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STEERING COMMITTEE
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(CDCPP)

Guidelines given the latest technological developments, such as AI, complementing Council of Europe standards in the fields of culture, creativity and cultural heritage

POLICY GUIDELINES

Secretariat Memorandum
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Background

In the Final Declaration of the Council of Europe Conference of Ministers of Culture (Strasbourg, 1 April 2022), the Ministers underlined that "the digital transformation implies a cultural transformation, and that artificial intelligence developments greatly accelerate change". In addition, the Ministers pointed out that "culture, creativity and heritage need to be part of the dialogue on the digital transformation, as they provide essential insights and contribute to decisions about our common future, stimulate the active engagement of citizens and generate the necessary social intelligence needed to accompany life practices marked by increasing human-machine interaction".

Accordingly, the Steering Committee for Culture, Cultural Heritage and Landscape (CDCPP) recognised the importance of developing new "guidelines given the latest technological developments, such as artificial intelligence, complementing Council of Europe standards in the fields of culture, creativity and cultural heritage".

The CDCPP set up a working group on Artificial Intelligence and Culture and Cultural Heritage composed of experts and policy representatives (the full list of the group can be found in Appendix II) who worked throughout 2023-2024 to provide a draft of guidelines.

The present policy guidelines are designed to complement the Council of Europe work on artificial intelligence and human rights, democracy and the rule of law, providing guidance to Member States on implications of artificial intelligence and its use for culture, creativity and cultural heritage.

The CDCPP work on the guidelines should be seen in conjunction with the work of the Council of Europe on Artificial Intelligence, in particular of its Committee on Artificial Intelligence, the work of which led to the adoption in May 2024 of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law. The treaty is the first-ever international legally binding treaty in this field and aims to ensure that activities within the lifecycle of artificial intelligence systems are fully consistent with human rights, democracy and the rule of law, while being conducive to technological progress and innovation. On 5 September 2024, the treaty was opened for signature in Vilnius under the Lithuanian Presidency of the Committee of Ministers.

It is important to note that the Convention establishes, as a matter of priority, a globally applicable legal framework setting out common general principles and rules governing the activities within the lifecycle of artificial intelligence systems that effectively preserves shared values and harnesses the benefits of artificial intelligence for the promotion of these values in a manner conducive to responsible innovation. The preparation of the present guidelines has been conducted with due regard to the principles enshrined in the Convention and previous work of the CDCPP on the digital transformation and artificial intelligence developments.

Introduction

I. Artificial Intelligence as a major impact on Culture, Creativity and Cultural Heritage

Artificial intelligence systems (AI)[1] are transforming the nature and methods of culture and cultural heritage practices. These impact how the notions of artistic integrity, skills, and ethics are changing and what the implications are for the future of culture and cultural heritage. From automating the creation of art and music, to driving shifts in cultural consumption, the reach of AI in the culture, creativity and cultural heritage sector is expanding, reshaping the way we understand, produce and distribute cultural artefacts.

AI has the potential to enhance the efficiency, accuracy, and creativity of cultural actors. In addition, culture, creativity and cultural heritage can be a catalyst for the proper integration and development of AI into society. This involves providing meaning to, and interpreting how, this new technology can contribute to a better functioning social system.

In cultural heritage, in particular, AI is breaking new ground by facilitating the mapping of more diverse cultural heritage data, the development of more sustainable materials or the discovery of new relationships between cultural practices and historical features. Culture and cultural heritage embed a wealth of historical, archaeological, and artistic content that can substantially enrich AI capabilities.

Harnessing the richness and diversity of millions of images and data related to culture, cultural heritage, and the human experience empowers AI systems and enhances their ability to comprehend diverse scenarios and perspectives, and thus respond in a more culturally sensitive way to human interaction. Datasets related to culture and cultural heritage serve as priceless resources for training AI models, and improve AI applications in domains such as language translation, image recognition, change detection, interactive experiences and content creation.

AI also holds the potential to introduce transformative opportunities in the investigation, interpretation, accessibility and preservation of artefacts, artworks, sites and intangible heritage. Whether supporting the preservation of artefacts, or the reconstruction of lost texts, AI can profoundly impact the interpretation of the historical record, the sharing of cultural heritage, and even the promotion of its physical preservation.

AI can positively contribute to understanding and celebrating shared cultural heritage. Furthermore, AI-based techniques are helping to identify new patterns and relationships in large datasets, which would be difficult to establish otherwise. This offers substantial potential for creation and research and is encouraging professionals to adopt techniques that

[1] As specified in the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (Article 2), "'artificial intelligence system' means a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations or decisions that may influence physical or virtual environments. Different artificial intelligence systems vary in their levels of autonomy and adaptiveness after deployment".

outperform existing methods. The capacity of AI tools to identify patterns from existing content, and generate predictions of new content, allows cultural actors to run more accurate simulations and create synthetic data.

