Wondercut

Collaboratively Exploring the Public Value of
Artificial Intelligence (AI) to Next Level Cultural Experiences

ASSESSMENT REPORT

Impact of Artificial Intelligence (AI) in the Cultural and Creative Sectors (CCS)

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Author(s)	Wenzel Mehnert, Zorica Velkovska, Masafumi Nishi, Michael Häfner, and Julie Piesbergen

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Executive Summary

The Assessment Report on the Impact of Artificial Intelligence (AI) in the Cultural and Creative Sectors (CCS) provides a comprehensive analysis of the opportunities, challenges, and implications of AI for cultural institutions and creative professionals. It is based on three strands of work: (1) a review and analysis of relevant policies, strategies, and existing AI applications; (2) two focus group discussions with students and academic staff; and (3) a survey with professionals in the CCS. The findings provide an initial evidence base on how AI is currently perceived, where it is being applied, and the challenges and opportunities it raises for the sector.

The policy and strategy review finds that the EU and its Member States are increasingly framing AI as a driver of cultural innovation, inclusion, and sustainability. European policy frameworks aim to ensure trustworthy, human-centric AI through risk-based regulation, transparency requirements, and copyright compliance. Overall, the documents emphasize balancing innovation and ethics so that AI strengthens rather than undermines cultural diversity, human creativity, and long-term sustainability in the CCS.

The results of a use-case analysis shows how museums are experimenting with AI across three main domains: visitor engagement, collection management, and curatorial practice. The review draws on documented use cases and expert interviews to explore how AI tools are being integrated into museum work as evolving, context-specific practices. Approaches range from interactive avatars to AI-supported metadata analysis, archival digitization, and generative exhibition planning.

Focus groups were conducted in April and May 2025 at the Berlin University of the Arts (UdK) and the Academy of Fine Arts Nuremberg. Participants included academic staff, students, and practitioners. The Berlin session emphasized artistic perspectives on AI, while the Nuremberg session focused on technologically informed artistic approaches. Across both discussions, AI was seen as a catalyst for new creative processes and pedagogical experimentation. However, participants stressed the importance of institutional capacity building, critical reflection, and the preservation of artistic autonomy in an AI-driven environment.

The survey and the interviews captured professional experiences and expectations regarding AI in the CCS. Despite a small sample size for the survey (21 respondents), the results contain important insights. Professionals view AI as a useful and increasingly necessary tool, particularly in enhancing public communication, supporting administrative processes, and engaging younger audiences. Concerns focus less on AI itself than on the risks of falling behind in understanding and applying it responsibly. Respondents emphasized that sectoral competence, ethical frameworks, and practical know-how are key to ensuring meaningful integration.

Conclusions underline that AI in the CCS presents both unprecedented opportunities and significant challenges. When guided by ethics, regulation, and collaboration, AI can enrich cultural production and dissemination, strengthen inclusivity, and support long-term cultural sustainability. The sector is open to AI, but not uncritical: AI is not perceived as a threat or a "magic solution," but as a powerful instrument whose value depends on how wisely and responsibly it is applied.

Table of Contents

List of Images

List of Tables

List of Abbreviations

Abbreviation	Meaning
AI	Artificial Intelligence
LLM	Large Language Model
CCS	Cultural and Creative Sectors
ML	Machine Learning

1. Introduction

The Assessment Report on the Impact of Artificial Intelligence (AI) in the Cultural and Creative Sectors (CCS) is a foundational deliverable of the WONDERCUT project Collaboratively Exploring the Public Value of Artificial Intelligence (AI) to Next Level Cultural Experiences, which is funded by the Creative Europe Programme, Call CREA-CULT-2024-COOP. Its purpose is to establish a robust evidence base that supports both the internal development of the project and its wider contribution to policy, practice, and research.

The WONDERCUT project is implemented by a consortium consisting of the Institute for New Technologies and Communications INNOVATO Ljubljana (Slovenia), Shape Labs (Slovenia), Universität der Künste Berlin – UDK (Germany), and the Austrian Institute of Technology – AIT (Austria), in collaboration with the National Gallery (Slovenia), the Museums and Galleries of Ljubljana (Slovenia), and the Pomurje Museum Murska Sobota(Slovenia). The project aims to assess the impact of AI in the CCS, strengthen digital skills and capacities, develop human-centric applications, and foster inclusive and sustainable cultural innovation across Europe.

AI has become one of the most transformative and impactful forces in the cultural sphere. From personalized visitor experiences in museums to automated translation tools and generative art, AI is reshaping the way culture is produced, curated, and accessed. Yet alongside these opportunities come profound challenges: ethical concerns over authenticity and intellectual property, fears of cultural homogenization, and the urgent need for AI literacy and institutional readiness in the CCS.

European and national strategies reflect these tensions. The EU AI Act (2024), the Digital Decade Policy Programme, and the Creative Europe Work Programme 2023–2026 provide a strong regulatory and funding framework for trustworthy AI. At the same time, national policies in Slovenia, Germany, and Austria reveal uneven levels of preparedness for AI and limited attention to CCS-specific needs. Cultural institutions themselves are calling for clearer guidelines, financial support, and cross-sector collaboration so that they may responsibly integrate AI into their missions.

In view of these developments, this assessment report has pursued four objectives:

- review policies and strategies relevant to AI in the CCS, identifying both opportunities and gaps,
- present use cases and lessons from the use cases,
- capture insights from focus groups, surveys, and interviews with students, academics, and professionals, and
- draw conclusions and recommendations that will inform the WONDERCUT project's subsequent outputs and provide added value for the CCS community at large.

The report combines policy analysis, empirical evidence, and thematic discussion structured around these objectives. It highlights key findings on AI adoption, literacy, ethics, and institutional readiness, and maps them onto the project's objectives and indicators. As such, it lays the groundwork for WONDERCUT's next steps: building capacity, testing innovative applications, and producing practical tools for responsible AI integration in Europe's cultural and creative sectors.

2. Assessment Components

Artificial Intelligence (AI) is entering the cultural and creative sectors (CCS) with increasing momentum, offering both technical capabilities and conceptual challenges across artistic production, institutional practice, and cultural policy. As AI tools become more accessible and powerful, cultural institutions, policy bodies, and creative professionals are rethinking their roles, methods, and responsibilities in a rapidly transforming digital environment. This chapter explores the current landscape of AI integration in the CCS through four interconnected perspectives: policy frameworks, current use cases, stakeholder perceptions, and sector-wide readiness.

The first section (2.1) outlines the strategic and regulatory environment shaping AI adoption in the CCS. It introduces relevant European and national strategies, including the EU AI Act, the Creative Europe Work Programme, and national initiatives in Germany, Austria, and Slovenia. Emphasis is placed on how these frameworks seek to balance innovation with ethical responsibility, address sector-specific risks such as data misuse and cultural homogenization, and support long-term institutional capacity through funding, skills development, and governance mechanisms.

The second section (2.2) shifts to the institutional level, offering a curated set of use cases from museums and related organizations. It examines how AI is being deployed across three domains: visitor engagement (e.g. avatars, chatbots, generative interfaces), collection management (e.g. digitization, metadata enrichment, provenance research), and curatorial practice (e.g. AI-generated exhibitions, thematic clustering, editorial experimentation).

Section three (2.3) presents the results of two focus groups conducted with artists, students, and cultural practitioners. These discussions shed light on how future stakeholders understand the risks, promises, and conditions for meaningful AI integration. Participants stressed the importance of ethical frameworks, human oversight, and long-term planning, while also voicing concerns about authenticity loss, over-mediation, and environmental impacts.

Section four (2.4) presents findings from an online survey of CCS professionals. The results offer a broader view of how AI is currently used, perceived, and supported in the field. While participants show high levels of interest and optimism, the survey identifies significant gaps in institutional capacity, skills training, and awareness of relevant policy frameworks. Taken together, these four sections provide a grounded, multi-voiced entry point into the complex and evolving role of AI in the cultural sector.

Finally, section five (2.5) brings together these diverse sources in a comparative discussion. AI is used for visitor engagement, collection management, and curatorial work, yet its adoption is fragmented, shaped by temporary funding and inconsistent policies. Stakeholders show both enthusiasm and concern, highlighting the need for ethical oversight, capacity building, and sustainable integration. Key findings emphasize the importance of coherent strategies, human editorial control, reliable funding models, AI literacy, cross-sector collaboration, and strong data governance to ensure a meaningful and responsible use of AI in cultural spaces.

