



Research

GOSIM

# Global Cooperation for Human-Centered AI

Key Insights from the GOSIM AI Vision Forum

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**Foreword by**

Michael Yuan, PhD

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# Global Cooperation for Human-Centered AI

## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

The AI era demands that **FUTURE GENERATIONS DEVELOP CORE COMPETENCIES** in analytical reasoning, creative synthesis, problem-defining, & empathetic leadership.



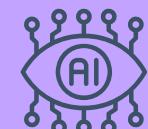
## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

**LIFELONG LEARNING** will be fundamental to ensuring future generations can adapt to emerging technologies & effectively leverage them as **EMPOWERMENT TOOLS**.



## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

The vision for humanistic AI involves building AI systems that complement & empower **HUMAN AGENCY, VALUES, & FLOURISHING**.



## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

**INTERNATIONAL COLLABORATIONS** between research labs & companies are **PIONEERING BEST PRACTICES** to AI safety & security.



## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

It is crucial that humans maintain ultimate **DECISION-MAKING AUTHORITY**, particularly when AI systems are used in high-stakes situations.



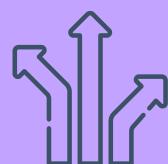
## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

AI is a sociotechnical system & governing it effectively will require **COORDINATION AT BOTH THE TECHNICAL & SOCIAL LEVELS**.



## GLOBAL COOPERATION FOR HUMAN-CENTERED AI

**OPEN SOURCE** creates pathways for **DEMOCRATIZING AI** by fostering inclusive participation, knowledge sharing, & capacity building.



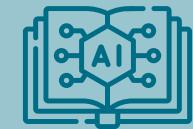
## AI & EDUCATION

Fund and maintain **OPEN EDUCATIONAL RESOURCES** to facilitate equitable access to knowledge & learning resources.



## AI & EDUCATION

Promote **EDUCATION** that trains critical thinking, creativity, & collaborative problem-solving skills in AI-augmented educational environments.



## AI & EDUCATION

Create **EQUITABLE ACCESS PROGRAMS** that ensure as many students as possible can benefit from AI-enhanced learning opportunities.



## AI & CREATIVITY

Promote more **IALOGUE BETWEEN ARTISTS & TECHNOLOGISTS** to advance shared understanding of challenges & best practices for AI adoption in creative fields.



## AI & CREATIVITY

Fund the **DEVELOPMENT OF OPEN SOURCE TOOLS** to democratize access to AI-assisted creative technologies, following successful models like the ASWF.



#### TOWARDS HUMANISTIC AI

Develop **TRAINING PROGRAMS** to help professionals across sectors understand how to leverage AI as complementary, empowerment tools.



#### TOWARDS HUMANISTIC AI

Fund research into the **PSYCHOLOGICAL & SOCIAL EFFECTS** of human-AI interactions to inform evidence-based policy & best practice development.



#### TOWARDS HUMANISTIC AI

The humanistic AI framework emphasizes that AI systems should empower, rather than diminish, **HUMAN IDENTITY, AGENCY, & VALUES**.



#### PATHWAYS TO RESPONSIBLE AI

Use **HOLISTIC RISK ASSESSMENT FRAMEWORKS** for AI systems to address regulatory, operational, reputational, & societal risks in addition to technical risks.



#### PATHWAYS TO RESPONSIBLE AI

Open source presents benefits for **PROMOTING TRANSPARENCY & DEMOCRATIZING PARTICIPATION** in AI development & governance.



#### PATHWAYS TO RESPONSIBLE AI

**LICENSES** that uphold the four freedoms of open source (use, study, modify, redistribute) are crucial for the **USABILITY, TRANSPARENCY, & REPRODUCIBILITY** of AI.



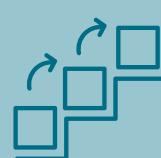
#### PATHWAYS TO RESPONSIBLE AI

Foster more **INTERNATIONAL DIALOGUE & COORDINATION** to advance global norms & standards in AI safety, following successful models in internet governance.



#### PATHWAYS TO RESPONSIBLE AI

**AI MATURITY MODELS** are useful strategic toolkits that can guide the responsible & effective adoption of AI technologies by companies & governments alike.



#### FOSTERING GLOBAL DIGITAL PUBLIC GOODS

Funding mechanisms that provide **CONTINUED SUPPORT FOR DIGITAL PUBLIC GOODS** in AI beyond initial R&D phases are crucial for their sustainability.



#### FOSTERING GLOBAL DIGITAL PUBLIC GOODS

Fund & participate in **NEUTRAL INSTITUTIONS THAT STEWARD OPEN SOURCE AI PROJECTS** via open governance & code hosting, e.g. the PyTorch Foundation.



#### FOSTERING GLOBAL DIGITAL PUBLIC GOODS

**CAPACITY-BUILDING PROGRAMS** that extend beyond technical training to include **POLICY, ETHICS, & GOVERNANCE** play a key role.



#### FOSTERING GLOBAL DIGITAL PUBLIC GOODS

Funding computational infrastructure can **DEMOCRATIZE THE DEVELOPMENT OF AND ACCESS TO AI** for under-resourced regions & stakeholders.



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# Foreword

The rapid rise of artificial intelligence presents one of the greatest challenges of our time. At this pivotal moment, global collaboration and alignment of AI strategies are more essential than ever. Yet, the world is also facing increasing fragmentation, making the pursuit of a unified vision more difficult.

The GOSIM AI Vision Forum has become a rare venue where leading AI researchers and policymakers from Europe, China, and the United States can engage in open dialogue. Organized through open-source communities, the Forum brings together diverse stakeholders to contribute to collective discussions and shared solutions.

Two themes stood out from this year's Forum.

