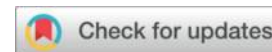




# Artificial Intelligence and the Reshaping of University Culture: Transformations in Knowledge Production and Cultural Content in Contemporary Society



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## Abstract

Artificial intelligence (AI) is reshaping university culture by transforming how students, academics, and researchers produce, access, evaluate, and disseminate knowledge, as well as how cultural content is created and circulated. This article examines the social and cultural implications of these transformations, focusing on academic practices, intellectual creativity, cultural expression, and the relationship between universities and contemporary society. It explores opportunities for expanding access to knowledge, supporting research, preserving cultural heritage, and fostering cultural participation, alongside challenges relating to academic integrity, algorithmic bias, intellectual property, information reliability, privacy, and cultural diversity.

Drawing on a descriptive-analytical approach informed by sociological and anthropological perspectives, the article conceptualises AI as a sociocultural force rather than merely a technical tool. It argues that the impact of AI on university culture depends on how students, academics, and institutions integrate and govern these technologies. Their use should strengthen critical thinking, preserve human agency and academic responsibility, and promote cultural diversity rather than undermine the intellectual and cultural foundations of university life (Miao & Holmes, 2023).

**Keywords:** Artificial Intelligence; University Culture; Higher Education; Knowledge Production; Cultural Content; Academic Integrity; Cultural Diversity; Anthropology.

## Introduction

In contemporary society, artificial intelligence (AI) has become a major force shaping communication, knowledge production, and cultural expression. Its applications have expanded across education, scientific research, media, industry, and the arts, transforming how knowledge is produced, accessed, and disseminated. Through its ability to generate content, analyse data, and provide recommendations, AI is influencing how individuals engage with information and cultural materials (Miao, 2023).

These developments raise important sociological and anthropological questions because culture is a dynamic system of values, beliefs, practices, and meanings that evolves through social interaction. The integration of AI into knowledge production and cultural content creation therefore extends beyond technological efficiency, affecting human behaviour, social relations, and cultural practices.

Within this context, university culture encompasses the intellectual, educational, ethical, and cultural values and practices that shape higher education institutions. It includes knowledge production, teaching and learning, academic integrity, critical thinking, cultural expression, and relationships between students and academics. As universities interact continuously with their social and cultural environments, the integration of AI raises questions about the transformation of academic values, learning practices, and institutional relationships.

Traditionally, knowledge production and cultural creation have depended primarily on human capacities for reasoning, interpretation, experimentation, and creativity. AI systems now participate in these processes by generating, analysing, classifying, and recommending content, challenging conventional understandings of authorship and creativity. In higher education, these developments have intensified debates about intellectual effort, critical thinking, research practices, and academic integrity (Mututa, 2025).

Accordingly, AI should be examined not merely as a technological innovation but as a social and cultural phenomenon. This article explores how AI reshapes knowledge production and cultural content, with particular attention to its implications for university culture, cultural practices, and the construction of meaning in contemporary society.

## **1. Research Problem and Questions**

The growing integration of artificial intelligence into higher education is transforming the ways in which knowledge is produced, evaluated, and disseminated, while creating new possibilities for cultural expression and participation. These changes raise questions about their implications for academic values, intellectual practices, cultural diversity, and the relationship between universities and contemporary society.

Accordingly, the central research question is:

**How does artificial intelligence contribute to reshaping university culture through transformations in knowledge production and cultural content, and what are the implications for academic practices, cultural identity, and human agency?**

This central question gives rise to the following subsidiary questions:

- How does AI transform knowledge production and dissemination within higher education?
- How does AI affect the creation, circulation, and evaluation of cultural and intellectual content in university settings?
- What implications does AI have for academic integrity, critical thinking, creativity, and the relationships between students, academics, and researchers?
- Does the integration of AI into university life support cultural and linguistic diversity or risk reinforcing cultural homogenisation?
- What institutional, ethical, and educational measures are needed to ensure that AI contributes positively to university culture?

## **2. Research Hypothesis**

This study hypothesises that AI is contributing to the transformation of university culture by changing knowledge-production practices, patterns of academic interaction, and the creation and circulation of cultural content. Although these technologies can expand access to knowledge and encourage new forms of intellectual and cultural participation, their effects depend on the institutional, ethical, and pedagogical frameworks governing their use. Without appropriate guidance, AI may also challenge academic integrity, weaken critical engagement with knowledge, and reinforce existing cultural and digital inequalities (Miao, 2023)

### 3. Research Methodology

This study adopts a descriptive-analytical approach to examine the implications of AI for university culture, knowledge production, and cultural content. It draws on relevant academic literature and institutional publications to analyse the opportunities and challenges associated with integrating AI into higher education. Sociological and anthropological perspectives inform the analysis of academic practices, cultural representation, knowledge transmission, and the relationship between universities and wider society.

The study is based on the analysis of existing literature and documentary sources rather than on original empirical fieldwork. Accordingly, its findings are analytical and interpretative, grounded in the examination of relevant scholarly and institutional sources. The study also considers the ethical and cultural principles emphasised in international guidance on AI in education and research, particularly the protection of human agency, academic responsibility, and cultural and linguistic diversity (Miao, 2023)

#### **Artificial Intelligence and Transformations in Knowledge Production**

Historically, knowledge production has been associated with scientific, educational, and cultural institutions and with human capacities for research, observation, analysis, interpretation, critical thinking, and documentation. Digital transformation has reshaped this process by enabling vast quantities of information to be stored, retrieved, accessed, and disseminated rapidly through digital platforms.

The emergence of artificial intelligence (AI), particularly generative AI, marks a further stage in this transformation. Users can now interact with systems capable of analysing large datasets, identifying patterns, summarising and translating texts, reformulating information, and generating texts, images, and other forms of content. These capabilities have prompted educational and research institutions to reconsider established approaches to learning, knowledge production, and the evaluation and verification of information (Miao F. a., 2023).

Consequently, access to knowledge is increasingly mediated by intelligent systems. Rather than relying exclusively on searches across multiple sources and documents, users can obtain synthesised responses to natural-language prompts. This development changes the skills required for effective engagement with information. Beyond locating relevant material, users must be able to formulate appropriate questions, assess the credibility of generated outputs, compare them with original sources, identify inaccuracies, and distinguish verifiable evidence from plausible but unsupported claims.

UNESCO's *Guidance for Generative AI in Education and Research* highlights the limitations of generative AI outputs and the importance of critical evaluation and human verification (Miao F. a., 2023).

These considerations underscore a fundamental epistemological distinction: generating information or coherent text is not equivalent to producing reliable scientific knowledge.

