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Promoting digital inclusion by leveraging emerging technologies in the Arab region

Summary

The present document reviews international and Arab frameworks related to digital inclusion, with a focus on the role of emerging technologies in promoting digital inclusion and on global and regional best practices to achieve digital inclusion and provide equal opportunities for all, including persons with disabilities and older persons. The document concludes with proposals that will enhance the use of emerging technologies for digital inclusion in the Arab region.

The Committee on Technology for Development is invited to take note of the present document and consider the proposals contained therein.

Contents

	<i>Paragraphs</i>	<i>Page</i>
Introduction	1–5	3
<i>Chapter</i>		
I. International frameworks for achieving equal opportunities in the era of emerging technologies	6–21	4
A. Digital inclusion and emerging technologies in international processes	6–16	4
B. Examples of global practices	17–21	7
II. Digital inclusion and emerging technologies in the Arab region	22–35	8
A. At the regional level: the Arab Digital Inclusion Platform	22–26	8
B. Examples from the experiences of Arab countries	27–35	8
III. Proposals	36–38	10

Introduction

1. In the current digital age, technology has become an integral part of our daily lives, with an impact on the way we work, communicate, learn and use services. However, not all people have the same access to and use of this technology. Digital inclusion is defined as the “equitable, meaningful and safe access to use, lead and design digital technologies, services and associated opportunities for everyone, everywhere”.¹ Digital inclusion has become a key business fundamental in various government sectors and others, and a requirement for access to services. This is due to the expansion of digital services, which include government websites, services and applications on smartphones and smart devices. Digital inclusion is therefore important for ensuring that all individuals have equal opportunities to participate in society, and reducing the digital divide between those who have access to and use technology and those who lack this opportunity. Within this framework, affordability of access is an important dimension of digital inclusion, as it ensures access to devices, data and enabling services at affordable prices for all. In the same context, the importance of digital accessibility emerges as another important dimension of digital inclusion and refers to the possibility of developing digital platforms, technologies and e-services and enabling all individuals, including persons with disabilities and older persons, to use them.

2. Emerging technologies offer enormous potential to enhance digital inclusion in general and digital accessibility in particular, by providing new tools and solutions that may contribute to bridging the digital divide and improving daily life in various sectors. Emerging technologies are defined as technologies that emerge in the technological field and evolve rapidly, thereby delivering new solutions and creative innovations. They have an impact on a wide range of vital sectors, including health, education, travel, leisure and trade, providing multiple opportunities to improve services and increase productivity in these sectors. Emerging technologies also have the potential to enhance the inclusion and empowerment of persons with disabilities and older persons by providing them with access to basic services, improving their connectivity and mobility, and promoting their wider participation within society.

3. Artificial intelligence (AI) is at the forefront of emerging technologies that are reshaping human interactions and can significantly promote disability inclusion by offering innovative solutions to the challenges of digital accessibility across sectors.²

4. Digital inclusion and the adoption of emerging technologies promote the achievement of the Sustainable Development Goals (SDGs) by improving equal access to technology and promoting economic, social and environmental opportunities for all. These technologies are an essential part of modern digital economy and require investment in research and development to ensure their continued development and application in society. Emerging technologies play a critical role in promoting digital inclusion and digital accessibility in a variety of ways, including:

- Universal accessibility: Emerging technologies help provide Internet accessibility and digital applications in ways that are accessible to persons with disabilities and older persons, such as voice and touch interface technologies that make digital devices more accessible.
- Innovative digital service delivery: Emerging technologies contribute to the delivery of new and innovative digital services in health, education, financial and social fields, promoting digital inclusion by providing innovative solutions that meet people's needs.
- Strengthened digital mentoring and education: Emerging technologies help provide educational and mentoring content that enhances individuals' understanding and effective use of technology,

¹ United Nations, [Definition of Digital Inclusion](#), last accessed in August 2024.

² Organisation for Economic Cooperation and Development (OECD), [Using AI to support people with disability in the labour market](#), November 2023. This OECD report showcases more than 140 examples of AI-powered solutions that can support persons with disabilities in the labour market.

increasing opportunities for digital participation and inclusion.

