

UNESCO, E-LEARNING AND SUSTAINABLE DEVELOPMENT

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Keywords: e-learning, distance education, online education, mobile education, UNESCO, peace, sustainable development goals, United Nations, India, Romania.

Abstract

The authors analyze the 2019 UNESCO's activities within the framework of the Institute for Information Technologies in Education (IITE) and the outcome of the World Summit on the Information Society (WSIS) Forum which is a global United Nations (UN) multi-stakeholder platform facilitating the implementation of Sustainable Development Goals (SDGs). Attention is paid to the valuable contribution of UNESCO to the SDGs from the perspective of its specialized competence in the field of education. Finally, the authors advance some suggestions concerning the potential usage of e-learning for the dissemination of international law, for the preparation and celebration of the International Year of Peace and Trust in 2021, and for the success of the programs of the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP).

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I. PRELIMINARY OBSERVATIONS

In one of the most recent books on e-learning, it is emphasized that “smart education and smart e-learning are emerging and rapidly growing areas with the potential to transform existing teaching strategies, learning environments, and educational activities and technology in the classroom. Smart education and smart e-learning focus on enabling instructors to develop new ways of achieving excellence in teaching in highly technological smart classrooms and providing students with new opportunities to maximize their success and select the best options for their education, location, and learning style, as well as the mode of content delivery.”¹

According to Audrey Azoulay, Director-General of UNESCO, “none of the major challenges facing the world today can be met by any one country on its own without relying on the fundamental pillars of science, education, and culture. Thus, UNESCO can and must fully participate in a world order based on multilateralism and humanist values.”²

In UNESCO’s doctrine and practice, Education for Sustainable Development (ESD) represents a key element of quality education and a crucial factor for sustainable development. The Sustainable Development Goals (SDGs) adopted by the United Nations General Assembly (UNGA) in 2015 as the 2030 Agenda recognizes the important role of education in achieving its targets by 2030. Target 4.7 of SDG 4 on education specifically addresses ESD and related

¹ See Vladimir L. Uskov, Robert Howlett, Jain C. Lakhmi (eds), *Smart Education and e-Learning 2019*, Springer, Singapore, 2019, edition consulted at <https://www.springer.com/gp/book/9789811382598>, accessed on October 24, 2019.

² <https://en.unesco.org/director-general>, accessed on 15 May 2021.

approaches. On substance, Sustainable Development Goal 4 (SDG 4) is the education goal. It aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”

The Global Action Programme (GAP) on Education for Sustainable Development, which is being implemented under UNESCO’s coordination, seeks to generate and scale-up progress towards sustainable development. In practice, the GAP aims to contribute substantially to the 2030 Agenda, through two main objectives:

- Reorienting education and learning so that everyone has the opportunity to acquire the knowledge, skills, values, and attitudes that empower them to contribute to a sustainable future.
- Strengthening education and learning in all agendas, programs, and activities that promote sustainable development.³

A valuable professional contribution was expected in this field from the UNESCO Institute for Information Technologies in Education (IITE). One of the major program activities of the IITE is the promotion of Media and Information Literacy (MIL) for Quality and Inclusive Education.

The announced goal of this program activity is to leverage media and information literacy in the digital and mobile era and to contribute to the development of the digital education environment by MIL-based professional development through a set of mobile learning tools. The described activity is

³ ****Global Action Programme on Education for Sustainable Development (2015-2019)*, in <https://en.unesco.org/gap> accessed on 20 May 2021.

considered to be quite significant as it is aimed at designing a set of mobile learning tools on MIL, to develop and test the mobile learning models for quality teacher training, and to enhance cross-sectoral and interdisciplinary collaboration among media education stakeholders.⁴

A relevant event co-sponsored by the UNESCO IITE was the Ninth Pan-Commonwealth Forum on Open Learning 2019 which was held in Edinburgh, Scotland (United Kingdom) on 9-12 September 2019.

The Forum is organized every three years and is considered one of the world's leading international conferences on open, distance, and technology-enabled learning. Co-hosted with different partners in different regions of the Commonwealth, the Forum attracts over 600 delegates from across the 53 nation members of the Commonwealth and beyond. In 2019 the Forum focused on "innovations", "quality", and "lifelong learning" under the theme – "Innovations for Quality Education and Lifelong Learning." The event was attended by stakeholders from across the globe to discuss, debate, and showcase how innovations are improving the quality of education and creating new spaces for Lifelong Learning.⁵

II. GLOBAL OBJECTIVES

On 4–8 March 2019, UNESCO Headquarters in Paris (France) hosted Mobile Learning Week (MLW), an event that focused on Artificial Intelligence (AI) and its implications for sustainable development.