2.1. Current Policies and Strategies at the Intersection of AI and the CCS

AI is increasingly shaping the CCS, offering new tools for creativity, audience engagement, and operational efficiency. Recent literature and policy reports highlight AI's transformative potential, including automating repetitive tasks, analysing large datasets, creating personalized recommendations for media consumption, and even generating original artworks. These developments are prompting a redefinition of creative processes and raising questions about the future role of the CCS in an AI-driven digital environment (Caramiaux, 2020).

Along with these innovations, the proliferation of AI has sparked urgent debates around ethical governance. Rather than focusing on whether to adopt AI, discourse now centres on how to apply it fairly and responsibly. Ethical concerns include the risk of homogenizing culture, displacing human creativity, violating intellectual property rights, and reinforcing algorithmic bias (German Commission for UNESCO, 2024; Caramiaux, 2020). In response, scholars and practitioners have proposed ethical frameworks to guide responsible development. Corrêa et al. (2023) identified 17 core AI ethics principles - such as transparency, accountability, fairness, sustainability, privacy, and human dignity - by analysing over 200 international guidelines. These principles are particularly relevant for the CCS, where AI applications (e.g., facial recognition or content recommendation systems) intersect with sensitive issues such as children's rights, education, cultural inclusion, and copyright.

Because the ethical implications of AI vary significantly depending on the context, there is no one-size-fits-all solution. Each AI deployment must be assessed individually and revisited regularly, with careful consideration of technical specifications, development processes, and long-term societal impact. For instance, AI applications in museum settings that personalize children's experiences may raise concerns related to data protection, authorship, and algorithmic fairness.

In response to the complexities and ambiguities surrounding AI development and its potential challenges, the European Union and national governments have taken proactive steps to establish legal frameworks and strategic agendas. This chapter provides an overview of European and national policies at the intersection of AI and the CCS. It highlights the role of governmental bodies in promoting meaningful and responsible AI applications within the CCS, while also identifying existing gaps and areas in need of further attention.

Overview of the Sources

Policies and strategies related to AI have evolved across Europe since the 2010s, aligning with the EU's broader agendas and digitalization priorities. For instance, the Digital Agenda for Europe (2010) set the stage for digital transformation, while the Digital Single Market strategy (2015) aimed to create a unified digital market across the EU by removing barriers to online transactions and improving access to digital goods and services. AI was explicitly addressed at the EU level in the European AI Strategy (2018), which established a strong commitment to trustworthy AI development and global leadership in the field.

National governments within the EU have adopted legal and policy instruments to implement these strategies within their respective contexts. This review introduces key EU digital and AI strategies and policies, followed by an overview of national policies in the countries of the project

beneficiaries: Slovenia, Germany, and Austria. It draws on legal documents, official reports, and government websites. The selection of source material is based on their relevance to the project and their alignment with the further development and implementation of its outcomes. Although some documents may not explicitly reference AI or the CCS, the reviewed strategies are closely connected to AI-related activities within the CCS.

Analysis

The European Union (EU) has responded proactively to AI developments. It has devised a comprehensive set of strategies and regulations to position itself as a global leader in trustworthy, human-centric AI (European Commission, 2018; 2024). Key initiatives include the European AI Strategy (EC, 2018), which outlines the EU's vision for AI development; the AI Act, a proposed regulation to ensure trustworthy AI; and Digital Decade (2022), an agenda and policy programme for digital transformation including big data and AI. A major milestone is the 2024 AI Act, which introduces a risk-based regulatory framework. It subjects high-risk systems (e.g. in healthcare or critical infrastructure) to strict requirements on transparency, safety, and human oversight, and bans certain practices outright such as real-time biometric identification and social scoring. Widely used generative AI models like ChatGPT are not considered high-risk but must comply with transparency rules and EU copyright law. Additionally, all AI applications must align with the General Data Protection Regulation (GDPR), Digital Services Act (DSA), and European Media Freedom Act (EMFA) throughout their lifecycle.

Specific strategies for the CCS have also been developed that recognize both the potentials and distinct challenges that AI presents for these sectors. Studies commissioned by the European Commission (Caramiaux, 2020; European Commission, 2022) explore AI's impact across the full cultural value chain—creation, production, dissemination, and consumption—and point to issues such as copyright infringement, authorship, and the balance between cultural accessibility and diversity. For instance, automated translation tools may increase accessibility but risk marginalizing underrepresented languages and cultures on centralized platforms (Caramiaux, 2020).

The 2022 report "Opportunities and challenges of artificial intelligence technologies for the cultural and creative sectors outlines" practical use cases across domains including architecture, publishing, film, museums, music, and the performing arts. These include AI for cost reduction, decision-making, audience engagement, and creator inspiration (European Commission, 2022). However, the report also emphasizes the risks tied to AI systems and the human-AI relationships they create, stressing that technology's impact depends entirely on how it is used.

To support equitable and meaningful AI adoption in the CCS, the EU promotes data interoperability, digital skills, and collaborative innovation ecosystems (European Commission, 2022). Policies aim to empower small and medium-sized enterprises (SMEs) and individual creators, while maintaining a strong focus on ethical considerations, including intellectual property protection, transparency, and inclusiveness. Cross-sectoral collaboration—particularly between creative industries and tech startups—is seen as crucial for bridging the gap between technology and culture.

A European approach to boost AI's trustworthiness and innovativeness sets aside funding for the CCS. Alongside the New European Agenda for Culture's 2018 priorities on inclusivity and fairness

through culture and creativity, the Creative Europe Work Programme (WP) for 2023–2026 identifies digital transformation and innovation as strategic priorities, with AI framed as both an opportunity for cultural inclusion and a risk to diversity if left unregulated. The Work Programme's "Digital transition" section explicitly addresses generative AI—seeing opportunities and risks—and ties programme delivery to EU law regarding copyright compliance in AI training, the labelling of AI-generated content, and oversight by the new AI Office (European Commission, 2024). These represent the compliance measures for funded projects. The WP also includes the cross-sectoral Creative Innovation Lab and Media, which supports diverse sectors in the CCS to facilitate collaboration with different expertise and technologies and develop innovative tools, business models, skills, and talent. AI in the WP is mainstream and comprises different approaches and techniques, with an emphasis on copyright compliance, content labelling, social inclusion, and sustainability.

At the national level, Slovenia's Digital Slovenia 2030 Strategy (2023) emphasizes digital inclusion, digital public services, gigabyte connectivity, smart digital transformation to achieve Society 5.0 (data, artificial intelligence, IoT, etc.), and cybersecurity. However, little attention is paid to the CCS in the coordinated national strategy. Strongly linked to the national strategy, the International Research Center on Artificial Intelligence under the auspices of UNESCO (IRCAI) at the Jožef Stefan Institute acts as a regional hub for AI ethics, research, and applications. The IRCAI provides opportunities for partnerships, datasets, and pilots in the CCS.

In Germany, the federal AI Strategy (2018, updated in 2020) addresses the CCS explicitly, identifying the potentials of human-AI collaboration for art and media content and in cultural institutions. In 2023, the strategy introduced an AI initiative ("KI-Aktionsplan) to strengthen funding, skills, and European coordination, and introduce cultural/creative pilot programmes via federal cultural institutions (e.g., museums, libraries, and archives) and regional programmes. The German Federal Cultural Foundation (Kulturstiftung des Bundes, 2024) launched the programme Kunst & KI (2024–2028) (Art & AI), which sets aside €3.68 m for at least ten excellence projects exploring AI aesthetics, open-source tech, and data ethics. Its "Kulture Digital" (Digital Culture) programme has funded projects in the areas of digital curating, digital artistic production, digital mediation, and communication, with a total budget of €15.8 m.

In Austria, AI in arts, media, and creative industries is explicitly mentioned as one of the fields of application in the national AI strategy (Artificial Intelligence Mission Austria 2030: AIM AT 2030) (2021). The Digital Cultural Heritage Strategy ("Strategie Kulturerbe digital") (2023) covers education and training for digital skills, the development of individual digitization strategies, research with a digital focus on cultural heritage institutions, and the development of the AI & Art ecosystem in Austria. The Digital Austria Act allocates €16.5 m for "Digital Cultural Heritage" to fund digital transformation, emphasizing the open licensing/availability of cultural data for reuse (incl. AI).

Conclusion

Overall, the EU's strategies for AI in the CCS aim to balance innovation with ethical considerations, ensuring that AI enhances rather than diminishes human creativity and cultural diversity. By fostering a supportive environment for trustworthy AI adoption, the EU seeks to empower creators and cultural organizations so that they can thrive in the digital age. National strategies and policies often align with the EU's agendas and financing programmes while national priorities and

approaches vary considerably, and CCS-specific guidance remains fragmented. (See Table 1: Comparison of relevant EU and national policies and strategies on AI and art).