Finally, AI can help democratise access to cultural creation, enabling anyone with a computer to produce art, write stories and compose music. Artists already employ AI to stimulate their imagination and enable new forms of creative expression. AI can accelerate the creation process and offer new creative spaces. It can help cultural and creative enterprises become more efficient, save costs, support decision making, engage with new audiences, and improve the deployment of multilingual services.

The rapid uptake of AI in culture has also presented challenges related to its safe and rigorous use. A growing body of studies and practical cases are raising concerns regarding the robustness of AI-based datasets or creation and its categorisation capacity.

Firstly, the often non-transparent nature of AI systems creates challenges for verification and external scrutiny. Its adoption raises ethical concerns regarding its environmental, cultural, and societal impact.

Secondly, cybercriminals can use AI to access data (confidential) and produce fake, illicit content or counterfeits. AI applications are capable of producing generative text and images that could potentially qualify as literary and artistic works. This represents an enormous challenge to artists, creators and performers, blurring further the divide between professionals and amateurs.

Thirdly, this capacity raises major policy questions for the copyright system, which is associated with the human creative spirit and the reward of expressing human creativity. Widescale application of AI questions important concepts such as authorship, originality, and human creativity. Can copyright be attributed to AI-generated works? With whom should the copyright vest? How should human creation be protected and rewarded? Should we place an equal value on human creativity and AI generated content? How do we ensure the right and the ability to be creative, and to participate fully in cultural life in an AI era? How can authorship and ownership of content be best protected in the age of AI?

A central issue is the use of copyrighted works for training generative AI models, which has financial and ethical implications for creators across the creative industries and media/journalism landscape. The law in this area is disputed, with creative content holders claiming a lack of control over, and remuneration from, how their work is used by AI firms, while the AI sector is calling for increased access to large amounts of data for effective model training.

Fourthly, AI trained on global datasets may dilute local cultures, impact linguistic and cultural diversity, and exacerbate social biases and stereotypes. It is crucial to subject AI systems to ethical scrutiny and recognise the importance of culture in AI systems to ensure diversity representation and preserve cultural nuances.

Other threats relate to the concentration of AI developments in a few businesses and countries. This calls for an adequate industrial and competition policy response. Culture, creativity and cultural heritage serve as a vital platform for public discourse, constituting essential pillars of a democratic society. Therefore, they must be nurtured and supported as activities contributing

to the common good. This is essential to avoid that infrastructure and tools crucial for the production and distribution of culture are only controlled by limited number of actors.

Considering the principles of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (Article 5), a democratic governance ensuring equitable access to culture and its expression becomes paramount in this context. This requires AI literacy in all population segments to fully exercise the right to contribute to creation and participate in cultural life. User-friendly AI platforms should be made responsible for protecting human rights and fundamental freedoms, and must prevent misuse of the public interest with due respect to the rule of law. By implementing transparency, accessibility, and equitable participation rules, AI transformative power will generate new and diverse cultural content that can contribute to human well-being.

II. AI, Culture, Creativity and Cultural Heritage – Opportunities and Challenges

The use of AI affects the daily lives of Europeans creating a more complex reality. Its integration in the culture, creativity and cultural heritage sector(s) presents today both new opportunities and specific challenges; a non-exhaustive list of these is presented below.

OPPORTUNITIES

Augmented creativity, productivity and efficiency

- AI can assist human creation in the development of new ideas in music, audiovisual, writing or design. It can offer new tools to content creators and artists.
- AI could make production and distribution companies and cultural organisations more productive and efficient in targeting audiences, enhancing the discoverability of content (cross-language access), or adapting new cultural offers. A large number of production and distribution activities could be automated (editing, subtitling, soundtrack generation, special effects, copyright management), freeing more resources for human creation and potentially enhancing the capacity of smaller cultural structures to compete.
- AI can contribute to creating narratives or explanations related to cultural artefacts, enhancing visitors' interpretative experience.
- AI can help researchers gain new insights into cultural aspects and identify new areas of research. This could transform the culture, creativity and cultural heritage sector.

Accessibility

- AI could lower the barrier to create and to produce, facilitating the emergence of creative pursuits amongst a larger segment of the population.
- AI-powered Augmented Reality (AR) and Virtual Reality (VR) can enrich visitor engagement, offering immersive interactions with cultural artefacts and sites.
- AI tools could serve content curation to limit the negative impact of misinformation, fake news and to help check facts in certain cases.

Preservation of culture and cultural heritage

AI could contribute to make the preservation of cultural heritage more efficient and cost-effective in specific fields:

- In research:

  AI can discern trends and patterns within vast datasets, assisting researchers in cultural heritage studies to make sense of data and interpret them.

  AI can automatically reconstruct cultural heritage artefacts in fragmentary form, like in a puzzle, and virtually reunite subdivided and spread works of art.