⁴ For the entire program of the IITE see <https://iite.unesco.org/wp-content/uploads/2018/03/IITE-Mid-Term-Strategy-2018-2021.pdf>

⁵ ***UNESCO Institute for Information Technologies in Education, *Ninth Pan Commonwealth Forum 2019 on Open Learning*, in <https://iite.unesco.org/events/ninth-pan-commonwealth-forum-2019-on-open-learning/>

Four major subject areas have been covered during the MLW:

- Ensuring inclusive and equitable use of Artificial Intelligence in education – actions on how to address inequalities related to socio-economic status, gender, ethnicity, and geographic location; identify successful projects or proven effective AI solutions to break through barriers for vulnerable groups to access quality education.
- Leveraging AI to enhance education and learning – improve education management systems, AI-boosted learning management systems, or other AI in education applications; and identify new forms of personalized learning that can support teachers and tackle education challenges.
- Promoting skills development for jobs and life in the AI era – support the design of local, regional and international strategies and policies; and explore how AI-powered mobile technology tools can support skills development and innovation.
- Safeguarding transparent and auditable use of education data – analyze how to mitigate the risks and perils of AI in education; identify and promote sound evidence for policy formulation guaranteeing accountability, and adopt algorithms that are transparent and explainable to education stakeholders.⁶

During the above-mentioned event, UNESCO IITE presented its best practices and advances in promoting media and information literacy in the AI era.

⁶ The main document used for the topic elaborated in this paper is *WSIS Forum 2019, Outcome Document, Information and Communication Technologies for achieving the Sustainable Development Goals*, Geneva, 13 August 2019. The e-version of the document is available at <https://www.itu.int/net4/wsis/forum/2019/> and was accessed several times in May 2021.

Digital service and social network algorithms, based on AI technologies, machine learning, and big data, drastically alter human communication and the information environment. In this respect, the process of deepening knowledge, skills, and attitudes, which enable efficiency and maintain pivotal autonomy, takes on greater importance. The online course on media and information literacy for educators, currently developed by UNESCO IITE, will allow for building new competencies in the informal learning environment.

Within MLW 2019, UNESCO Institute for Information Technologies in Education signed the Agreement with Huashi Education (Hainan) Co., Ltd. (China) on the implementation of the joint project: Connecting Schools Online for Inter-Cultural Teaching and Learning: IITE – UNESCO Associated Schools Network Pilot Project for Shanghai Cooperation Organization Countries.

It should be emphasized that this Project aims at establishing a successful intercultural dialogue between participants of the educational processes in different countries through the use of ICT potential, including interactive and online tools, by schools. The Project will be executed at the targeted UNESCO Associated Schools (ASPnet).

These examples illustrate how UNESCO understands to give tangibility to its specific objectives related to the implementation of the 2030 Agenda containing the 17 Sustainable Development Goals proclaimed by the United Nations in 2015.

In the light of these objectives, UNESCO is fully involved in activities meant to achieve universal education worldwide, through the delivery of education and training of teachers, and offering improved conditions for lifelong learning, encompassing people that are outside the formal education process, and improving professional skills.

According to UNESCO, ICTs should be fully integrated into education and training at all levels, including in curriculum development, teacher training, institutional administration and management, and in support of the concept of lifelong learning. In the same context, UNESCO is ready to promote e-literacy skills for all, for example by designing and offering courses for public administration, taking advantage of existing facilities such as libraries, multipurpose community centers, public access points, and by establishing local ICT training centers.

At the level of national educational policies, UNESCO is acting to ensure that young people are adequately equipped with knowledge and skills to use ICTs, including the capacity to analyze and treat the information in creative and innovative manners. UNESCO wishes also to design and implement regional and international cooperation activities to enhance the capacity of leaders and operational staff in developing countries to apply ICTs effectively in the whole range of educational activities.

Taking into account the practical needs, UNESCO recommends specific training programs in the use of ICTs in order to meet the educational needs of information professionals, such as archivists, librarians, museum professionals, scientists, teachers, journalists, postal workers, and other relevant professional groups. A special mention should be made about the necessity to launch pilot projects to design new forms of ICT-based networking, linking education, training, and research institutions between and among developed and developing countries.⁷

⁷ *Ibidem.*

III. SUBSTANTIVE WORK

The World Summit on the Information Society (WSIS) Forum is a global United Nations (UN) multi-stakeholder platform facilitating the implementation of the WSIS Action Lines for advancing Sustainable Development Goals (SDGs). It is a collective initiative co-organized first of all by ITU, UNESCO, UNDP, and UNCTAD. This Forum represents the world's largest annual gathering of the "ICT for development" community. It provides an opportunity for information exchange, knowledge creation, and sharing of best practices while identifying emerging trends and fostering partnerships, taking into account the evolving Information and Knowledge Societies. In 2019, WSIS celebrated its 10th anniversary.

