



Why it matters?

How to bridge AI divides?



unesco

Information for All
Programme

UNESCO's humanistic approach to information ethics



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Information for All Programme (IFAP)

in the era of big data and Artificial intelligence

Information
Ethics:

Which
direction
technologies
should
follow?



Information for
Development



Information Literacy



Information
Preservation



Information Ethics



Information Accessibility



Multilingualism

The first
ever:
UNESCO
Recommendation on
the Ethics
of AI
for a
human
centered AI

Four humanistic VALUES

1. Respect, protection and promotion of human dignity, **human rights** and fundamental freedoms
2. Environment and ecosystem flourishing
3. Ensuring diversity and inclusiveness
4. Living in peaceful, just and interconnected societies



Ten PRINCIPLES

1. Proportionality and do no harm
2. Safety and security
3. Fairness and non-discrimination
4. Sustainability
5. Privacy and Data Protection
6. Human oversight and determination
7. Transparency and explainability
8. Responsibility and accountability
9. Awareness and literacy
10. Multi-stakeholder and adaptive governance and collaboration

UNESCO Recommendation on the Ethics of AI: from Value/Principles to Actions



Areas
of
policy
action

POLICY AREA 1: ETHICAL IMPACT ASSESSMENT

POLICY AREA 2: ETHICAL GOVERNANCE AND STEWARDSHIP

POLICY AREA 3: DATA POLICY

POLICY AREA 4: DEVELOPMENT AND INTERNATIONAL COOPERATION

POLICY AREA 5: ENVIRONMENT AND ECOSYSTEMS

POLICY AREA 6: GENDER

POLICY AREA 7: CULTURE

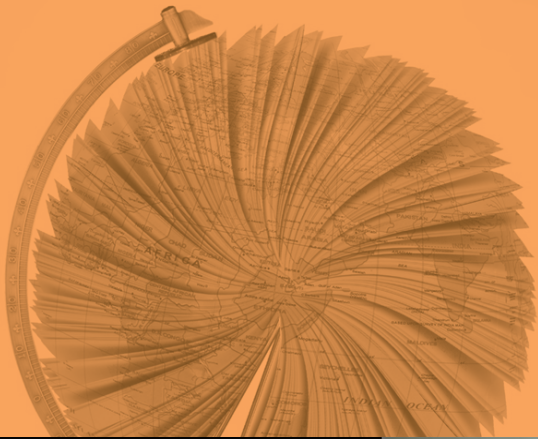
POLICY AREA 8: EDUCATION AND RESEARCH

POLICY AREA 9: COMMUNICATION AND INFORMATION

POLICY AREA 10: ECONOMY AND LABOUR

POLICY AREA 11: HEALTH AND SOCIAL WELL-BEING

GENERATIVE AI: POTENTIALS AND RISKS



Generative AI (GAI):

Ethical questions?

- Human oversight and determination?
- Responsibility and accountability?
- Data privacy and protection?
- Transparency and explainability?

GPT-4 can solve difficult problems with greater accuracy, thanks to its broader general knowledge and problem solving abilities.

Creativity Visual input Longer context

GPT-4 is more creative and collaborative than ever before. It can generate, edit, and iterate with users on creative and technical writing tasks, such as composing songs, writing screenplays, or learning a user's writing style.

Image

↑

"Google soup"

Language



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SOCIAL MEDIA

2nd Contact: A.I. in 2023

- overload
- Addiction
- Reality collapse
- Fake everything
- Trust collapse
- Influencer Culture
- Collapse of law, contracts
- Automated fake religions
- kids
- Qanon
- Exponential blackmail
- Automated Cyberweapons
- attention spans
- Automated exploitation of code
- Bots, DeepFakes
- Automated lobbying
- Biology automation
- Fake News
- Exponential scams
- A-Z testing of everything
- Synthetic relationships
- AlphaPersuade

Web3天空之城

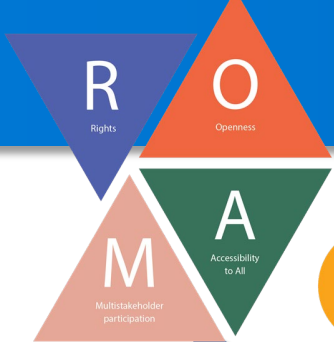
Input

Explain the plot of Cinderella in a sentence where each word has to begin with the next letter in the alphabet from A to Z, without repeating any letters.