Cultural institutions themselves have taken an active role in this transformation. The Network of European Museum Organisations (NEMO) published a statement in 2024 advocating for a shared political vision on AI and cultural heritage, stressing the importance of collaboration between policymakers, institutions, and professionals (Collins, 2024). They also called for investment in infrastructure, training, and high-quality, interoperable datasets to support ethical AI deployment. Initiatives such as the AI4Culture platform offer resources and training for the application of AI in cultural heritage contexts, and NEMO has proposed the creation of a European AI innovation hub for culture.

In conclusion, the integration of AI in the CCS presents both unprecedented opportunities and significant challenges. With strong ethical guidance, robust regulatory frameworks, and collaborative engagement, AI can enhance—not replace—human creativity and cultural diversity. As digital transformation accelerates, the EU and its cultural institutions are working to ensure that AI technologies serve as tools for innovation, inclusion, and long-term cultural sustainability.

TABLE 1 – Comparison of relevant EU and national policies and strategies on AI and art

Policy / Strategy	Scope	Relevance for the CCS
EU AI Act (2024)	EU-wide regulation on AI	Risk-based approach; transparency obligations and EU copyright law compliance affect museums using generative AI.
Creative Europe Work Programme 2023–2026	EU cultural funding priorities	Supports digital innovation in the CCS; highlights AI's role in accessibility and diversity.
Digital Slovenia Strategy 2030	National digital strategy	Focus on AI in administration and social inclusion; little mention of the CCS.
Germany AI Strategy 2020	National AI strategy	Includes explicit measures for AI in artistic education and cultural institutions.
Artificial Intelligence Mission Austria 2030	National AI strategy	Explicit agenda on AI application in arts, media, and creative industries.

2.2. AI Enters the Museum: Presentation of Use Case

AI has entered the museum sector as a diverse set of tools that expand the possibilities of cultural work. Across institutions, AI is being deployed to support the core museum functions of mediation, preservation, and curation. These technologies offer new ways to engage with collections, personalize visitor experiences, and modernize digital infrastructures. While the technology is still fairly new, and adoption is slow due to lack of literacy, funding, or external incentives, existing examples demonstrate that, when applied thoughtfully and with an understanding of potential risks, AI can significantly enhance institutional capabilities.

The use cases discussed in this chapter also show that engagement with AI differs widely across different museums. Some institutions are developing chatbots or immersive installations for public interaction while others have applied AI behind the scenes for metadata enrichment, provenance research, or collection clustering. The landscape is fragmented: while some museums integrate AI into their long-term digital strategy, others rely on short-term projects or external partners. Some deploy little to no AI at all.

The following is a selection of use cases that are not meant to be representative. Like the technology itself, its adaptation is moving quickly, and experimentations are emerging that have yet to be institutionalized. In this rapidly transforming environment, a conclusive analysis of the status quo is nearly impossible. Accordingly, this section focuses on use cases that are suited to the topic, as well as on lessons and reflections from interviews conducted during WONDERCUT workshops in Ljubljana and Berlin and with practitioners and experts from the field. This review traces three key domains of AI use in museums: (1) visitor engagement, (2) collection management, and (3) curatorial practice. The aim is to examine how AI transforms workflows, public interfaces, and curatorial methods, and to surface the tensions and opportunities that these technologies generate.

Engaging Visitors: Chatbots, Avatars, and Generative Interfaces

Museums experiment with AI to design interactive experiences that speak directly to visitors in the form of a digital avatar. These applications create new access points to cultural content and artist biographies and invite audiences to participate in novel forms of engagement. Technically speaking, these forms of engagement differ based on the type of interaction and response.

TABLE 2 – Use cases engaging visitors through AI

Institution / Project	Technology & Approach	Interaction Mode	Focus & Outcomes	Risks / Limitations
Dalí Lives (The Dalí Museum, 2019)	AI-generated avatar of Salvador Dalí (trained on images, letters, texts)	Video clips become generated after visitors press a button; avatar invites visitors for selfie at the end	Combines spectacle and curatorial storytelling; emphasizes personality, legacy, and shareability	Interaction is reduced to button; reliance on spectacle risks overshadowing artistic depth
Hello Vincent (Musée d'Orsay, 2024)	Chatbot avatar of Vincent van Gogh (trained on letters and stylistic cues)	Live, open conversation in Van Gogh's "voice"	Creates affective proximity; dramatized dialogue; biographical exploration	Risk of anachronism or misrepresentation; accuracy depends on training corpus

LeDiT Project (Friebel & Sanchez-Stockhammer, 2024)	Interactive 3D testimonies with motion capture + NLP; curated response database	Natural language Q&A; AI matches queries to pre-recorded survivor testimonies	Preserves memory; ensures historical accuracy and ethical integrity through pre-recorded answers	Limited flexibility; finite database and pre-recorded answers do not allow open conversations
Wondercut App	Face-insertion app placing users into historical paintings	Personalized substitution; users see themselves in artworks	Playful engagement; reflection on identity and representation	Risks trivializing heritage; emphasis on entertainment over critical reflection

IMAGE 1 – Use cases engaging visitors through AI
TOP LEFT: DALÍ LIVES (©SCOTT KEELER); TOP RIGHT: HELLO VINCENT (©JUMBO MANA); BOTTOM LEFT; LEDIT (©LEDIT); BOTTEOM RIGHT: WONDERCUT (©WONDERCUT)

The cases in table 2 increase engagement and support institutions in reaching out to younger or more digitally fluent audiences. At the same time, the adaptation of new media formats also requires curatorial awareness. Visitors may interpret machine-generated content as documentary truth, especially when presented with convincing avatars or natural language. Many institutions address this challenge by implementing curated or scripted interactions. Rather than generating answers in real time, systems draw from a controlled database of plausible responses. This strategy supports narrative consistency and protects the credibility of the institution. In particular LeDiT illustrates the necessity of adapting to evolving media environments and communication

technologies. As audiences develop new habits of media use, they will expect more than VHS recordings and other linear tools when engaging with complex historical content. Thus, the challenge lies not just in digitizing content, but in rethinking how to frame, stage, and experience knowledge in a transformed media landscape.

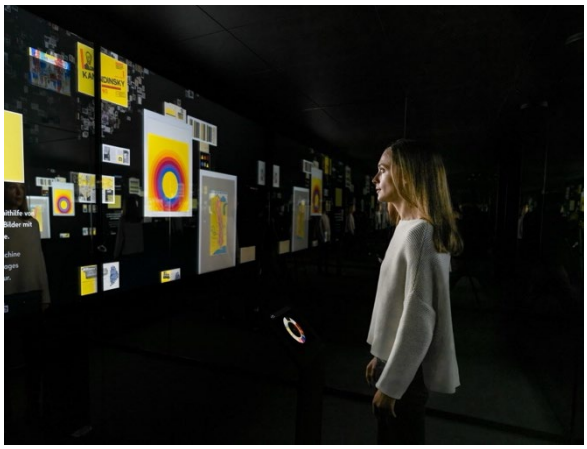
Managing Collections: Digitization, Metadata, and ML

In addition to visitor-oriented tools, museums apply AI in internal processes that support documentation, access, and preservation. The set of cases presented in Table 3 illustrate how museums and research institutions deploy AI both as a creative tool and as an infrastructural enabler. The Bauhaus Infinity Archive uses machine learning for the form-based navigation of digitized collections. Remixing the Archives positions AI as a generative medium, highlighting aesthetic and ethical aspects of algorithmic reinterpretation. The Getty Provenance Index applies natural language processing to reveal links in archival sources, while restitution research continues to require expert oversight. The Bullinger Digital Project combines AI handwriting recognition and translation with human validation, producing a scholarly corpus but showing the limits of models and the dependence on volunteers. The Smithsonian Open Access Initiative provides millions of images and metadata for cultural analytics, while raising issues of data quality and accountability.