AI systems do not inherently guarantee the truth or scientific validity of their outputs. Their responses depend on the data and computational models used in their development, the context in which they are applied, and the procedures used to evaluate their results. Accordingly, the quality and reliability of AI-generated content cannot be assessed solely by its fluency or apparent coherence. Data quality, diversity, and representativeness, together with appropriate human oversight, are also essential considerations.

This concern extends to algorithmic bias. AI systems may reproduce or amplify existing social inequalities and stereotypes when these are reflected in their training data or embedded in their design. UNESCO's *Recommendation on the Ethics of Artificial Intelligence* emphasises the importance of fairness, non-discrimination, and human oversight in addressing such risks (Miao F. a., 2023).

These developments also raise questions about human agency in knowledge production. As AI becomes increasingly capable of drafting, summarising, analysing, and generating ideas, users may become overly dependent on ready-made outputs rather than engaging actively in independent reasoning and interpretation. UNESCO therefore stresses the importance of ensuring that generative AI supports human intellectual and creative capacities rather than undermining them. Its use in education and research should preserve human agency and be accompanied by appropriate evaluation and safeguards against bias (UNESCO, 2025).

Beyond individual learning and research practices, AI is transforming the global organisation of knowledge production. Developing and deploying advanced AI systems requires substantial computing infrastructure, investment, data, and scientific and technical expertise. These resources are unevenly distributed across countries, creating disparities in the capacity to develop technologies and influence the production and circulation of knowledge.

The United Nations Conference on Trade and Development (UNCTAD), in its *Technology and Innovation Report 2025*, draws attention to the concentration of AI capabilities and innovation. The report indicates that the United States and China together account for approximately 33% of AI publications and 60% of AI patents (UNCTAD, 2025).

This concentration illustrates that the transformation of knowledge production takes place within an unequal global landscape in which technological resources and the capacity to shape emerging knowledge systems remain unevenly distributed.

From an anthropological perspective, knowledge should not be understood merely as a neutral collection of data. It is also a social and cultural product shaped by language, institutions, collective memory, and historical experience. The digitisation of knowledge does not necessarily ensure the equal representation of different cultures and forms of understanding. Training datasets may reflect existing inequalities in digital visibility, publication, language, and access to information. Consequently, some experiences, narratives, and knowledge traditions may be less visible in AI-generated outputs than others.

Kate Crawford's *Atlas of AI* offers a critical perspective on these issues by examining AI in relation to labour, resource extraction, political power, and economic interests. From this perspective, AI systems cannot be understood as autonomous technological entities detached from society. Their development and operation are embedded in material and institutional structures that influence the data they use and the knowledge they produce (Crawford, 2021).

These inequalities are particularly significant for languages and cultures that remain underrepresented in digital environments. UNESCO's *Recommendation on the Ethics of Artificial Intelligence* highlights the importance of protecting linguistic and cultural diversity and promoting inclusive participation in AI development. It also recognises the potential of AI to support cultural and linguistic heritage while drawing attention to risks arising from unequal access to digital technologies and the marginalisation of certain languages and cultural expressions (UNESCO, 2025).

The relationship between AI and cultural heritage further demonstrates that cultural data cannot be treated simply as a technological resource. Such data may embody distinct knowledge systems, worldviews, and values. The cited *Report of the Independent Expert Group on Artificial Intelligence and Culture* is intended to support this discussion by addressing questions concerning cultural representation, data diversity, and the rights of communities in relation to their cultural heritage. However, its exact bibliographic details and the cited pages must be verified against the original publication before this reference is retained .

Within universities, these transformations have direct implications for students, academics, and researchers. AI can support literature reviews, data analysis, translation, and the development of research ideas. However, its use also requires users to evaluate sources, verify generated information, acknowledge intellectual contributions where appropriate, and retain responsibility

for the work they produce. The challenge for universities is therefore not simply to facilitate access to AI tools, but to foster a research culture in which technological assistance is combined with critical inquiry, methodological rigour, academic integrity, and independent intellectual judgement.

Taken together, these developments show that AI is transforming knowledge production in ways that extend beyond faster information retrieval and the automation of research tasks. It is reshaping the roles of individuals and institutions, changing relationships between users and information, and influencing which forms of knowledge become visible and accessible. It also raises questions about the relationship between human experience and machine-generated outputs, as well as between local knowledge and globally circulating digital content.

The central challenge for contemporary society, and for universities in particular, is therefore not simply to adopt AI technologies, but to develop the critical, ethical, and institutional capacities needed to use them responsibly. Such efforts should ensure that AI expands opportunities for knowledge production while safeguarding scientific rigour, human agency, academic responsibility, linguistic and cultural diversity, and the recognition of knowledge traditions that may be underrepresented in digital datasets (UNESCO, 2025).

### **Artificial Intelligence and the Reshaping of Cultural Content**

The production of cultural content is undergoing significant transformation with the growing adoption of generative artificial intelligence (AI), which can produce texts, images, music, audio recordings, and videos, as well as assist in translating, editing, and adapting cultural works for different contexts. The significance of this transformation extends beyond the development of production tools to the changing relationships among creators, cultural works, audiences, and the platforms through which content is distributed and consumed. Whereas many forms of cultural production once required specialised artistic and technical skills, AI applications now enable individuals to transform initial ideas into textual, visual, and audio outputs. This development broadens opportunities for cultural participation and challenges traditional distinctions between professional creators and ordinary users. The UNESCO Independent Expert Group on Artificial Intelligence and Culture highlights the opportunities these technologies offer for creativity and wider cultural participation, including by lowering certain technical barriers to artistic and cultural production (Culture, 2021, pp. 9-14).

These developments are also transforming the nature of creative processes. Rather than following a linear path from an initial idea to a finished work produced entirely by an individual, creativity increasingly involves interaction between human initiative and AI-generated suggestions. Writers may use AI to develop ideas or explore alternative formulations, artists to experiment with visual compositions, and musicians to generate melodic patterns or preliminary audio material. In such cases, the human contribution may involve defining objectives, formulating prompts, selecting outputs, revising content, and establishing the meaning and context of the final work. Creativity therefore takes increasingly collaborative forms, although the respective contributions of humans and technological systems vary according to the task and the manner in which the technology is used. Nevertheless, the capacity to generate content does not, in itself, establish its artistic or cultural value, which also depends on the intellectual and aesthetic choices informing the work and its capacity to express meaningful human experiences (UNESCO, 2025, pp. 13-14).

