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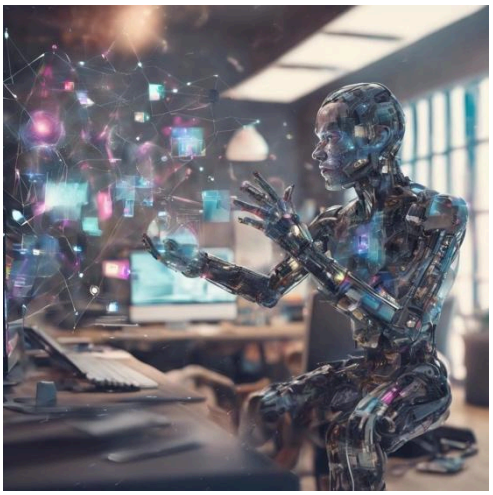

ARTIFICIAL CREATIVITY.
LOOKING AT THE FUTURE OF DIGITAL CULTURE

Abstracts' Book

28-29th June - SAE Institute, Milan
Via Trentacoste, 14

PEGASO
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I Panel

Creative Narrative: Text, Hypertext and Digital Plots
11.30 - 13.00
Chair: Gilda Policastro, Alessandra Micalizzi [Pegaso University – SAE Institute Milano]

1. ***Exploring AI-generated plot ideas for a TV series in the 'alternate history' sub-genre***

Giampiero Brunelli [Pegaso University]

Late in the 20th century, historians initiated significant discussions on different counterfactual approaches. Concurrently, educators introduced computer software in their classes, enabling students to manipulate historical events, facilitating a deeper grasp of historical actors' choices.
Likewise, engaging in and reimagining past conflicts were pivotal aspects within the realm of videogames. This field has consistently remained innovative, particularly in the utilization of Artificial Intelligence (AI). Scholarship has demonstrated that AI has been extensively employed in digital strategy games from their inception, either to create challenging opponents or to assist players.
On the other hand, in popular culture, too, the presence of counterfactual history progressively rose. During the 1980s and 1990s, television programs and films explored these concepts, introducing audiences to alternative historical scenarios. Then, alternate history as a fiction subgenre emerged. Whether pondering a Carthaginian-dominated ancient era or imagining a world where the Nazi Germany prevailed, many creators have delved into the consequences of divergent timelines. Currently, the TV series genre is deeply immersed in this process. For instance, The Man in the High Castle – based on a counterfactual hypothesis which shows Germany and Japan as the victors of the World War II – stands out as one of the major successes among Amazon Prime Studio's streaming offerings.
Indeed, AI uses in story generation are well known. AI-driven tools represent a significant technological leap in creative writing. By analyzing a huge amount of works, they combine diverse themes, generating original narratives. This fact raises hostile questions among commentators, even the most experienced ones. 3 The contribution presented on this occasion do not intend to give answers about the risks of using AI for creative writing. Instead, it aims to investigating a field that, so far, remained generally eclipsed. It is time, indeed, to deal with the use of artificial intelligence (in particular, Chat GPT 3.5) in writing a very specific subject for a television series: that is, a subject coinciding with a counterfactual scenario. This will be the case in which the 16 th century Roman papacy – instead of convicting it – embrace the Lutheran Reformation. As it will be possible to highlight, the AI's responses on the topic are initially very generic, indeed still very close to a handbook summary. However, as the terms of the story are specified – especially regarding its locations and characters – it will be evident that AI's responses provide indications of a political and cultural vision which appears

rather well defined – a Whiggish, so to speak, progressive vision that point towards a more inclusive global history. This result indicates promising implications for the pedagogical and educational value of utilizing these tools, particularly within the realm of creative arts.

2. ***Cloned Verses: new scenarios for poetic writing in the age of artificial intelligence***
Alessandra Corbetta [LIUC University]

The publication of Vincenzo Della Mea's Clone 2.0, released by Gialla di Pordenonelegge-Samuele Editore in September 2023, represents an interesting experiment in applying AI to the production of poetic texts gathered within a single collection. Although Della Mea, an associate professor of Information Processing Systems at the University of Udine, utilized CHAT GPT-2, now surpassed by CHAT GPT-3 and, especially, by CHAT GPT-4, it is significant to analyze the process that led first to the taming of the technological tool and then to the free creation of poetry, converging into a collaborative work between machine and human. The paper, after highlighting the phases that led to the final drafting of the work, aims to shed light on the potential points of convergence between the technological product and human action, those of divergence, the possible potentials arising from the integration between the two, and the eventual dangers, in terms of limitation, overpowering, or surpassing of human intelligence and creative capacity by the machine.
Starting from a work like that of Della Mea, the ultimate goal is to reflect again on the concept of authorship, already significantly altered with the advent of the Internet first and then of Social Networks, to understand how AI is intervening in the redefinition of the relationship between real and virtual; if, indeed, the concept of onlife, as effectively theorized by Luciano Floridi, highlights the permeability of the membrane between online and offline, dimensions that converge into a single hybrid space, it is necessary to reassess, as suggested also by the philosopher Adriano Pessina, the existing differences between the two since the elsewhere, in which AI operates, is not properly an extension of social life, but rather a upheaval, considering also that the evolutions of AI force us to admit that the technological environment is far from being the habitat of an anti- dramaturgic and free society that the Net had promised to achieve.

3. ***Augmented, frustrated, or indifferent? How content professionals perceive and adapt their writing process after mainstream AI-powered tools. A survey involving chatbots and conversational search engines.***
Andrea Paternostro, Alessandro Bruno [SAE Institute, IULM University]

According to a survey conducted by HubSpot in spring 2023, 77 percent of marketers believe generative artificial intelligence supports them in creating content more efficiently, and 79 percent also think it can help them create better quality content. The downside (especially for freelancers) is the concern about content job opportunities, after mainstream AI diffusion: since the public release of ChatGPT in November 2022, an analysis of 5 million Upwork requests shows a 33% drop in writing job posts (Wing Chiu, 2024).

