



Session Outcome Document

Science in the Age of AI: Knowledge, Data, and Trust

International Science Council (ISC)

7 July 2026, 17:00-17:45

<https://www.itu.int/net4/wsis/forum/2026/Agenda/Session/216>

Key Issues discussed:

- AI is transforming every stage of the scientific process, from knowledge generation and data analysis to publication and peer review, raising fundamental questions about what scientific discovery means in an AI-mediated research environment.
- The volume of AI-generated research is overwhelming existing systems of quality control and peer review, with serious implications for research integrity and the trustworthiness of the scientific record.
- In many Global South contexts, AI adoption is outpacing the foundational research skills and institutional capacity needed to use it critically, risking a generation of researchers unable to independently collect, analyse, or evaluate evidence.
- The concentration of AI capability among well-resourced institutions and large technology companies is narrowing the research agenda and drawing talent away from public science systems, with long-term consequences for the public interest.
- Existing data infrastructure, governance frameworks, and national AI strategies in many countries remain poorly adapted to the specific needs and dynamics of science systems.
- The push for open science and open data is generating new tensions around data sovereignty, with researchers in some contexts choosing to restrict access to their data out of concern that benefits will flow disproportionately to those with the greatest computational resources.
- AI raises deep interpretability challenges for science: in some fields, it may be possible for AI to advance human understanding in ways that humans themselves cannot fully explain or validate.

Key Outcomes of the session

- AI is transforming every stage of the research process, from knowledge generation and data analysis to publishing and peer review, raising fundamental questions about scientific integrity, reproducibility, and what constitutes genuine discovery.

- In Global South research systems, AI adoption is outpacing the institutional capacity needed to use it critically, with risks including empirically undertrained researchers, immature data infrastructure, and limited access to compute.
- The volume of AI-generated scientific output is already straining peer review systems to breaking point, with urgent questions emerging about how to distinguish quality research from AI-generated noise.
- A paradox is emerging around open science: the push for open data may be driving researchers to conceal their data, amid concerns that benefits flow disproportionately to well-resourced actors rather than back to the communities that generated the data.
- Concentration of AI research investment among large technology companies and elite institutions risks narrowing the scientific agenda and drawing talent away from the broader public research system.
- The ISC presented findings from its report on preparing national research ecosystems for AI, drawing on case studies across 26 countries, with a key finding that existing national AI strategies largely overlook the science sector itself.
- No formal agreements were announced, though the session reinforced the importance of ISC and CODATA continued collaboration on AI governance frameworks relevant to science systems.

Key Recommendations and Forward-Looking Actions

- National AI strategies must explicitly address the science sector, including research integrity, data governance, and the capacity of research institutions to engage critically with AI tools.
- Equitable licensing frameworks for scientific data need to be developed urgently, ensuring that open science does not become a vehicle for extracting value from Global South data without reciprocal benefit.
- Investment in data infrastructure, compute capacity, and AI literacy within Global South research systems is essential to prevent a widening gap between those who build AI tools and those who are shaped by them.
- The scientific community must develop new norms and checks and balances for an era of AI-assisted research, preserving the integrity of peer review, the transparency of methods, and the culture of critical inquiry.
- Multilateral forums including WSIS should promote governance frameworks that counteract the concentration of AI research capacity among a small number of institutions and companies, and that protect science as a global public good.