  AI can be used to integrate missing parts of ancient documents, transcribe ancient and historical text directly from images of their writing supports, or translate historical texts, enabling broader accessibility.

- In archiving and conservation:

  AI can automate the cataloguing and inventory process of heritage artefacts by recognising and categorising them based on images or descriptions.

  AI can be utilised to analyse images and data to assess the physical condition of artefacts and sites, pinpointing regions that may require conservation actions. It can also allow for the prediction of potential deterioration of artefacts and sites, fostering preventive conservation measures.

  AI can play a pivotal role in archaeology by supporting the automatic detection and unveiling of previously unknown archaeological sites, including sites buried beneath the ground on remote sensing imagery, thus offering a breakthrough in landscape and heritage management.

  AI can facilitate archiving, preservation and re-use of audiovisual and publishing material.

  AI can aid in verifying the authenticity of artefacts and historical objects, or can aid in scrutinising subtle details in artwork or historical documents to facilitate the identification of potential forgeries.

  AI can be crucial in combating illicit excavations by automating the detection of unauthorised archaeological excavation activities, safeguarding the integrity of archaeological sites, and fighting against looting of archaeological sites and the illicit trafficking of cultural property.

  AI can help, in certain cases, to fight against illicit use of copyright-protected content.

Cross-cultural and international collaboration

- AI-driven translation tools and cross-cultural recommendation systems can foster greater international collaboration. This would enable better dialogue between various cultural traditions and contribute to better understanding across countries.
- AI could contribute to large-scale shared knowledge, rapid access to data, data harvesting, cost-effectiveness, and rapid identification of culture and cultural heritage risks at international level.

CHALLENGES

AI allows the generation of new content in the form of text, images, sound or codes. This has numerous implications on what constitutes creativity, and mechanisms to nurture it. It also challenges our ways to gather information or take decisions.

Protection of fundamental principles

- The extent of the adverse impact caused by the AI system on human rights, the rule of law, and democracy is relevant when addressing the risks posed by AI. Those principles include the right to human dignity, the right to human freedom and autonomy, the prevention of harm (environmental, physical, and mental integrity of human beings), the right to equal treatment and equality, including gender equality (cultural biases, discrimination)[2], freedom of expression and opinion, intellectual property rights, the protection of personal data and respect for private and family life. AI tools can serve misinformation, the propagation of fake news and can enhance social exclusion, thus posing a threat to democratic values. In some cases, it has been observed that generative AI tools can create prejudice to human dignity, notably by creating the misleading impression of human interaction, and therefore being potentially harmful to human beings.

Authenticity, artistic integrity and cultural participation

- The power of various AI models may stimulate misinformation, misuse and malpractices, intentionally creating false content or misappropriating existing content. It threatens artistic creation, its remuneration, and artists 'status. It also affects the ability to contribute to cultural life and participation by limiting creative pursuits amongst a larger segment of the population not trained or familiar with AI.

Intellectual Property

- AI is increasingly being applied in a generative capacity – to produce new content in the form of text, images, sound, or codes. AI applications can generate this content by learning from data. The data used for training the AI may be subject to copyright and other legal forms of protection. As a result, our understanding of what constitutes creativity and our existing mechanisms for nurturing, protecting, and rewarding it are being challenged. The ongoing economic viability of the creative industries and media

[2] The Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (Article 10) holds that: "each Party shall adopt or maintain measures with a view to ensuring that activities within the lifecycle of artificial intelligence systems respect equality, including gender equality, and the prohibition of discrimination, as provided under applicable international and domestic law".

sectors may also be impacted by the use of copyrighted data for AI model training, with many creatives calling for fair remuneration for their work, control over where it is used by AI firms, and transparency over how data is collected and processed. A number of issues would require clarification by policy makers, specifically:

- What should constitute an infringement when data protected by copyright is used without authorisation? Should it be subject to copyright exception, and in what circumstances?
- Should copyright protection be granted to AI-generated works, or should a human creator be required? In whom should the copyright be vested if copyright is attributed to AI-generated works?
- What information should be made public by suppliers of AI to enable right-holders to exercise their rights when their content is being used? How can AI suppliers and developers look to enhance their transparency over AI model inputs (training datasets) and outputs (e.g. watermarking AI generated content)?
- Which tools or appropriate labelling should be adopted to inform the public about the use of AI systems in order to avoid deep fakes and manipulation of reality?

Economic impact, employment and market concentration

- The impact of AI on the cultural and creative economy, on value chains, and on jobs is not yet known. Creation will need to adapt to technological changes and the evolution of business models. The sector will need to engage in a fast transition.
- The disruption of value chains extends to those around the provision of access to created content, which leads to the risk of economic concentration in the hands of a few global players. This market concentration may limit the cultural offer and marginalise smaller structures that cannot use AI tools in production or marketing strategies.
- The changes across the cultural ecosystem are increasing the pressure on cultural workers and industries to incorporate advanced AI techniques at the risk of neglecting more conventional, but creative methodologies – “good at AI” rather than “good at creation”. Relying heavily on AI tools may lead to a decline in the learning and practice of traditional skills and craftsmanship. This may lead to a loss of some cultural and creative skills.
- Barriers to the adoption of the open access principle also exist due to the limited transparency of commercial models that power AI-based research and implementation.