The growing use of AI in cultural production raises fundamental questions about creativity, originality, and authorship. Creativity involves more than producing a text or image that differs from existing works; it also encompasses intention, expertise, experience, selection, and the construction of meaning. AI-assisted works consequently raise questions about the extent of human contribution, the distinction between using a technological tool and delegating substantial creative decisions to it, and the criteria for determining authorship and responsibility. These questions become particularly complex when a system generates most of a work following

minimal user instructions. By contrast, human involvement may be substantial when AI is integrated into a process of planning, experimentation, critical evaluation, and revision. Assessing AI-assisted creativity therefore requires distinguishing the generation of an output from the intellectual and aesthetic processes through which it acquires cultural significance. The 2025 UNESCO report draws attention to these questions, particularly those concerning originality, authorship, and creative autonomy, and highlights the importance of preserving the human contribution to cultural production (UNESCO, 2025, pp. 31-35).

These concerns are closely connected to intellectual property and the protection of creators' rights. The use of literary, artistic, and musical works in datasets for training generative AI systems raises questions about the lawful use of protected material, the need for authorisation, the traceability of data sources, and the recognition and potential compensation of creators. Further questions concern ownership of AI-generated outputs, for which legal treatment differs across jurisdictions. From a sociocultural perspective, these issues extend beyond the economic interests of individual creators. They also involve recognition of creative labour, the sustainability of cultural professions, and the establishment of transparent and equitable rules governing the use of artistic and literary works. The World Intellectual Property Organization (WIPO) provides guidance on intellectual property issues associated with generative AI, while the UNESCO report emphasises transparency in training datasets and the consideration of appropriate mechanisms for consent, recognition, and the sharing of benefits derived from cultural works (WIPO, 2024)

AI is transforming not only how cultural content is produced but also how it is distributed and discovered. Digital platforms increasingly rely on recommendation and ranking algorithms that analyse user activity, including searches, viewing habits, listening patterns, and other forms of engagement, to suggest potentially relevant content. Platforms have therefore become more than channels for disseminating cultural works; they are intermediaries that influence their visibility, ranking, and accessibility. Content given greater prominence may reach wider audiences than works of comparable artistic or cultural significance that receive less exposure. Access to audiences thus depends not only on the quality of a work or the resources invested in its production, but also on distribution mechanisms, recommendation criteria, and the engagement metrics employed by platforms. The 2025 UNESCO report identifies recommendation technologies and data as influential elements of the cultural value chain, encompassing creation, production, distribution, access, and participation (Culture., 2025).

From a sociological perspective, recommendation systems are significant because they may both reflect and shape cultural preferences. When platforms repeatedly recommend content similar to what users have previously watched or listened to, they may reinforce established preferences and reduce exposure to alternative cultural experiences. In a study of music consumption on YouTube, Massimo Airol di examined relationships among 14,865 music videos and the interaction patterns of 202,509 users. The findings suggested that automated recommendations and user preferences can jointly reproduce existing boundaries between musical genres. This indicates that digital distribution does not necessarily dissolve established cultural classifications; it may instead reproduce them through new technological mechanisms. Consequently, recommendation systems may favour familiar content and make less widely circulated cultural forms more difficult to discover, particularly when ranking decisions rely heavily on previous engagement (Airol di, 2021) .

However, recommendation systems do not invariably restrict cultural diversity. Depending on their design and objectives, they may also facilitate the discovery of unfamiliar works and underrepresented artistic forms. Research by Hansen and colleagues examined how recommendation mechanisms could direct music consumption towards more diverse content, illustrating the importance of recommendation strategies and evaluation criteria in determining the visibility of unfamiliar material. The cultural consequences of algorithmic recommendation therefore depend not only on the technology itself but also on the objectives governing its design. Systems primarily intended to maximise engagement and user retention may produce different

outcomes from those designed to encourage discovery, diversity, and access to local or less widely circulated content. Evaluating these systems consequently requires examining their design, ranking criteria, and content-selection processes rather than assuming that their effects are uniform (Hansen C. R., 2021).

The distribution of cultural content also raises questions about inequalities in visibility and economic opportunity. Lower production costs do not necessarily guarantee equal access to audiences or equal opportunities to generate income. Digital platforms can help independent creators reach interested audiences, yet they may also concentrate attention and revenue around a relatively small number of highly visible accounts or works. The increasing volume of AI-generated content may intensify competition for audience attention, making visibility dependent on recommendation systems, ranking mechanisms, and promotional resources as well as artistic effort. These inequalities may be reinforced by disparities in technological access, linguistic resources, and economic capacity. Creators with access to advanced tools and substantial marketing resources may be better positioned to produce and distribute content and adapt to platform requirements than those with fewer resources. Accordingly, expanded technological capacity should not be equated automatically with cultural justice or equal opportunities within the creative sector (UNESCO, 2025, pp. 13-15).

From an anthropological perspective, these transformations also affect cultural taste, identity, and belonging. Cultural content is not merely a form of entertainment; it also conveys values, symbols, collective memories, and representations through which societies understand and communicate their identities. By determining the order in which users encounter content and the material recommended to them, digital systems can influence which cultural expressions gain visibility and which linguistic and aesthetic references become more prominent. Reliance on similar AI models and unrepresentative training data may encourage uniform patterns of expression or reduce the visibility of local cultural forms that are insufficiently represented in digital datasets.

Nevertheless, AI does not inevitably lead to cultural homogenisation. The same technologies can support translation, document cultural heritage, facilitate multilingual access, and introduce local traditions to new audiences. Their effects depend on the representativeness of training data, the involvement of communities in decisions about cultural representation, and the extent to which local contexts are considered in the design and application of AI systems. UNESCO emphasises the importance of protecting cultural and linguistic diversity, preserving cultural heritage and endangered languages, and ensuring that AI does not marginalise already underrepresented cultural expressions (Culture, 2021).

Within university settings, these transformations are reflected in student publications, digital learning resources, research communication, university media, and cultural activities. AI can help students and academics develop multimedia materials, translate content, and communicate research findings to wider audiences. However, these opportunities also raise questions about authorship, originality, the representation of local cultures, and the distinction between human creativity and machine-generated material. Universities consequently have an important role in developing practices that encourage responsible experimentation with AI while protecting academic integrity, recognising human creative contributions, and sustaining meaningful cultural expression within university life.

Taken together, these developments suggest that AI reshapes cultural content through an interconnected cycle of production, distribution, consumption, interaction, and reproduction. Content generated by individuals is circulated through digital platforms, where recommendation and ranking systems influence its visibility. Audience interactions subsequently generate data that may shape future recommendations and encourage creators to adapt their work to prevailing engagement patterns. Production and consumption thus become mutually reinforcing processes in which human choices interact with technological mediation and the economic priorities of digital platforms.

The central challenge is therefore neither to reject AI tools nor to adopt them uncritically, but to establish conditions under which they can enhance human creativity and broaden cultural participation while protecting creators' rights, promoting transparency in content distribution, supporting local cultural expressions, and preserving linguistic and aesthetic diversity. For universities in particular, this requires cultivating critical digital literacy and enabling students and academics to use AI in ways that support creativity without weakening intellectual autonomy or academic responsibility. From this perspective, AI warrants sociological and anthropological analysis not simply as a technology for producing content, but as a mediator that reshapes relationships among culture, power, identity, taste, and social participation (Culture, 2021, pp. 31-39).