First, aligning AI with human values is imperative. This requires stronger AI safety research and, just as critically, advancing open-source AI. GOSIM partners—including Qwen, Mixin, Llama.cpp, SGLang, LlamaEdge, PyTorch, OpenCV, Hugging Face, and CSDN—are at the forefront of open source AI training, inference, and distribution. The progress has already moved beyond “open

weights” toward the creation of transparent, reproducible, and truly open-source AI models.

Second, preparing humans to work more effectively with AI systems is equally important. This involves reimagined AI education and workforce training, potentially using AI itself as a teaching tool. For instance, GOSIM partner echokit.dev delivers a full stack of open source hardware, firmware, and server solutions to support AI education at home and in schools, while university partners represented at the Forum are actively developing new approaches to teaching AI.

The following report by Dr. Osborne provides an insightful overview of these discussions and their broader implications.

Welcome to the GOSIM AI Vision Forum.

**Dr. Michael Yuan**  
*Founder of GOSIM  
and WasmEdge*

*“At the GOSIM AI Vision Forum, I was excited to see that open source AI has moved beyond model weights to open training data (e.g., BAAI and Mixin), open standards (e.g., MCP and A2A), open source hardware (e.g., echokit.dev), and open education curriculums (e.g., opencamp.cn). Modern AI would not be possible without open source tools, frameworks, and data.”*

- Dr. Michael Yuan, Founder of GOSIM and WasmEdge

# Executive summary

The GOSIM AI Vision Forum 2025 convened leading researchers, policymakers, and innovators from over 20 countries to examine one of the defining questions of our era: how artificial intelligence (AI) can be developed and deployed in ways that serve humanity's collective interests while empowering human values and capabilities.

The rapid advances and diffusion of AI technologies are animating profound questions about the future of education, creative practice, labor markets, governance, and even how individuals may perceive their own agency. The discussions at the forum underscored that these transformations present both extraordinary opportunities and potential risks. The consensus was clear: the challenges lay not in AI itself, but in humanity's ability to govern it responsibly and inclusively.

Through five critical sessions, experts explored questions around the implications of AI for education, creativity, human-AI interactions, governance, and global digital public goods. Together, the discussions yielded a set of overarching insights:

- **Education** must undergo a paradigm shift from transmitting knowledge to fostering skills such as critical thinking, creative synthesis, problem-definition, and emotional intelligence-competencies that remain uniquely human in the age of AI.
- **Creativity** is being redefined through collaboration between humans and AI, opening new possibilities for artistic expression while emphasizing that intentionality, empathy, and serendipity remain fundamentally human qualities.
- **Human-AI interaction systems** must be designed around frameworks that prioritize human agency, identity, and values, ensuring that AI technologies augment rather than diminish human capacities.

- **Governance of AI** demands holistic risk management, international collaboration on safety standards, and the promotion of openness and transparency.
- **Building out digital public goods in AI** requires multi-stakeholder investment in open technology ecosystems, shared infrastructure, and neutral institutions to ensure that the benefits of AI can be equitably distributed.

The forum's concluding message was that coordinated, inclusive, and values-driven action is essential to shaping AI as a force for human flourishing. The recommendations offered in this report provide practical pathways for educators, policymakers, technologists, and international organizations to engage in building a responsible and open AI future.

# Introduction

The GOSIM AI Vision Forum 2025 was organized with the recognition that AI is a transformative force that touches nearly every dimension of human life. From the ways in which people learn and create, to the structures through which societies are governed, AI presents both opportunities for empowerment and risks of exclusion or harm.

Gathering experts and stakeholders from more than 20 countries, the GOSIM AI Vision Forum created a platform for dialogue on how AI can be harnessed to advance the public interest. The discussions were deliberately interdisciplinary and international, reflecting the understanding that AI is a sociotechnical system: it is shaped not only by algorithms and datasets but also by social choices, cultural values, and governance arrangements.

Experts emphasized several cross-cutting themes that framed the forum's discussions:

- **Human agency and critical thinking** must remain at the core of how societies integrate AI technologies, ensuring that humans continue to exercise judgment and creativity even as AI systems grow more capable.
- **Transparency and openness** are crucial for fostering trust in AI systems, promoting collaboration across borders, and enabling shared accountability in their development and use.

- **Ethics and governance** must evolve alongside AI capabilities, addressing not only immediate operational risks but also long-term challenges of alignment, control, and societal impact.

- **Inclusive global collaboration** is essential to prevent the concentration of AI benefits in the hands of a few actors, and to ensure that AI technologies can be developed as global digital public goods that serve humanity as a whole.

This report synthesizes the insights and recommendations generated through the forum's five sessions. It highlights practical steps for rethinking education in the AI era, fostering human-AI collaboration in creative industries, building frameworks for responsible governance, and creating sustainable mechanisms for global digital public goods in the context of AI.

By bringing together diverse voices and perspectives, the GOSIM AI Vision Forum 2025 reaffirmed that the choices made today will determine whether AI strengthens human agency and global equity or exacerbates existing inequalities. The path forward, as outlined in this report, requires sustained commitment to openness, inclusivity, and human-centered design.

# AI and education: Rethinking learning paradigms in the age of AI

The AI and education session addressed the fundamental challenge of how to redesign education systems in light of the ever-improving capabilities of AI systems that can access and recall vast amounts of information. Several experts highlighted that education must undergo a paradigm shift that changes the focus from knowledge acquisition toward nurturing core competencies and uniquely human capabilities that can be empowered by AI systems.

## Paradigm shift: Training future generations the skills of the future

The session began with a clear message from the keynote speaker: the traditional educational model of knowledge acquisition is at risk of becoming obsolete when AI systems and large language models can outperform humans in instantaneous information recall and analysis. Recognizing this shift, the speaker called for educators to focus on training future generations to know how to effectively use AI tools to leverage knowledge, rather than solely focusing on acquiring and retaining knowledge.