  AI poses the risk of economic concentration in the hands of a few global players and being misused for economic or political interests. This market concentration may limit the cultural offer and marginalise smaller structures that cannot use AI tools in production or marketing strategies.

Cultural representation and data usage

AI systems are being applied to support decision making and understanding. As a result, challenges are arising in respect of cultural representation and data usage:

- AI algorithms may inadvertently reinforce biases embedded in historical data, or in their representation, or related to more general bias based on ethnicity, gender, age, etc.,

potentially leading to distorted interpretations of history and misrepresentations of the past[3].

- AI automatically generated content may inadvertently promote cultural appropriation by oversimplifying or misinterpreting cultural elements.
- Content generated from predominant language models may give lesser performance in other languages.
- High-quality data is fundamental for AI applications. AI models (and their subsequent outputs) may inadvertently reinforce biases embedded in their training data. A lack of transparency as to what training data has been used exacerbates this problem. Researchers face barriers to heterogeneity, sensitivity and biases which affect data quality. Artificial data generation and fabrication risk poisoning datasets. Aspects under threat include reproducibility (in which other researchers cannot replicate experiments conducted using AI tools) and interdisciplinarity (where limited collaboration between AI and non-AI disciplines can lead to a less rigorous uptake of AI across sectors).
- Potential challenges include the accessibility and reuse of data used for AI, legal frameworks, data longevity, and interoperability.

III. Scope of the Guidelines

With the growing availability of large datasets, new algorithm techniques and increased computing power, artificial intelligence (AI) is becoming an established tool used by artists, creatives, cultural workers, institutions and industries across the culture, creativity and cultural heritage sector(s).

These guidelines are designed to inspire actors, including policymakers, across the cultural ecosystem to engage with recommendations and work towards a future where AI's potential is realised to support culture and cultural heritage and benefit our collective well-being.

The text provides a set of policy guidelines that the Member States of the Council of Europe may wish to follow to ensure that an AI system contributes to access to culture and cultural heritage, artistic creation, cultural diversity, the development of the cultural, creativity and cultural heritage sector(s) (individuals, public institutions and enterprises) and the promotion of cultural heritage.

The guidelines aim to enable the culture, creativity and cultural heritage sector(s) to harness AI systems' benefits, adapt cultural policy objectives to AI's transformative power, and prevent the misuse of AI.

Nothing in the guidelines shall be interpreted as precluding or limiting the provisions of the Council of Europe instruments relating to culture and cultural heritage and other standard setting texts such as the Framework Convention on AI and Human Rights, Democracy and

[3] See the Study on the impact of artificial intelligence systems, their potential for promoting equality, including gender equality, and the risks they may cause in relation to non-discrimination prepared by the Gender Equality Commission (GEC) and the Steering Committee on Anti-discrimination, Diversity and Inclusion (CDADI), pp. 15-16.

Rule of Law[4]. The guidelines aim to enhance access to AI infrastructure, build trust, transparency and integrity in AI outputs, ensure safe, secure and trustworthy use of AI, and encourage interdisciplinary and international co-operation.

[4] References to Council of Europe instruments can be found in Appendix I.

IV. Guidelines

AI offers opportunities and challenges. It is essential to reflect on the various policy mechanisms and measures to ensure that the culture, creativity and cultural heritage sector(s) fully harnesses its potential "to promote human prosperity as well as individual and societal well-being"[5].

The following series of policy guidelines are focused on the following policy objectives:

1. Enhance equal access to AI systems
2. Build trust in the use of AI
3. Ensure safe, secure and trustworthy use of AI
4. Encourage interdisciplinary and international co-operation

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1. Enhance equal access to AI systems

The knowledge and understanding of AI for culture, creativity and cultural heritage should be promoted on a multi-level basis involving government institutions, independent oversight bodies, national human rights structures, the judiciary, law enforcement, NGOs and the public, as encouraged by the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (Article 19). AI literacy capacity within the culture and cultural heritage sector(s) is required. Training on AI and its usage in culture, creativity and cultural heritage will contribute towards enriching AI systems and will help benefit from their potential. Relevant stakeholders (research institutions, government agencies, industries, individuals/users, and international organisations) should ensure access to high-quality datasets and interoperable data infrastructure across sectors and regions.

The use of AI in culture, creativity and cultural heritage can contribute to the spread of knowledge and promote culture democratisation. Therefore, cultural institutions that use AI tools should be encouraged. This also implies recognising digital heritage in culture and heritage policies and securing sustainable funding, not only for developing and using digital tools and AI, but also for their maintenance and data preservation.