## **Artificial Intelligence, Cultural Practices, and Cultural Identity**

### **1. Artificial Intelligence and the Safeguarding of Cultural Heritage**

Intangible cultural heritage encompasses the traditions, knowledge, skills, and practices through which communities maintain their cultural identity and transmit their heritage across generations. Artificial intelligence offers new possibilities for documenting and preserving these cultural expressions, particularly where traditional knowledge faces the risk of declining transmission. However, its use also raises ethical questions concerning cultural authenticity, representation, and community participation (Zhang, 2025)

Artificial intelligence also contributes to the protection of cultural heritage through applications in artefact analysis, restoration, preventive maintenance, and digital reconstruction. These technologies can support cultural institutions in assessing the condition of heritage assets and developing more effective conservation strategies. Their successful implementation, however, requires collaboration between technical specialists and heritage professionals (Colace, 2025)

However, the use of AI in cultural heritage preservation raises ethical and legal concerns. Digitization alone does not guarantee effective protection, as cultural practices and traditional knowledge are often closely connected to the communities and social contexts in which they originate. Their use by AI systems should therefore respect community rights, cultural values, and the contexts that give heritage its meaning, furthermore, using cultural data to train AI systems raises concerns regarding consent, privacy, intellectual property, ownership, and the equitable distribution of benefits. Cultural expressions may be reused without adequate consultation with their communities, creating risks of misrepresentation and inappropriate commercialization. AI-based cultural initiatives should therefore incorporate ethical safeguards that promote community participation, cultural diversity, and respect for traditional knowledge (Shaikhon, 2025).

### **2. Artificial Intelligence, Cultural Representation, and Diversity**

Artificial intelligence systems may reproduce biases and inequalities embedded in their training data and design processes. In the cultural field, this can affect how societies, traditions, and cultural identities are represented. When some cultures are more extensively documented in digital collections than others, AI systems may reinforce existing imbalances in cultural visibility and representation. (5)

These challenges are particularly relevant to communities whose cultural heritage is underrepresented in digital environments. AI-generated content may misrepresent cultural practices or reproduce stereotypes, simplifying complex identities or separating cultural expressions from their historical and social contexts. The reliability of AI-generated cultural content therefore depends partly on the quality, diversity, and contextual accuracy of the data used to develop these systems.

Addressing these challenges requires more inclusive datasets, collaboration between technical specialists and cultural experts, and the participation of diverse communities in evaluating AI-generated representations. Continuous monitoring and mechanisms for correcting inaccurate or biased content can help promote more balanced and culturally sensitive representations (Foka, 2025).

### **3. Artificial Intelligence, Language, and Cultural Identity**

Language is a fundamental component of cultural identity, conveying collective memory, traditional knowledge, and culturally specific ways of understanding the world. Artificial intelligence can support linguistic diversity through machine translation, speech recognition, language documentation, and digital resources for underrepresented languages. However, the preservation of linguistic diversity depends on the ability of these technologies to represent the cultural meanings and distinctive features of different languages accurately (Helm, 2024)

The benefits of AI are not distributed equally across languages. Systems trained predominantly on data from widely represented languages may perform less effectively when processing minority languages, regional dialects, and culturally specific expressions. Such limitations can reinforce existing inequalities in digital representation and restrict the participation of some communities in digital environments (Helm, 2024).

Protecting linguistic diversity therefore requires more than developing multilingual systems. It also involves documenting local languages, involving native speakers in the creation and validation of datasets, and respecting the cultural contexts in which linguistic knowledge is transmitted. Particular attention should be given to endangered languages and dialects, whose preservation may require community-based initiatives and collaboration among universities, cultural institutions, and technology developers (Helm, 2024).

Universities can contribute by researching local languages, documenting oral traditions, and developing educational resources that reflect linguistic and cultural diversity. Through collaboration with language communities, these initiatives can help ensure that technological progress supports cultural identity rather than marginalizing languages that remain underrepresented in digital systems (Helm, 2024).

### **4. Artificial Intelligence and Cultural Sovereignty**

The growing influence of AI in cultural production raises broader questions concerning cultural sovereignty and the ability of societies to preserve control over the representation, interpretation, and circulation of their cultural resources. When cultural content is collected, processed, and distributed through technological platforms controlled by a limited number of actors, communities may have limited influence over how their traditions and knowledge are used. This situation highlights the need to consider not only access to AI technologies but also the distribution of power over cultural data and the benefits derived from its use (UNESCO, 2025).

Cultural sovereignty does not imply rejecting technological innovation or isolating cultures from global exchanges. Rather, it involves ensuring that communities and societies can participate meaningfully in decisions affecting their cultural heritage and identity. This requires transparent practices, appropriate protection of cultural data, respect for community rights, and opportunities for local institutions to contribute to the development and governance of AI systems (Shaikhon, 2025).

Universities and cultural institutions can contribute to this objective by documenting local heritage, promoting research on cultural data governance, and encouraging cooperation between

researchers, communities, public authorities, and technology developers. Such cooperation can support the development of AI applications that respond to local cultural needs while respecting the diversity of cultural expressions and the rights of their bearers (Shaikhon, 2025).

## **5. The Role of Universities in Preserving Cultural Identity in the Age of AI**

Universities occupy a strategic position at the intersection of knowledge production, technological innovation, and cultural transmission. Their role is not limited to adopting AI tools for teaching and research; it also includes examining the social and cultural consequences of these technologies. Through interdisciplinary research, universities can investigate how AI affects cultural practices, collective memory, linguistic diversity, and the transmission of traditional knowledge (Paolanti, 2026).

Universities can also promote responsible uses of AI by integrating ethical and cultural considerations into curricula, research projects, and institutional policies. Involving students in the documentation of local heritage, the digitization of historical resources, and the study of regional languages can strengthen their awareness of the relationship between technological change and cultural identity. Such initiatives can also encourage cooperation between universities and the communities whose heritage is being documented or studied (Cook, 2019).

However, these activities should be developed in a manner that respects the rights and expectations of the communities concerned. Digital preservation should not lead to the unrestricted use of culturally sensitive materials, nor should technological accessibility be regarded as equivalent to permission for commercial exploitation. Appropriate consultation, consent where required, and respect for cultural context are essential to ensuring that university-led initiatives contribute to safeguarding heritage responsibly (UNESCO, 2025, p. 65) .