TABLE 3- Use cases of AI for managing collections

Institution / Project	Technology & Approach	Interaction Mode	Focus & Outcomes	Risks / Limitations
Bauhaus Infinity Archive (Bauhaus-Archiv / Museum für Gestaltung, 2022)	AI-powered installation; ML models for visual clustering of 15,000+ digitized items	Gesture-based search (draw shapes, select colours) triggers real-time retrieval	Intuitive access to archive; serendipitous discoveries; thematic narratives	Focus on form over content; accessibility limited to physical installation; potential bias in algorithmic clustering
Remixing the Archives (Wolany, 2025)	Generative AI remixing iconic design objects; experimental use of digitalized archive	Artist-driven reinterpretation; systematic alteration of formal qualities	Frames AI as creative medium; reveals tension between tradition and synthetic media	Risks aesthetic trivialization; raises ethical concerns about reinterpretation of cultural icons
Getty Provenance Index (Henrickson, 2025)	AI-augmented retrieval tools (e.g., retrieval-augmented generation, NLP) applied to auction catalogues, dealer records, inventories	Researchers query via natural language or structured search; AI improves linking across metadata and documents	Facilitates provenance tracing, restitution research, and art market studies by surfacing hidden connections	Incomplete datasets; risk of hallucination or mislinks; accuracy still requires expert validation due to legal/ethical stakes
Bullinger Digital Project (Bullinger Digital, 2025)	AI for handwriting recognition, translation (Latin & early German), and entity recognition	Volunteers validate AI outputs; structured digital archive	Creates reliable, annotated corpus of 16th-century letters; combines AI with human expertise	Dependence on volunteer labour; uneven quality; limits in language models
Smithsonian Open Access Initiative (Sundwall, 2020)	2.8 million images with structured metadata; datasets hosted in the cloud	Public access via Smithsonian API, GitHub repository, and online portal	Democratizes access to collections and enables large-scale research in	Metadata quality uneven; scale makes quality control difficult; dependency

	to support AI/ML applications		computer vision or digital humanities	on external platforms and users for analysis



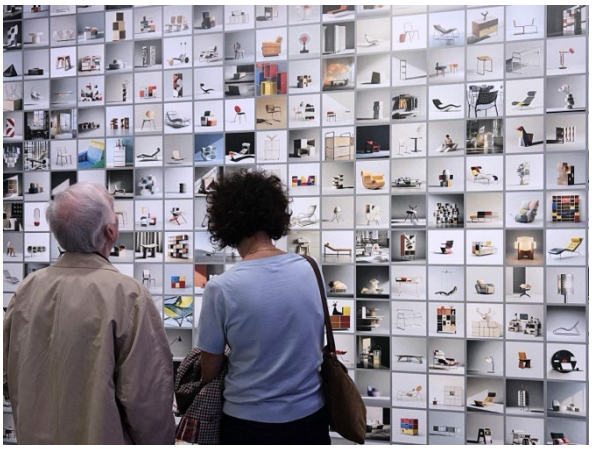


IMAGE 2 – Use cases of AI for managing collections
Top left: *Bauhaus Infinity Archive* (©Simon Weckert); Top right: *Remixing The Archive* (©Grit Wolany);

The cases collected show how AI can open archives to new forms of access, enrich research practices, and make large-scale datasets accessible for cultural analysis. At the same time, the effectiveness of such systems depends on data quality, careful preparation, and sustained oversight. Poorly scanned images, inconsistent metadata, or legal ambiguities reduce the reliability of AI outputs. Strategic frameworks, such as checklists like "Collections as ML Data" (Lee, 2022), provide valuable guidance for ensuring that AI applications in collections are reliable, accountable, and aligned with long-term institutional goals.

Curating with AI: Tools, Tensions, and Experiments

AI also appears in curatorial practice. It serves as a generator of themes, a selector of content, and a collaborator in exhibition design.

TABLE 4- Use cases for curating with AI

Institution / Project	Technology & Approach	Interaction Mode	Focus & Outcomes	Risks / Limitations
Act as if You Are a Curator (Nasher Museum of Art, 2023)	Custom interface allowed ChatGPT to access 14,000 collection items; AI generated themes, object lists, wall texts, layouts	Curators prompted ChatGPT, then refined its outputs; AI proposed titles, clusters, and interpretive texts	Surfaced unconventional connections (e.g., dreams, afterlife); sparked curatorial reflection	AI hallucinated works not in collection; misidentified objects; impractical layouts; reinforced the need for human oversight
Zeitenwende. The almost dead artist: the almost alive artificial intelligence (Kriesche, 2023)	ChatGPT used for conceptual design: thematic structure, titles, wall texts; outputs presented as screenshots in exhibition	Iterative editorial process; artist foregrounded tension between automation and authorship	Exhibition became meta-curatorial gesture; exposed mechanics of AI-assisted curatorial labour; framed AI as performative device	Required heavy human intervention; risk of over-attributing agency to AI; blurred line between curatorial work and art experiment

Curator of AI for Natural History and Biodiversity (2023)(Pinson, 2023)	Machine learning applied to 40+ million specimens for morphological analysis, taxonomy	Integration of AI into research workflows; new curatorial role institutionalized	Pattern detection across datasets; enabled new comparative and evolutionary studies	Reproducibility concerns; lack of transparency; human expertise remains central

The Nasher Museum of Art, the Kunsthaus Graz, and the Florida Museum of Natural History provide examples of how AI is being integrated into curatorial practice. At the Nasher Museum, ChatGPT was used to generate exhibition titles, object lists, wall texts, and layouts. The system produced novel thematic connections but also hallucinated non-existent works and misidentified objects, highlighting the need for human oversight. At the Kunsthaus Graz, Richard Kriesche used ChatGPT to plan an exhibition that emphasized the interaction between automated text generation and curatorial authorship. The project required significant editorial input, showing how AI can function as a tool for reflection and experimentation rather than automation. At the Florida Museum, the creation of a Curator of AI position marked a step toward systematically applying machine learning to tasks such as taxonomic classification and large-scale dataset analysis. Together, these cases show that AI can support curatorial work by surfacing patterns, reframing collections, and processing large datasets. They also demonstrate current limitations, including errors, inconsistencies, and the continued importance of expert interpretation. AI does not replace curators; rather, it contributes to a hybrid practice. Its outputs require careful evaluation and integration into established institutional methods.

Discussion: Challenges, Strategy, Structure, and Ethics

The integration of AI into museums is shaped by structural, strategic, and ethical considerations. Many institutions experiment with tools and prototypes but often lack overarching digital strategies, standardized workflows, or sustained institutional commitment. This results in fragmented projects where digitization, online features, or AI experiments remain isolated rather than integrated into broader content ecosystems. To address this, some museums have introduced new roles such as digital coordinators or cross-departmental teams to guide implementation more consistently.

Staffing and maintenance have also emerged as critical factors. Project continuity is frequently undermined by temporary funding, the elimination of positions, and the loss of institutional memory. Without stable teams and digital literacy, AI initiatives struggle to move beyond pilot stages or to be maintained over time.

Ethical issues add a further layer of complexity. AI applications raise questions about accuracy, authenticity, and responsibility, particularly when involving simulations of historical figures, culturally sensitive material, or personal data. Concerns include hallucinations in language models, errors in image recognition, and inappropriate reuse of archival material. Institutions are therefore called to clarify how training data is chosen and contextualized, and how they balance openness, creativity, and responsibility. Frameworks such as the Smithsonian Institution's AI Values Statement (Dikow et al., 2023) and AI: A Museum Planning Toolkit (Murphy & Villaespesa, 2020) provide guidance for developing responsible and sustainable approaches.

Conclusion

AI is becoming part of museum work in different ways. It supports visitor engagement, collection management, and curatorial practice by offering new tools for interaction, analysis, and content creation. These tools help museums improve access to their collections, develop new forms of interpretation, and experiment with digital formats.

The examples in this report show that AI is not a single solution, but a flexible set of technologies that are applied in diverse ways. Some museums use AI to create interactive installations or chatbots to engage citizens in a more modern fashion. Others apply it to digitize and analyze archives or support curatorial decision-making. These approaches depend strongly on the resources, expertise, and goals of each institution.

At the same time, AI calls for new areas of responsibility. Museums need clear strategies to support the long-term use and maintenance of digital tools, data, and digital archives. They also need to address ethical questions such as how to represent historical figures, how to select training data, and how visitors interpret machine-generated content. Staff expertise, institutional memory, and careful planning are essential for these processes. Furthermore, tools like generative models can suggest themes or connections, but final decisions will still rely on human judgment. AI works best when it complements rather than controls the curatorial process.

AI expands the scope of what museums can do, offering new capacities across curatorial, educational, and operational domains. Its effectiveness grows when museums embed it into existing practices as part of an ongoing learning process. Institutions that foster internal AI literacy and align technological adoption with their institutional values are well equipped to engage with AI in reflective and responsible ways.