To enhance access to AI systems, Member States should aim to:

i. Increase digital literacy and skills in all population segments encouraging the implementation of the indications of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law as set out in Article 20, including underprivileged social groups, seniors, and children, through public funding programmes.
ii. Adapt education curricula to ensure access to jobs requiring competencies related to AI systems and culture, creativity and cultural heritage sector(s).
iii. Promote initiatives that raise awareness of the opportunities and challenges related to using AI tools within the culture, creativity and cultural heritage sector(s).

[5] Preamble of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law.

iv. Broker equitable collaborations between cultural institutions and technology institutes, in particular through research.
v. Encourage funders and AI developers to prioritise the accessibility and usability of AI tools.
vi. Foster actions to support the usability of AI tools which could include:
    - Developing AI literacy curriculum across cultural fields to build capacity to understand the opportunities of AI-based tools.
    - Building capacity for data management, curation, and implementation of data principles.
vii. Associate culture, creativity and cultural heritage sector(s) stakeholders in policy debates on what role AI should play in shaping the social dynamics and decision-making processes and involve stakeholders in monitoring and mitigating risks.

In applying AI to the preservation, conservation or protection of cultural heritage Member States should:

i. Take advantage of AI advancements to promote the digitisation of cultural heritage as a documentation measure, enrich inventories, charters, maps, and help supervise current and future protected areas.
ii. Use AI to protect cultural heritage and serve as evidence of improper or illegal practices in administrative or judicial processes.
iii. Establish and use common standards for 3D digital reconstructions and share and reuse of data.

2. Build trust in the use of AI

With a view to building trust in the use of AI it is important for Member States to look to:

i. Safeguard the interest of authors of copyright-protected works and other rightsholders.
ii. Promote open science standards and practices.
iii. Build an understanding of AI within society and a level of trust and transparency between AI suppliers and consumers.
iv. Adopt or maintain measures for AI system developers and providers to protect fundamental principles.
v. Implement competition law or other appropriate measures to foster cultural diversity.
vi. Protect the environment.

2.1 Safeguard the interest of authors of copyright-protected works and other rightsholders

Member States should:

i. Ensure copyright rules to protect rightsholders' interests; this includes, but is not limited to, mechanisms to ensure that rightsholders can exercise their rights when copyright-

protected works are used to train AI systems, while encouraging AI providers to fulfil transparency obligations towards rightsholders.

ii. Strengthen the role of libraries in safeguarding copyright in the age of AI.

iii. Provide exceptions to copyright for educational and research purposes to facilitate access to data for non-commercial purposes.

2.2 Promote open science standards and practices

Investment in open science infrastructure, tools and practices will encourage open science principle and practice to facilitate AI's benefit in culture and cultural heritage. The value of openness lies in the quality of data — its reliability, its contextualisation, and the expertise in interpreting data within its respective context. These are qualities that data must be endowed with, acquired only through scientific and curatorial processing.

To achieve this goal Member States should look to:

i. Support the development of AI systems based on openly licensed content, providing an alternative to the proprietary approaches used by major industry technology providers.

ii. Introduce processes and systems to make data trustworthy. Appropriate infrastructures, standards and certification mechanisms that may be used with the aim of achieving transparency and providing trustworthy data.

iii. Encourage that access to digital cultural and cultural heritage resources created by public institutions, or with the use of public resources, is as open as possible within existing legal frameworks to facilitate the use of reliable data for scientific and educational purposes, as well as the protection of cultural heritage.

2.3 Build an understanding of AI within society and a level of trust and transparency between AI suppliers and consumers[6]

To build awareness and trust across society on the relationship between AI and culture, creativity and cultural heritage, Member States should:

i. Continue to inform the public that using AI in relation to heritage, culture, or creativity should not violate the rights and freedoms of others and cannot replace human participation.

ii. Ensure that building digital skills in the school education system includes verifying the reliability of sources and results obtained using AI and other technologies.

iii. Support life-long digital education opportunities aimed at bridging the digital divide that currently exists, both in professional and non-professional environments.

iv. Implement AI assurance and transparency mechanisms to maintain public trust in AI and ensure its responsible usage.

[6] Article 12 of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law highlights that: "each Party shall take, as appropriate, measures to promote the reliability of artificial intelligence systems and trust in their outputs, which could include requirements related to adequate quality and security throughout the lifecycle of artificial intelligence systems".

2.4 Adopt or maintain measures for AI system developers and providers to protect fundamental principles

The extent of the adverse impact that may be caused by AI systems on human rights, democracy, the rule of law and intellectual property dictates that developers, deployers and providers of AI systems in the fields of culture, creativity and cultural heritage are subject to transparency obligations. In this respect, Member States should:

i. Adopt or maintain appropriate measures to ensure that developers, deployers and providers of AI systems comply with the Council of Europe's standards on human rights, democracy and the rule of law.

ii. Adopt or maintain measures to ensure that adequate transparency and oversight requirements, notably human oversight, tailored to the specific contexts and risks are in place in respect of activities within the lifecycle of artificial intelligence systems, including with regard to the identification of content generated by artificial intelligence systems, as stated in Article 8 of the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law.