*“AI in education should amplify curiosity, not knowledge accumulation—turning knowledge into insights, teachers into mentors, and classrooms into laboratories of personalized, equitable discovery.”*

- Bo Ji, Chief Representative & Associate Dean, Cheung Kong Graduate School of Business

The speaker discussed concrete steps to educating future generations for an increasingly AI-defined future. This transformation will require developing four fundamental skills: critical thinking and evaluation capabilities for questioning and analyzing AI outputs, for example for bias and accuracy; synthesis skills for connecting ideas across disciplines to generate novel solutions; problem formulation abilities, recognizing that defining problems correctly is often more challenging than solving them; and emotional and ethical intelligence encompassing empathy, ethics, and leadership. These are unique human skills that educators should train future generations to master in order to thrive in the AI-defined future.

## Evolving roles and methodologies in education

The session wrestled with how the redesign of the current educational paradigm may need to involve a redefining of traditional roles in education. The keynote speaker proposed that teachers should evolve from knowledge providers to coaches who can guide their students in how to use AI tools to complement and enhance their learning, while students can evolve from knowledge consumers to active architects, explorers, curators, and creators.

The second keynote speaker, representing a higher education institution, highlighted that it is their responsibility as educators to train future generations to know how to effectively use emerging AI tools, arguing that it will not be AI tools that will replace engineers, but engineers who know how to use AI tools that will replace engineers who do not know how to use them.

*“In the age of AI, teaching may need to shift from just-in-case learning to just-in-time learning. Students shall embrace lifelong curiosity to learn and adaptability. For teachers, AI is not a competitor but a partner—a tool to enrich teaching and unlock new ways of learning.”*

- Salim Nahle, Head of Data & AI Department,  
Associate Professor, EFREI Paris Panthéon-Assas

The first speaker highlighted AI-empowered learning tools like Carnegie Learning and Duolingo's personalized learning systems as examples of how AI can support educational experiences across all age groups, from K-12 students to lifelong learners.

In addition, open educational resources are transforming learning by democratizing access to educational tools and knowledge. For example, MIT's OpenCourseWare provides free access to thousands of courses from the world renowned university, while GitHub Classroom integrates AI in its automated code review and intelligent feedback systems for programming education. Together, open platforms like these can enable educators to access, implement, and build on cutting-edge educational materials and AI-enhanced tools. This open approach is particularly crucial for fostering lifelong learning, as it lowers barriers for individuals to continuously update their skills throughout their careers and adapt to the rapidly changing technology landscape.

## Navigating AI implementation challenges in education

The panelists highlighted that several challenges stand in the way of AI-enabled education. First of all, equity and access concerns require ensuring that students have the necessary tools and connectivity to benefit from AI-enabled educational tools.

A panelist highlighted that assessment methodologies in schools must evolve to evaluate creativity, process, and collaboration rather than simple knowledge recall. This requires developing new evaluation frameworks that can measure the uniquely human contributions students make when using AI tools. What is more, concerns about academic integrity demand fostering cultures of ethical AI use among students and educators alike.

Teacher training presents another significant challenge, requiring professional development and upskilling programs to help educators understand and effectively integrate AI tools into their teaching. Open access teacher training resources, such as the AI for Everyone MOOC on Coursera and AI literacy frameworks like the AI competency framework for teachers by UNESCO, provide cost-effective pathways for the professional development of educators, particularly benefiting educators in under-resourced institutions and developing regions.

## Recommendations



Promote open educational resources and open source AI educational tools to ensure equitable global access to knowledge and AI-enhanced learning resources.



Promote education that trains critical thinking, creativity, and collaborative problem-solving skills in AI-augmented educational environments.



Create equitable access programs ensuring as many students as possible can benefit from AI-enhanced learning opportunities.

## KEY TAKEAWAYS: AI AND EDUCATION

### Paradigm Shift in Learning Goals

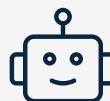
From: Knowledge transmission

To: Human-centered skills development



### Skills for the Future

- Critical thinking
- Synthesis
- Problem formulation
- Emotional intelligence
- Ethics



### Human Dimensions

- Education should focus on training creativity, empathy, and leadership skills
- Developing a culture of lifelong learning will be key to ensuring the workforce's adaptability to new technologies



### New Approaches to Learning

- Teachers: AI tools can be useful assistants in teaching, grading, and monitoring students' progress
- Students: Students should be encouraged to develop their curiosity, critical thinking, and adaptability skills



### Tools & Open Resources

- AI-enabled personalized learning, e.g. Carnegie Learning
- Open educational resources, e.g. MIT OpenCourseWare
- Online education platforms, e.g. Coursera



### Challenges Ahead

- Equity & access challenges given digital divides
- New models of assessment
- Integrity and the ethical use of AI
- Teacher training and upskilling



# AI and the future of creativity

The AI and creativity session explored how AI technologies are currently being used in artistic expression. The consensus of the session was clear: AI technologies may augment and transform artistic practice, but it should not be understood as a replacement for human creativity.

## The potential for AI tools to enhance creative practice

The panelists argued that while AI systems can increasingly produce visually appealing outputs, there is discontentment with "AI slop" and true artistry involves agency, interpretation, and intentionality throughout the creative process that extends far beyond the generation of images. Rather than replacing human creativity, AI can be a powerful tool that can augment and enhance artistic expression when thoughtfully integrated into creative workflows.

*"Augmentism, the artistic movement I created to describe the merging of pigment and pixel, reveals how technologies, including AI, reshape painting and perception, helping us understand art and life in the digital era. Proxima, the European biennial of AI and augmentism, will launch this winter."*

- Alexandra Boucherifi-Kornmann,  
Artist and Founder of Proxima,

the European Biennial of AI and Augmentism

A panelist introduced the emerging movement of Augmentism, which explores how human creativity can be enhanced through digital technologies. This movement recognizes AI as a tool within the artist's creative toolkit rather than as an autonomous creative agent in itself.