2.3. Stakeholder Perceptions: Focus Groups

This section presents results from two focus groups conducted as part of the WONDERCUT project. The focus groups in the project aimed to generate structured insights into how AI may affect the CCS. Bringing together a diverse set of stakeholders, the sessions invited participants to reflect on both opportunities and risks associated with AI, and to speculate on possible future developments. To maximize the usefulness of these discussions and in order to ensure analyzable outcomes, we employed facilitation tools such as the "Futures Wheel" (Bengston, 2015) which helped structure qualitative input and align it with the project's broader goal of understanding the intersection of AI and the CCS.

TABLE 5- Overview focus groups

FOCUS GROUP 1 – UDK BERLIN	FOCUS GROUP 2 – ADBK NÜRNBERG
PARTICIPANTS: 6 (3 female, 3 male); academic staff, students, and practitioners from arts, communication, computer science, and cultural management.	PARTICIPANTS: 8 (5 male, 3 female); Media Lab students from media studies, photography, VR, AI-generated imagery, and the head of the lab.
METHODOLOGY: Conducted at UdK Berlin following scenario building workshop.	METHODOLOGY: Conducted at AdBK Nürnberg with the same structured activities as Focus Group 1.
KEY FINDINGS: 1. AI is perceived as a valuable tool for enhanced and equal accessibility and for multisensory engagement. 2. AI should, however, only be used to augment and not to replace human expertise. 3. Clear concerns about the loss of authenticity and "Disneyfication" were raised. 4. The clear need for a sustainable, transparent, and ethical implementation of AI was stressed.	KEY FINDINGS: 1. AI is mainly seen as a facilitator of inclusion (e.g., language, cognitive capacities, etc.). 2. The strong educational and engagement potential of AI in the CSS was stressed. 3. Concerns about superficiality, loss of craftsmanship, and environmental costs were brought up. 4. Risks of museums becoming entertainment-driven "theme parks" were stressed. 5. Emphasis on critical, ethically grounded integration.

FOCUS GROUP 1 – UDK BERLIN

The first focus group at UdK Berlin brought together a diverse cohort from academic and professionals. Invitations were extended to staff with expertise in media theory and AI. The group composition enabled an interdisciplinary conversation spanning art, performance, computer science, and cultural mediation.

The session began with a silent brainstorming exercise on "AI in museums," producing a broad spectrum of associations—from the "emotional 3D printer" as a metaphor for AI-enabled immersion to fears about artworks being reduced to decorative media objects. Placing these reflections on a physical, spatial Dystopia–Utopia scale made visible the tension between

optimism and scepticism. While three participants leaned toward utopian visions of accessibility and inclusivity, others emphasized the risks of commercialization, over-mediation, or environmental harm.

The Future Wheel exercise allowed for more systemic exploration. In the "expected" scenario, participants foresaw inequalities in access, environmental strain, and profit-driven cultural production. In the "desirable" scenario, they imagined museums as transparent, participatory spaces, with AI supporting artists fairly and enhancing education. In the scenario building exercise, participants' visions of the future underwent further bifurcation: a pessimistic narrative highlighted overstimulation and alienation, while another vision depicted AI as a facilitator of curiosity and inclusive dialogue.

The concluding reflection focused on feasibility. Participants debated financial models, ethical trade-offs, and the inevitability of technological change. In the process, they raised a key question: how should museums adopt AI without losing their educational mission or critical function and becoming mere producers of entertainment and amusement?

Focus group 2 – ADBK Nürnberg

The second focus group, held in the Media Lab of the Academy of Fine Arts Nuremberg, primarily involved students working on media-related practices (VR, photography, AI imagery). Their perspectives reflected both curiosity and critical distance, with the class head adding an institutional and slightly more academic viewpoint.

As in Berlin, the group began with a silent brainstorming session and then positioned themselves on the Dystopia–Utopia scale. Here, a majority leaned toward the dystopian end, citing fears about AI leading to cultural "inflation," loss of traditional skills, or environmental unsustainability due to high energy consumption. A smaller number were cautiously optimistic, seeing AI as a potential educational tool or facilitator of inclusive museum experiences.

The Future Wheel exercise led to the articulation of two contrasting scenarios. In the "expected" future, museums degenerate into "Selfie Worlds" and "Theme Parks" where spectacle replaces reflection (i.e. "Disneyfication"). By contrast, in the "desirable" future, museums become knowledge-driven, accessible spaces, in which AI broadens access across languages and cultures and enriches rather than displaces human curation and interpretation.

The group's final reflection and discussion emphasized that the implications of AI go far beyond museums, touching on the broader societal issues of access, equity, and public ownership. Participants stressed the importance of critically evaluating AI not only for its technical affordances but for its alignment with the values of cultural institutions.

Results

Although the discussions had different emphases, both focus groups put forth very similar conclusions:

- AI in museums should be meaningful, not fashionable.
- Accessibility and ethics are central guiding principles that need developing.
- AI should augment, not replace, human expertise.
- Integration requires strategic, long-term planning linked to institutional missions.

2.4. Sector-Wide Readiness: Survey

This section reports the results of an online survey. The survey complemented the focus groups by providing a broader overview of how AI is currently perceived and applied in the CCS. While the focus groups were designed to speculate on possible futures, the survey was structured to capture present experiences and expectations across a wider range of respondents. The questionnaire covered themes such as current fields of AI application, perceived opportunities and risks, and levels of awareness regarding European policy initiatives. Each of these themes is linked directly to the project's higher-order aim of understanding how AI is shaping the CCS. Above and beyond mapping existing practices, the survey also assessed the sector's preparedness for future developments. In this way, the survey data offer a snapshot of the present and a basis for anticipating emerging needs and challenges.

As with the focus groups, the results are presented in a twofold manner: (1) a concise summary outlining respondents, methodology, and key findings, followed by (2) a more detailed account with the main quantitative results, qualitative themes, and illustrative insights.

Results

The survey reached N = 21 professionals from the CCS, with most respondents working in project management (52%), public relations (24%), curation (14%), and academia (10%). Geographically, participants were based primarily in Slovenia (52%) and North Macedonia (29%), with others from Germany, Austria, and Ukraine, largely matching the composition of the WONDERCUT consortium.

DEMOGRAPHIC INFORMATION

The majority of respondents identified as female (62%), with most (around 75%) being between 25 and 44 years old. This demographic group is likely to be the cohort that will take a leading role in actively shaping the future of the CCS. The educational background of participants was quite high: 62% held a MA degree, and almost 20% held a PhD or some form of professional certification.

Participants were geographically distributed across five countries, with a strong representation from Slovenia (52.4%) and North Macedonia (28.6%). Others were from Germany, Austria, and Ukraine. Their professional roles were mostly related to project management in the creative industries (52.4%), followed by public relations (23.8%), curation (14.3%), and academia (9.5%).

AWARENESS AND USE OF AI

The responses show a surprisingly high level of familiarity and practical experience with AI among both individuals and organizations. On a 5-point scale, personal experience with AI reached a mean of M = 4.09. Organizational experience with AI was M = 4.04. Only one organization had not yet worked with AI. The main areas of AI application were:

- Audience engagement (52.4%)
- Marketing (42.9%)
- Administrative support (38.1%)
- Educational programmes (23.8%)

These findings suggest that AI is being increasingly integrated in communicative functions rather than in purely administrative ones. Given the relative "newness" of AI, this is rather astonishing. It may indicate that our small sample is, by coincidence or through self-selection, quite AI friendly.

PERCEIVED OPPORTUNITIES OF AI / ATTITUDES TOWARDS AI

Attitudes toward AI were generally positive, though not uncritical. Several key findings emerged:

- High potential and optimism: Participants agreed that AI can improve audience experience (M = 4.19) and drive innovation (M = 4.05), with an overall belief that AI will become essential for the CCS (M = 4.14).
- Limited scepticism, moderate concerns: Scepticism was relatively low (M = 2.66), and fear of AI replacing human roles in the CCS was not strongly expressed (M = 2.52). However, there were moderate concerns about the potential for AI to produce false or misleading content in (public) communication (M = 3.66).
- Need for institutional readiness: One of the most consistent themes was the recognition that CCS organizations must improve their AI literacy. Respondents emphasized the need to develop and share more knowledge internally (M = 3.95). There was also an awareness that not using AI might result in disadvantages, especially losing relevance with younger audiences (M = 3.14).

SKILLS AND CAPACITY BUILDING

In this block, we were interested in how literate participants perceive their organizations with respect to AI. The results were surprising: Only 19% of organizations currently offer AI-related training, while 57% do not, and 24% have plans to introduce it. At the same time, there was a strong interest in AI training among individuals: 86% expressed clear interest, with the remaining 14% indicating their openness. This shows a significant gap between individual demand and institutional support for AI skill development in the CCS.

