Artificial Intelligence and Culture: How Belonging Is Being Reconfigured

Lebni Fatiha
Echahid Cheikh Larbi Tebessi University, Tebessa (Algeria)

Receipt date : 24/02/2026 ; Acceptance Date: 01/06/2026

Abstract: This article examines the interactive relationship between artificial intelligence and culture, with particular emphasis on how intelligent technologies contribute to the reconfiguration of belonging in contemporary societies. It adopts a critical analytical approach aimed at unpacking the role of algorithms and digital platforms in reproducing cultural values and symbols, as well as their impact on the formation of individual and collective identities.

The study argues that artificial intelligence can no longer be understood as a neutral technological instrument. Rather, it has emerged as a cultural agent that actively shapes patterns of interaction and affiliation within transnational virtual spaces structured by data logics and algorithmic representation. The article further explores the challenges associated with the restructuring of collective memory, the standardization of tastes, and the risks of cultural exclusion or symbolic domination.

It concludes that understanding transformations of belonging in the age of artificial intelligence requires a multidisciplinary framework attentive to cultural and ethical dimensions. Such an approach should seek to harness these technologies in ways that promote cultural diversity and reflexive belonging, rather than reducing identity to consumerist patterns or superficial digital representations.

Keywords: Artificial Intelligence; Culture; Belonging.

* Lebni Fatiha.

Introduction

The contemporary world is undergoing a profound transformation in modes of living, thinking, and communicating as a result of the rapid advancement of artificial intelligence technologies. Their impact is no longer confined to technical or economic domains; it now extends to the deep cultural structures of societies, reshaping fundamental concepts such as identity, belonging, collective memory, and symbolic representation. Within this context, artificial intelligence emerges as a non-human cultural agent that participates, directly or indirectly, in the production of meaning, the organization of social experience, and the orientation of interactions among individuals and groups.

Historically, belonging has been grounded in a set of social and cultural determinants, including family, religion, language, geography, and shared memory. However, digitally mediated environments enhanced by artificial intelligence algorithms have unsettled these foundations, deconstructing and reassembling them within transnational virtual spaces structured by data logics, algorithmic recommendation, and real-time interaction. Belonging is therefore no longer constructed solely through spatial proximity or traditional bonds; it increasingly takes shape through digital networks, online communities, and culturally mediated consumption patterns guided by intelligent systems.

In this evolving landscape, artificial intelligence functions as a regulatory force within culture. Through content filtering, interest shaping, and the reproduction of norms and values—whether via social media platforms, recommendation systems, or interactive applications—it exerts significant influence over the symbolic environment in which individuals situate themselves. This raises critical questions concerning the nature of belonging in the digital age: Are we witnessing a redefinition of belonging, or a gradual erosion of its traditional meanings? Does artificial intelligence strengthen belonging by enabling new digital communities, or does it fragment social cohesion by reinforcing individualization and enclosed cultural echo chambers?

These transformations also foreground the problem of algorithmic cultural authority. The production of meaning is no longer the exclusive domain of traditional social institutions; it is increasingly shared with intelligent systems governed by technical and commercial logics that may reshape collective consciousness and patterns of cultural representation in subtle and often invisible ways. This reality calls for a critical analytical framework capable of examining how belonging is reconstructed within digital ecosystems regulated by artificial intelligence, and what implications this holds for cultural identity, social bonds, and the shifting boundaries between self and other.

Accordingly, this article seeks to analyze the dialectical relationship between artificial intelligence and culture by interrogating the mechanisms through which belonging is reformulated in the digital age. It aims to uncover the sociological and anthropological dimensions of these processes, with particular attention to the symbolic and social transformations generated by intelligent technologies in shaping how individuals perceive and negotiate their affiliations and identities within contemporary spaces.

Research Problem

The rapid proliferation of artificial intelligence technologies has generated profound transformations within cultural and social structures, extending far beyond technical applications to influence modes of thinking, processes of meaning production, and patterns of social interaction. Intelligent algorithms have become central mediators in shaping individuals' everyday experiences by organizing content, directing attention, and structuring the digital environments through which self-expression and collective engagement occur. Within this context, belonging can no longer be understood as a fixed and predetermined bond; rather, it has become a dynamic process continuously reformulated within digital ecosystems governed by data logics and algorithmic programming.