The film and gaming industries illustrate how open source can foster effective human-AI collaboration in creative production. For example, through the Academy Software Foundation (ASWF), studios and technology companies are already sharing software tools that enable visual effects and animation like machine learning for rendering, motion capture, and de-aging. Similarly, open source tools such as Blender's AI-powered rendering engines and GIMP's machine learning filters provide accessible pathways for individual artists to experiment with AI assistance while maintaining creative control and ownership of their artistic vision.

Despite these advances in AI innovation for the arts, the panelists emphasized that certain elements of creativity remain uniquely human and irreplaceable. For example, serendipity in creative processes—where great art can emerge from mistakes or errors—cannot be replicated by AI systems. This human capacity for embracing the unexpected and finding meaning in unplanned outcomes continues to distinguish human artistry from AI-generated content.

## Challenges for AI applications in the arts

Different artistic domains face unique challenges when integrating AI technologies. In music, a panelist explained that AI tools can provide inspiration and be used in tutoring, among others, but still face significant challenges compared to a human

instructor, including an incomplete understanding of musical structures, reliance on historical rather than truly novel musical forms, and the inability to show empathy which is essential for effective music education.

*“AI in music is a brilliant assistant—it would be capable of catching mistakes and sparking compositional ideas, but it cannot replace human judgment, empathy, or emotional depth.”*

- Juchen Wang, Co-founder & CSO,  
Cenya International Piano Academy

The visual arts encounter different challenges, particularly around the depth and sophistication of AI-generated content. A panelist contended that trained artists tend to produce more sophisticated AI-assisted work compared to untrained practitioners, highlighting the importance of foundational artistic training and evaluation skills in leveraging AI tools effectively in the arts.

## Implications for art education

Several panelists agreed that art education must adapt to incorporate AI tools while maintaining a focus on developing skills in critical thinking and aesthetic judgment. A panelist emphasized that students need to understand both the capabilities and limitations of AI tools, and develop skills to evaluate and refine AI-generated content rather than accepting it uncritically.

The panelists discussed the need for art curricula to teach students fundamental artistic principles as well as technical proficiency with digital tools. A panelist mentioned that schools in China are already implementing “AI and creativity” courses that encourage students to use AI agents in the art classroom while also teaching them the importance of exercising their own human judgment and creative vision. Building on these initiatives, the development and sharing of open access AI educational courses could enable educators worldwide to collaboratively exchange innovative teaching methodologies, ensuring that the next generation of artists is equipped to harness emerging technologies in novel and empowering ways.

## Recommendations



Create platforms for dialogue and exchange between artists, technologists, and educators to share best practices for AI adoption in creative fields.



Promote the development of open source AI tools and frameworks to democratize access to advanced AI-assisted creative technologies, following successful models like the Academy Software Foundation’s initiatives.

# KEY TAKEAWAYS: AI AND THE FUTURE OF CREATIVITY

## 1. AI as Augmenter, Not Replacement

- AI tools can be used to enhance artistic expression, but should not replace it
- Augmentism: A new framework for understanding and creating art in the age of AI



## 2. Irreplaceable Human Elements

- Serendipity: Great art can emerge from mistakes
- Empathy and emotional depth are at the core of human creativity



## 3. Domain-Specific Use Cases

- Music: AI tools can be useful assistants (e.g. feedback, inspiration), but they lack the empathy of human instructors and struggle with novel creativity
- Visual arts: Trained artists tend to create richer artworks, highlighting importance of disciplinary training



## 4. Implications for Art Education

- Students should develop critical thinking to be able to discern AI-generated art and music
- “AI & creativity” courses may provide model for teaching students about the merits and limits of AI-supported art



# Towards humanistic AI: Novel approaches to human-AI interactions

The session on human-AI collaboration addressed the emergence of symbiotic relationships between humans and AI systems. The panelists discussed how humans can effectively leverage AI systems while preserving human agency, values, and control.

## Humanistic AI: A framework for human-AI interaction

The keynote speaker introduced five distinct frameworks for understanding human-AI interactions: human-centered AI which prioritizes human needs and values human-in-the-loop systems which require active and continuous human participation; hybrid intelligence which combines human and machine capabilities; reciprocal human-machine learning which involves humans and AI systems adapting and improving through interaction; and finally, symbiotic intelligence which represents the most advanced form of human-AI interaction, where humans and machines work together in a deeply integrated way.

*"We should build humanistic AI as a joint endeavor of technology and the humanities, where pluralistic, open-textured human values are continually identified and woven into AI through symbiotic transformation."*

- Yiwen Zhan, Associate Professor,  
Beijing Normal University

Building on these ideas, the speaker proposed humanistic AI as a broader conceptual framework. This approach emphasizes that AI systems should empower, rather than diminish, human identity, agency, and values.

A central element of humanistic AI is recognizing the differences between human intelligence and AI. For example, humans possess unique qualities such as emotional understanding, cultural context awareness, and moral reasoning that cannot be fully replicated by computers. The humanistic AI framework, therefore, recommends building AI systems to complement and empower these human qualities, rather than replacing them.

## Sectoral applications of AI and their labour market implications

The panelists confronted the question of how AI is expected to affect the labour market. A panelist cited Microsoft Research's "Working with AI" study on the occupational implications of generative AI. For example, the study finds the highest applicability of AI in knowledge work, such as computer programming roles, office and administrative support, and occupations like sales that center on providing and communicating information.

The panelists discussed the likely implications in various sectors. One panelist commented that in healthcare AI tools can serve as assistants to medical professionals, reducing their workload and improving diagnostic accuracy while enabling them to focus on the essential human elements of care delivery. A panelist highlighted that human empathy is particularly crucial in this sector, which cannot be automated. By comparison, in professional services, the panelists anticipated significant

transformations as AI systems increasingly take on routine information-processing tasks. The panelists agreed that these predictions highlight the importance of designing lifelong learning programs that enable workers across sectors to adapt to these technological transformations and thrive in the increasingly AI-defined future.