Ultimately, the relationship between artificial intelligence and cultural identity should not be understood solely in terms of technological efficiency. It must also be evaluated in light of cultural diversity, community participation, and the capacity of societies to preserve and transmit their heritage. Universities can help establish this balance by combining scientific innovation with ethical responsibility and a sustained commitment to cultural preservation.

### **Artificial Intelligence, Cultural Practices, and Cultural Identity**

#### **1. Artificial Intelligence and the Safeguarding of Cultural Heritage**

Culture encompasses the values, beliefs, practices, knowledge, and traditions shared by communities and transmitted from one generation to another. Intangible cultural heritage includes oral traditions and expressions, performing arts, social practices, rituals, festive events, and traditional knowledge and skills. These elements contribute to the identity and continuity of communities and play an important role in preserving cultural diversity (Smith, 2009).

Artificial intelligence offers new opportunities for documenting, preserving, and transmitting cultural heritage. AI-powered technologies can support the digitization of historical documents, the classification of cultural materials, the restoration of damaged artefacts, and the documentation of oral traditions. They can also facilitate access to cultural resources by enabling users to search, interpret, and explore heritage collections through intelligent systems. These applications can contribute to safeguarding cultural heritage, particularly when traditional forms of knowledge are at risk of disappearing (Colace, 2025).

However, the use of AI in cultural heritage preservation raises important ethical and legal questions. Digitizing cultural expressions does not automatically guarantee their effective

protection. Some cultural practices and forms of traditional knowledge are closely connected to specific communities, spiritual beliefs, and social contexts. Their documentation and use by AI systems must therefore take into account the rights, values, and expectations of the communities concerned. In this regard, safeguarding intangible cultural heritage requires more than merely recording or storing cultural information; it also involves maintaining the social contexts in which that heritage acquires meaning (Shaikhon, 2025).

Furthermore, the use of cultural data to train AI systems may raise concerns regarding consent, privacy, intellectual property, and the equitable distribution of benefits. Cultural expressions may be incorporated into technological systems without adequate consultation with the communities that created or maintained them. This creates a risk that cultural heritage may be commercialized or reproduced in ways that disregard its original meaning and the interests of its bearers. Accordingly, AI-based cultural initiatives should be guided by ethical principles that respect human rights, cultural diversity, community participation, and the protection of traditional knowledge (Fu, 2025).

## **2. Artificial Intelligence, Cultural Representation, and Diversity**

Artificial intelligence systems do not operate independently of the data and social environments in which they are developed. Their outputs may reflect the biases, omissions, and inequalities embedded in their training data and design processes. In the cultural field, these limitations can influence how different societies, traditions, and cultural identities are represented. When certain cultures are overrepresented in digital datasets while others remain insufficiently documented, AI systems may reproduce unequal patterns of cultural visibility and recognition (Foka, 2025).

These challenges are particularly significant for communities whose cultural expressions are poorly represented in digital environments. Generative AI systems may produce inaccurate or stereotypical representations of cultural practices, clothing, rituals, artistic traditions, or historical experiences. Such representations can simplify complex cultural identities or detach cultural expressions from their historical and social contexts. Consequently, the use of AI in cultural production requires critical evaluation of the sources, datasets, and assumptions that shape its outputs (Foka, 2025).

Addressing these challenges requires greater diversity in the datasets used to develop AI systems, as well as the participation of people from different cultural and linguistic backgrounds in their design and evaluation. It is also important to establish mechanisms through which communities can identify inaccurate representations and contribute to the correction of cultural content. These measures can help promote more inclusive and balanced representations while reducing the risk of reproducing stereotypes and cultural inequalities (Foka, 2025).

## **3. Artificial Intelligence, Language, and Cultural Identity**

Language is a fundamental component of cultural identity because it conveys collective memory, traditional knowledge, values, and ways of understanding the world. Artificial intelligence can support linguistic diversity through machine translation, speech recognition, language documentation, and the development of digital resources for languages that are underrepresented online. These technologies may facilitate access to educational and cultural content and help preserve linguistic resources that are at risk of disappearing (Helm, 2024).

Nevertheless, the benefits of AI are not distributed equally across languages. Systems developed primarily using data from widely spoken languages may perform less effectively when processing minority languages, regional dialects, and oral forms of expression. This

imbalance can limit the participation of certain communities in digital cultural environments and may reinforce the dominance of already well-represented languages (Helm, 2024).

The protection of linguistic diversity therefore requires more than the technical development of multilingual systems. It also involves the documentation of local languages, the participation of speakers in the creation and validation of datasets, and respect for the cultural contexts in which linguistic knowledge is transmitted. Particular attention should be given to endangered languages and dialects, whose preservation may depend on community-based initiatives and collaboration between universities, cultural institutions, and technology developers (Helm, 2024).

In this context, universities can play an important role by conducting research on local languages, supporting the digitization of oral traditions, and developing educational resources that reflect linguistic and cultural diversity. Such initiatives can help ensure that technological progress contributes to the preservation of cultural identity rather than accelerating the marginalization of less widely represented languages (Helm, 2024).

#### **4. Artificial Intelligence and Cultural Sovereignty**

The growing influence of AI in cultural production raises broader questions concerning cultural sovereignty and the ability of societies to preserve control over the representation, interpretation, and circulation of their cultural resources. When cultural content is collected, processed, and distributed through technological platforms controlled by a limited number of actors, communities may have limited influence over how their traditions and knowledge are used. This situation highlights the need to consider not only access to AI technologies but also the distribution of power over cultural data and the benefits derived from its use (UNESCO, 2025, pp. 65-70).

Cultural sovereignty does not imply rejecting technological innovation or isolating cultures from global exchanges. Rather, it involves ensuring that communities and societies can participate meaningfully in decisions affecting their cultural heritage and identity. This requires transparent practices, appropriate protection of cultural data, respect for community rights, and opportunities for local institutions to contribute to the development and governance of AI systems (UNESCO, 2025).

Universities and cultural institutions can contribute to this objective by documenting local heritage, promoting research on cultural data governance, and encouraging cooperation between researchers, communities, public authorities, and technology developers. Such cooperation can support the development of AI applications that respond to local cultural needs while respecting the diversity of cultural expressions and the rights of their bearers (UNESCO, 2025).

#### **5. The Role of Universities in Preserving Cultural Identity in the Age of AI**

Universities occupy a strategic position at the intersection of knowledge production, technological innovation, and cultural transmission. Their role is not limited to adopting AI tools for teaching and research; it also includes examining the social and cultural consequences of these technologies. Through interdisciplinary research, universities can investigate how AI affects cultural practices, collective memory, linguistic diversity, and the transmission of traditional knowledge.

Universities can also promote responsible uses of AI by integrating ethical and cultural considerations into curricula, research projects, and institutional policies. Involving students in the documentation of local heritage, the digitization of historical resources, and the study of regional languages can strengthen their awareness of the relationship between technological change and cultural identity. Such initiatives can also encourage cooperation between universities and the communities whose heritage is being documented or studied.