2.5 Implement competition law or other appropriate measures to foster cultural diversity

Centralisation of AI development under a limited number of players could lead to corporate dominance over AI infrastructure. This includes ownership over massive datasets for training AI models, vast computing infrastructures and top AI talent. Concentration can limit wider participation in steering the AI agenda and restrict a few decision-makers from shaping research and AI outputs.

To address such risks, Member States should look to:

i. Implement competition laws to address anti-competitive behaviours of dominant players in relation to AI systems, throughout their life cycle, whether these are data, research, technology or market.

ii. Promote competitive markets and avoid the risk of concentration in the cultural market, to ensure a diverse supply and plural access to cultural expressions and local content (notably through algorithmic recommendations).

2.6 Protect the environment

The fundamental right to a high level of environmental protection should also be considered when assessing the severity of harm that an AI system can cause, including to the health and safety of persons.

Member States should:

i. Ensure full respect for applicable environmental protection standards when AI systems are developed and used.

3. Ensure safe, secure and trustworthy use of AI

AI systems raise new types of ethical issues in relation to culture and cultural heritage, notably the potential of AI algorithms to reproduce and reinforce existing cultural biases, and thus exacerbate existing forms of discrimination, prejudice, and stereotypes.

By fostering a deep understanding of the societal impact of biased algorithms, AI developers, providers, and users can make informed decisions throughout the AI system lifecycle, actively working to minimise unintended and ill-intended consequences. AI systems' capabilities to perform intricate pattern recognition across vast datasets could significantly enhance exposure to, and understanding of, diversities in various domains, thereby contributing to a deeper appreciation of the benefits stemming from widespread and rich cultural diversities.

This directly bolsters the significance of culture and cultural heritage in further developing AI-systems and applications - as primary drivers and disseminators of diversity - as cultures are, in essence, a quintessential cornerstone for diversity. This requires a stronger involvement of the culture, creativity and cultural heritage actors in developing AI systems and their applications, providing the much-needed broader and human-user-based perspective that must be established for the conceptualisation and development of AI systems and applications.

It is also important to value the significance of contemporary born-digital art[7] and cultural content, and the heightened responsibility of AI providers dealing with culture, creativity and cultural heritage sector(s) towards non-discrimination, gender equality, fairness and diversity.

Groups that have an increased risk of their rights being disproportionately impacted by AI, as indicated in the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, include women, individuals in vulnerable situations, persons with disabilities, children[8].

In the context of addressing the above-mentioned challenges, Member States should:

i. Engage all stakeholders, including businesses, to ensure they address the challenges of potential ethical misuse.
ii. Encourage the development of AI systems that preserve, enrich, and promote access to diverse cultural content and achieve gender equality objectives.
iii. Ensure that national AI strategies are guided by ethical principles and values enshrined in the various Council of Europe Conventions on culture, creativity, cultural heritage,

[7] Such as new media arts and generative art.
[8] The Preamble of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law expresses concern "about the risks of discrimination in digital contexts, particularly those involving artificial intelligence systems, and their potential effect of creating or aggravating inequalities, including those experienced by women and individuals in vulnerable situations, regarding the enjoyment of their human rights and their full, equal and effective participation in economic, social, cultural and political affairs". Moreover, Article 18 stresses that "each Party shall, in accordance with its domestic law and applicable international obligations, take due account of any specific needs and vulnerabilities in relation to respect for the rights of persons with disabilities and of children". Vulnerable groups include also elderly people, economically disadvantaged persons, members of the LGBTI community, and ethnic, including indigenous people, or religious groups (the list is not exhaustive).

and human rights. National legislation addressing AI systems must comply with Member States' human rights law obligations and fundamental rights.

iv. Foster awareness and vigilance through training researchers, developers, AI system providers, and users in AI ethics.

v. Promote the implementation of continuous education and training programmes for AI developers, AI providers and practitioners working with digitised or born-digital datasets, specifically focusing on the ethical implications of cultural bias, in order to promote a culture of responsible innovations that respects human rights, democracy, and the rule of law.

vi. Promote monitoring and assessment mechanisms as integral parts of AI systems to mitigate cultural bias, discrimination, misuse and other ethical consequences involving interdisciplinary collaboration.

vii. Ensure that developers and deployers of AI systems take adequate measures to prevent any physical or mental harm to individuals, society and the environment due to the misleading use of cultural elements.

viii. Encourage culture and cultural heritage institutions to adopt ethical guidelines linked to AI usage and encourage culture, creativity and cultural heritage sector(s) stakeholders to build the capacity to oversee AI systems and ensure their ethical use for the public good.

ix. Take steps to protect organisations, entities, and individuals from the consequences of third-party use of AI systems that discriminate, lead to discriminatory outcomes, and create cultural divides.

x. Communicate risks and involve public and culture, creativity and cultural heritage sector(s) actors in AI governance.