This reality raises a fundamental problem: belonging is increasingly shifting from being rooted in direct social relations and shared cultural references to becoming a digitally mediated experience shaped by the often invisible interventions of artificial intelligence systems. Through mechanisms such as personalization, algorithmic selection, and the construction of so-called cultural echo chambers, these systems reorganize cultural priorities and privilege certain forms of affiliation over others. Such dynamics prompt critical scholarly questions concerning the nature of this emerging form of belonging, the extent of individual agency in its construction, and the degree to which artificial intelligence reshapes cultural and collective identity.

Accordingly, there is a pressing need for a critical analytical framework capable of examining how belonging is reproduced and restructured within contemporary digital spaces, and of identifying the roles played by artificial intelligence as a cultural agent that does not merely reflect prevailing social values but actively participates in guiding and redefining them.

Main Research Question

How does artificial intelligence contribute to the reconfiguration of individuals' sense of cultural and social belonging?

Sub-Questions

1. How does artificial intelligence influence the ways individuals engage with and interpret their culture?
2. How do AI-driven digital platforms generate new forms of belonging?
3. How is the relationship between the individual and the collective transformed under the digital mediation of artificial intelligence?

1. The Concept of Artificial Intelligence

To define artificial intelligence, it is necessary to begin with a clarification of human intelligence. Human intelligence refers to a set of cognitive capacities that enable individuals to adapt to changing life conditions, learn from past experiences, think analytically, plan strategically, solve problems effectively, draw sound inferences, and demonstrate empathy toward others. It also encompasses the ability to acquire diverse

skills and apply learned knowledge in ways that are rational, appropriate, and beneficial within specific social contexts.

Artificial intelligence, by contrast, represents an attempt to simulate aspects of human intelligence through computational systems. It involves the design and development of computer programs capable of performing tasks that typically require human cognitive functions, such as learning, reasoning, decision-making, and pattern recognition. Rather than possessing consciousness or subjective awareness, artificial intelligence operates through algorithmic models and data processing mechanisms that replicate certain intelligent behaviors associated with human activity. (Ahmed Majid,p04)

In this sense, artificial intelligence does not reproduce human intelligence in its entirety; instead, it models and operationalizes selected cognitive processes within programmable and data-driven environments.

Artificial intelligence can therefore be defined as a field of study concerned with designing machines that perform actions which humans consider intelligent. It seeks to develop systems capable of exhibiting behaviors analogous to human cognitive performance. (Adel Abdelnour Ben Abdelnour,2005,p07)

Researchers in this domain aim to enable machines—most commonly computers—to display what is described as intelligent behavior. In this sense, artificial intelligence constitutes a major branch of computer science dedicated to the study and development of computational systems that manifest specific forms of intelligence. These include systems capable of learning new concepts and tasks, reasoning and generating meaningful inferences about the surrounding world, processing and understanding natural language, interpreting visual inputs, and performing functions that typically require human intellectual capacities. (Abu Mohammed Abu al-Qasim al-Ratimi,2010,p14)

Thus, artificial intelligence does not merely automate routine operations; it aspires to simulate complex cognitive processes through programmable, data-driven architectures.

Artificial intelligence can be applied across all aspects of human life, both practical and intellectual, making it a truly interdisciplinary field. AI increasingly exerts influence over virtually every domain of human activity—technological, industrial, educational, or cognitive—producing significant improvements in performance and efficiency across sectors. (Abu Mohammed Abu al-Qasim al-Ratimi,2010,p08)

AI is a science that aims to endow computers and other digital machines with intelligent capabilities, enabling them to perform tasks that, until recently, were exclusively human, such as thinking, learning, creativity, and general communication. As a modern and widely adopted discipline, artificial intelligence has penetrated numerous industrial and research fields. (Al-Ain Online Magazine, 2026)

Fundamentally, AI consists of properties and functionalities embedded in computational programs that allow them to simulate human cognition and behavior, particularly the abilities to learn and to infer. Despite the diversity of definitions

associated with the term, there is no single, universally accepted definition of artificial intelligence.