Output

A beautiful Cinderella, dwelling eagerly, finally gains happiness; inspiring jealous kin, love magically nurtures opulent prince; quietly rescues, slipper triumphs, uniting very wondrously, xenial

Global AI divides and challenges



<https://www.unesco.org/en/internet-universality-indicators>

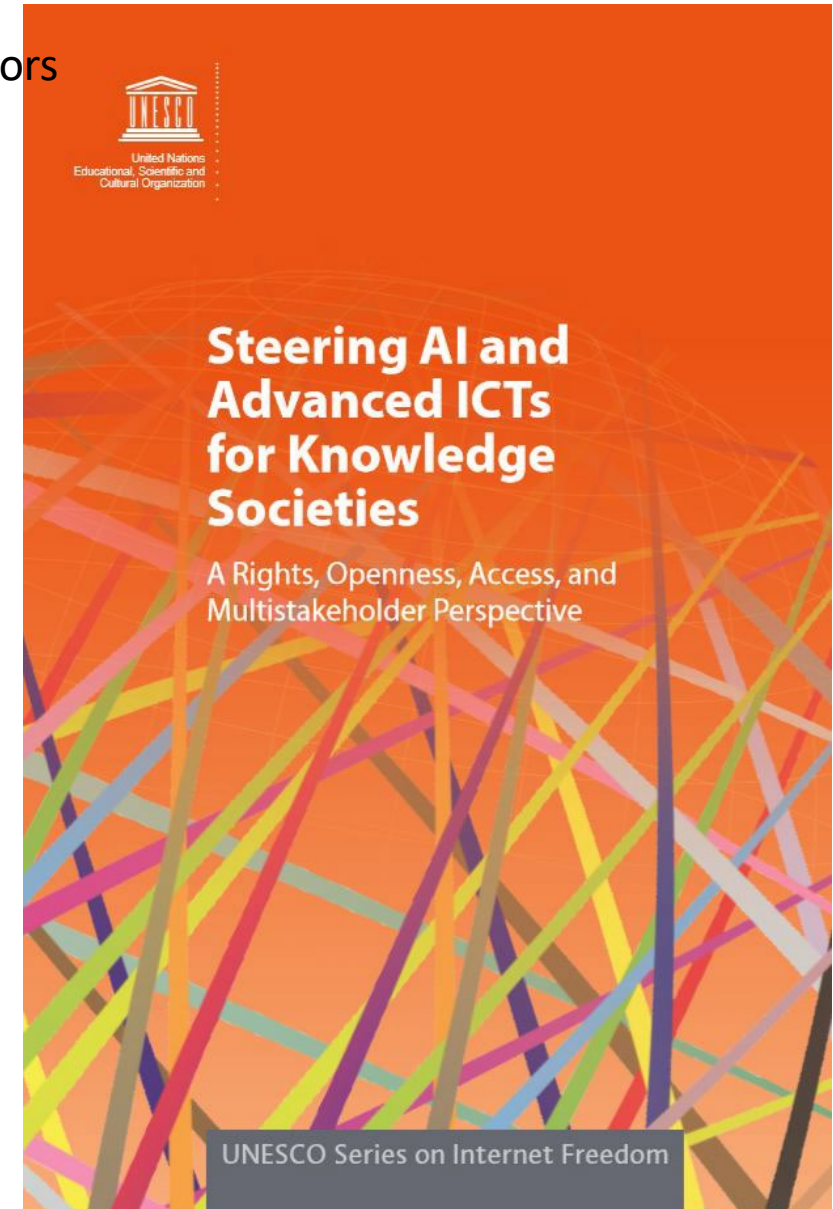
Human Rights Implications: divides in right to freedom of expression, privacy, media, equality and participation in public life