4. Encourage interdisciplinary and international co-operation

Interdisciplinary and international collaboration is essential to bridge skill gaps and optimise the benefits of AI in culture and cultural heritage[9]. More accurate AI models will benefit from collaboration between AI and sector experts (including artists, creative professionals, enterprises, and researchers from the arts, humanities, and social sciences). Incentives should be structured to overcome a siloed environment and reward interdisciplinarity. The relevant challenges can be addressed by the joint efforts of stakeholders from the technology, heritage, and culture sectors working together with decision-makers.

To achieve interdisciplinary and international collaboration Member States should:

i. Encourage co-operation at national and international levels between the culture, creativity and cultural heritage sector(s) and bodies having competence related to AI.

ii. Provide each other with assistance through exchanging experience, knowledge, research and good practices.

iii. Co-operate with each other for data and information exchange and collection of data and best practices.

[9] International co-operation is one of the main pillars of the Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law as outlined in Article 25.

iv. Promote equitable international and national cross-cutting collaborations between cultural and cultural heritage bodies and any potential interested partner or stakeholder, such as businesses, NGOs and technology institutes, in particular through multidisciplinary research.

v. Support interdisciplinary collaboration between sciences and humanities in cultural and cultural heritage studies within academia, such as joint academic courses or scientific projects. Collaboration can occur between scientists and within multidisciplinary research (for example, digital humanities), NGOs, education, and the creative sector.

vi. Train the workforce required to work in AI and encourage cultural and cultural heritage institutions to incorporate technical skills into their workforces.

vii. Undertake, in good faith, the necessary steps to implement the recommendations contained in these Guidelines.

V. Glossary

AI literacy: knowledge and education of how to ethically handle AI systems in respect of the principles of the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law. AI literacy allows users to identify unreliable content and the consequent risks, and to use AI tools in the most optimal and efficient way.

AI system: a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations or decisions that may influence physical or virtual environments. Different artificial intelligence systems vary in their levels of autonomy and adaptiveness after deployment[10].

Algorithm: a procedure or series of steps that provide instructions on how to take a series of inputs and produce an output. For instance, a recipe can be thought of as an algorithm that provides instructions for taking a series of inputs (i.e. the ingredients) and creating an output (e.g. a cake). In the case of machine learning, the algorithm is typically a series of instructions that instruct a software package to take a dataset (i.e. the input) and learn a model or discover some underlying pattern (i.e. the output)[11].

Augmented Reality (AR): AR which overlays information to the physical world, either adding onto, or hiding parts of the physical world[12].

Born-digital data: data that was digital from the moment of its creation, and not necessarily derived from pre-digital content or format[13].

Cultural appropriation: the inappropriate and not authorised adoption of customs, practices, ideas and heritage of individuals, people or communities by other individuals, people or communities[14].

Cultural institutions: this traditionally refers to museums, art galleries, theatres, cinemas, libraries, cultural research institutes and other socio-cultural entities that have an increasingly online presence and emit data. They are complemented by a new set of emerging institutions such as creative labs, makerspaces, fab labs, learning commons, etc. that include data in their creative and productive formats and content[15].

Cultural actors: public authorities, experts, owners, investors, businesses, non-governmental organisations and civil society involved in the culture, creativity and cultural heritage sector(s), dealing with the production and management of cultural elements[16].

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[10] Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (CETS No. 225), Art. 2.
[11] Artificial Intelligence, Human Rights, Democracy, and the Rule of Law - A primer.
[12] The metaverse and its impact on human rights, the rule of law and democracy (DG1 (2023)06).
[13] Recommendation CM/Rec(2017)8 of the Committee of Ministers to member States on Big Data for culture, literacy and democracy.
[14] Oxford English Dictionary.
[15] Recommendation CM/Rec(2017)8 of the Committee of Ministers to member States on Big Data for culture, literacy and democracy.
[16] Council of Europe Framework Convention on the Value of Cultural Heritage for Society (CETS No. 199), Art.11.

Culture, Creativity and Cultural Heritage sector(s): all sectors which have intangible or tangible cultural heritage at the core of their activities. This includes visual arts, performing arts, museums, libraries, music, architecture, audiovisual and design. Culture, Creativity and Cultural Heritage nurture open, healthy, pluralistic, diverse, sustainable, successful societies and stable democracies[17].

Deployer (of AI System): means any natural or legal person, public authority or other body, or any other stakeholder using an AI system under its authority.