- Enhanced communication and interaction: Emerging technologies can facilitate communication and interaction for persons with disabilities and older persons through voice and video chat applications and social media platforms.
- Increased autonomy and mobility: Emerging technologies can enhance the autonomy of persons with disabilities and older persons through smart mobility and mobility assistance applications.

5. Special attention needs to be paid to the potential challenges that may arise in digital inclusion from the use of emerging technologies. Sometimes, the rapid development of these technologies can widen technology gaps among different groups of society. They should therefore be approached with caution to ensure that all segments of society benefit from their advantages and minimize their potential risks. These developments may also exacerbate the digital divide between developed and developing countries, which may hinder inclusive development and widen gaps in vital areas such as education, health care and government services. Key challenges to the use of emerging technologies include:

- Rapid expansion of use: New technologies such as AI, metaverse and virtual reality (VR) have emerged and spread at a breakneck speed, creating uptake and application challenges.
- Digital accessibility: The providers of services based on emerging technologies are required to provide services accessible to all in a manner consistent with the digital accessibility standards relevant to emerging technologies.
- Technical challenges: These include effective guidance for use, seamless integration with the digital environment, and a balance between innovation, security and privacy.
- High cost: Some assistive technologies can be expensive, making them unavailable to all, especially in low-income countries.
- Lack of compatibility and poor encouragement of technological adoption: Some people may encounter difficulties in accessing emerging technologies due to the incompatibility of some systems and applications with their specific needs.
- Regulatory frameworks and ethical challenges: The absence of updated regulations on technological progress that address the needs and challenges facing persons with disabilities and older persons prevents the adoption and use of emerging technologies. In addition, ethical challenges associated with AI threaten to exacerbate existing inequalities and barriers to achieving inclusive digital inclusion.

I. International frameworks for achieving equal opportunities in the era of emerging technologies

A. Digital inclusion and emerging technologies in international processes

6. Globally, vigorous efforts are being deployed to achieve digital inclusion and ensure that all people have equal access to and benefit from digital technologies. These efforts include a number of important initiatives by the United Nations such as the [2030 Agenda for Sustainable Development](#) and its goals, the [High-Level Political Forum on Sustainable Development](#), the [International Telecommunication Union \(ITU\) Strategic Plan 2024–2027](#), the [United Nations Convention on the Rights of Persons with Disabilities](#), the [World Summit on the Information Society \(WSIS\)](#), the Conference of States Parties to the Convention on the Rights of Persons with Disabilities, the [United Nations 2.0](#), the Global Digital Compact (GDC) and the [Madrid International Plan of Action on Ageing \(MIPAA\)](#).

7. The 2030 Agenda for Sustainable Development includes in many of its goals and targets the issues of persons with disabilities and their economic and social inclusion in society, with a clear call for collaborative

efforts to achieve these goals in line with the United Nations Convention on the Rights of Persons with Disabilities. These goals include Goal 1 on poverty, Goal 2 on hunger, Goal 4 on education, Goal 5 on gender equality and empowerment of women and girls with disabilities, Goal 8 on decent work, economic growth and industry, Goal 9 on innovation and infrastructure, in particular access to information and communications technology (ICT) (target 9.c), and Goal 10 that seeks to achieve equal access to resources, including technological advances, for persons with disabilities (target 10.2).

8. The Political Declaration of the High-level Political Forum on Sustainable Development, adopted by the United Nations General Assembly in September 2023 pursuant to its resolution 78/1, includes a commitment to "building capacities for inclusive participation in the digital economy and strong partnerships to bring technological innovations to all countries".³ The Political Declaration also drew attention to the need to increase the use of science and scientific evidence in policymaking in order to take action to enhance the capacity of developing countries to benefit from technology and innovation, and to overcome major structural obstacles to accessing emerging technologies by expanding the use of open sciences, open source and affordable technology, upscaling research and development, and strengthening partnerships. It was also agreed to take action to maximize the benefits of AI and address its related challenges.

