GLOBAL YOUNG ACADEMY

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2026 International Conference of Young Scientists Statement

Machine Intelligence for Society and for All Sciences

Preamble

Artificial intelligence (AI) is changing how research is conducted, evaluated, and communicated. Further, AI offers new opportunities for scientific discovery while raising new questions about research quality, accountability, governance, and access. These changes affect researchers at all career stages, but not equally. Early- and mid-career researchers (EMCRs) often depend most heavily on publication metrics, funding competitions, and institutional evaluation systems. As a result, EMCRs have the least freedom to reject flawed incentives or experiment with alternative practices, despite being among those most affected by these incentives in the first place.

Artificial intelligence did not create these structural challenges. Long-standing reliance on bibliometric indicators, prestige-based publishing, unequal access to research infrastructure, and global disparities in research capacity predate the emergence of large language models. AI, however, accelerates and amplifies them. It lowers the barriers to producing and disseminating scientific content, reshapes how research is assessed, and increases the speed at which weaknesses in existing systems can affect scientific practice. This makes questions of governance, evaluation, transparency, and research integrity more urgent than before.

To examine these developments, the Global Young Academy (GYA) convened its 2026 International Conference of Young Scientists on 1–2 July 2026 at Constructor University in Bremen, Germany, under the theme “Machine Intelligence for Society and for All Sciences”. The conference brought together EMCRs, science academy leaders, publishers, and science-policy practitioners from across the GYA's global network. During five public sessions, participants examined how AI is reshaping research governance, scientific publishing, disciplinary practice, and science advice, with particular attention to equity, access, and the implications for the next generation of researchers. The recommendations that follow draw on these discussions and reflect the perspective of the GYA.

Opening Discussion Panel – Strengthening Global Research Collaboration for Science as a Global Public Good

The opening panel examined whether international scientific collaboration functions as a genuine public good or continues to run mainly from well-resourced systems outward, and what would make cooperation more reciprocal.

Panel I – AI Governance for a Shared Future: Science, Policy, and Global Equity

Panel I turned to the governance of AI in research itself, asking what ethical, disclosure and equity standards should apply across disciplines and regions, and who should be involved in setting them. It became a question of expertise: whether responsible governance is something only specialists in ethics or law get to define, or whether it also needs the people running AI tools inside a lab every day.

Panel II – Accelerating Discovery: AI's Transformative Role in Natural Sciences and Engineering

In a session on AI's role in the natural sciences, discussion explored questions about design. That is, AI gets sold as a great equaliser for research, yet whether that promise holds depends entirely on who has a say in what gets built and for whom, a point made well by researchers training language models in local languages for farmers rather than repurposing tools designed for someone else's problems first. The panel also examined AI's role in accelerating discovery in the natural sciences and engineering, from climate science to advanced materials, alongside the new skills and forms of access that the next generation of scientists will need.

Public Dialogue Session – The Hidden Cost of Knowledge: AI, Publishing Surveillance, and the Future of Open Research

The Public Dialogue Session addressed the publishing side of the same transition: whether AI is changing how the scholarly record is produced and consumed, whether researchers' own reading and writing behaviour is being tracked and monetised by publishing platforms, and what publishers, funders and researchers can each do to keep scholarly communication open, equitable and trustworthy.

Panel III – AI at the Core of Disciplinary Foundations in the Humanities and Social Sciences

Panel III closed the public programme by exploring how AI is reshaping the foundations of the humanities and social sciences, from what counts as independent scholarly work to how knowledge is produced and disciplines evolve. The discussion stressed the need to preserve critical thinking, build technological literacy and develop more globally representative data and infrastructures. It also highlighted the political role of researchers in shaping how AI is developed, governed and used.

General Recommendations

Involve early- and mid-career researchers in AI policy from the outset

Decisions on AI use in research, research assessment, publishing, and research integrity are being taken now, and will bind researchers for decades. Those most affected by AI systems are typically least represented in decisions about their design, deployment, and oversight. In research, this falls hardest on EMCRs, who depend most on the systems now being redesigned and have the least freedom to opt out of them. Participation cannot be added after a policy has been drafted.

- Science funders, publishers, research organisations, and regulators should systematically involve EMCRs in the development, implementation, and review of AI-related policies affecting research, as full participants.
- Review and input periods should be open while proposals are still genuinely open to change, and not be confined to formal commenting periods on near-final text versions.

Address structural inequalities in access to AI-enabled research

AI will reinforce existing inequalities in research unless policy directly addresses unequal access to knowledge, infrastructure, and publishing. Researchers continue to face paywalls, high article processing charges, unequal access to computational resources, and a growing dependence on proprietary AI platforms whose pricing, terms of use, and continued availability they cannot influence.

- AI governance should promote equitable access to research infrastructure, including shared and publicly governed computing capacity and open models.
- It should require transparency in the use of research data, including data resulting from researchers' own use of publishing and AI platforms.
- AI should support publishing models that serve the public interest rather than deepen existing disparities.

Conclusion

The public conference of the 2026 GYA Annual General Meeting and International Conference of Young Scientists demonstrated that machine intelligence is not only changing research practice but also exposing broader questions about how science is governed, evaluated, and shared. Discussions spanning AI governance, scientific discovery, scholarly publishing, science diplomacy, research collaboration, and the humanities converged on a common conclusion: AI policy must be developed alongside the researchers and communities it will affect.

Implementing this principle does not require creating new consultation structures from scratch. The GYA brings together around 650 members and alumni from more than 100 countries, has supported the establishment of dozens of National Young Academies and similar structures, and is represented in international science-policy bodies, including the United Nations Secretary-General's Scientific Advisory Board. Together with the growing network of National Young Academies, the GYA provides an established, cross-disciplinary, and internationally representative forum through which EMCRs can contribute to the development of AI-related policies.

As governments, funders, publishers, research organisations, and international bodies continue to develop AI governance frameworks, they should make systematic use of these existing networks. Doing so will help ensure that AI policies are informed by the perspectives of the researchers who will implement them, work under them, and shape the future of science through them.

ABOUT THE GYA

The vision of the GYA is *science for all, science for the future*, and its mission is to give voice to young scientists and researchers around the world. Founded in 2010, the GYA is an independent science academy of outstanding early- to mid-career researchers from six continents, selected across disciplines on the basis of academic excellence and commitment to engage with society. GYA members serve five-year terms, and the Academy presently counts members from close to 100 countries. The GYA's administrative Office is publicly funded and hosted at the German National Academy of Sciences Leopoldina. The wide array of GYA activities are supported by a range of international public and private funders. The GYA gratefully acknowledges funding by the Federal Ministry of Research, Technology and Space in Germany, and the German State of Saxony-Anhalt, which helped enable all the work reported on in this publication.