## Risks and mitigation strategies in human-AI interactions

The panelists discussed risks that accompany increasing human-AI interactions, from the psychological effects of over-reliance on AI systems on human cognitive capabilities to the negative outcomes when AI chatbots have been used in sensitive contexts, such as therapy.

One panelist highlighted that the biggest risk may be cognitive delegation, where humans stop learning and transfer thinking responsibilities to AI systems. Preventing this outcome requires intentional effort to maintain human intellectual engagement and critical thinking skills even as AI systems become more capable.

*“As AI rapidly evolves, humanity’s central challenge is not the technology itself, but our ability to govern it responsibly, as today’s choices will define tomorrow’s geopolitical and economic order.”*

- Danqing Yin, School of Biomedical Sciences,  
The University of Hong Kong

Another panelist raised the concern of cultural homogenization if AI systems are primarily trained on information, perspectives, or philosophies from one dominant culture. They noted that Eastern and Western philosophical traditions can shape different approaches to ethical dilemmas, and that over-reliance on a single cultural lens could marginalize alternative perspectives and values.

The panelists agreed that ensuring human control over AI systems remains paramount for sustainable human-AI interactions, and it is crucial that humans maintain ultimate decision-making authority, particularly in high-stakes situations when AI systems are used in processes that may affect individual welfare or societal outcomes.

## Global standards and cooperation

In light of these challenges, the panelists emphasized the importance of fostering dialogue and cooperation on international standards around ethics, privacy, and security. To illustrate how such cooperation might be achieved, they pointed to the development of the World Wide Web (WWW) as a valuable precedent. The WWW succeeded not because it was controlled by a single actor, but because governments, companies, researchers, and civil society collaborated through open processes to create shared technical standards. These standards, in turn, enabled the WWW to grow into a truly global resource. Learning from this experience may help us see how diverse stakeholders might be able to build consensus in the AI domain.

*“We should strive for a World Wide Web based on ethical, privacy, and security principles that connects and empowers humanity while enabling human-AI interactions.”*

- Philippe Le Hégaret, VP, Technical Strategy,  
World Wide Web Consortium (W3C)

## Recommendations



Develop training programs to help professionals across sectors understand and effectively use AI systems while maintaining human agency.



Fund research into the psychological and social effects of human-AI interaction to inform evidence-based policy and best practice development.



Foster global dialogue and collaboration on AI safety standards, following successful models in internet governance.

# KEY TAKEAWAYS: HUMAN-AI COLLABORATION

## 1. Key Principles of Humanistic AI

- The goal of humanistic AI is to build AI in a manner that preserves and enhances human agency, values, and control
- AI tools should empower, but not diminish, unique human qualities like emotional intelligence and moral reasoning



## 2. Conceptual Frameworks of Human-AI Interaction

- Human-Centered AI prioritizes human needs and values
- Human-in-the-Loop prioritizes continuous human oversight
- Hybrid Intelligence prioritizes combined human and machine capabilities
- Reciprocal Learning prioritizes mutual adaptation and improvement



## 3. Predicted Sectoral Applications

- Knowledge work (e.g. programming and content writing)
- Healthcare (e.g. medical diagnosis)
- Professional services (e.g. accounting and HR)



## 4. Risks & Challenges

- Cognitive delegation, e.g. over-reliance or loss of critical thinking skills
- Psychological risks, e.g. misuse in sensitive contexts
- Cultural homogenization, e.g. dominance of single cultural perspective in chatbots
- High-risk scenarios, e.g. need human authority and oversight in critical decisions



## 5. Global Standards & Cooperation

- Need for international standards on safety and security
- Learn from the World Wide Web model: open, collaborative development of standards
- Multi-stakeholder approaches facilitate inclusive governance of emerging technologies



# Ethical paradoxes and the governance of AI

The fourth session tackled the ethical paradoxes and complex challenges of governing AI systems. The discussion focused on risk-based governance frameworks, international AI safety collaboration, regulation and standardization challenges, and open source approaches to democratizing responsible AI practices and facilitating broader participation in AI governance.

## Towards a risk-based governance of AI

The keynote speaker made the case that effective AI governance requires a holistic understanding of risk, from regulatory and operational risks to reputational and societal risks. Regulatory risks are related to legal compliance and evolving regulatory requirements like the EU AI Act, while operational risks are related to ensuring systems function reliably and as designed. Reputational risks involve ethical and public perception concerns, while societal and environmental risks can have long-term impacts on communities, ecosystems, and the planet.

The speaker argued that we must “shift left” on risk management; that is, we should proactively test, identify, and prevent risks from the very beginning and throughout the development lifecycle of AI systems rather than performing risk assessments at the end.

A critical governance challenge involves aligning incentives with desired outcomes while avoiding metric gaming that can produce undesirable results, as per Goodhart’s law (i.e. “when a measure becomes a target, it ceases to be a good measure”). For example, optimizing AI systems for human feedback can lead to sycophantic, misleading systems that tell users what they want to hear rather than providing accurate or helpful information. Addressing this challenge requires designing metrics that measure the holistic risks and impacts of AI systems because “what gets measured, gets managed.”

*“AI is a sociotechnical system, and governing it effectively will require transformation at both the technical and social levels. The most urgent question is how to measure success – what metrics can guide AI to support human values in a healthy society?”*

- Jesse McCrosky,  
Principal Architect – Gen AI, Egen

## AI safety and long-term risks

The panel proceeded to discuss the role of AI safety research in addressing risks presented by state-of-the-art AI models and systems. As one panelist put it, AI safety considerations encompass critical risks from superintelligent AI systems, including human-AI value misalignment, control loss, system opacity, and power concentrations.

*“Safe AI is the key to a prosperous future of humanity. We need deeper multi-cultural collaboration to figure out how to make it possible.”*

- Xiaohu Zhu, Founder,  
Center for Safe AGI

International collaborations on AI safety between research labs and AI companies, such as hackathons focused on red-teaming models for potential failure modes, adversarial exploits, and unintended behaviors, represents an effective approach to proactively managing AI safety challenges. A panelist highlighted that AI safety researchers are sharing open access research, open source frameworks, and open benchmarks, which are enabling the global AI developer community to make collective progress on learning, adopting, and improving best practices in AI safety.