From April 8 to 12, 2019, it had a session in Geneva under the theme "Information and Communication Technologies for achieving the Sustainable Development Goals." The announced aim was to provide a platform for a "just and equal information society" for all WSIS Stakeholders. This aim was partially summarized in the expression **Hack4Education** which represents a general effort by the International Telecommunications Union (ITU) and UNESCO to find innovative solutions to address challenges around Lifelong learning and sustainable Livelihoods. **Hack4Education** was a 2-days sprint-like event that took place on April 7-8, 2019 in Geneva during the WSIS Forum 2019, which recommended itself as the world's largest annual gathering of the "ICT for development" community. The mission of the Forum was to bring teams from around the world, to develop their specific solutions through a creative and highly collaborative approach for designing and implementing appropriate digital solutions for the users who need the most support. It is in this institutional

framework that UNESCO further developed the Internet universality framework of UNESCO and its ROAM principles which are considered to be a useful starting point for international reflection on how to develop a rights-based, open, accessible, and multi-stakeholder AI.

According to UNESCO, there are four principles embraced by Internet Universality – known as the R-O-A-M principles. They are recognized as being fundamental for the development of the Internet in ways that are conducive to achieving the Sustainable Development Goals proclaimed by the UNGA:

- R – That the Internet be based on human rights;
- O – That it is Open;
- A – That it should be accessible to all;
- M – That it is nurtured by Multi-stakeholder participation.⁸

India, one of the founding fathers of UNESCO, offers a good example of the validity of UNESCO's approach to e-learning at the national level. Indeed, the E-learning industry in India is growing at 25 percent year on year. It is projected to be a \$1.96 billion industry by 2021.⁹

During the WSIS Forum in Geneva, the Indian delegation announced that India was actively practicing the launching of satellites, as a good strategy to provide the Internet to the educational system and to the end-users in education. India also explored the concept of smart classrooms that use ICT to provide a better learning experience. Indian representatives said that there are many commercial

⁸***United Nations, Educational, Scientific and Cultural Organization, *UNESCO's Internet Universality indicators. A Framework for Assessing Internet Development*, in <https://unesdoc.unesco.org/ark:/48223/pf0000367617?posInSet=1&queryId=a46642b0-1893-4f04-9bfb-b832b0851652>

⁹***Institute of Product Leadership, *Digital India and Growth of E-learning in 2019* in <https://www.productleadership.com/digital-india-and-growth-of-elearning-in-2019/>, accessed in May, 2021.

solutions that can be used to promote different approaches in the educational area. In India the ICT has also contributed immensely to social and economic improvements, such as higher employment and productivity, increasing access to a higher quality of life. Moreover, benefits of ICT can be achieved in India directly, through improved healthcare provision and disease prevention, or indirectly, through improved social infrastructure, economic growth, or other broader determinants of population health.¹⁰

The delegation of Romania present at the same WSIS Forum informed about national-level support measures of e-learning as mentioned in the Romanian Strategy E-Romania 2010-2013.¹¹ Various conferences and working groups were supported by the Romanian government, such as the International Conference on Virtual Learning or the National Conference on Virtual Learning.¹²

E-learning software was developed for universities, such as Romanian Simple Linux for Medical Students, the first Romanian Linux Educational Platform. Romania established the ICT-Centric Innovation priorities which can be summarized such as innovation, to encourage Europe to compete in the global competition and benefit from all the forces it has, cybersecurity, to set security in a digital world that has no border, and to develop the necessary skills required for new technologies.¹³

¹⁰ *Ibidem.*

¹¹****Strategia națională e-Romania 2010-2013*, 9th March 2010, in <http://www.monitoruljuridic.ro/act/strategia-nationala-din-9-martie-2010-e-romania-2010-2013-emitent-guvernul-publicat-n-monitorul-oficial-nr-276-din-28-aprilie-118294.html>

¹² <http://cniv.ro> accessed on 23 May 2021.

¹³ ***WSIS Forum 2019, *Information and Communication Technologies for achieving the sustainable development goals* in <https://www.itu.int/net4/wsis/forum/2019/>

IV. PERSPECTIVES

While reflecting on the perspectives of e-learning in the light of the current experience of UNESCO and based on the 2030 Agenda, some considerations can be suggested about future events and activities in which UNESCO's practice in the field may prove to be valuable in many regards.

Encouraging developments are expected with the expansion of the UN Audiovisual Library which is a virtual training and research center featuring content from leading international law scholars, judges, and practitioners from different countries and legal systems who contribute to its three pillars: the Lecture Series, the Historical Archives and the Research Library.