9. The ITU Strategic Plan 2024–2027 aims to achieve digital inclusion through two key strategic objectives: universal connectivity and sustainable digital transformation. The plan seeks to provide high-quality, secure and affordable access to ICTs by coordinating global efforts to strengthen infrastructure and services. It emphasizes the need to bridge the digital divide by promoting inclusive digital accessibility for all, including marginalized groups, and stimulating digital transformation for sustainable development.

10. The United Nations Convention on the Rights of Persons with Disabilities calls on all signatory countries and organizations to develop and implement laws and policies ensuring the rights of persons with disabilities. The fundamental issue of digital accessibility is clearly highlighted in article 9 that stipulates the elimination of all barriers facing persons with disabilities, and equal access to public facilities, services and ICT infrastructure.

11. The WSIS aims to bridge the digital divide and harness the potential of ICTs for sustainable development, and emphasizes the importance of policies and strategies aimed at promoting digital inclusion. Within this framework, [WSIS+20 Forum 2024](#) was held from 27 to 31 May 2024, bringing together stakeholders to discuss emerging technologies and their impact on sustainable development. It reviewed the progress made in bridging the digital divide and charting a course for the future. A key feature of this year's summit was a dedicated track for ICTs and emerging technologies, which included several sessions to discuss how emerging technologies could be harnessed to achieve sustainable development and inclusiveness for all. This year's forum also focused largely on enhancing digital accessibility for persons with disabilities and older persons, through a variety of sessions and events covering different topics such as: AI and its role in improving digital accessibility and reducing the digital divide; the main challenges facing persons with disabilities in accessing digital platforms and services; and sharing good practices and innovative solutions on the use of emerging technologies to enhance digital accessibility. The discussions stressed the importance of multi-stakeholder collaboration to hold companies accountable for ethical AI and tackled ways of using digital technology to empower people with visual impairments. The digital literacy session was dedicated to highlighting the use of computers and mobile phones by persons with disabilities to enhance their skills and enable them to use digital tools and platforms effectively.

12. The [seventeenth session of the Conference of States Parties to the Convention on the Rights of Persons with Disabilities](#) was held at the United Nations Headquarters in New York, from 11 to 13 June 2024, and included a panel discussion on strengthening international cooperation and encouraging and transferring technological innovations to achieve the social inclusion and empowerment of persons with disabilities. From the perspective of disability, the panel discussion also tackled various aspects of technology transfer at the

³ [A/RES/78/1](#), paragraph 38 (e).

regional level. It was therefore seen as an important opportunity to facilitate cross-sectoral discussions on international cooperation regarding the rights of persons with disabilities and technology. The panel discussion also aimed to highlight critical challenges and opportunities, share experiences and successful approaches, and propose strategies to enhance international cooperation to advance the rights of persons with disabilities in the areas of innovation and technology.

13. In this context, it is worth noting the ongoing efforts to disseminate some digital accessibility standards for VR and extended reality (XR), and for metaverse and mobile video conferencing technologies that have been developed and deployed, including the XR accessibility user requirements (XAUR) standard emanating from the Web Content Accessibility Guidelines (WCAG) 2.1 and WCAG 2.2.⁴ Efforts are also being deployed to develop WCAG 3, which contains instructions and guidelines for emerging technologies.

14. The United Nations 2.0 represents a shift within the United Nations system towards a forward-thinking culture and the adoption of modern skills essential for the twenty-first century. By focusing on inclusion, this programme aims to promote accessibility and equality among marginalized groups, and leverage strategies to create inclusive environments. The [Quintet of Change](#) includes the effective integration of expertise gained in the areas of data, innovation, digital transformation, foresight and behavioural science. The programme identifies strategies for embedding digital inclusion and emerging technologies in digital transformation efforts, fosters collaboration and innovation, and highlights the need to leverage digital systems, data, behavioural science, innovation and foresight to promote digital inclusion and harness the power of emerging technologies. It also emphasizes the importance of building digital capacity within the United Nations system, reducing the digital divide, ensuring digital inclusion, and prioritizing the digital approach to accelerate progress towards the SDGs.