However, these activities should be developed in a manner that respects the rights and expectations of the communities concerned. Digital preservation should not lead to the unrestricted use of culturally sensitive materials, nor should technological accessibility be regarded as equivalent to permission for commercial exploitation. Appropriate consultation, consent where required, and respect for cultural context are essential to ensuring that university-led initiatives contribute to safeguarding heritage responsibly (Shaikhon, 2025).

Ultimately, the relationship between artificial intelligence and cultural identity should not be understood solely in terms of technological efficiency. It must also be evaluated in light of cultural diversity, community participation, and the capacity of societies to preserve and transmit their heritage. Universities can help establish this balance by combining scientific innovation with ethical responsibility and a sustained commitment to cultural preservation (Colace, 2025, pp. 168-193).

### **Social and Cultural Opportunities and Challenges**

Artificial intelligence (AI) offers significant opportunities to expand access to culture and knowledge. It can facilitate access to information and documentary sources, support translation, assist teaching and research, organise archives, document cultural heritage, and expand possibilities for artistic and literary production. Cultural institutions can use these technologies to catalogue their collections and make them more accessible, while researchers can apply them to extensive collections of documents and recordings. AI can also help make cultural materials available to audiences who speak different languages or face barriers to accessing original sources. UNESCO emphasises the importance of using these capabilities to improve access to culture and heritage, alongside the need to equip artists and creative-sector professionals with the skills required to use AI tools critically and appropriately. AI can therefore broaden cultural participation and support new working methods, provided that its use is guided by clear cultural objectives and strengthens human capabilities rather than simply increasing the volume of digital content (UNESCO, 2021).

Within higher education, these opportunities must be accompanied by clear institutional guidance and appropriate academic practices. Universities need to clarify the acceptable uses of AI in teaching, learning, assessment, and research; establish expectations for acknowledging AI assistance where required; protect personal and research data; and provide students and academics with training in the critical evaluation of AI-generated outputs. Institutional responses should also address differences in access to technology and digital skills, ensuring that the integration of AI does not deepen inequalities among students, disciplines, or universities. Such measures are essential if AI is to strengthen university culture rather than undermine its commitments to academic integrity, independent thought, and intellectual diversity.

These opportunities are accompanied by significant challenges concerning information accuracy, source verification, and the authenticity of cultural content. AI makes it increasingly possible to generate convincing images, audio recordings, and videos that do not necessarily correspond to actual events. Existing materials may also be manipulated or presented in misleading contexts. Such practices are particularly concerning when content relates to historical events, public figures, religious and social symbols, or other elements of collective memory. The circulation of false or manipulated content can distort historical understanding, reinforce stereotypes, and intensify social tensions. UNESCO has highlighted the risks associated with misinformation and disinformation, as well as the need to address stereotypes generated or reproduced by AI systems. Effective responses therefore require source verification, clear distinctions between original and synthetic or modified materials, and stronger media and digital literacy to enable individuals to evaluate content critically (UNESCO, Recommendation on the Ethics of Artificial Intelligence, the prevention of stereotypes, misinformation, and disinformation, 2021).

Closely related to these concerns is the issue of public trust in cultural content. As AI systems become increasingly capable of generating realistic material, transparency regarding the creation and provenance of content becomes more important. Disclosure of substantial AI involvement may be necessary, particularly where it affects how audiences understand the nature, authenticity, or reliability of a work. This does not imply that all AI-generated content is misleading or lacks cultural value; such tools can legitimately support artistic, educational, and cultural production. The problem arises when synthetic content is deceptively presented as an authentic document or used to mislead audiences without giving them a reasonable opportunity to assess its origins. The digital environment consequently requires balanced approaches that safeguard freedom of expression and creativity while addressing practices that undermine public trust and access to reliable information. UNESCO's guidelines on digital platform governance provide a relevant framework for considering stakeholders' responsibilities in addressing misinformation, disinformation, and harmful content while protecting freedom of expression and access to information (UNESCO, 2021).

Another major challenge concerns privacy, data protection, and intellectual property. Materials collected for documentation or used to train AI systems may contain identifiable images, voices, personal information, and accounts of cultural practices associated with particular individuals or communities. Collecting, storing, and reusing such material raises questions about consent, individuals' rights to understand how their data is used, access to stored information, and the duration of data retention. These concerns are especially sensitive when oral recordings and traditional knowledge are involved, particularly where knowledge holders have not consented to their use in training commercial AI systems or to their reproduction in different contexts. UNESCO's Recommendation on the Ethics of Artificial Intelligence emphasises the protection of privacy and personal data throughout the life cycle of AI systems, together with appropriate governance, human oversight, and accountability mechanisms to safeguard individual rights (UNESCO, 2021).

Intellectual property presents further challenges involving the use of literary, artistic, and musical works to train generative AI models, the protection of creators' rights, the recognition of their contributions, and the possibility of appropriate compensation under applicable legal frameworks. Questions also arise concerning rights and responsibilities in works created with AI assistance, particularly when the respective contributions of humans and technological systems vary considerably. Since legal approaches differ across jurisdictions, no single rule should be assumed to apply universally. The World Intellectual Property Organization (WIPO) provides guidance to help stakeholders understand intellectual property issues associated with generative AI and identify relevant considerations when working with protected material and AI-generated outputs. From a cultural perspective, these issues concern not only economic benefits but also recognition of creative labour, the sustainability of cultural professions, and the fair distribution of benefits arising from the use of original works (WIPO, 2024).

Algorithmic bias and inequalities in access to cultural opportunities constitute additional challenges. AI systems may reproduce inequalities embedded in training data or digital infrastructure, leading to the unequal representation of particular groups, languages, and cultural traditions. These effects concern not only the content generated by AI but also the material recommended by digital platforms and prioritised in their ranking systems. Where recommendation mechanisms do not adequately account for diversity, local works and less widely used languages may become harder to discover, while already popular content attracts a greater share of public attention. UNESCO's Recommendation on the Ethics of Artificial Intelligence highlights the importance of promoting diverse cultural expressions and improving the visibility and discoverability of local content through recommendation systems, rather than allowing these systems to contribute to further concentration within cultural markets (UNESCO, 2025).

Cultural equity is also closely linked to the digital divide, both between countries and within individual societies. The ability to benefit from AI depends not only on the availability of

applications but also on communications infrastructure, the affordability of devices and services, digital skills, the availability of data in local languages, and access to the computing resources required to develop or adapt systems. Some countries and institutions possess the resources and expertise needed to develop their own cultural applications, while others remain dependent on external technologies whose design and priorities they have limited capacity to influence. UNCTAD's Technology and Innovation Report 2025 highlights the risk that inequalities in infrastructure, data, and skills may deepen existing disparities unless policies promote a more equitable distribution of opportunities. Expanding the use of AI in culture consequently requires investment in digital infrastructure and training, support for local cultural institutions, and the development of linguistic and cultural resources that adequately represent the communities concerned (UNCTAD, 2025).