In an open question, respondents were asked to identify what measures would help close this gap. The most frequently identified measures for implementing AI in organizations were training, funding, and partnerships. Many also emphasized the need for technical assistance and access to practical tools. In short, successful AI adoption in the CCS requires a combination of skills development, financial resources, collaboration, and technical infrastructure.

FUTURE OUTLOOK AND POLICY NEEDS

In the last part of the survey, participants had the option of openly reflecting on several themes. Below are brief summaries of their answers, which varied greatly in detail and style. Survey respondents highlighted several key areas where policy and funding frameworks could improve the integration of AI in the CCS:

TARGETED AND FLEXIBLE FUNDING

Participants repeatedly pointed out that cultural institutions often lack the basic resources for experimenting with new technologies. Dedicated funding programmes for AI in culture were seen as essential, as well as more flexibility in supporting trial projects that may not yield immediate commercial results. For instance: “Cultural organizations are always in need of additional funding… unusual and external support is often required and not guaranteed.”; “We need more flexibility for experimentation with AI, even if it does not produce commercial value.”

TRAINING AND CAPACITY BUILDING

A strong demand was voiced for better training and access to real-world use cases. Respondents noted a lack of technical education among staff and called for skills

development programmes. For instance: "Not enough (or almost no) tech education for the workers."; "Better training and professional use cases from similar institutions would help."

Ethical and legal frameworks

Concerns centred around ownership, data security, cultural authenticity, and artists' rights. Respondents asked for clear ethical guidelines that are specific to the cultural sphere. For instance: "Additional guidance for AI ethics specific to cultural history data is lacking."; "We need clear guidelines on privacy, bias, and the ownership of AI-generated content."

Cross-Sector Collaboration and Open Tools

There was interest in policies that encourage collaboration between culture, technology, and research sectors, as well as incentives for open and accessible AI tools. For example: "Incentives for open-source and accessible tools."

Strategic Awareness and Institutional Readiness

Some answers highlighted the need for a mindset shift within institutions. Old-fashioned habits and resistance to change were identified as barriers. For instance: "In state cultural institutions, there are a lot of old-fashioned habits… employees are not challenged enough."; "One first needs to understand the need for AI implementation. Then funding is needed to bring investment."

More Visibility and Open Calls

Respondents wanted more visibility for AI-related opportunities and easier access to support. For instance: "We need more open calls for projects for AI in culture."; "We need more information and training."

All in all, participants called for more funding, better training, ethical safeguards, and stronger institutional support to ensure that AI can be used meaningfully and responsibly in the CCS. When asked to provide examples of EU programmes and initiatives advancing AI, most respondents were not familiar with EU AI initiatives; the majority answered "none" or gave unclear responses. A few mentioned the AI Act, and only a small number referred to specific programmes like Horizon Europe, Digital Europe, Creative Europe, or AI4Culture. Overall, this suggests a low awareness of relevant EU policies and funding opportunities in the CCS, which is surprising given that our sample is very familiar with AI.

Interpretation and Implications

In summary, the respondents see AI as a helpful and even necessary tool in the CCS, particularly in enhancing public communication, supporting administrative tasks, and connecting with young audiences. However, this openness is framed by a clear understanding that ethical and responsible implementation depends on increasing institutional capacity and knowledge. The CCS is not afraid of AI per se, but of what might happen if they fall behind in understanding and using it wisely. Stated differently, AI is not seen as a threat, nor as a magic solution. Rather, it is seen as a powerful instrument that, if used with care and competence, can enrich the sector in meaningful ways.

Key Findings

AI Use: Both personal and organizational experience with AI was high ($M \approx 4.0$ on a 5-point scale) among our participants. The main applications were audience engagement (52%), marketing (43%), administration (38%), and education (24%).

Opportunities & Attitudes: On the one hand, there was much optimism about AI's potential for improving innovation ($M = 4.05$) and audience experience ($M = 4.19$). On the other, participants voiced concerns, especially when it came to misleading content ($M = 3.66$).

Skills & Capacity: Only 19% of organizations currently offer AI training, though 86% of individuals expressed strong interest in such training. This highlights a major gap between personal motivation and institutional support.

Common Themes among the qualitative responses

Skills & Training: A large demand exists for practical learning opportunities.

Funding & Resources: The lack of financial support was seen as a key barrier in the meaningful implementation of AI in the CCS.

Partnerships & Collaboration: There was much desire for cross-sector knowledge exchange.

Infrastructure & Tools: The need for technical support and access to AI solutions is massive.

The survey findings complement the insights from the focus groups: While enthusiasm and experimentation are strong in the area of AI, significant structural barriers remain, especially in skills development and institutional readiness. These findings will directly inform the next stages of WONDERCUT, and in the process will help align capacity building and policy recommendations with the real needs of CCS professionals.

2.5. Discussion of the results

This section presents an integrated assessment of how AI is entering the cultural and creative sector (CCS), with a particular focus on museums. Drawing on the report's policy analysis, empirical use cases, focus groups, and sector-wide survey, it comprises a landscape marked by experimentation, fragmentation, and strategic uncertainty. While AI holds significant promise for enhancing institutional capacities in curation, engagement, and collection management, its implementation is often shaped by ad hoc initiatives, temporary funding, and limited institutional readiness. Current policies and strategies are inconsistent and often overlook the specific needs of the CCS. At the same time, cultural professionals want training, ethical guidance, and long-term integration models. This section synthesizes key findings across all components of the report, highlighting the importance of strategic frameworks, human oversight, capacity building, and sustainable data governance for the meaningful adoption of AI in the CCS.

Current policies and strategies at the intersection of AI and the CCS

While there are well-tested strategies, policies, and instruments in digitalization, the field of AI is still so new that AI strategies and policies do not have a consistent and coherent agenda. The adaptation of EU strategies and policies to national policies varies from country to country. The CCS are not a top priority for digitalization and AI applications.

Artificial intelligence enters the museum: presentation of use case

AI is entering museum practice as a set of tools that support engagement, collection management, and curatorial work. Three key lessons stand out: (1) AI enhances visitor interaction but requires careful framing to avoid confusion. (2) It supports the handling of digitalized collections when the data is prepared meaningfully. (3) It can expand curatorial thinking but relies on human oversight. In conclusion, the effective use of AI in museums depends on meaningful integration, ethical awareness, and a coherent strategy.

Stakeholder Perceptions: Focus Groups

The focus groups showed that participants share both enthusiasm and caution regarding the use of AI in the CSS. While participants recognized opportunities in audience development, efficiency gains, and creative experimentation, they expressed concerns about ethical implications, data security, skills gaps, and the risk of losing human-centred values in creative areas. Despite different emphases across the groups, the discussions converged on the need for clear guidelines, capacity building, and the responsible integration of AI tools.

Sector-Wide Readiness: Survey

The survey results showed that AI is already being used across a range of functions, most commonly audience engagement, marketing, administrative support, and educational programmes. Only one responding organization had not yet worked with AI, a finding that indicated a relatively high level of adoption in the sample. Respondents highlighted both opportunities and challenges, underlining the importance of training, resources, and sector-specific strategies in ensuring a meaningful and sustainable AI implementation.

Key Findings across the assessment

AI IS ENTERING THE CULTURAL AND CREATIVE SECTORS THROUGH DIVERSE, FRAGMENTED PATHWAYS—WITHOUT A SHARED STRATEGIC FRAMEWORK.

Despite promising experiments and widespread interest, the integration of AI in the CCS remains fragmented. Institutions adopt AI for different purposes—visitor engagement, collection management, curatorial work—but few embed it into a coherent, long-term digital strategy. National and EU-level policies exist, yet they vary in emphasis and clarity, especially regarding CCS-specific needs. Many institutions operate in project-based modes, relying on external partners or temporary funding without systematic embedding.

ETHICAL, EDITORIAL, AND STRATEGIC OVERSIGHT ARE ESSENTIAL FOR MEANINGFUL AI INTEGRATION.

