

219th session of the Executive Board

Committee on Conventions and Recommendations

Draft report of the CR Committee Item 17.I – General monitoring (document 219 EX/39 (Draft))

Presentation by the Natural Sciences Sector

2021 Recommendation on Open Science

- The Recommendation has been broadly recognized by the open science community and it has set a more holistic vision of open science going beyond open access to publications and data. More than 200 scientific articles have cited the Recommendation as the new framework to conduct open science.
- A series of standards and guidance for the implementation of open science has been developed in a very transparent inclusive and consultative way. The resulting UNESCO Open Science Toolkit is meant to assist the Member States in raising awareness of open science and addressing the challenges of capacity building, policy development, funding and infrastructures for open science.
- In addition, the UNESCO Open Science Capacity Building Platform and an Index of Open Science Infrastructures for sharing information on UNESCO's priority areas have also been developed and are available online on the UNESCO open science website.
- The Toolkit and the Indexes are the result of the ongoing work of the Open Science Working Groups which now gather over 700 experts and stakeholders from all the regions. 16 meetings were held so far focusing on high impact areas of critical importance for the implementation of the Recommendation.
- The Recommendation and the subsequent work in Member States and with support of the Secretariat has had important impacts on policy development. These policy developments and other best practices for open science have been summarized in the first edition of the UNESCO Open Science Outlook, which was launched in December 2023, providing the first ever assessment of status and trends of open science at global and region level.
- The Outlook showed that 11 countries adopted more holistic open science policies/policy instruments since 2021¹. The Recommendation prompted several countries to go beyond open science policies and to revise their overall STI policies to integrate principles of open science, indicating that their national science systems become open by default².

¹ Austria, Canada, Colombia, Cyprus, Ireland, Italy, Latvia, Lesotho, Slovenia, South Africa and Ukraine.

² Ghana, Sierra Leone, Slovenia, Cambodia.

- With the support from the Secretariat, several countries in Africa are in different stages of development of open science policies/strategies/roadmaps in Africa³. The Secretariat is also involved in the development of sub-regional open science policies, notably in Southern Africa, Western Africa and Eastern Africa.
- Besides policy support, UNESCO has also support over 20 trainings on open science and is actively supporting African scientists through its remote access initiative. This initiative aims to provide African scientists with access to scientific resources, databases, and research tools that are vital for their work.
- The implementation of the 2021 UNESCO Recommendation on Open Science goes beyond the Natural Sciences Sector. The work of UNESCO's Communication and Information Sector on Open Solutions has contributed to the democratization of science in line with the Recommendation. In the reporting period, UNESCO worked with 17 countries in Africa and four Small Island Developing States (SIDS)⁴ to strengthen capacities for open access to scientific information and open data policies.
- UNESCO, through its Natural Sciences and Communication and Information Sectors, contributed to promoting equitable scientific publishing, including through the Summit on Diamond Open Access, held in Mexico in October 2023. The Summit provided countries with opportunities for global collaboration, which will lead to the creation of a federated mechanism for diamond open access to share best practices and innovative solutions using South-South and North-South-South cooperation modalities. Promoting South-South collaboration, UNESCO contributed towards the promotion of the Non-Commercial Open Access Scientific publication process, that assists in fostering collaboration and innovation within the academic community.
- Finally, in order to prepare the first consolidated report on the implementation of the Recommendation on Open Science due to be submitted to the 43rd session of the General Conference in 2025, draft guidelines for the reporting on the implementation of the 2021 Recommendation are submitted to the Executive Board for consideration at its 219th session (document 219 EX/17.III).

Contribution by the Social and Human Sciences Sector

2017 Recommendation on Science and Scientific Researchers

- Reporting on progress on this Recommendation the Secretariat notes that the establishment of a Programme on the Freedom and Safety of Scientists by the General Conference at its 42nd session was the major milestone of the reporting period towards further upscaling the implementation the 2017 Recommendation on Science and Scientific Researchers. This programme translates the powerful vision of the Recommendation for the vital role of science in addressing societal challenges and promoting trust in science into action. Inclusive dialogue and collaboration with Member States – key features of the development of the Programme so far – will remain the driving force going forward notably through the ministerial roundtable and the dialogue platform for science policy advisors in addition to work on data collection, the enhancement of institutional capacities, advocacy, etc.

³ There was only one open access policy in Ethiopia in 2019, and since 2022, we have Lesotho, South Africa, Ghana, and Sierra Leone with open science policies or principles integrated, and Botswana, Cote d'Ivoire, Nigeria, Uganda, Tanzania, Kenya, Mozambique, Somalia, and Namibia in preparation.

⁴ Angola, Egypt, Eritrea, Ethiopia, Ghana, Kenya, Libya, Democratic Republic of the Congo, Mauritius, Mozambique, Nigeria, South Africa, Tanzania, Tunisia, Uganda. SIDS: Cuba, Jamaica, Mauritius, Samoa.

- Furthermore, diverse interventions were recalled, including the elaboration of a comprehensive framework of indicators, reports mapping challenges faced by scientists, especially in instances of conflict, regular input to the Universal Periodic Review, and an extensive number of awareness-raising and advocacy events together with a broad range of partners.