According to John McCarthy, artificial intelligence is the science and engineering of creating intelligent machines, particularly smart computer programs. It is concerned with tasks similar to human cognition, using computers to understand human intelligence. AI is not necessarily limited to methods that can be observed biologically. (Al-Ain Online Magazine, 2026)

Artificial intelligence is also defined as a method or specific behavior that combines multiple properties characteristic of computer programs, approximating and simulating human cognitive abilities. Machines can exhibit features and capabilities they were not explicitly programmed for. To date, there is no single, absolute definition of AI, as the concept remains evolving and context-dependent.(A group of authors,2026)

Thus, AI is a branch of computer science and represents the behavior adopted by various computer programs to emulate human cognitive abilities in performing different tasks. Among its most important capabilities are learning, education, and making accurate decisions. As **Hamza Al-Arefi** defines it, AI consists of a set of specific behaviors embedded in computer programs, designed to simulate the mental traits characteristic of humans, thereby allowing machines to take over tasks once exclusively performed by people. (Hamza Laazizi,2026)

Edward Feigenbaum defines AI as a branch of computer science aimed at creating and designing intelligent systems that exhibit properties of intelligence similar to those found in humans. (Mohamed Bahansi Jadallah,2026) It is also described as the science focused on developing applications capable of performing behaviors considered intelligent in human beings.

Martin Weik, on the other hand, defines AI as the science capable of constructing machines that perform tasks requiring human intelligence, such as logical reasoning, learning, and adaptability. It can also be understood as the simulation of certain aspects of human intelligence through a specific program or application. . (Mohamed Bahansi Jadallah,2026)

Marvin Minsky defines AI as the science concerned with building machines capable of performing tasks that require human-level intelligence. Many sources describe it as the study and design of intelligent agents. As mentioned, computer scientist John McCarthy coined the term in 1956 and defined it as the science and engineering of creating intelligent machines. (Mohamed Bahansi Jadallah,2026)

Mustafa Joudat Saleh, in his article *Artificial Intelligence and Expert Systems*, describes AI as a field that focuses on enabling machines to perform operations that simulate human cognitive abilities. AI involves controlling robots or digital devices via computers, imitating and simulating human motor and mental processes. Since the development of computers in the 1940s and 1950s, AI has increasingly entered various fields, performing complex human operations that require analytical and inferential capabilities, such as sophisticated chess simulations and the proof of mathematical theorems. (Khadeeja Al-Kubra Sultani,2025,p319).

Martin Weik's definition is perhaps the most accurate starting point, as AI only simulates aspects of human intelligence, not its entirety. It is important to remember that humans created and developed this intelligence, and AI cannot replace humans, who remain the owners, controllers, and guides of these systems. This perspective addresses concerns about machines potentially dominating humanity. (Mohamed Bahansi Jadallah,2026)

2) The Emergence of Artificial Intelligence

Artificial Intelligence emerged as a distinct field within computer science and gradually expanded to become one of the most influential scientific domains of the modern era. The technologies derived from it have significantly transformed contemporary societies over the past decades.

The field was formally established in 1956 at Dartmouth College in the United States during a summer research workshop organized by four American scholars: John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon. It was during this meeting that the term "Artificial Intelligence" was introduced. Although the term may initially have been coined to attract attention, it rapidly gained academic legitimacy and widespread recognition, becoming a central concept in contemporary scientific discourse.

According to McCarthy and Minsky, the success of Artificial Intelligence depends on its capacity to rival human beings in performing cognitive and practical tasks. In this sense, AI aspires not merely to assist humans but to simulate — and potentially compete with — human intellectual abilities through machines.

This scientific project rests on a foundational hypothesis: that human cognitive functions such as learning, calculation, perception, memory storage, scientific discovery, and creativity can be formalized, programmed, and reproduced computationally. This hypothesis remains both open and fertile, continuing to inspire research and theoretical debate.

Artificial Intelligence thus developed in the 1950s as a consequence of advances in computing and cybernetics. Its development pursued two principal objectives: First, to achieve a deeper understanding of human intelligence in order to simulate it. Second, to optimize the use of computers by exploiting their expanding computational capacities.