Digital culture: refers to the various cultural and creative expressions and practices, including in the field of heritage, which have emerged or have been facilitated and strengthened since the global explosion in information technology and social media. Digital culture is considered to be more freely available, accessible and inclusive, and as removing dividing lines between creator and consumer and between traditional and more recent art forms, thereby enhancing the democratisation of culture. Digital culture yields a large quantity of voluntary and involuntary data that can be owned and mined by online platforms and institutions[18].

Digital heritage: includes inter alia texts, databases, still and moving images, audio, graphics, software, and web pages. Digital heritage can be the conversion of physical objects into digitised objects, born-digital material[19], or digital information about heritage (metadata), i.e. description of heritage objects or collections.

Digitalisation: the innovation of business models and processes that exploit digital opportunities[20].

Digital literacy and digital skills: the two terms refer to the ability to use, understand, and engage with digital, including artificial intelligence and other data-based technologies effectively and thus contribute to promoting broad awareness and understanding in the general population and to preventing and mitigating risks or adverse impacts on human rights, democracy or the rule of law, as well as other societal harms such as malicious or criminal use of such technologies.

Digital transformation: digital transformation is the continuous change of an entire organisation, driven and supported by the increasing use of digital technology. The core of the transformation is a different business model. The transformation affects all aspects of the organisation, from culture, strategy, processes, employee skills and relations. It is a "systems-level transition that alters behaviours on a large scale"[21] and it arises when new digital business models and processes restructure economies.

Digitisation: the conversion of information and documents into digital format, including the production of metadata and the various options for data collection and indexation[22].

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[17] Final Declaration of the Council of Europe Conference of Ministers of Culture, (Strasbourg, 1 April 2022).
[18] Recommendation CM/Rec(2017)8 of the Committee of Ministers to member States on Big Data for culture, literacy and democracy.
[19] Heritage Research Hub.
[20] Unruh and Kiron (2017).
[21] Unruh and Kiron (2017).
[22] Recommendation CM/Rec(2017)8 of the Committee of Ministers to member States on Big Data for culture, literacy and democracy.

Ethical AI: a use of AI systems which respects cultural values and social standards in line with the principles of democracy, human rights and the rule of law as elaborated in the Council of Europe relevant instruments[23].

Intangible cultural heritage: includes traditions or living expressions inherited from the past, such as performing arts, social practices, oral traditions, rituals and festive events, knowledge and practices concerning nature or the knowledge and skills used to produce traditional crafts[24].

New media arts: artworks created using new media technologies such as digital art, computer graphics, computer animation, virtual art, 3D printing and cyborg art[25].

Open-source tools: digital tools written in open code which is available to anyone to use and to alter[26].

Provider (of AI System): means any natural or legal person, public authority or other body, or any other stakeholder designing, developing, placing on the market or putting into service such systems.

Trustworthy AI: Trustworthy AI has three components: (1) it should be lawful, ensuring compliance with all applicable laws and regulations (2) it should be ethical, demonstrating respect for, and ensure adherence to, ethical principles and values and (3) it should be robust, both from a technical and social perspective, since, even with good intentions, AI systems can cause unintentional harm. Trustworthy AI concerns not only the trustworthiness of the AI system itself but also comprises the trustworthiness of all processes and actors that are part of the system's lifecycle[27].

Virtual reality (VR): providing an immersive experience, separate to the physical environment, through the use of devices like VR headsets[28].

[23] CAHAI(2020)07-fin (AI Ethics Guidelines: European and Global Perspectives), CAHAI(2020)23 (Feasibility Study).
[24] PACE Resolution 2269 (2019), (Safeguarding and enhancing intangible cultural heritage in Europe).
[25] Recommendation CM/Rec(2018)10 of the Committee of Ministers to member States on culture's contribution to strengthening the internet as an emancipatory force.
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[27] Ethics Guidelines for Trustworthy AI. High-Level Expert Group on Artificial Intelligence.
[28] The metaverse and its impact on human rights, the rule of law and democracy (DG1 (2023)06).

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- Unboxing Artificial Intelligence: 10 steps to protect human rights. Commissioner for Human Rights. Council of Europe, 2019. ISBN 084819GBR.
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- Council of Europe Convention on Offences relating to Cultural Property (Nicosia, 2017).
- Recommendation CM/Rec (2016)2 on the Internet of citizens.
- Framework Convention on the Value of Cultural Heritage for Society (Faro Convention, 2005).
- European Convention on the Protection of the Archaeological Heritage (revised) (Valletta, 1992).
- Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985).
- European Cultural Convention (1954).

- More references here.

Appendix II – List of Working Group members

STEERING COMMITTEE FOR CULTURE, HERITAGE AND LANDSCAPE (CDCPP)

WORKING GROUP ON THE LATEST TECHNOLOGICAL DEVELOPMENTS SUCH AS ARTIFICIAL INTELLIGENCE IN CULTURE AND HERITAGE (WG AI)

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