2021 Recommendation on the Ethics of Artificial Intelligence

- The Secretariat notes the advancements made in the implementation of the 2021 Recommendation on the Ethics of Artificial Intelligence (AI). The policy-oriented and actionable tools, including the Readiness Assessment Methodology (RAM), the Ethical Impact Assessment (EIA), as well as the Global AI Ethics and Governance Observatory, demonstrate tangible steps towards advancing the vision outlined in the Recommendation, emphasizing the crucial role of ethical AI in addressing societal challenges and fostering an ethical approach towards the fast-paced adoption of AI technologies. The development of the implementation tools was characterized by inclusive dialogue and collaboration with Member States, driving its formulation and ensuring its effectiveness.
- Further initiatives were outlined in the report such as the dedicated expert networks including the Women4Ethical AI Platform and the AI Ethics Experts without Borders network, as well as the annual Global Forum on the Ethics of AI, will continue to drive progress, alongside efforts focused on capacity-building, fundraising, public outreach, and advocacy. The Secretariat also notes the launch of extrabudgetary projects, such as the European Commission funded initiative on implementing legislative and regulatory requirements and strengthening the capacity of supervisory authorities complement the building-up of expertise and knowledge within UNESCO for its Member States.
- Member States were encouraged to actively engage with and support UNESCO in furthering the implementation of the 2021 Recommendation on the Ethics of AI, including through the implementation of the Readiness Assessment Methodology and provision of resources to UNESCO secretariat to further expand the scope of its work, contributing to its continued success. The progress report on this instrument was considered without debate.

Presentation by the Communication and Information Sector

2003 Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace

- The 5th consolidated report of the 2003 Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace was adopted by the 42nd session of the General Conference. This consolidated report was supplemented with the analysis of the ongoing trends and measures taken by Member States to enhance multilingualism in the cyberspace. Within this context, the Member States have recognized content development, language preservation, and universal access as implicit and emerging narratives for multilingualism. The resolution highlights the importance of Universal Acceptance (UA), that ensures that all domain names, and email addresses are treated equally and can be used by all Internet-enabled applications, devices, and systems.

- UNESCO has also initiated a partnership with the Keyman initiative, a free and open-source keyboarding platform that empowers individuals to create keyboard layouts for their respective languages, and the Bloom Library, a free and open-source system that enables people to create books in their own languages including indigenous languages.
- In the framework of the International Decade of Indigenous Languages, eight National Action Plans privilege activities towards digital empowerment. The proposed activities privilege the development of multilingual content and systems and the development of public domain content. Additionally, an event took place in November 2023 at the Partnerships Hub in the framework of the 42nd Session of the General Conference to shed light on the importance of empowering indigenous languages in the cyberspace and to highlight the lack of compatibility between indigenous languages and existing keyboards and software. Another successful initiative involves Lenovo Foundation, Motorola and UNESCO to digitize, preserve and promote indigenous languages in smartphone interfaces.

2015 Recommendation concerning the Preservation of, and Access to, Documentary Heritage including in Digital Form

- Since the last reporting period, the 2nd consolidated report on the implementation of this normative instrument was adopted by the 42nd General Conference without amendment.
- One of the key aspects of UNESCO's work was the call for nominations for the 2024-2025 cycle of the Memory of the World International Register, during which a two-month extension was granted by the Director-General from the original deadline of 30 November 2023. During this cycle, the Secretariat received 122 nominations, including 16 joint nominations.
- The partnership between the Memory of the World Programme and the International Federation of Library Associations and Institutions (IFLA) has continued to enhance the capabilities of memory institutions, focusing particularly on digitization, long-term preservation, access to digital documentary heritage, and disaster risk reduction.
- Efforts have also continued in Africa. A publication, "Memory of the World – Documentary Heritage Treasures of Africa", was launched in February 2024, highlighting the 24 collections from Africa on the Memory of the World International Register. In the Latin America and the Caribbean, the development of an Observatory on Documentary and Digital Heritage is underway. In Asia and the Pacific, a comprehensive set of six learning materials on disaster risk management for paper documentary heritage has been developed and translated into six Southeast Asian languages. Efforts have also continued in the Arab region. As part of the Li Beirut initiative to support the rehabilitation of public schools' libraries and archives after the Beirut Port blasts.
- To leverage further its work in the preservation and accessibility of digital heritage, a Memorandum of Understanding has been signed between UNESCO and the Korea Institute of Science and Technology Information (KISTI), with areas of cooperation including promotion of digitization and digitalization of documentary heritage.

2019 Recommendation on Open Educational Resources (OER)

- UNESCO has continued to support the implementation of the 2019 Recommendation on Open Educational Resources (OER), through awareness-raising and capacity

building activities, as well as through fostering partnerships, in the framework of the UNESCO/ Internet Governance Forum (IGF) OER Dynamic Coalition.

- Since the last reporting period, the 1st consolidated report on the implementation of this normative instrument (42C/31) was adopted by the 42nd General Conference without amendment.
- In addition, UNESCO promoted the Recommendation on OER at the Online Educa 2023 meeting in Berlin, Germany, in cooperation with ICDE and Université Numérique. This event highlighted the importance of multilingualism in the Recommendation and the importance of international cooperation.
- Regarding knowledge sharing and capacity development, UNESCO organized three webinars which resulted in supporting capacity building on the implementation of the UNESCO Recommendation on specific areas related to UN key initiatives – the support of the UN Convention the Rights of Persons with Disabilities (CRPD) and the UN Decade for indigenous Languages.
- To further provide guidance to Member States on how to implement the Recommendation, UNESCO, in cooperation with OER Africa and the Network of Open Organizations, finalized the Policy and Capacity Building guidelines featuring best practices from countries around the world.
- The UNESCO/IGF OER Dynamic Coalition Advisory Board held a two-day meeting in November 2023 at UNESCO Headquarters in Paris, France.