განათლების, მეცნიერებისა და
ახალგაზრდობის სამინისტრო

AI and Digital Technologies in Science and Education

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Appointed member of the Working Group on Artificial Intelligence and Automatic Recognition of Qualifications, The Council of Europe

2025

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From Steam to Digital

The evolution of Industrial Revolution from 1.0 to 4.0
key innovation and major technological breakthroughs

- The Beginnings of Industrial Revolution: Industry 1.0 - **The Steam Engine Era**
- Introduction of electricity - Industry 2.0
- The Rise of Technologies · Industry 3.0
- The Digital Age - Industry 4.0

ANI AGI ASI

Artificial Narrow Intelligence (ANI)
Artificial General Intelligence (AGI)
Artificial Super Intelligence (ASI)

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Challenges in terms of Legal Regulations – Georgia's Context

- **Lack of comprehensive legal framework** – current legislation does not fully address the specific nature and impact of AI technologies
- **Personal data protection** –Need for relevant protection for privacy in AI-driven systems
- **Jurisprudence-related challenges** –limited judicial practice on AI-related disputes
- **Lack of legal definitions** – lack of clear, consistent terminology and definitions
- **Need for the National AI strategy** – Georgia requires a coordinated approach to guide AI integration (and regulation) into various sectors
- **Ethics and legal standards** – necessity to establish ethical principles, accountability mechanisms

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Georgia's Context - Legislative Support for E-Documentation and E-Signature

- **Civil Code of Georgia** (1997)
- Law of Georgia on Electronic Documents and Electronic Trust Services (2017)
- Law of Georgia on Protecting Consumers' Rights (2022)
- Law of Georgia on Personal Data Protection (2023)
- Law of Georgia on Electronic Commerce (2023)
- Law of Georgia on Electronic Communications (2025)
- Georgia's Digital Governance Strategy 2025-2030

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AI regulations and relevant legal acts - Global Context

- The EU Artificial Intelligence Act, 2024 - It lays the foundations for the regulation of AI in the EU.
- **Council of Europe** Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (09.2024)
- The US AI Executive Order
- AMERICA'S AI ACTION PLAN (July 2025)
- People's Republic of China - Global AI Governance Action Plan

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Working Group of Experts on Artificial Intelligence and Recognition of Qualifications

COUNCIL OF EUROPE

CONSEIL DE L'EUROPE

11 countries – Andorra, Croatia, France, **Georgia,** Ireland, Italy, Latvia, Malta, North Macedonia, Portugal, Romania.

4 Organizations –ESU, EUA, UNESCO, Council of Europe Secretariat

International Conference: October 8,9 - *Ensuring Quality Education in the AI Era - Introducing the Council of Europe Compass for AI and Education*

Working group Meeting on Artificial Intelligence and Recognition of Qualifications – 10 October, 2025

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AI risk classification by EU AI Act 2024

- **Minimal Risk** – no restrictions but working on ethical guidelines is highly recommended
- **Limited Risk AI Systems** –marking system in place is necessary, these are the systems that can not significantly harm, but mislead humans
- **High Risk AI Systems** – requires full human oversight

Critical Infrastructure (transport, energy), Education (assessment of pupils and students using AI systems), Healthcare (use of AI in diagnostics and surgery), Labor Relations (employee selection and evaluation), Judicial System (automation of administrative decision-making)

- **Unacceptable Risk** - Refers to AI systems that directly endanger fundamental human rights. Such systems are classified as prohibited under the regulation.

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AI as a Legal Subject

- Simultaneously Subject and Object of Law
- AI and Patent Rights: The Right to Inventions and the Dilemma of Liability and Compensation

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AI in Education – Technology is Transforming Universities

- ChatGPT (Versions 3, 4, and 4o) – Application in Research and Teaching, has **rapidly become a powerful tool** in both research and education
- **DeepSeek** – Use in Academic Research and EducationDeepSeek is an AI-powered search and summarization tool designed specifically for scientific and academic content.
- **AI-based digital assistants** (e.g., Siri, Google Assistant, Alexa, and education-specific tools like ELSA Speak or Replika) are increasingly embedded into educational environment
- **Anti-Plagiarism Tools** AI-powered anti-plagiarism tools like **Turnitin**, **Copyleaks** and **GPTZero** play a crucial role in maintaining academic integrity

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AI in Education - How to set standards that work, consider limitations and ethics!

- Integration of AI and digital technologies into teaching, learning and research processes with careful consideration of Ethics in AI
- Development of the smart assistant concept in academic research
- Offering innovative and effective teaching methods with the help of AI (as mentioned, free up some space for students to learn)
- Advancing education and research processes tailored to individual needs
- Simplifying university and research **administrative tasks**
- Inclusive Education: Ensure that AI literacy programs are inclusive and accessible

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AI in Education - How to set standards that work, consider limitations and ethics!

- ICT education is part of the General education
- Diversified electronic resources on schools.emis.ge
- AI based education resources
- Microsoft AI Platform - https://copilot.cloud.microsoft

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COMPASS for AI and EDUCATION

COUNCIL OF EUROPE

CONSEIL DE L'EUROPE

The Compass for AI and Education. Structured around four components – **Literacy, Practice, Evaluation, Regulation and Governance** – the Compass will provide member states and stakeholders with standards and guidance in ensuring that AI contributes to, rather than undermines, human dignity, democratic participation, quality education, and integrity of educational institutions.

https://www.coe.int/en/web/education/-/artificial-intelligence-and-education-third-working-conference

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Thank You for Your Attention

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