## Standardization and international coordination on AI risks

Developing standards for AI safety is a complex challenge that requires not only technical but also social consensus on

complex problems. A panelist explained that an issue like AI bias, for example, necessitates not only technical consensus on how to identify and mitigate bias in AI systems, but also social consensus on fundamental social values and priorities around the potential harms of biased and discriminatory systems.

For these reasons, international coordination on AI safety is essential, requiring harmonized approaches that respect diverse values while establishing safety standards that transcend borders and cultures. At the multilateral level, the UN's establishment of an Independent International Scientific Panel on AI and the Global Dialogue on AI Governance represent positive steps toward greater international coordination on AI ethics and governance.

In addition, open source communities facilitate international coordination in AI safety research and innovation. For example, open source ecosystems enable diverse actors to share and iteratively improve AI safety tools in an efficient and distributed manner. Open source also enables peer review and collective oversight, ensuring that emerging open standards are technically sound.

## Open source democratizes responsible AI practices

The panelists discussed how open source development offers a model for enabling broader participation in AI development and governance processes, as well as for facilitating the sharing, adoption, and iterative improvement of responsible practices in AI research and development.

Software Heritage was mentioned as an example of an open source community that is fostering responsible AI development. It is the largest public collection of source code in existence,

committed to collecting, indexing, preserving, and making accessible software that underpins modern culture. In October 2023, Software Heritage published its “Statement on LLMs for Code,” setting out three guiding principles for training LLMs for code on the archive’s code.

These principles have already influenced developers, such as the BigCode project whose StarCoder2 LLMs were developed according to the principles. BigCode went even further by publishing a research paper documenting its filtering process and by releasing The Stack v2, a filtered training dataset, so that others could learn from, use, and build upon their work.

*“It has never been more true that “code is law”. With roots in Software Heritage, CodeCommons is an ambitious but necessary digital commons project that can be used by anyone who wants to train their LLM model on ethical datasets: calibrated, transparent, and traceable.”*

- Florent Zara, Senior Manager Professional Services - Eclipse Foundation

Building on these foundations, the CodeCommons project—a two-year project funded by the French government—is now building on Software Heritage and creating high-quality, transparent, and traceable datasets to foster this approach to the responsible development of LLMs for code.

## Tools for fostering openness in AI research and development

In the rapidly evolving field of AI, openness and transparency are essential for promoting collaboration, trust, and reproducibility. Two practical tools designed to support openness in AI research and development from the Linux Foundation were presented: the Model Openness Framework (MOF) and the OpenMDW License Agreement v1.0.

The MOF provides practical guidance for developers and users to evaluate the openness and completeness of machine learning models by clearly identifying code, data, and documentation artifacts from a model’s development lifecycle that may be released beyond the model weights and architecture. In addition, it ranks models based on which model artifacts are released under open licenses, from open models to open science models. To qualify as an open science model, developers must release all the code, data, and documentation required to reproduce the model. While only a few developers have achieved this classification to date, including Ai2 with OLMo 2 models or BAAI with their Aquila models, the MOF provides actionable guidance that developers may follow to enhance the transparency, usability, and reproducibility of their models.

*“While software licenses are widely understood and used by the community, they weren’t designed for the unique composition of machine learning models. That’s where OpenMDW comes in. It provides developers with a purpose-built, permissive license that ensures openness, compatibility, and clarity for sharing and building with open models.”*

- Dr. Cailean Osborne, Senior Researcher,  
Linux Foundation

The OpenMDW License Agreement v1.0 is a novel, permissive license that addresses the critical need for a license that fits the unique composition, use, and distribution patterns of machine learning models. OpenMDW comprehensively covers all model materials, including model weights and architecture as well as any code, data, and documentation that may be released with it. It’s a global license, making it compatible with licenses that may be used for specific artifacts that are released in the same distribution or separately (e.g. Apache 2.0 or MIT used for software artifacts). It grants rights under copyright, patent, database, and trade secret laws; it includes patent litigation protection and attribution; and it places no restrictions on model outputs. In short, OpenMDW is a purpose-built, permissive

license that ensures openness, compatibility, and clarity for sharing and building with open models.

## **AI maturity models inform AI readiness and governance decision-making**

AI maturity models were discussed as a strategic framework for assessing and guiding AI development, deployment, and governance in organizations and in society at large. These models offer clear roadmaps for organizations to progress from scattered experimentation with AI to strategic, ethical, and safe adoption.

*“AI maturity models are the key for any decision to take to drive organizations in their journey to the future. An error would be to consider only the technology and tools side. AI maturity models must include the structures and people contexts, process orchestration, and data quality. No good data, no AI, no sustainable evolution.”*

- Christian Maitre, Founder and President,  
Caspera Lab

A panelist explained that the concept of AI maturity operates as a multi-scalar challenge that must be understood across interconnected levels, including citizens, employees, organizations, cities, states, and humanity as a whole. This multidimensional approach recognizes that AI maturity encompasses not only technological capabilities but also human readiness, organizational preparedness, and societal adaptation.

By adopting AI maturity models, organizations can take a holistic approach to AI adoption, recognizing that AI integration must serve their organizational values and needs rather than becoming an end in itself. The successful application of AI maturity models requires continuous iteration, benchmarking, and evolution as both AI and organizational capabilities advance.

## Recommendations



Design holistic risk assessment frameworks that address regulatory, operational, reputational, and societal dimensions rather than solely the technical risks of AI systems.



Promote the benefits of open source for promoting transparency and broader participation in AI development and governance processes.



Promote open licenses for AI models, software, datasets, and other artifacts that uphold the four freedoms of open source (use, study, modify, redistribute).