Within universities, these inequalities may affect students' ability to benefit from AI-assisted learning and research, as well as institutions' capacity to develop locally relevant educational and cultural resources. Differences in digital infrastructure, access to suitable tools, language support, and staff training may create unequal opportunities among students and academic communities. Universities therefore need to consider not only whether AI tools are available, but also whether their use is accessible, educationally appropriate, culturally responsive, and consistent with academic values. Institutional strategies should promote equitable access, support local languages and cultural expressions, and ensure that students and researchers retain responsibility for evaluating information and content produced with AI assistance.

The benefits of AI should therefore not be measured solely by the number of applications adopted by institutions or the volume of content generated. They should also be assessed in terms of their contribution to expanding access to culture and knowledge, improving conditions for creativity and cultural work, safeguarding heritage, promoting linguistic and cultural diversity, and reducing inequalities in participation. Achieving these objectives requires transparency, data protection, respect for creators' rights, measures to address bias and disinformation, stronger media and digital literacy, and meaningful community participation in decisions concerning cultural heritage and knowledge. It also requires clearly defined human responsibility for the design, deployment, and evaluation of AI systems. The fundamental challenge is not to choose between humans and technology, but to establish a balanced relationship in which AI expands human and cultural possibilities without undermining critical thinking, diminishing cultural diversity, or compromising the rights of individuals and communities (Crawford K. , 2021).

### **Indicators of AI Adoption knowledge Production and higher education**

To contextualise the transformations associated with artificial intelligence (AI), this section examines selected indicators of AI adoption, scientific knowledge production, global technological inequalities, labour-market changes, and institutional responses within higher education. These indicators provide a broader context for understanding the social and cultural implications of AI. Although they do not directly measure university culture, they help identify developments that influence knowledge production, academic practices, and the cultural responsibilities of higher education institutions.

**Table 1. The Adoption of Artificial Intelligence in Organisations, 2023–2025**

| <b>Indicator</b>                                                | <b>Year</b> | <b>Percentage</b> |
|-----------------------------------------------------------------|-------------|-------------------|
| AI use in at least one business function within an organisation | 2023        | 55%               |
|                                                                 | 2024        | 78%               |
|                                                                 | 2025        | 88%               |

Source: Stanford HAI, The 2026 AI Index Report, Economy chapter. Available at: <https://hai.stanford.edu/ai-index/2026-ai-index-report/economy>

Note: These percentages reflect reported AI adoption among surveyed organisations rather than a comprehensive census of all organisations worldwide.

**Commentary on Table 1**

These indicators illustrate the rapid expansion of AI adoption across organisational settings. The increase from 55% in 2023 to 88% in 2025 suggests that AI has moved beyond specialised technical applications to become an increasingly prominent component of organisational activity. The growing availability of AI tools is also changing how individuals access and process information, develop ideas, and create content. These developments make it increasingly important to examine AI’s social and cultural implications, particularly its effects on knowledge production, communication, and cultural participation.

However, organisational adoption rates should not be interpreted as direct measures of AI use within universities or of changes in university culture. Their relevance lies in illustrating the broader technological environment in which higher education institutions operate.

**Table 2. Artificial Intelligence-Related Scientific Publications, 2013 and 2023**

| Indicator                          | Year | Number of publications | Share of computer science publications |
|------------------------------------|------|------------------------|----------------------------------------|
| AI-related scientific publications | 2013 | Approximately 102,000  | 21.6%                                  |
|                                    | 2023 | More than 242,000      | 41.8%                                  |

**Source:** Stanford HAI, *The 2025 AI Index Report, Research and Development chapter*. Available at: <https://hai.stanford.edu/ai-index/2025-ai-index-report/research-and-development>

**Note:** The publication totals cover AI-related research across computer science and other scientific disciplines. The percentages indicate AI’s share of computer science publications, not its share of all scientific publications.

**Commentary on Table 2**

The figures demonstrate substantial growth in scientific publications related to AI. Their significance lies not only in the increased volume of research but also in AI’s growing role in research, analysis, and knowledge production itself. This development invites reconsideration of the role of researchers, the relationship between human expertise and intelligent systems, and the distinction between knowledge produced independently by researchers and knowledge generated with AI assistance.

Within universities, these changes have implications for research methodology, literature reviews, academic writing, and the assessment of scientific evidence. They also reinforce the importance of critical thinking, methodological rigour, source verification, and academic integrity. Universities must therefore ensure that AI-assisted research strengthens rather than replaces independent intellectual judgement.

**Table 3. Global Concentration in AI Knowledge Production and Innovation**

| Indicator                     | Geographic scope                 | Share of the global total |
|-------------------------------|----------------------------------|---------------------------|
| Scientific publications in AI | United States and China combined | Approximately 33%         |
| AI patents                    |                                  | Approximately 60%         |

Source: United Nations Conference on Trade and Development (UNCTAD), *Technology and Innovation Report 2025: Inclusive Artificial Intelligence for Development*, Chapter I, “AI at the Technology Frontier,” p. 23. Available at: <https://unctad.org/publication/technology-and-innovation-report-2025>

### Commentary on Table 3

These findings indicate that the global expansion of AI does not necessarily entail an equal distribution of the capacity to develop these technologies or influence their future direction. The concentration of a substantial share of scientific publications and patents in the United States and China highlights inequalities in technological innovation and knowledge production.

From a cultural perspective, these disparities are particularly significant because societies with greater technological and data resources may also exercise greater influence over the knowledge frameworks, languages, and cultural representations embedded in AI systems. Universities in countries with fewer resources may consequently face challenges in developing locally relevant applications, producing representative datasets, and ensuring that their languages and cultural knowledge receive adequate representation.

Addressing these inequalities requires strengthening research capacity, improving digital infrastructure, supporting local-language resources, and promoting international scientific cooperation that recognises the diversity of knowledge traditions.