Accordingly, Artificial Intelligence refers to systems or devices that, based on the data they collect and process, attempt to replicate aspects of human intelligence in order to perform diverse tasks.

Visual Timeline of the Emergence of Artificial Intelligence

Pre-1950s
Advances in computing and cybernetics
Development of early programmable machines

↓

1956
Summer Research Workshop at Dartmouth College
Term "Artificial Intelligence" formally introduced

↓

Post-1956 Expansion
Development of AI as a research discipline
Focus on simulating human cognition
Growth of computational capabilities

↓

Contemporary Phase
AI integrated into multiple domains
Automation, data analysis, machine learning, cognitive simulation

3) Characteristics and Domains of Artificial Intelligence

Artificial Intelligence possesses a set of distinctive features that have enabled its integration across multiple fields of activity. These characteristics explain both its rapid expansion and its transformative impact on contemporary societies.

First, AI systems are capable of planning and problem-solving through logical reasoning. By embedding intelligent algorithms into machines and digital infrastructures, AI can simulate decision-making processes and generate optimal solutions to complex tasks.

Second, AI enables speech and sound recognition, as well as physical interaction with the environment through robotics. Technologies such as automated speech recognition and robotic systems allow machines to interpret human language and manipulate objects with increasing precision.

Third, AI demonstrates the capacity for continuous and autonomous learning. Through machine learning models, systems can update their knowledge structures without direct human supervision. This self-improving capability represents one of the most significant advances in the field.

Fourth, AI can process vast amounts of heterogeneous information. Unlike traditional computational systems limited to predefined instructions, AI analyzes dynamic and complex datasets in real time.

Fifth, AI systems are able to detect patterns within large datasets more efficiently than human cognition in many contexts. This analytical strength is particularly evident in predictive modeling and data-driven decision-making.

Finally, AI can generate solutions to diverse problems by mobilizing its programmed cognitive frameworks. From healthcare to finance and industrial automation, AI contributes to optimizing performance and reducing uncertainty.

Artificial Intelligence extends into virtually all technical and scientific domains that require logical reasoning, structured thinking, precision, planning, and simulated perception aimed at selecting optimal solutions through the application of theoretical models. It also plays a central role in industry, particularly through robotic systems capable of performing tasks traditionally carried out by humans.(Khadeeja Al-Kubra Sultani,2025,p320)

AI maintains a strong presence in the development of software and computational applications across diverse sectors, including medicine, engineering, commerce, and educational sciences, in addition to numerous other fields of investment and innovation. Among its most significant areas of application are the following:(Khadeeja Al-Kubra Sultani,2025,p312)

- The advancement of cognitive simulation, whereby theoretical models are tested through computational systems in order to better understand the functioning of the human mind and its processes, such as image recognition, perception of existence, and other complex cognitive operations.
- The integration of AI into nearly all scientific, technological, and knowledge-based disciplines, reinforcing its interdisciplinary character.

Artificial Intelligence also contributes to the development of a wide range of systems and applications, including: .(Khadeeja Al-Kubra Sultani,2025,p313)

- The modernization and enhancement of computer-assisted diagnostic systems within healthcare institutions, improving accuracy and efficiency in medical evaluation.
- The upgrading of search systems and digital retrieval mechanisms across computers and interconnected smart devices.
- The development of intelligent stock trading systems capable of analyzing market data and supporting automated decision-making.
- The design of intelligent engines and autonomous systems, such as self-driving vehicles and unmanned aerial vehicles, which operate independently without direct human control.
- The creation of language-learning applications that provide programmed responses to user inquiries, facilitating interactive learning environments.
- The advancement of video games with increasingly realistic simulations, enhancing immersion and user engagement.

- The empowerment of smart devices to interpret user inputs, analyze them effectively, and generate outputs that meet user needs with high levels of efficiency and responsiveness.

Through these applications, Artificial Intelligence demonstrates its capacity not only to simulate aspects of human cognition but also to extend computational performance into domains requiring adaptability, precision, and large-scale data processing.