Across use cases and stakeholder feedback, human oversight was a consistent condition for responsible AI integration. However, institutions must anticipate ethical risks (e.g., hallucinated content, over-mediation, biased datasets), and respond with editorial control, transparent data practices, and inclusive governance structures. This introduces a new layer of reflective labour, requiring that professionals articulate their curatorial, ethical, epistemic, and aesthetic decision-making more explicitly. Participants voiced strong concerns about the risk of *Disneyfication*—a shift toward spectacle, over-mediation, and aesthetic flattening. When AI tools are overused or poorly contextualized, they may erode the credibility, authenticity, and critical value of cultural institutions. Conversely, when dosed with care, AI can extend access, deepen engagement, and offer imaginative forms of interpretation. The challenge lies in framing AI a tool for shaping art, knowledge and thus culture, not a technological fix.

INSTITUTIONAL READINESS AND SUSTAINABILITY ARE THE MAIN BARRIERS.

Stakeholders across focus groups and surveys show optimism and interest in AI, but highlight a critical mismatch between personal motivation and institutional capacity. Only 19% of organizations offer AI-related training, while 86% of individuals expressed a desire to develop such skills. Many institutions lack the digital strategies, the internal expertise, or the staff continuity needed to sustain AI projects. The risk lies not in the rejection of AI, but in falling behind other institutions due to unpreparedness—particularly when it comes to maintaining tools, retaining knowledge, and integrating AI into everyday workflows. Furthermore, much AI integration relies on project-based funding and external developers. Without long-term financial models and clear maintenance strategies, tools fall into disrepair, knowledge is lost, and AI applications become unsustainable. Embedding AI into the core infrastructure of museums requires reliable budgeting, versioning protocols, and dedicated roles that preserve continuity beyond the lifespan of individual projects.

AI LITERACY, FUNDING, AND CROSS-SECTOR PARTNERSHIPS ARE CRUCIAL FOR FUTURE RESILIENCE.

Across all perspectives, the strongest consensus is the need for education, training, and institutional learning. Current policy frameworks and funding programmes rarely prioritize capacity building in AI literacy—despite high interest and experimentation on the ground. To avoid deepening divides between large and small institutions, or between early adopters and latecomers, targeted support is essential. This includes funded training, shared resources, and sector-specific toolkits that enable cultural professionals to integrate AI reflectively and responsibly. The successful and sustainable adoption of AI, in other words, requires structural

support in addition to prototypes and policy. Participants in the survey, interviews, and focus groups called for:

- Targeted funding for experimentation without commercial pressure
- Accessible training programmes tailored to cultural professionals
- Cross-sector collaborations (culture + tech + academia)
- Open-source tools and shared infrastructures (e.g. datasets, interfaces)

Together, these points indicate the need for systemic thinking, not isolated solutions.

DATA GOVERNANCE IS FOUNDATIONAL, NOT AUXILIARY.

From provenance research to generative design, every meaningful AI application depends on structured, accessible, and ethically sourced data. Poorly labelled, inconsistently scanned, or legally ambiguous data significantly compromise AI performance. Institutions must invest in data infrastructures as cultural assets. In so doing, they must clarify metadata standards, ensure interoperability, and address the central concerns of rights management, consent, and archival ethics.

3. Mapping the results onto the project objectives

The Assessment Report on the Impact of Artificial Intelligence (AI) in the Cultural and Creative Sectors (CCS) provides findings that directly support the four specific objectives of the WONDERCUT project. This section presents a structured mapping of the evidence gathered (policy review, focus groups, survey, and interviews) against the project's objectives and indicators. It translates the evidence gathered in this deliverable into measurable indicators and baselines for monitoring in subsequent WPs.

The evidence base cited below includes key takeaways on skill needs, data governance, focus-group summaries, and survey highlights (n=21), including current adoption and policy-awareness gaps.

3.1. Findings → Objectives→ Indicators

SO1 – Assessing the Impact of AI on Creativity and Innovation

TABLE 6- Assessing the impact of AI on creativity and innovation

Objective Evaluate, map, and identify the potential of AI-driven technologies in creating cultural experiences in museums and galleries.	
Findings	• The policy and strategy review finds that AI is recognized by the EU and by EU Member States as a driver of cultural innovation, though guidance for the CCS remains fragmented. • Focus groups at UdK Berlin and AdBK Nürnberg indicated that they see AI as a catalyst for new creative processes but raised concerns about "Disneyfication" and the loss of authenticity. • Use cases have demonstrated that AI provides new forms of creativity in curatorial practice and audience engagement, though it requires human oversight.
Indicator Contribution	• Baseline evidence for mapping AI use cases in the CCS. • Identification of risks and opportunities to be addressed in the Responsible AI Guide and in future deliverables.

SO2 – Enhancing Skills and Competencies in the CCS

TABLE 7- Enhancing skills and competencies in the CCS

Objective Identify and address skills gaps by providing comprehensive learning programmes that leverage AI and foster a more technologically literate workforce.	
Findings	• Survey of 21 professionals revealed that only 19% of organizations offer AI training, while 86% of individuals want training. • Respondents requested training, funding, and partnerships to close the gap. • Both focus groups stressed the need for institutional readiness and long-term capacity building.
Indicator Contribution	• Clear baseline indicator of training demand vs. availability (86% want training and 19% of institutions provide it). • Justifies capacity-building activities in WP2 and WP4.

SO3 – Deploying Human-Centric Approaches through Technology

TABLE 8- Deploying human-centric approaches through technology

Objective Steer the development and deployment of human-centric design approaches, so as to align AI applications that enhance audience experience with those that enhance accessibility.	
Findings	• Focus groups emphasized that AI should augment, not replace, human expertise. • AI was seen as a facilitator of inclusion (languages, cognitive accessibility, multisensory experiences). • Survey respondents highlighted AI's role in reaching younger audiences and enhancing communication.
Indicator Contribution	• Establishes human-centric principles (augmentation, inclusion, accessibility) as evaluation criteria for WONDERCUT pilots. • Provides baseline attitudes that will inform testing of the WONDERCUT app in museums and galleries.

SO4 – Enriching Museum and Gallery Experiences

TABLE 9- Enriching museum and gallery experiences

Objective Increase awareness, participation, and inclusivity by reaching out to diverse audiences and evaluating the visibility and attractiveness of cultural offers with AI-driven technologies.	
Findings	• Survey results show that AI is already used for audience engagement (52%) and marketing (43%). • Professionals are optimistic about AI's potential to improve audience experiences (M = 4.19/5). • Concerns include superficiality, over-mediation, and the risk of museums becoming "theme parks," which must be mitigated through ethical use.
Indicator Contribution	• Provides baseline data on current AI-enabled audience engagement practices. • Establishes indicators for measuring increases in awareness, inclusivity, and audience participation through WONDERCUT pilots and outreach events.

3.2. Baseline Synopsis

The baseline synopsis summarizes the key insights gathered in the Assessment Report and provides some initial reference points for monitoring and guiding future WONDERCUT activities. By establishing where cultural institutions and professionals currently stand in terms of adoption, skills, governance, and inclusivity, the project can measure progress more effectively, design targeted interventions, and ensure that subsequent actions build on evidence rather than on assumptions.

- Adoption level (initial sample): ~95% (20/21) of respondents have already used AI in some capacity (audience, admin, education). This provides a realistic usage baseline against which WONDERCUT can position training and human-centric pilots.
- Skills & policy-awareness gap: Strong qualitative demand for training and resources; low familiarity with EU initiatives beyond the AI Act indicates a policy-literacy baseline that subsequent guidance can measurably improve.
- Governance & sustainability needs: Data governance (metadata, rights, consent) and long-term maintenance are preconditions for responsible AI and anchor points for WONDERCUT checklists, templates, and institutional coaching.
- Inclusive value: Early qualitative evidence suggests AI can enhance accessibility and engagement when augmenting human practice. This outcomes dimension can be captured in pilot evaluation rubrics.

TABLE 10- Summary table: results mapped to objectives

Assessment Result	Linked Objective	Indicator Contribution
Fragmented policy & strategy guidance	SO1	Baseline for Responsible AI Guide and policy recommendations
Concerns about authenticity, over-mediation	SO1/SO3	Ethics & human-centric criteria for pilots
86% of individuals want AI training; only 19% of institutions provide it	SO2	Baseline for training activities; indicator for measuring skills gap closure
AI seen as inclusion facilitator (languages, accessibility)	SO3	Indicator for testing inclusive design features of WONDERCUT app
AI already used in audience engagement (52%)	SO4	Baseline for measuring increased engagement and participation
Professionals optimistic about audience value (M=4.19/5)	SO4	Indicator for audience satisfaction and awareness growth

4. Conclusion & Recommendations

4.1. Opportunities & Risks

AI creates a wide field of opportunities for the CCS. Institutions can use machine learning to enrich collections, automate documentation, and uncover hidden connections in archives. Generative models open new ways of storytelling and allow curators to experiment with themes, interpretations, and modes of audience engagement. Visitors benefit from personalized, multisensory experiences that make knowledge more accessible across languages and abilities. On a structural level, AI can streamline administrative tasks, improve resource management, and support cross-sector collaboration between museums, research bodies, and technology partners. These possibilities promise greater reach, inclusivity, and efficiency, while also expanding the creative vocabulary of institutions.