15. The GDC is a United Nations initiative aimed at reviewing the existing digital governance architecture. Launched in September 2020 with the support of 193 Member States of the United Nations, it will be adopted at the [2024 Summit of the Future](#) in the form of a technology track involving all stakeholders: governments, the United Nations system, the private sector (including technology companies), civil society, grassroots, organizations, academia and individuals including youth. The GDC zero draft was developed on 1 April 2024, followed by its first revision on 15 May 2024 and its second revision on 26 June 2024. The updated version addresses digital inclusion and emerging technologies by defining the goals, principles, commitments and actions needed to achieve an inclusive, open, secure and guaranteed digital future for all. Digital inclusion is one of the GDC main objectives, particularly in relation to bridging the digital divide and accelerating progress towards the SDGs through universal, reliable and affordable access/connectivity. The updated version also highlights the importance of digital knowledge, skills and capabilities to take full advantage of the benefits of digital connectivity. It emphasizes the potential of emerging technologies and AI, commits to promoting responsible and equitable international data governance, and addresses the governance of emerging technologies, including AI, through a balanced, inclusive and risk-based approach.

16. The MIPAA 2002 calls for changes in attitudes, policies and practices at all levels and in all sectors to tap the enormous potential of older persons in the twenty-first century. The main objective of MIPAA is “to ensure that persons everywhere are able to age with security and dignity and to continue to participate in their societies as citizens with full rights”.⁵ The MIPAA implementation is reviewed every five years to monitor progress, assess the situation of older persons and review emerging priorities. The [modalities for the fourth review and appraisal of MIPAA implementation](#) were reviewed at the fifty-eighth session of the Commission for Social Development, held from 10 to 19 February 2020, and the report was prepared pursuant to Economic and Social Council resolution [2018/6](#). The session stressed the importance of “increasing access to information and communications technology and promote digital literacy of older persons, as such technology can promote

⁴ The World Wide Web Consortium (W3C), [XR accessibility user requirements](#), August 2021.

⁵ Report of the General Assembly on Ageing, [Madrid International Plan of Action on Ageing](#), 2002.

their independence and improve their well-being".⁶ It also stressed the importance of "ensuring that older persons can benefit from the fast-growing frontier technologies, as robotics and AI, which have the potential to improve healthcare, accessibility and transportation systems and increase social connections".⁷ A high-level [panel discussion](#) on the fourth review and appraisal of the MIPAA implementation was held at United Nations Headquarters in New York on 8 February 2023. It was aimed at considering institutional mechanisms, good practices, digital technologies and implementation tools at the national and regional levels for the fourth review and appraisal process to accelerate the MIPAA implementation.

B. Examples of global practices

17. Emerging technologies are increasingly relied upon to promote digital inclusion globally, and governments and organizations working in this field are seeking to exploit these technologies to make digital services easier and more accessible for all.

18. In this context, in October 2023, the Government of the United States of America issued an executive order on the safe, secure and trustworthy development and use of AI. This executive order includes provisions aimed at enhancing digital accessibility, ensuring the security of AI systems, promoting responsible innovation, supporting American workers, ensuring compliance with equality and human rights, and protecting consumers.⁸ This topic has garnered considerable attention from the private and academic sectors, with researchers at the First Center for Autism and Innovation at Vanderbilt University using VR technology and AI to create a job interview coaching system specifically designed to train persons with autism on social and communication skills.⁹

19. In 2023, Canada issued a document on regulations related to future digital accessibility to ICT.¹⁰ The document tackled the possibility of developing new regulations on digital accessibility under the Accessible Canada Act (ACA), taking into account the opinion of persons with disabilities in the design and implementation of this technology. These regulations aim to remove barriers and improve digital accessibility. In this context, some discussions focused on barriers resulting from the rapid digitization of services and products. Participants from the disability community raised concerns about the increasing use of AI, particularly with regard to bias in model training, and called for their inclusion in those trainings to avoid any future gap and promote digital inclusion.

20. The Government of the United Kingdom has invested around £123 million in 86 AI-based technologies in the medical sector, as part of its strategy to help patients by supporting stroke diagnosis, screening, cardiovascular monitoring and home care.¹¹ This initiative is part of the [Disability Action Plan](#) launched by the Government of the United Kingdom in 2023.

