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4TH UNITED NATIONS OPEN SCIENCE & OPEN SCHOLARSHIP CONFERENCE

THE RIGHT TO PARTICIPATE IN & BENEFIT FROM SCIENCE

CONCEPT NOTE

16 – 18 OCTOBER 2025 | UNITED NATIONS UNIVERSITY (TOKYO, JAPAN)

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In September 2024, at the Summit of the Future, all 193 Member States of the United Nations adopted the action-oriented Pact for the Future. The Pact underscores that science is instrumental for all three pillars of the United Nations – sustainable development, peace and security, and human rights. Recognizing the potential for science to accelerate the implementation of the 2030 Agenda and the 17 Sustainable Development Goals (SDGs), the Pact supports policies towards open science and open innovation for achieving the SDGs, to help bridge science gaps especially in developing countries. The right to participate in and benefit from science remains fundamental to human progress and a long-standing international commitment, recognized in article 27.1 of the Universal Declaration of Human Rights, in article 15 of the International Covenant on Economic, Social and Cultural Rights, and through multiple and wide-ranging science-policy interfaces and special measures to remove obstacles to exercising that right.

Despite these significant commitments, billions of people – especially in developing countries – still lack meaningful access to critical scientific knowledge, research infrastructure, and emerging technologies. Open science and open scholarship provide a transformative pathway to reverse these trends, fostering multilateral cooperation, responsible innovation, and the equitable dissemination of knowledge. As stated in the UNESCO Recommendation on Open Science, we must ensure "reciprocal access to science for all producers and consumers of knowledge regardless of their location, nationality, race, age, gender, income, socio-economic circumstance, career stage, discipline, language, religion, disability, ethnicity, migratory status or any other grounds". The United Nations General Assembly proclaimed the period 2024–2033 the International Decade of Sciences for Sustainable Development taking a more multidisciplinary and transdisciplinary approach to problem-solving to strengthen the complementarities and trade-offs between the different SDGs and assist in policymaking and SDG localization.

Yet there are also approaches in open science and scholarship that reflect the global imbalance in research and development. This imbalance significantly hinders the ability of many low- and middle-income countries to implement the necessary transformations required to achieve and participate in the SDGs. To ensure that all benefit and participate in scientific inquiry we must enhance capacities for knowledge transformation, improve regulatory environments, and advance the maturity of science, technology and innovation systems, between and within countries.