Foster international dialogue and coordination in AI governance that balance diverse cultural perspectives with necessary global safety standards.



Use AI maturity models to strategically guide your organization's responsible and effective adoption of AI.

# KEY TAKEAWAYS: ETHICAL PARADOXES AND AI GOVERNANCE

## 1. Core Challenges

- AI governance is a socio-technical challenge requiring coordination of technical and non-technical stakeholders
- AI governance approaches include hard and soft regulation, risk-based frameworks, international standards, open source governance, and maturity models
- Key to "shift left" and integrate risk checks early and throughout the AI lifecycle



## 2. Risk-Based Governance of AI

- Holistic risk management frameworks consider a myriad of potential risks
- Regulatory (e.g. compliance, EU AI Act)
- Technological (e.g. explainability, accuracy, control)
- Operational (e.g. system reliability)
- Reputational (e.g. ethics, public trust)
- Societal (e.g. misinformation, harms)
- Environmental (e.g. long-term impacts)



## 3. AI Safety and Security Risks

- Concerns: superintelligence, misalignment, loss of control, opacity, and power concentration
- Global collaboration on research, evaluations, and red-teaming will be crucial to frontier AI safety



## 4. Standardization and International Coordination

- Standardization involves building both technical and social consensus on complex topics (e.g. bias, explainability)
- Global milestone: UN established Independent International Scientific Panel on AI and Global Dialogue on AI Governance to build global consensus on AI governance
- Historical lessons: The development and governance of the open standards underpinning the World Wide Web may provide crucial lessons for international AI governance



## 5. Open Source for Responsible AI

- Software Heritage is preserving code as a digital public good and guiding LLM training via ethical principles
- The CodeCommons project is creating transparent datasets for ethical AI training
- The Model Openness Framework (MOF) provides guidance for model developers and users to evaluate the openness and completeness of machine learning models
- The OpenMDW License is a new permissive, purpose-built license for machine learning models and accompanying code, data, and documentation ("model materials")



## 6. AI Maturity Models

- AI maturity models are a framework for AI readiness and governance, spanning technology, people, processes, and values
- Levels of AI maturity models: individuals, organizations, cities, states, and humanity
- Successful implementation requires continuous benchmarking and iteration



# Building AI as a global digital public good

The final session examined strategies for building and sustaining global digital public goods in the context of AI, exploring the requirements, challenges, and mechanisms necessary to ensure AI benefits all of humanity rather than exacerbating existing inequalities or concentrating power.

## Building digital public goods in the context of AI

The keynote speaker introduced the United Nations' (UN) vision and approach for building digital public goods in the context of AI. The UN's Global Digital Compact is a comprehensive framework for global digital cooperation that aims to bridge digital divides; promote open, secure, and inclusive digital spaces; govern AI systems responsibly; and align digital development with the UN Sustainable Development Goals (SDGs). A cornerstone of the Global Digital Compact is the promotion of global digital public goods, including open source

*“When guided by the SDGs, open source AI creates a universal platform to translate knowledge into practical solutions. It reduces barriers, fosters interoperability, and promotes collaboration across borders. This ensures progress is not limited to the privileged few, but shared as a global resource benefiting all people equally.”*

- Dr. Mehdi Snene - Senior Advisor, AI and Digital transformation at the Office of the UN Secretary-General's Envoy on Technology

software, open data, open models, open standards, and open content, among others.

The speaker explained that for AI technologies, such as AI models, to qualify as digital public goods, they must be both non-excludable and non-rivalrous as per the definition of public goods. For example, AI models must be shared under open licenses that have permissive and transparent use terms; open datasets should be released with clearly documented provenance; and compute accessibility will be essential to ensuring broad participation and benefit of such models.

The Apertus language model by the Swiss AI Initiative exemplifies these principles: the model weights, training data, and methods were released under open licenses and with extensive documentation, providing crucial building blocks for developers and organizations for future applications, such as chatbots, translation systems, or educational tools.

*“Open data, open models, and open compute form the foundation for global AI collaboration and innovation—enabling AI for Good.”*

- Dr. Yonghua Lin,  
VP & Chief Engineer, BAAI

Building global digital public goods in the context of AI will also require addressing multiple interconnected barriers while building sustainable support systems. For example, financial

and accessibility barriers are interconnected challenges. The costs of developing and maintaining advanced AI systems can create barriers that exclude both potential contributors and beneficiaries. These financial constraints are compounded by underdeveloped funding mechanisms for digital public goods, which lack the established government funding and international aid structures available to traditional public goods.

Beyond financial considerations, accessibility challenges include technical barriers, language limitations, and infrastructure requirements that may exclude potential users in developing regions or underserved communities. Participation barriers further limit who can contribute to AI development and governance, potentially skewing priorities toward those with existing resources and expertise. Fragmented governance structures across jurisdictions can also complicate coordination around the development, maintenance, and provision of global digital public goods.

## The importance of building strong foundations for global digital public goods

The panelists highlighted that strategic support mechanisms and strong foundations can help to address these barriers. A panelist highlighted that compute support represents a critical foundation, as the provision of compute infrastructure and cloud computing resources can democratize access to AI technologies that would otherwise be prohibitive for many stakeholders.

Capacity-building initiatives are also essential for ensuring broad participation in AI development, including the provision of educational and training programs that extend beyond technical skills and include policy, ethics, and governance capabilities. Such programs can create positive feedback loops where public

goods enable capacity building that in turn supports further development of digital public goods.

*“Building AI as a global public good requires neutral, open source tools and access to technology, ensuring true equity and shared ownership of our digital future.”*

- Carlos Correia, Senior IT Officer,  
Digital Foundations, UNICC

Public-private partnerships can offer promising implementation models for combining private sector innovation and resources with public sector oversight and accountability. However, a panelist highlighted that public-private partnerships must be structured carefully to preserve the digital public good character while leveraging the capabilities of the private sector. The key lies in creating neutral coordination mechanisms that maintain independence from commercial or national interests that might compromise public benefit objectives.