Openness in AI: “black box”, open data, open and pluralistic Markets and open opportunities

Inclusive **Access** for AI Development: divides in access to data, access to research, access to Knowledge, education and human resources, access to connectivity and hardwares

Multistakeholder Approach for AI Governance and the participation divides

Crosscutting Issues: AI and Gender **X** AI and Africa





***Male predominance in AI
development***

***Algorithmic
Discrimination***

Gender-biased data-sets

Deepfake videos



***African Union
Agenda 2063***

***Capacity,
Infrastructure
& Governance
Challenges***

Artificial Intelligence Needs Assessment Survey In Africa



Protection of personal data and data governance

AI for economic growth

Supporting start-ups and digital innovation

Updating education, skills and training systems for imparting AI skills and knowledge,

Facilitating AI research and development



THE
FUTURE
SOCIETY



THE NATIONAL
JUDICIAL COLLEGE

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Artificial Intelligence & the Rule of Law

A free online course to strengthen the role of judicial actors in understanding the legal and ethical implications of AI systems. The first-ever global training available in 7 languages. www.judges.org/ai-rol

The six modules will address two main issues:

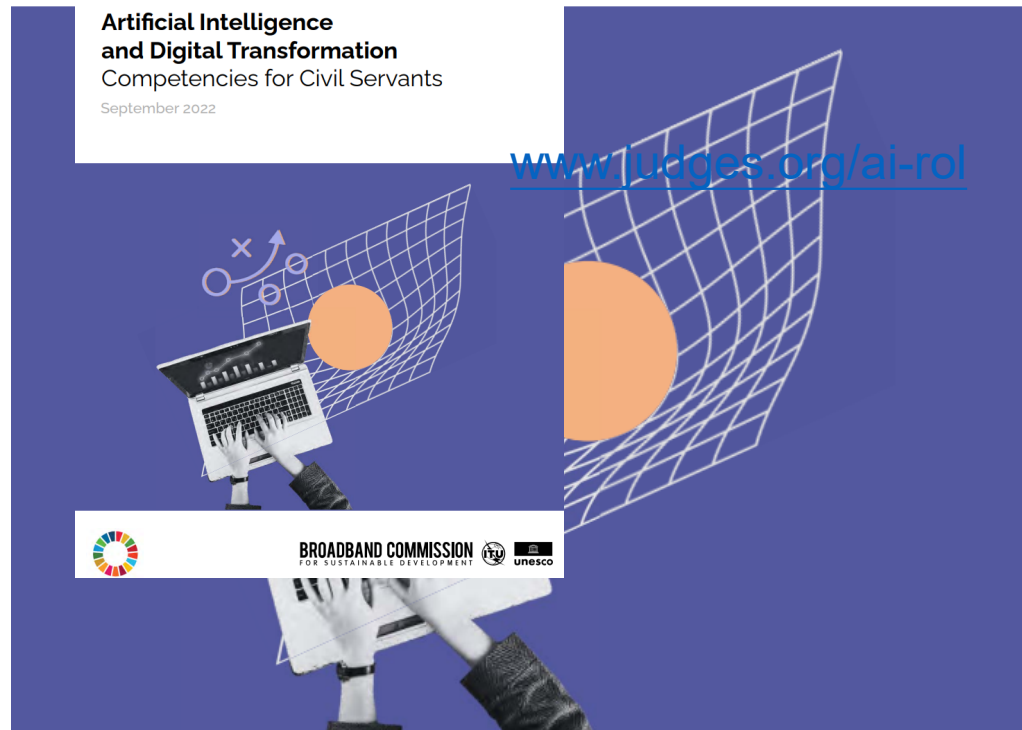
- How can judiciaries use AI in their administrative work to strengthen access to justice and improve administrative processes?
- How can judiciaries address issues of bias and discrimination in the use of AI, and the legal challenges it poses?