At the same time, the adoption of AI carries risks. Ethical concerns include the accuracy and authenticity of AI-generated content, the potential for cultural homogenization, and the risk of "Disneyfication" when institutions privilege spectacle over critical depth. Tools also run the risk of being built on fragile foundations—such as inconsistent metadata, insufficient training data, and temporary funding models—that threaten sustainability once projects end. Skills gaps are another barrier. While many professionals express strong interest in training, only a minority of institutions currently provide it. Without long-term strategies, knowledge continuity, and adequate oversight, AI integration is likely to remain fragmented and unsustainable. Finally, questions of copyright, intellectual property, and environmental costs show that AI adoption cannot be treated as a purely technical challenge but requires governance, ethical reflection, and institutional readiness. Together, these opportunities and risks underline the need for clear recommendations on how to integrate AI into the CCS.

4.2. Recommendations

Drawing on the findings, we propose the following recommendations tailored to three stakeholder groups: cultural professionals, creative professionals, and policymakers and funders.

For Cultural Professionals

- Develop clear digital and AI strategies: Move beyond ad hoc experimentation and embed AI within broader institutional digital agendas.
- Invest in AI literacy at all levels: Provide continuous learning opportunities for cultural managers, curators, educators, and technical staff to strengthen shared understanding of digital transformation and AI.
- Create dedicated structures for AI integration: Establish AI focal points, departments, or cross-institutional working groups to facilitate knowledge exchange and long-term learning.
- Plan for sustainability from the outset: Incorporate maintenance, staffing, and knowledge transfer into every digital project, ensuring that tools and applications do not disappear once funding cycles end.

For Creative Professionals

- Strengthen AI literacy within artistic practice: Equip artists and creative professionals with practical skills and critical understanding of AI tools to use them meaningfully in their work.
- Cultivate sensitivity to sector-specific risks: Promote awareness of the ethical, artistic, and environmental pitfalls of AI in culture, such as homogenization, over-mediation, and loss of authenticity.
- Encourage cross-disciplinary collaboration: Foster partnerships between creatives, technologists, and cultural institutions to codesign AI applications that reflect artistic values and cultural diversity.

For Policymakers and Funders

- Translate AI policies into cultural targets: Adapt EU-level frameworks (AI Act, Digital Decade, Creative Europe WP) into concrete objectives and measurable outcomes for the CCS.
- Provide targeted funding and incentives: Introduce funding lines dedicated to AI in culture, supporting both experimental initiatives and sustainable long-term adoption.
- Support sector-specific ethical guidelines: Develop shared standards on intellectual property, data governance, authenticity, and inclusivity in cultural AI applications.
- Invest in infrastructure and collaboration hubs: Establish competence centres and innovation hubs where cultural organizations, researchers, and technology providers can jointly test and scale responsible AI practices.

Addressing Structural Barriers of Demand and Sustainability

- Create demand-driven incentives: Since most cultural institutions are publicly funded and not in direct competition for audiences, there is little internal push to develop digital tools. Future policy frameworks should introduce performance-based incentives that reward institutions for audience diversification and innovative engagement.
- Expand the definition of cultural value: Move beyond attendance numbers and include indicators such as digital reach, inclusivity, accessibility, and innovative audience engagement in funding criteria.
- Embed sustainability in budgets: Require digital projects funded through public programmes to include a sustainability plan covering long-term maintenance, updates, and staffing.
- Promote cross-institutional sharing: Encourage pooling of resources and technologies between institutions (e.g., shared platforms, open-source tools) to reduce costs and improve long-term viability.
- Link funding to experimentation and continuity: Establish funding models that not only support pilot projects but also guarantee follow-up resources for scaling and maintaining successful tools.

5. From Assessment to Action: Outlook and Next Steps

The Assessment Report on the Impact of AI in the CCS has found that AI is already influencing cultural practices, audience engagement, and institutional strategies. It also has identified the critical conditions under which AI can meaningfully contribute to culture. These are ethics, human oversight, institutional readiness, and long-term sustainability. The findings point both to the immediate next steps for the WONDERCUT project and to broader, structural challenges that will require action beyond the project's scope.

5.1. Short-Term Actions within WONDERCUT

The evidence gathered in this assessment will directly inform the project's upcoming activities:

- The Responsible AI Guide will translate ethical concerns and sector-specific risks into practical guidance for cultural institutions.
- Capacity-building events will address the training gap (i.e., the 86% of individuals who want training versus the 19% of institutions that provide it).
- The WONDERCUT app will be piloted in partner museums and galleries, shaped by human-centric principles such as accessibility, inclusivity, and the augmentation of human expertise.
- Dissemination activities (articles, podcasts, AI Sunday events) will ensure that the results reach professionals, policymakers, and audiences across Europe.

5.2. Structural Challenges Revealed by the Assessment

Beyond immediate deliverables, this assessment report highlights systemic issues that affect the entire cultural sector:

- Lack of demand for digital innovation: Most cultural institutions are publicly funded and do not compete for audiences. As a result, there is little internal pressure to develop digital tools that could attract new and more diverse publics.
- Insufficient sustainability planning: Budgets rarely include resources for maintaining, updating, or staffing digital projects, leading to short-lived tools and loss of institutional knowledge once funding cycles end.
- Skills and literacy gaps: While professionals are eager to learn, structured institutional support is limited, creating dependency on external projects and temporary initiatives.
- Fragmented policy environment: EU-level frameworks (e.g., AI Act, Digital Decade, Creative Europe WP) set important directions, but national strategies vary widely and often lack CCS-specific guidance.
- Ethical risks: Concerns about authenticity, over-mediation ("Disneyfication"), and environmental impacts demand sector-specific ethical frameworks.

5.3. Pathways for action—towards WONDERCUT 2.0

Addressing these challenges requires action that extends beyond the scope of the current project. A potential WONDERCUT 2.0 could:

- Create demand-driven incentives by aligning public funding with indicators such as digital reach, inclusivity, and innovation, ensuring that institutions are rewarded for engaging wider and more diverse audiences.
- Embed sustainability requirements into cultural funding programmes, mandating that digital and AI projects include maintenance, staffing, and long-term strategies from the outset.
- Expand training into a European AI literacy programme for culture, codeveloped with universities, museums, and creative hubs, ensuring lasting impact beyond project-based initiatives.
- Bridge the policy gap by producing sector-specific guidelines and by creating a policy lab that translates EU regulation into actionable steps for cultural institutions.
- Strengthen cross-sectoral collaboration by creating competence hubs where cultural professionals, researchers, and technology providers codevelop solutions that remain ethically grounded and culturally relevant.
- Champion inclusive and ethical AI by testing applications that enhance accessibility and audience diversity, while safeguarding cultural authenticity and avoiding over-commercialization.

5.4. Looking Ahead

This assessment has shown that AI in culture has reached at a critical inflection point: the sector is open and optimistic, but it also risks falling behind without coordinated action. WONDERCUT will deliver concrete tools and pilots in the coming months, but the impact will depend on whether these approaches can be scaled, sustained, and embedded across Europe's cultural and creative sectors. The challenges identified here are not obstacles but opportunities for innovation, collaboration, and leadership.

A future WONDERCUT 2.0 could expand the consortium, scale up training and capacity building, deepen collaboration with technology providers and policymakers, and act as a European platform for responsible AI in the CCS. Such a continuation would not only build on the achievements of the WONDERCUT project but also address the structural challenges revealed by this assessment, ensuring that Europe's cultural institutions are equipped to thrive in an AI-driven future.

The future of AI in culture depends on how responsibly it is implemented today. This Assessment Report marks the start of a long journey for which the WONDERCUT team has laid the foundations. The next step is to transform the report's insights into a wider, long-term movement to ensure that AI serves culture, creativity, and society in responsible, inclusive, and sustainable ways.

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The Assessment Report on the Impact of Artificial Intelligence (AI) in the Cultural and Creative Sectors (CCSs) is available in English language on the WONDERCUT website at www.wondercut.io. The website also provides other deliverables and resources produced by the WONDERCUT project to foster dialogue and capacity building around responsible and inclusive uses of AI in culture.

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