Artificial intelligence derives much of its conceptual foundation from the cognitive model of information processing developed within cognitive psychology. This model, which marked a major shift in the study of the human mind, argues that communication and behavior are not merely mechanical responses to stimuli, as suggested by behaviorism. Rather, they result from a sequence of internal mental operations through which individuals interpret signs, construct meaning, and generate responses.

Within this framework, the human mind is often compared to a machine. A computer or smartphone, for example, receives inputs—signals, commands, or data—which are processed centrally through memory systems based on previously stored information. This processing generates specific outputs. The analogy highlights a structural similarity between the functioning of the brain and that of intelligent machines, the latter being designed as a simulation of certain cognitive operations of the human mind.

Artificial intelligence is distinguished by advanced analytical capabilities and high-level data processing. Although popular imagination often associates AI with humanoid robots capable of replacing humans or dominating the world, its primary objective is not substitution but augmentation. AI systems are developed to enhance human capacities, optimize performance, and support complex decision-making processes rather than eliminate the human role.

To fully harness the value of artificial intelligence, many organizations invest heavily in data science, an interdisciplinary field that applies scientific methods to extract value from large and complex datasets. Data science integrates statistical techniques, computer science, and domain-specific knowledge to analyze information gathered from multiple sources. It is important to clarify that not all artificial intelligence is machine learning, even though all machine learning approaches fall within the broader domain of artificial intelligence .(Khadeeja Al-Kubra Sultani,2025,p322)

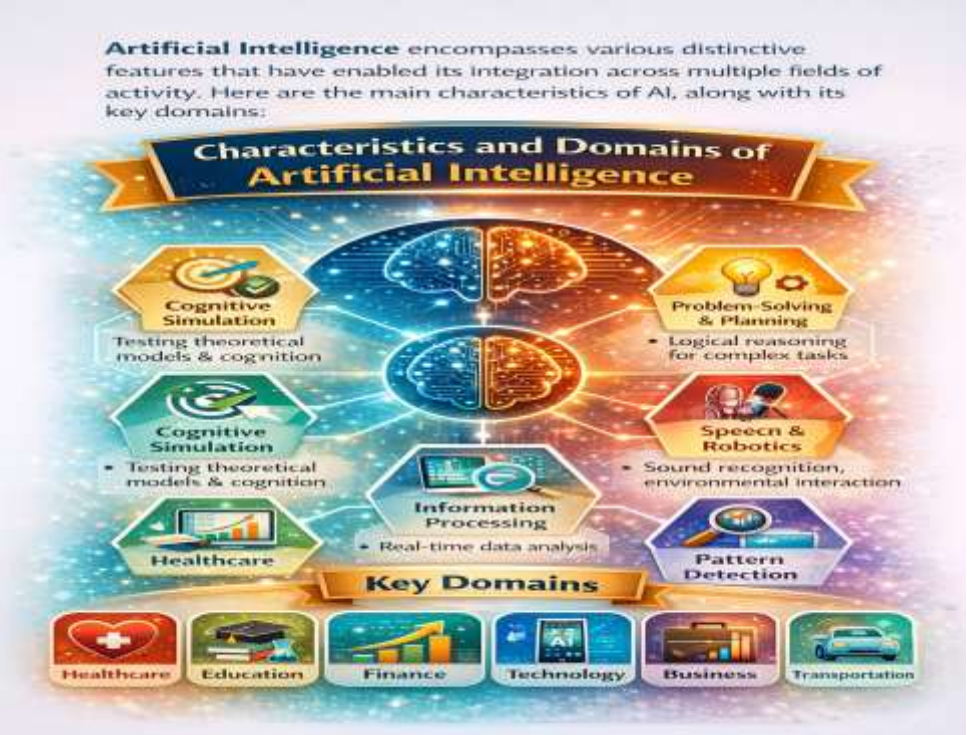


Figure 1 represents the characteristics of Artificial Intelligence (image generated with the assistance of Artificial Intelligence).