Artificial Intelligence and Digital Transformation

Competencies for Civil Servants

September 2022

Working Group Report on AI Capacity Building



Digital Planning and Design

- Competencies: systems thinking, problem identification and solutions, strategic foresight, agile strategy

Data Use and Governance


- Competencies: digital literacy, data-driven decision making, open data and open government, privacy and security, legal, regulatory, and ethical frameworks, AI fundamentals

Digital Management and Execution


- Competencies: people-centricity, iteration, agile execution, digital leadership




AI used to have separate fields...



Computer Vision



Speech Recognition



Robotics






Image Generation



Speech Synthesis



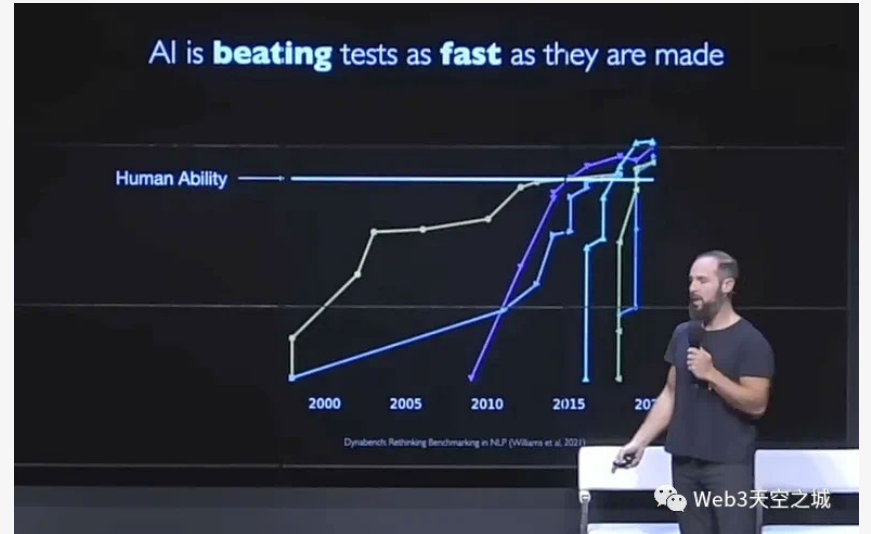
Music Generation

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<https://www.unesco.org/en/artificial-intelligence/recommendation-ethics>

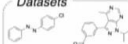





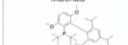
<https://www.unesco.org/en/ifap>

<https://www.unesco.org/en/internet-universality-indicators>



Golems silently taught themselves **research grade chemistry**

Working Paper

Datasets	Tasks		
<p>Molecules</p> 	<p>"What is the transition wavelength of 3-phenylazirine?"</p> 	<p>"What is the lipophilicity of coccinellin?"</p> 	<p>"What is a molecule with a lower transition wavelength of 205 nm, 2 lower transition wavelength of 206 nm?"</p> 
<p>Materials</p> 	<p>Classification</p> <p>GPT-3</p> <p>"10"</p>	<p>Regression</p> <p>GPT-3</p> <p>3.3</p>	<p>Inverse Design</p> <p>GPT-3</p> 
<p>Reactions</p> 			

tasks in chemistry and materials science by simply prompting them with chemical questions in natural language. We compared this approach with dedicated machine-learning models for many applications spanning properties of molecules and materials to the yield of chemical reactions. Surprisingly, we find this approach performs comparable to or even outperforms the conventional techniques, particularly in the low data limit.

In addition, by simply inverting the questions, we can even perform inverse