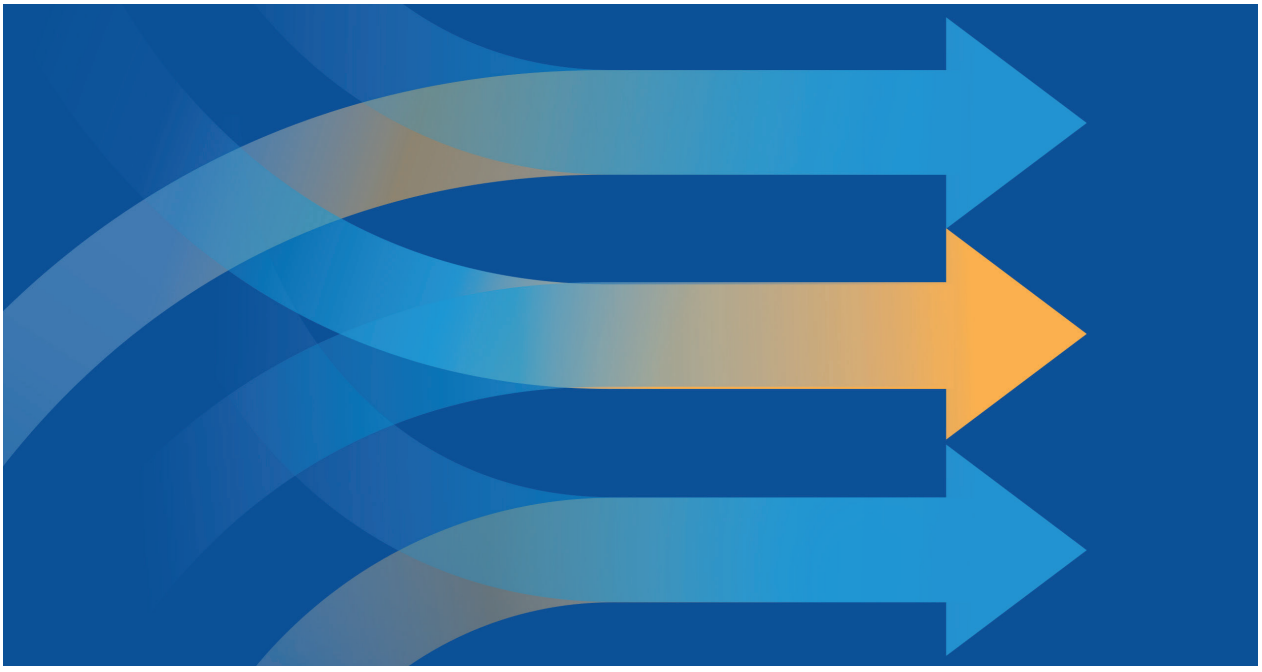
Open science is a catalyst for transformative interactions across all SDGs, reinforcing systemic connections among goals to accelerate comprehensive global progress. This includes the six key transitions for SDG acceleration – 1. food systems; 2. energy access and affordability; 3. digital connectivity; 4. education; 5. jobs and social protection; and 6. climate change, biodiversity loss, and pollution. Open science practices serve as powerful tools in mitigating implementation challenges that result from the integrated and indivisible nature of the SDGs. Practices that enable the translation of scientific approaches into actionable policies, facilitate interdisciplinary research, and enhance cross-sector and multi-actor collaboration. To achieve this purpose, open science and open scholarship practices must be implemented in the spirit of multi-level cooperation, focusing on cross-border interdisciplinary approaches, collaborations among countries, and locally adapted, national or institutionalized open policies. As we strive to minimize the disconnect between knowledge production and its practical implementation at the science-policy-society nexus, persistent gaps remain in adapting SDG interactions at subnational levels and among marginalized communities. Prioritizing open science policies securing accessibility and inclusivity, and empowering communities to co-create solutions, will

ensure that scientific advancements translate into tangible, localized benefits. Open science should be harnessed to generate data-driven, inclusive, and participatory policy frameworks that reflect the interconnected nature of the SDGs.

Open science and open scholarship are powerful enablers of science diplomacy, advancing international cooperation and inclusive scientific progress. Open access to data, research outputs, and digital public goods can bridge systemic inequalities in knowledge production. Fair and balanced multi-level cooperation, underpinned by open science, is essential for joint research initiatives, coordinated policy actions, and equal participation in global knowledge systems. Expanding open infrastructure and knowledge-sharing commitments will help scientific advancements contribute to sustainable development worldwide, particularly in the Global South. By aligning SDG implementation efforts across different geopolitical contexts, science diplomacy can harness innovation to serve humanity collectively.

At this pivotal moment, with only five years remaining until 2030, the 4th United Nations Open Science and Open Scholarship Conference will serve as a platform to advance these principles as key priorities in the international agenda for implementing the Pact for the Future. This initiative will aim to ensure that scientific advancements contribute to sustainable development, human rights, and inclusive global progress. The event will be organized by the United Nations Dag Hammarskjöld Library of the Department of Global Communications, in collaboration with the Department of Economic and Social Affairs, Division for Sustainable Development Goals, and UNESCO's Division of Science Policy and Capacity-Building.

From 16 to 18 October 2025, this Conference will bring together policymakers, IGO representatives, researchers, scholars, librarians, publishers, and civil society, and will convene online and at the United Nations University (UNU) in Tokyo, Japan. It will serve as an urgent call to accelerate transformations in science and scholarship in alignment with actions 28-33 of the Pact for the Future, to map progress in national and international efforts towards opening the record of science, and to inspire collaborative actions and coalitions to expedite progress ensuring no country, community, or individual is left behind.



The Conference builds upon the discussions and recommendations put forward at the three previous United Nations Open Science Conferences. The programme will include cross-cutting panels and keynotes organized across three days, based on three themes.

1. AI, open science, and the global digital divide

Artificial intelligence (AI) aspires to revolutionize scientific inquiry and infrastructure. The outputs of open science and scholarship serve as the foundation for training artificial intelligence: "one of the indispensable inputs of generative AI is the very output that Open Science works hard to generate and perfect: open data, source code, scientific articles and educational resources, all of which are provided for free and are often funded by taxpayer monies." Yet, various AI tools trained on open science outputs are not open.