21. The Busan smart city project has been implemented in South Korea to help visually impaired people to move around independently. The Government has developed guidelines for the digital accessibility of medical

⁶ [E/CN.5/2020/4](#), paragraph 38 (e).

⁷ *Ibid.*, paragraph 38 (f).

⁸ The White House, [Executive order on the safe, secure, and trustworthy development and use of Artificial Intelligence](#), October 2023.

⁹ OECD, [Using AI to support people with disability in the labour market](#), November 2023.

¹⁰ Employment and Social Development Canada, [Future information and communication technologies accessibility regulations: what we heard](#), 2023.

¹¹ The United Kingdom Government, Department of Health and Social Care, [£21 million to roll out artificial intelligence across the NHS](#), June 2023.

devices powered by VR and augmented reality (AR) technologies. South Korea is a metaverse pioneer and is investing in the development of VR and AR platforms with a focus on digital accessibility.¹²

II. Digital inclusion and emerging technologies in the Arab region

A. At the regional level: the Arab Digital Inclusion Platform

22. The United Nations Economic and Social Commission for Western Asia (ESCWA) plays a key role in promoting digital inclusion and digital accessibility in the Arab region, in line with its commitment to empower vulnerable groups through the responsible use of technology and innovation, and to ensure that no one is left behind in the pursuit of sustainable development and shared prosperity.

23. In 2020, ESCWA launched the [Arab Digital Inclusion Platform \(ADIP\)](#) to support policymakers in Arab countries in developing and improving national policies and guidelines for enhanced digital accessibility, especially for persons with disabilities. ESCWA efforts in the field of digital inclusion have been recognized: ADIP was selected as winner of the WSIS Prizes in 2022.

24. In addition, ESCWA has developed digital accessibility models tailored to the needs of Arab countries. The National e-Accessibility Policy Template for the Arab Region¹³ provides a general framework for a national policy to enable persons with disabilities to access ICTs and public services, for a more inclusive society. It also aims to support policymakers in the region to develop or improve their national policies and programmes on digital accessibility through best practices. The National Technical Guidelines on e-Accessibility for the Arab Region report¹⁴ facilitates the implementation of these policies at the national and institutional levels. It proposes four templates for technical guidelines to enhance national digital accessibility, which Arab policymakers can customize in accordance with national priorities.

25. In 2023, ESCWA expanded the ADIP project to include, in addition to persons with disabilities, the needs of older persons and their empowerment by relying on emerging technologies. Two studies were prepared, the first on technical guidelines for digital accessibility to empower older persons, and the second on digital accessibility through emerging technologies. Based on these studies, an improved model of national digital accessibility policies for ESCWA was proposed. This model aims to include and leverage emerging technologies to improve digital accessibility, based on global and regional best practices. It is aligned with updated international standards and recommendations issued by expert meetings within the ADIP project, which focused on technical cooperation with ESCWA to update digital accessibility policies so as to include the successive developments of emerging technologies.

26. Within the framework of this project, ESCWA is organizing regional events along with regional and national consultative workshops to raise awareness of digital accessibility and emerging technologies. Since 2021, ESCWA and ITU have been organizing an annual event entitled "[Accessible Arab Region: ICT for All](#)", which serves as a regional platform for knowledge development, open discussion and interaction with all stakeholders concerned with digital accessibility, relevant standards and inclusive design to achieve digital inclusion for all.

B. Examples from the experiences of Arab countries

27. Arab countries are adopting emerging technologies at an accelerated pace amid the massive technological revolution in the Arab region. While these technologies offer enormous potential for progress and prosperity, the risks of digital marginalization, which may deepen the gaps among different segments of

¹² Cielo 24, [International accessibility guidelines II: Asia, the UK and Canada](#), March 2022.

¹³ [E/ESCWA/CL4.SIT/2020/TP.13](#).

¹⁴ [E/ESCWA/CL4.SIT/2020/TP.14](#).

society, should not be overlooked. Therefore, achieving digital inclusion becomes an urgent necessity to ensure that all members of society, without exception, reap the benefits of these technologies.