4) Features of Artificial Intelligence

Artificial Intelligence possesses numerous defining features, among which are:

- The ability to accurately distinguish between multiple issues and acquire information through practical experience.
- Flexibility and rapid responsiveness in decision-making, along with adaptability to changing conditions.
- The capacity for sound decision-making and perceptual recognition, selecting optimal solutions based on the evaluation of probabilities and anticipated outcomes.
- The ability to detect and correct errors quickly and precisely.

It is worth noting that the origins of Artificial Intelligence can be traced to the development of early computational systems and software, including chess programs. In 1948, the British mathematician Alan Turing designed an algorithm for playing chess using computational logic. A decade later, Claude Shannon developed a more advanced algorithm that enabled computers to play chess by calculating and anticipating possible opponent moves. These programs functioned by computing all potential moves available to each player.

Among the principal characteristics and core attributes of Artificial Intelligence are:

- Acquiring information through practice and experiential interaction.

- Responding to diverse stimuli in ways appropriate to their nature, thereby avoiding rigid or purely mechanical patterns.
- Making correct or logically sound decisions based on multiple data inputs.
- Inferring rules and instructions from available information.
- Acquiring knowledge and applying it to problem-solving contexts.
- Detecting errors according to pre-established models and proposing corrective mechanisms.

Artificial Intelligence systems typically operate through structured components such as inputs, outputs, a knowledge base, an inference engine, and data-processing mechanisms. These elements interact to address questions, analyze problems, generate solutions, and propose alternative responses. .(Khadeeja Al-Kubra Sultani,2025,p322)

5. **Core Domains of Artificial Intelligence:**
    - Speech recognition
    - Robotics and control technologies
    - Expert systems
    - Intelligent learning programs
    - Games
    - Visual recognition.(Khadeeja Al-Kubra Sultani,2025,p323)
6. **The Four Types of Artificial Intelligence:**
   There are four main types of artificial intelligence that have been developed over time: .(Khaloud, M.,2026)
    - **Reactive AI:**
      This type of machine reacts based on current experiences without storing any past memories or knowledge. It performs well in games by determining the optimal move to defeat an opponent.
    - **Limited Memory AI:**
      Slightly more advanced than reactive AI, it stores certain short-term memories to inform its current interactions. Examples include self-driving cars, chatbots, and traffic signal systems.
    - **Theory of Mind AI:**
      A more advanced form of AI that interacts based on an understanding of human thoughts and emotions. These machines adapt to people around them, predict expected behaviors, and respond according to those expectations.
    - **Self-Aware AI:**

An extension of Theory of Mind AI, this is the most advanced type. It possesses self-awareness, meaning it can recognize its own internal states and needs. (Khatam, J.,2016,p118)

7. **Technological Transformation Era and Digital Identity:**

Artificial intelligence has become a central force in modern societies, impacting everything from industrial applications to cultural and personal realms. Digital identity, initially shaped through social media and digital infrastructure, is now being redefined by AI. This evolution challenges traditional notions of individuality and collective culture, raising questions about the human role in shaping identity in a world increasingly guided by machines and algorithms. (Khatam, J.2016,p182)

8. **Digital Identity: Shaping the Self through Algorithms:**

Digital identity reflects behaviors, values, and interests that individuals display on digital platforms. AI now allows for a deeper and more precise analysis of these behaviors. Social platforms use complex algorithms to analyze user data and provide personalized content. This targeted analysis reshapes how individuals present themselves and interact with others. Algorithms predict user behavior and guide them toward specific content or recommendations, creating a dynamic interplay between humans and machines in shaping identity. While this enhances user experience, it also raises concerns about privacy and autonomy, as seen in "filter bubbles" that limit exposure to diverse perspectives.

9. **Digital Culture: Arts and Creativity in the Age of AI:**

AI has profoundly impacted cultural identity, particularly in arts and creativity. Advanced machine learning systems can generate entirely new artistic works by analyzing and recombining existing patterns. Generative AI technologies can produce images, text, and music with minimal human input, challenging traditional roles of artists and creators. Critics argue that AI may flatten artistic expression, producing works that appear creative but lack human depth. Conversely, AI provides artists with new tools to explore creative frontiers previously unattainable. Projects like Google's **DeepDream** and **OpenAI's DALL·E** allow users to create AI-generated images, expanding the boundaries of artistic exploration.