**Table 4. Artificial Intelligence and Projected Changes in the Global Labour Market**

| Indicator                                                      | Estimate    | Time frame         |
|----------------------------------------------------------------|-------------|--------------------|
| Global employment potentially exposed to AI                    | Almost 40%  | IMF estimate, 2024 |
| Jobs projected to be created amid broader structural           | 170 million | By 2030            |
| Jobs projected to be displaced amid broader structural changes | 92 million  | By 2030            |
| Projected net increase in employment                           | 78 million  | By 2030            |

### Sources:

1. International Monetary Fund (IMF), “AI Will Transform the Global Economy. Let’s Make Sure It Benefits Humanity,” 14 January 2024. Available at: <https://www.imf.org/en/blogs/articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity>

2. World Economic Forum (WEF), *The Future of Jobs Report 2025*. Available at: <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>

#### Commentary on Table 4

These estimates illustrate the potential influence of AI and wider structural transformations on the global labour market. According to the IMF, almost 40% of global employment is exposed to AI, although exposure does not necessarily imply job displacement. Some occupations may benefit from productivity gains, while others may experience changes in tasks, recruitment, and labour demand.

Separately, the World Economic Forum projects that broader economic, technological, demographic, and other structural trends will create 170 million jobs and displace 92 million by 2030, resulting in a projected net increase of 78 million jobs. These estimates should not be attributed to AI alone because the report considers multiple drivers of labour-market change.

From a social and cultural perspective, these developments extend beyond employment figures. They also affect the skills required in the workplace, approaches to knowledge production, and the relationship between human capabilities and technological systems. Universities and other educational institutions therefore have an important role in preparing individuals for professional, intellectual, and cultural change.

Methodological note: The IMF estimate of almost 40% refers to global employment potentially exposed to AI, not to jobs expected to disappear. The WEF projections concern broader structural changes in the labour market and should not be interpreted as forecasts of the employment effects of AI alone.

**Table 5. Selected Indicators of AI Adoption and Governance in Higher Education**

| Indicator                            | Reported finding                                                          |
|--------------------------------------|---------------------------------------------------------------------------|
| Survey coverage                      | 400 responses from UNESCO Chairs and UNITWIN Networks across 90 countries |
| Use of AI in professional work       | Approximately 9 in 10 respondents                                         |
| Institutions with a formal AI policy | 19% of respondents reported that their institutions had a formal policy   |
| Institutions developing AI guidance  | A further 42% reported that guidance was under development                |

**Source:** UNESCO, “UNESCO Survey: Two-Thirds of Higher Education Institutions Have or Are Developing Guidance on AI Use,” 2 September 2025. Available at: <https://www.unesco.org/en/articles/unesco-survey-two-thirds-higher-education-institutions-have-or-are-developing-guidance-ai-use>

Methodological note: The findings are based on 400 responses from UNESCO Chairs and UNITWIN Networks across 90 countries, with a reported response rate of 38%. They provide insight into institutional experiences but should not be interpreted as a comprehensive or fully representative census of all higher education institutions worldwide.

## Commentary on Table 5

The findings illustrate the growing integration of AI into academic and professional activities, alongside the continuing development of institutional frameworks governing its use. Approximately nine in ten respondents reported using AI tools in their professional work, most commonly for research and writing. At the same time, only 19% reported that their institutions had a formal AI policy, while a further 42% indicated that institutional guidance was under development. Approximately one-quarter reported that their institutions had already encountered ethical issues associated with AI, including excessive student reliance on AI tools, authorship disputes, and bias in research. These findings suggest that widespread use does not necessarily indicate that institutions have established comprehensive frameworks for responsible implementation.

From the perspective of university culture, the distinction between technological adoption and institutional preparedness is particularly important. University culture encompasses not only the tools used in teaching and research but also the values, expectations, and practices governing the production and evaluation of knowledge. Where clear guidance is lacking, uncertainties may arise concerning academic authorship, the appropriate use of generated content, assessment practices, and the responsibilities of students and researchers.

The findings also highlight the importance of institutional capacity-building. Universities need practical guidance, staff development, student digital literacy, and assessment practices that preserve independent reasoning and academic responsibility. Rather than focusing exclusively on detecting inappropriate AI use, institutions can adopt approaches that involve students and academic staff in developing guidelines and integrating critical AI literacy into teaching and research.

The implications extend beyond academic integrity to cultural participation and knowledge representation. Universities can use AI to support multilingual communication, research dissemination, and cultural documentation, but they must also consider biases in generated content, unequal access to technology, and the representation of local languages and cultural traditions. Responsible AI governance should therefore be understood as part of the broader effort to preserve the intellectual, ethical, and cultural foundations of university life.

## Overall Interpretation of the Indicators

Taken together, these indicators illustrate the rapid expansion of AI adoption, the growing role of AI in scientific knowledge production, the concentration of technological capacity in a limited number of countries, and the potential consequences for employment and higher education. They also reveal that the integration of AI into academic life raises institutional and ethical questions that cannot be addressed through technological adoption alone.

For universities, the central issue is how to integrate AI into teaching, learning, research, and cultural activities while preserving academic integrity, critical thinking, human agency, and cultural diversity. The ability of AI to transform university culture ultimately depends not only on technical capabilities but also on institutional policies, educational practices, and the values that guide its use.

## Conclusion

Artificial intelligence (AI) has emerged as a significant force reshaping knowledge production and cultural content in contemporary society. Its influence extends beyond technological innovation to affect academic practices, cultural expression, and the relationships between human beings, knowledge, and technology. Within universities, these transformations are particularly important because they affect how students, academics, and researchers access information, develop ideas, evaluate knowledge, and participate in intellectual and cultural life.

The analysis highlights the opportunities AI offers for supporting research, expanding access to knowledge, facilitating multilingual communication, encouraging creative expression, and preserving and disseminating cultural heritage. At the same time, its integration into academic and cultural practices raises important challenges concerning academic integrity, information reliability, intellectual property, privacy, algorithmic bias, and unequal access to technological resources. These challenges demonstrate that technological advancement does not automatically lead to improved knowledge production or greater cultural diversity.

From sociological and anthropological perspectives, university culture is more than a set of educational practices or institutional rules. It is a dynamic environment in which knowledge, values, identities, and cultural expressions are produced, negotiated, and transmitted. The integration of AI into this environment may reshape established academic practices and create new forms of intellectual and cultural participation. However, the implications of these changes depend on how AI is adopted, governed, and incorporated into the everyday activities of universities.

Universities therefore have a central responsibility to establish clear and appropriate frameworks for AI use, promote critical digital literacy, protect academic integrity, and preserve human responsibility for intellectual work. They should also encourage linguistic and cultural diversity, support the representation of local knowledge, and ensure that technological innovation does not deepen existing inequalities among students, researchers, and academic institutions. AI should complement human capabilities and strengthen independent judgement rather than replace critical thinking or diminish the value of human creativity.

Ultimately, reshaping university culture in the age of AI requires a balanced approach that combines technological innovation with academic responsibility, ethical governance, and cultural pluralism. The central issue is not simply what AI can produce, but how universities can integrate these technologies in ways that enrich knowledge and cultural expression while safeguarding the intellectual, human, and cultural foundations of academic life.

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