28. ESCWA has been implementing these models in the Arab region since 2022, collaborating with stakeholders in the Syrian Arab Republic and the United Arab Emirates to prepare national digital accessibility plans. These plans have been approved and adopted by the Council of Ministers in both countries, and special frameworks are currently developed for their implementation. The national policies for digital accessibility in Libya, Palestine and Tunisia, and the national policy for digital inclusion in Jordan, have been completed and are in the pipeline to be formally adopted. In addition, ESCWA is currently working with Morocco to prepare its national digital accessibility plan.

29. The United Arab Emirates Telecommunications and Digital Government Regulatory Authority, in cooperation with ESCWA, prepared the National Digital Accessibility Policy,¹⁵ which was adopted by the Council of Ministers on 4 April 2024. This policy supports digital transformation and service efficiency in the country, ensures digital accessibility for all segments of society, including persons with disabilities and older persons, and enables them to access all products, including websites, all applications, software and digital interfaces. The [Dubai Metaverse Strategy](#) aims to encourage metaverse innovation, enhance economic contribution, and support the use of this technology to provide interactive and comprehensive government, health-care and educational services.

30. In Jordan, the Ministry of Digital Economy and Entrepreneurship worked with ESCWA during 2023–2024 to prepare a draft "national policy for digital inclusion" under the slogan of providing an inclusive digital society that provides citizens with digital justice in receiving or requesting digital government services, as guaranteed by the Jordanian Constitution without any discrimination. This policy focuses on providing inclusive digital services to all segments of society, including older persons, persons with disabilities, expatriates, refugees, young people, residents of remote areas and others, without discrimination on the basis of age, gender, language or otherwise. All government institutions are committed to implementing this policy, which has a five-year time frame (2024–2029).

31. Moreover, [Jordan's Artificial Intelligence Strategy](#) (2023–2027) aims to build capacities and develop Jordanian skills and expertise in the field of AI, promote scientific research and development, encourage investment and entrepreneurship, ensure a supportive legislative and regulatory environment, and apply AI tools to raise the efficiency of the public sector and priority sectors. In the same context, the Ministry of Digital Economy and Entrepreneurship in Jordan has developed a [national charter of ethics for AI](#) that focuses on the ethical aspects of adopting AI in various fields. This charter emphasizes the protection of privacy, equality, justice and the rights of citizens to prevent prejudices and ensure the adoption of AI technology in a manner that respects social norms and values.

32. [Mada](#) Center in Qatar was established in 2010 as an initiative to promote digital inclusion and build a technology-based community that is accessible to persons with disabilities. Today, it has become the centre of excellence in digital accessibility in the Arabic language and has gained international fame, especially after Qatar ranked first globally in the Digital Accessibility Rights Evaluation (DARE) Index for 2020. In 2022, Mada Center collaborated with Qatar Airways to launch the Flight Simulation Lab for persons with autism spectrum disorder,¹⁶ using VR and AR to provide a realistic flight simulation experience for children with autism.

¹⁵ The Telecommunications and Digital Government Regulatory Authority (TDRA), [TDRA supports the implementation of the National Digital Accessibility Policy](#), May 2024.

¹⁶ Mada, [Mada Center and Qatar Airways announce the launch of a "Flight Journey Simulation Lab" for children with autism spectrum disorder](#), July 2022.

33. Saudi Arabia launched the Emerging Technology Adoption Readiness Index,¹⁷ which contributes to tracking the current readiness of government entities, monitoring gaps and identifying targeted steps to build the necessary capabilities for the successful adoption of emerging technologies. The Saudi Digital Government Authority has launched a guide for government entities to adopt emerging technologies and help them unify their efforts. This guide identifies the emerging technologies that are most relevant to the country's strategy and vision, and illustrates the multifaceted impact of their adoption on the country, particularly on government entities. It also provides some examples and applications that mainly encourage the adoption of emerging technologies and support existing efforts to achieve the expected positive results by showing ways to integrate all these technologies.

