervention and to monitor progress towards the SDGs. In addition, data visualization can facilitate understanding and informed decision-making, both locally and globally.

Such resources have the potential to expand access to education, one of the key SDGs. Online education and digital educational materials can reach remote and disadvantaged communities, providing learning opportunities to those who would otherwise have difficulty accessing formal education (Kolesnichenko et al., 2021). In addition, gamification and other digital learning techniques can make education more engaging and motivating for students. Moreover, digital resources can strengthen citizen participation and governance in the implementation of the SDGs. Online platforms and social networks provide spaces for the exchange of ideas, collaboration and mobilization of civil society around the SDGs. This can help raise awareness, promote government accountability, and encourage active citizen participation in SDG-related decision-making.

Digital resources can contribute to environmental sustainability and the efficient management of natural resources. Green technology, such as real-time environmental monitoring systems, smart sensors and renewable energy solutions, can help reduce environmental impact and facilitate the transition to a more sustainable economy (Lim et al., 2022). Finally, digital resources can drive innovation and entrepreneurship in SDGs implementation. Digital technology provides an enabling environment for the creation and development of innovative solutions to social and environmental challenges. Technology startups and social entrepreneurs can leverage digital resources to design and launch projects that address specific problems related to the SDGs.

4.2. Potential of digital resources in the implementation of the SDGs

The potential of digital resources in the implementation of the SDGs is increasingly evident and promising, enabling wider access to the information and knowledge needed to address the SDGs. The Internet and digital technologies have democratized access to education, training and relevant information; people in remote or resource-poor communities can access online educational resources, scientific research, data and good practices related to the SDGs (ElMassah & Mohieldin, 2020). This helps to bridge the knowledge gap and ensure that no one is left behind in the quest for sustainable development, while facilitating collaboration and citizen participation in SDGs implementation. Online platforms, social media and mobile applications provide spaces for people to connect, share ideas, organize and collaborate on SDGs-related projects. Citizens can actively engage in decision-making, monitoring and accountability of progress towards the SDGs, and this strengthens the quest for sustainable development (Aparicio Gómez & Ostos Ortiz, 2018).

Digital resources can improve the efficiency and effectiveness of SDGs interventions. Digital technologies, such as data analytics, machine learning and artificial intelligence, can help collect, analyze and use large amounts of information for more informed decision-making. This enables the identification of patterns, trends and innovative solutions in areas such as health, agriculture, energy and natural resource management, leading to more effective and sustainable interventions (Lim et al., 2022). Finally, digital resources can drive innovation and creativity in SDGs implementation, digital technologies are constantly evolving and offer new opportunities to address challenges in innovative ways. Virtual reality, 3D printing, the internet of things and other emerging technologies can be used to develop disruptive solutions in areas such as education, health, renewable energy and waste management. These innovations can accelerate progress towards the SDGs and find new ways to solve complex problems.

5. Conclusions

The implementation of the SDGs poses a number of challenges and opportunities in the quest for a sustainable future. First, the challenges are significant, requiring global commitment, adequate resources and an integrated approach across multiple areas. In addition, it is critical to address challenges such as inequality, climate change and poverty, and to ensure the participation of all relevant stakeholders. However, there are also clear opportunities. The SDGs provide a common framework for action and progress, driving collaboration between governments, organizations and citizens. Moreover, their implementation can generate innovation, sustainable economic growth and significant improvements in people's quality of life. To take full advantage of these opportunities,

a continued commitment and collective will to work together to effectively implement the SDGs is necessary.

Digital technology presents enormous potential for the implementation of the SDGs. As we move into the 21st century, global connectivity and access to technology have become key factors in addressing global challenges. Digital technology can facilitate data collection and analysis, enabling more informed and efficient decision-making in the implementation of the SDGs. In addition, technology can enhance education, financial inclusion, access to healthcare and citizen participation, thus driving sustainable and equitable development. However, it is crucial to ensure that technology is used responsibly, ethically and in a manner that is accessible to all, avoiding the digital divide and promoting equity for society as a whole.

Digital resources play a crucial role in the implementation of the SDGs. In an increasingly connected world, technological advances offer unprecedented opportunities to address global challenges. Digital resources, such as mobile applications, online platforms and data analysis tools, facilitate the collection and sharing of information, promoting awareness and action around the SDGs. They also enable active citizen participation, strengthen collaboration among key stakeholders, and offer innovative solutions to address complex problems. By maximizing access to and use of digital resources, we can accelerate progress towards achieving the SDGs and building a sustainable future for all.

Digital resources have proven to have a significant impact and great potential in the implementation of the Sustainable Development Goals. These technological tools offer opportunities for access to information, citizen participation, education and global collaboration. They make it possible to disseminate knowledge about the SDGs, raise public awareness and mobilize concrete actions to address global challenges. However, to maximize their impact, it is essential to address the digital divide and ensure that these resources are accessible and used in an inclusive and equitable manner.

There are numerous opportunities for future research related to the role of digital resources in achieving the SDGs. One promising line of research could focus on the development and implementation of specific digital strategies for each of the SDGs. On the other hand, the analysis of the socioeconomic impact of the adoption of digital technologies on the achievement of the SDGs could be considered. In addition, it would be relevant to investigate the integration of digital resources in governance and policy planning at the national and international levels. Finally, the impact of digital education in promoting awareness and action in relation to the SDGs could be investigated.

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