The Lecture Series contains over 575 lectures, accompanied by lists of related materials linking to reference documents available online. The Lecture Series contains individual lectures on a broad range of topics of international law. The lectures and related legal materials are intended to provide a more comprehensive educational resource for academic institutions and government training centers in developing countries. During the period 2018-2019, 45 new lectures were recorded for the Lecture Series.¹⁴

There are reasons to believe that more lectures will enrich the UN Audiovisual Library, including topics directly related to UNESCO's activities and relevant for 193 UN members. At the regional level, in Asia, useful initiatives may emerge from the UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP) established in 2014 and based in New Delhi.

¹⁴ ***United Nations, General Assembly, *United Nations Program of Assistance in the Teaching, Study, Dissemination and Wider Appreciation of International Law*; For details see the information available at <https://undocs.org/A/74/496> accessed in May, 2021.

This is UNESCO's category 1 Research Institute that focuses on Sustainable Development Goal (SDG) 4.7 towards education for building peaceful and sustainable societies across the world. According to its mandate, this Institute seeks to reorient learning spaces that promote sustainable lifestyles, a culture of peace and nonviolence, and an appreciation of cultural diversity. In line with its vision of 'Transforming Education for Humanity,' the Institute's programs and products are designed to mainstream Social and Emotional Learning in education systems, innovate digital pedagogies, and put youth as global citizens at the center of the 2030 Agenda for Sustainable Development.¹⁵

In the opinion of Dr. Anantha Daraiappah, Professor and the Director, UNESCO MGIEP:

" There is a need to rethink the purpose of our education system. We must move away from an education system that focuses only on ensuring that we are employable and active agents for economic prosperity to one that focuses on providing "human flourishing."¹⁶

An auspicious occasion for the UNESCO MGIEP to bring valuable contributions in its own fields of activities will be offered by the celebration in 2021 of **the International Year of Peace and Trust**, decided by the UNGA on 12 September 2019. In accordance with resolution A/RES/73/338 co-sponsored by many countries including India, "the International Year of Peace and Trust constitutes a means of mobilizing the efforts of the international community to

¹⁵ For a general presentation of the MGIEP see <https://mgiep.unesco.org/> accessed on 23 May 2021.

¹⁶ Anantha Daraiappah, *For an Education that Fosters Human Flourishing. Does the current education system prepare young learners to develop more peaceful and sustainable societies? Do education systems need to be re-thought to achieve human flourishing?* in <https://thriveglobal.in/stories/for-an-education-that-fosters-human-flourishing/> accessed on May 24, 2021.

promote peace and trust among nations based on, inter alia, political dialogue, mutual understanding, and cooperation, in order to build sustainable peace, solidarity, and harmony.”¹⁷

In the process of celebrating this Year, UNESCO Member States could make an effort to further define trust as a value binding them in their mutual relations, having in mind that trust is a central part of all human relationships, including partnerships, business operations, education, politics, and diplomatic practices. The concept of confidence-building measures which is already familiar in multilateral diplomacy practiced under the UN system might provide some useful guidance in defining trust.

Such an initiative by UNESCO would be in full harmony with the invitation addressed by the UNGA to all Member States, to all organizations of the UN system, including UNESCO and other relevant international and regional organizations and civil society, non-governmental organizations, individuals, and other relevant stakeholders, to facilitate the observance of the International Year of Peace and Trust, in an appropriate manner and to disseminate the advantages of peace and trust, including through educational and public awareness-raising activities.¹⁸ E-learning cannot be absent from this vast process.

In a document circulated in the UN General Assembly, the world forum noted “ the leading role of the United Nations in promoting dialogue among the Member States to develop common understandings on the security of and in the use of ICTs, as well as in developing common understandings on the international

¹⁷ *** United Nations, General Assembly, *International Year of Peace and Trust, 2021*, 12 September 2019, in <https://undocs.org/en/A/RES/73/338>.

¹⁸ *Ibidem*,

legal regulation of the activities of States in the ICT field and norms, rules and principles for responsible State behavior in this sphere, and that the United Nations should encourage regional efforts, promote confidence-building and transparency measures and support capacity-building and the dissemination of best practices".¹⁹

E-learning will have the chance in the years to come to further demonstrate its valuable contribution in all worldwide humanistic activities.²⁰

¹⁹**United Nations, General Assembly, *Developments in the field of information and telecommunications in the context of international security*, <https://undocs.org/en/A/C.1/74/L.50>

²⁰ The World Summit on the Information Society Forum 2020 was scheduled to take place in April 2020 in Geneva. For details see <https://www.itu.int/net4/wsis/forum/2020/>. As already announced, after careful consideration and in light of the global health crisis and pervasive travel restrictions, the co-organizers decided to hold the WSIS Forum 2020 in a virtual format. The WSIS Forum 2020 strived to create a meaningful virtual experience for WSIS stakeholders and to scale the event to reach a wider audience.