34. In November 2019, the Egyptian Government established the National Council for Artificial Intelligence to serve as a partnership between government institutions, academics and leading AI companies. In 2021, the Ministry of Communications and Information Technology launched the National AI Strategy of Egypt,¹⁸ followed by the Egyptian Charter for Responsible AI in 2023.¹⁹ The strategy focuses on integrating AI into government and development sectors, building capacities and strengthening international relations.

35. Within the framework of similar efforts in Oman, the Government Innovation Initiative²⁰ contributes to finding smart solutions to develop government performance and increase its efficiency in all fields. This initiative helps to reduce the time and effort required to provide services while maintaining the highest standards of quality and effectiveness, using non-traditional patterns and taking advantage of emerging technologies such as AI, blockchain technology, the Internet of Things, cloud computing, VR applications and other technologies that represent a qualitative leap towards advanced government performance. Research projects and some pilot projects²¹ have also been launched that take into account the use of emerging technologies for persons with disabilities,²² but do not directly address the digital accessibility of emerging technologies.²³

III. Proposals

36. Multifaceted barriers to the transfer of emerging technologies abound despite the enormous potential offered by these technologies. The technological and digital divide exacerbated by other forms of discrimination, such as socioeconomic status, gender and age, has further marginalized individuals and societies that have limited access to technological and digital resources and infrastructure, thereby aggravating inequalities.

37. Regional cooperation may play a key role in avoiding underutilization of emerging technologies by addressing the underlying causes. The most effective ways for building a more equitable society lie in maintaining a holistic and participatory approach to advancing the rights of persons with disabilities and older persons, and ensuring that mechanisms for the development and transfer of emerging technologies are inclusive, ethical and accessible.

¹⁷ Saudi Press Agency, [The Digital Government Authority releases the Emerging Technologies Adoption Readiness Report 2024 at Digital Saudi Arabia in LEAP 24](#), March 2024.

¹⁸ Ministry of Communications and Information Technology, [Artificial Intelligence](#) (accessed in August 2024).

¹⁹ Ministry of Communications and Information Technology, [Egyptian Charter for Responsible AI Launched](#), April 2023.

²⁰ Omanuna, [Emerging Technologies](#) (accessed in August, 2024).

²¹ Times of Oman, [Embracing emerging technologies for Oman's digital future](#), February 2021.

²² Times of Oman, [Technology that changes lives of the disabled in Oman](#), July 2016.

²³ Oman Observer, [Empowering people with disabilities: 9 winning research projects announced](#), September 2021.

38. The following proposals should be taken into account to effectively utilize emerging technologies for digital inclusion:

(a) Raise awareness of the importance of digital inclusion and of enabling individuals to use emerging technologies efficiently, and focus on the aspect of digital accessibility including the exchange of knowledge and experiences;

(b) Formulate and implement policies to promote digital accessibility, and develop comprehensive regulatory frameworks to stimulate the responsible development of emerging technologies, including the adoption of international standards and the development of national regulations that address the difficulties faced by persons with disabilities and older persons in accessing and using emerging technologies;

(c) Empower persons with disabilities and older persons by engaging them and enabling them to take active leadership roles in all stages of the innovation, transfer and use of emerging technologies;

(d) Develop standards for the design and implementation of emerging technologies, and foster collaboration between governments, civil society and the private sector to promote digital inclusion;

(e) Conduct research and studies on the impact of emerging technologies on digital inclusion and digital accessibility, and explore ways to use these technologies to address the challenges of digital exclusion and promote more inclusive digital societies;

(f) Design AI solutions taking into account the perspective of disability and dignity, prioritize ethical frameworks to dispel concerns that may arise in this regard, and catalyse the development of AI that empowers persons with disabilities and older persons, respects their rights and encourages social inclusion;

(g) Promote regional cooperation and solidarity to provide equitable access to emerging technologies and to address the difficulties they pose to the diversity and coherence of cultures and ethical frameworks;

(h) Benefit from the implementation of ESCWA digital accessibility models at the national level and the transfer of experiences among Arab countries, within the ADIP framework;

(i) Benefit from the technical cooperation programme with ESCWA to update and develop national policies in the field of digital accessibility, with a focus on emerging technologies by adopting ADIP tools and models.