10. **Tradition and Society under AI:**

Beyond arts and individual identity, AI plays a role in preserving and evolving cultural traditions. Through deep data analysis and behavioral pattern recognition, AI can document endangered cultural practices. AI-powered augmented and virtual reality applications allow communities to experience traditions in new ways, renewing interest in heritage. However, increasing reliance on technology may weaken traditional social bonds and accelerate cultural homogenization, favoring globalized influences over local diversity.

11. **Ethical and Social Challenges:**

AI's impact on digital identity and culture raises significant ethical questions. While technology offers tremendous opportunities, it also poses risks related to privacy, bias, and accountability. Intelligent systems rely on large datasets, which may reflect inherent biases, potentially reinforcing discrimination. Heavy reliance on AI also affects human interaction, raising concerns about diminishing personal communication and eroding core human values essential to identity.

12. **Digital Identity in a Technological World:**

Ultimately, AI is a powerful force reshaping individual and collective digital identities. From influencing self-presentation online to transforming arts and cultural traditions, AI prompts profound questions about the future of culture and identity. While offering significant opportunities to enhance creativity and cultural experiences, ethical and social challenges demand conscious solutions and clear policies to safeguard diversity and autonomy. New approaches to AI must ensure it not only improves efficiency but also reinforces individual and collective identities, preserving traditions and cultures in harmony with rapid technological developments.

Conclusion:

In conclusion, AI is no longer a neutral technical tool; it has become a cultural agent reshaping individual and collective belonging within new social and symbolic contexts. Algorithms, AI platforms, and intelligent digital media reproduce culture through selection, guidance, and reinterpretation, profoundly affecting identity, belonging, and collective memory. Digital belonging is no longer solely tied to physical space or traditional groups but forms within virtual spaces governed by data logic and algorithmic interaction, posing cultural and ethical challenges regarding privacy, cultural diversity, and potential homogenization. Understanding the AI-culture relationship requires a multidisciplinary, critical approach aimed at leveraging AI's positive potential to enhance conscious cultural belonging while minimizing risks of cultural commodification and symbolic domination. The core objective remains building a human-centered and ethical AI usage that respects cultural identities and fosters belonging as a dynamic, conscious, and pluralistic practice.

References and Referrals

1. Majid, A. (n.d.). *Artificial Intelligence in the United Arab Emirates*. Department of Political and Economic Studies, United Arab Emirates.
2. Abdelnour, A. A. B. (2005). *Introduction to the World of Artificial Intelligence*. Abdul Malik bin Abdul Aziz City for Science and Technology, Saudi Arabia.
3. Al-Rutaymi, A. A. Q. (2010). *Artificial Intelligence and Expert Systems* (1st ed.).
4. Al-Ain. (2026, January 21). *Artificial Intelligence*. Al-Ain Electronic Magazine. Retrieved January 21, 2026, from https://www.al-ain.com
5. Weziwezi Authors. (2026, January 21). *Information on Artificial Intelligence*. Weziwezi. Retrieved January 21, 2026, from https://www.weziwezi.com
6. Lazizi, H. (2026, January 22). *Definition and Concept of Artificial Intelligence*. Innooprdia. Retrieved January 22, 2026, from https://www.innooprdia.blogspot.com
7. Sultani, K. A. (2025). *Artificial Intelligence: Concepts, Approaches, and Applications in Arabic Language Processing*. Bridges of Knowledge, 11(1), Algeria.
8. Mohamed, K. (2026, January 20). *The Four Types of Artificial Intelligence*. iLeadCo. Retrieved January 20, 2026, from https://www.ileadco.com
9. Khatam, J. (2016). *Translatability: Principles and Directions* (1st ed.). Dar Kunooz Al-Ma'rifa for Publishing and Distribution, Amman, Jordan.
10. Oman News. (2026, January 22). *Artificial Intelligence and Digital Culture*. Retrieved January 22, 2026, from https://www.omannews.gov.om/topics
11. Bahansi, M. J. (2026, January 22). *Artificial Intelligence for Computers*. Kenana Online. Retrieved January 22, 2026, from https://www.kenanaonline.com