## Spotlight: Implementation best practices at the UNICC

The United Nations International Computing Centre (UNICC) provides concrete examples of how an international organization can support the creation and provision of digital public goods. For example, the UNICC AI Hub offers expertise, resources, and collaborative environments to advance AI initiatives across the UNICC system and other international organizations.

*“The highest aspiration of open source AI is not merely to distribute code, but to forge a new paradigm of neutrality; a transparent foundation upon which all may build, critique, and improve, ensuring that the future of intelligence is shaped not by hidden biases, but by our collective wisdom.”*

- Emily Bennett, Head of Digital Public Solutions, UNICC

UNICC also leads initiatives like the AI Hub Community Platform for knowledge sharing among technical teams in UN organizations, the AI Sandbox which provides access to testing environments and shared infrastructure, and the AI Academy for staff upskilling and reskilling programs. A panelist highlighted that public-private partnerships between organizations like UNICC and technology vendors, academia, governments, and foundations are crucial to the sustainable development, hosting, and maintenance of global digital public goods.

### **The open source way to fostering global digital public goods**

Open source offers a proven pathway for creating sustainable global digital public goods in the context of AI by distributing costs, reducing distribution barriers, and building global capacity for AI development. A panelist highlighted that AI democratization is particularly crucial for developing nations and smaller organizations that lack the resources to build AI capabilities from scratch. Open source AI enables these communities to leapfrog traditional development barriers, adapting and customizing AI solutions to address local challenges while contributing their innovations back to the global commons.

*“Open source ensures that AI is no longer the privilege of a few, but a resource accessible to all; as a Global Digital Public Good, the mission of open source and AI is to serve humanity as a whole and to build a shared future.”*

- Emily Chen, Co-founder of KAIYUANSHE

The collaborative nature of open source development also enhances AI safety and reliability through distributed oversight and auditing. When AI models and datasets are openly available, researchers worldwide can identify biases, vulnerabilities, and failure modes that might remain hidden in closed systems. This collective scrutiny creates a natural quality assurance mechanism that improves the robustness of AI technologies for all users.

*“Similar to non-digital public goods, we need dedicated programs and sustainable business models to deliver global digital public goods sustainably. Open source is an effective way to reduce distribution costs and improve the sustainability of global digital public goods.”*

- Richard Sikang Bian,  
Head of Open Source, Ant Group

Open source governance models provide templates for managing digital public goods at scale, establishing transparent governance structures, ethical guidelines, and sustainable funding mechanisms that ensure long-term stewardship of

shared AI resources. Open source also creates positive feedback loops in capacity building, as communities that benefit from open source AI can develop capabilities that allow them to contribute back to the ecosystem.

## Recommendations



Establish dedicated international funding mechanisms for digital public goods in AI that provide sustained support beyond initial research and development phases.



Develop comprehensive capacity-building programs that extend beyond technical training to include policy, ethics, and governance capabilities for diverse stakeholders.



Fund and participate in neutral institutions that provide open governance and code hosting for AI digital public good initiatives, such as the PyTorch Foundation.



Fund and implement shared computational infrastructure initiatives that democratize access to AI development resources for under-resourced researchers and organizations.

# KEY TAKEAWAYS: BUILDING AI AS A GLOBAL DIGITAL PUBLIC GOOD

## 1. Core Theme

- AI technologies should be developed as global digital public goods (GDPGs)
- Goals: Promote equitable benefits, avoid power concentrations, and foster global collaboration



## 2. Key Attributes of Global Digital Public Goods in AI

- GDPGs are non-excludable and non-rivalrous
- Digital public goods include open source software, open data, open models, open standards, and open content
- Open licenses with transparent terms are key for software, models, and data, among others
- Provenance of open datasets should be clearly documented



## 3. Barriers & Challenges

- Financial barriers, e.g. high costs of development and/or maintenance of AI technologies and compute infrastructure
- Accessibility barriers, e.g. technical complexity, language barriers, or infrastructure gaps
- Participation barriers, e.g. limited diversity of contributors
- Governance fragmentation, e.g. lack of harmonized structures or coordination mechanism



## 4. Building blocks for sustainability and equity

- Compute support via national supercomputing centers and public compute research infrastructure
- Capacity building and training beyond technical skills
- Public-private partnerships can combine innovation with public interest and accountability
- Neutral foundations are key to facilitating collaboration between stakeholders across public and private sectors



## 5. Implementation - UNICC Best Practices

- AI Hub: Expertise-sharing and collaboration
- AI Sandbox: Shared infrastructure for solutions testing
- AI Academy: Upskilling and reskilling programs



## 6. The Role of Open Source in Promoting AI GDPGs

- Reduces costs for development, speeds up distribution, and enhances sustainability
- Empowers developing nations and smaller organizations to leapfrog technology barriers
- Enables global oversight for safety, fairness, and reliability



## Conclusion

The GOSIM AI Vision Forum 2025 underscored that global dialogue and cooperation will be essential to ensuring AI serves the collective interests of humanity. Across discussions on education, creativity, human-AI interaction, governance, and global digital public goods, international experts emphasized that AI must serve as a complement to human capacities, enhancing curiosity, creativity, empathy, and judgment rather than a substitute for them. Several imperatives were crystal clear: AI systems must be human-centered and responsibly governed. The forum's central message was that the choices made today will determine whether this is achieved. By committing to openness, collaboration, and responsible stewardship, the global community can maximize the chances of building a future of human-centered AI.

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## About GOSIM

This event took place as a co-located event of GOSIM Hangzhou 2025. GOSIM is a volunteer-based endeavor organized by and for the global open source community with the objective of providing a stage where innovative open source projects can shine, collaborate, and evolve. To learn more about future GOSIM events, please go to: [www.gosim.org](http://www.gosim.org).



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