The Global Digital Compact recognizes that digital public goods include open AI models. What would it mean to apply an open framework for AI or to center AI on a human rights framework, elevating the right to participate in and benefit from artificial intelligence? International cooperation is crucial; the impact and development of AI tools and systems need to be monitored on both global and national levels, with consideration to the global resource inequality exacerbating power imbalances in the scientific community. Applying the values and principles of open science to artificial intelligence realizes the Global Digital Compact commitment to advance "equitable and inclusive approaches to harnessing artificial intelligence benefits and mitigating risks in full respect of international law", and the Pact for the Future's aim to integrate "a human rights perspective into regulatory and norm-setting processes for new and emerging technologies". The International Science Council has introduced a framework for evaluating rapidly developing digital and related technologies (AI, large language models and beyond) emphasizing equally the need for flexible and responsive regulatory strategies. The values, principles, and practices of open science and scholarship may provide a framework for handling AI-generated data and content, ensuring the open content used to train AI does not compromise data privacy or security, and that AI-generated content prioritizes verifiability.

2. Science communication and public engagement

Science cannot function as a public good if the public cannot engage with it. In all editions of the UN Open Science Conference, speakers and participants consistently emphasized that communicating scientific results and breakthroughs and engaging with the public is essential. Scientists must also actively engage in communicating the scientific process. Maintaining public trust in scientific institutions is crucial. In the policy brief on Information Integrity on Digital Platforms, the UN Secretary-General highlights shortcomings in the current digital information ecosystem. Addressing these gaps requires wider possible dissemination of scientific information. Communicating science with the goal of driving change – cause-communications in science – goes hand in hand with the adoption of open science and open scholarship practices.

More recently, the Global Digital Compact highlighted the importance of developing local content and capacity-building relevant to local realities. Research questions and initiatives related to the SDGs must be co-created with a range of actors, including children, young people, local communities, civil society, and academics. Such approaches generate "socially robust" science, as called for in the 2023 Global Sustainable Development Report, that is cognizant of, and responsive to, societal needs. In turn, scientists and policymakers themselves need to represent a broad spectrum of identities and experiences for meaningful change to take place and for science and scholarship to contribute to more resilient information ecosystems.

3. Removing barriers to knowledge: open infrastructure and the future of scientific access

A strong and effective science-policy interface does not ensure transformation towards the SDGs. Achieving the SDGs necessitates societal engagement with all aspects of science and scholarship so that people will be ready, informed, and willing to commit to the transformations needed.

As a first step, it is imperative to ensure that once open science and scholarship are produced, they are widely accessible, both now and in the long term. While open access publishing is on the rise, some models fall short in ensuring accessibility and fairness. Models advanced by article-processing charges and transformative agreements reposition barriers instead of removing them. Previous UN Open Science Conferences have clearly articulated that incentives such as power, prestige, pure profit-centric exploitation, and expansion result in climate change, global inequalities, and the structural barriers faced by historically marginalized and underserved groups.

Diamond open access journals and public and open access repositories offer models for open access publishing that not only disseminate new research and findings but also embrace the human right to benefit from and participate in knowledge, foster bibliodiversity, and support the integrity of the knowledge ecosystem. Often led by the communities that contribute to them and supported by the digital public infrastructure provided by libraries, these models support science as a digital public good, the global scientific commons. Global summits have increasingly highlighted the need to align with the 2021 UNESCO Recommendation on Open Science, professing the strengthening of the science-policy-society nexus within and among countries, promoting community-owned, community-led, and non-commercial models. As advanced by the Global Digital Compact, such initiatives must adhere to privacy and other applicable international laws, standards, and best practices, do no harm, empower societies and individuals to direct digital technologies to their development needs, and facilitate digital cooperation and investment.

Building on the foundation and outcomes of previous conferences, the 4th UN Open Science and Open Scholarship Conference will facilitate dialogue among scientists, policymakers, and stakeholders as they develop policies and infrastructures that, guided by equity, advance open science and scholarship for humanity and the achievement of the SDGs.

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