A BrightEdge study highlights the relevance of search engines (SE) where 68 percent of online experiences begin. We hypothesize that the hybridization between SE and conversational interfaces (typical of chatbots) provides added value over the mere textual generation of mainstream chatbots. It can be more adherent to the needs of content professionals, mainly for two reasons: the ability to explicit sources close to the generated text, and the ability to provide elements such as related keywords to explore more deeply, in the same or shorter time frame, the topic for a journalistic article or blog post.
We designed an online survey to probe how digital content professionals (journalists and marketers) perceive the impact of mainstream artificial intelligence tools on their creative processes, classifying them into three groups: augmented, frustrated, and indifferent. The first two groups can be compared to the famous "apocalyptic and integrated" dichotomy (Eco, 1964) that describes the extremes of individual reactions to new technologies. In a second phase, we plan to ask a few dozen respondents to try to construct the same text using a chatbot and a hybrid tool (halfway between a conversational bot and search engine) and finally to evaluate the differences and the quality of the support provided by artificial intelligence in performing the task.

4. ***Writing with Technologies: Reimagining the Author***
Amy Spencer [Bath Spa university]

Since the invention of the printing press, advances in the dissemination, form and craft of writing have been propelled by new technologies, which have reshaped and re-imagined the role of the author to become someone who collaborates with technology as part of writing and publishing processes. Over recent years, the process of writing has been further impacted by generative AI tools and the figure of the author is rapidly changing and the creative writing process has the potential to become an ever more collaborative act between human and technology. The influence of this development spreads across creative writing and publishing practices.
This paper explores this shift in the role of the author of creative work and the concept of authorship and draws on findings from the Writing with Technologies research theme, part of the wider £30 million MyWorld project, in the UK, which explores the future of creative technology innovation by pioneering new ideas, products and processes through collaboration with industry partners. The paper examines the process of writing with generative AI tools and the evolving concept of authorship through an examination of case studies from this wider project. It explores the making of RENO, an innovative and experimental short science fiction film that engages with generative AI in the script writing process, developed by multi-award- winning Bristol-based VFX studio Lux Aeterna, and the use of AI Wordsworth, which uses natural language processing to generate human-like spoken responses to questions asked of a virtual William Wordsworth, the famed British poet, built on several large language models.
Through a discussion of such case studies, the paper explores the history of authorship and discusses the nature of collaboration as part of creative writing practice. It raises questions about what the use of generative AI may mean for the future of creative authorship.

5. ***A color out of (narrative) space: how conversational AI could play gamebooks and support entertainment, game design and knowledge in the process.***
Stefano Triberti, Caterina Sapone, Silvia Fossati [Pegaso University]

The debate on text and semiotics has evidenced the peculiar concept of ergodic literature, namely literature that requires any form of active contribution (or "nontrivial effort") by the reader to traverse the text. Between artistic texts and video games, gamebooks represent an interesting example of ergodic texts, in that the fruition of the narrative depends on the reader's choices. Gamebooks had an important renaissance in the last decades, especially in Italy. In 2023, an Italian streamer showed that conversational AI tools (i.e., Chat GPT), thanks to their ability to give suggestions and make choices, could "play" gamebooks while these are presented by a human user, and such interaction is entertaining for the viewers. We comment on that specific episode and present another experience where we presented Chat GPT with another gamebook in a more structured way, reporting how choices are performed by the AI tools and how it approaches the interactive narrative. This peculiar case study allowed us to identify three interesting outcomes from involving conversational AI tools in gamebooks playing: I), a new way for humans to enjoy the medium, partly as a co-player of AI and partly as a spectator; II) a possible resource (useful to writers and game designers) to test any form of interactive narrative; and III), a source of insights about how AI actually does (or does not) "think" and "decide", which could be valuable for educational programs about the comprehension and implementation of AI technologies in many fields.

II Panel

Artificial Imaginary: Narratives, Culture and Counterculture about AI
14.00-15.30
Chair: Giuliano Cenati, Teresa Savoia [Pegaso University]

1.Creative Temporalities of AI-Assisted Production: Exploring Communication Designers' Perspectives on Technological Transformation in Cultural Industries
Balca Arda [Kadir Has University, Istanbul]

This paper explores how creative designers reclaim the temporal aesthetics of human-machine co-creation while interrogating what constitutes the creative knowledge of human expertise in AI-assisted creation. The presumed massification of the ability to deliver creative tasks through AI applications demystifies the already-granted creative act achievable by rigorous work, training, and practice for talent-raised individuals. Without the concern of once prevailing detected plagiarism, more people can access the human creator's raised talent and professionalism, which requires time and energy. Automatized rather than autonomously proceeded creative processes proved to be a shortcut for production, even for professionals. More importantly, creative professionals create cultural artifacts by engaging with AI, which is perceived as exclusive to social cooperation. Indeed, removing the social is both time- and energy-saving for the almost maximum work process optimization. This study is based on the critical discourse analysis of research findings on Istanbul-originated/ based creative professionals (Oztas & Arda, 2024) that express, engage, and resist through their own perception of AI collaboration for creative production. In Turkey, the discourse of technological advancement has always connotated the disadvantages of developing countries and the detriment of underdeveloped infrastructure to catch up with the global superstructure advancing to secure market survival. The question of learning is also connected to the situated knowledges (Haraway,1988) of the Global South vis-a-vis Global North through the value attached to overlapping with updated technology. Following critical studies of the enframing capacity of technologies (Heidegger, 2010; Marcuse, 2013) for constructing societal logic of perceptual regime (Rancière, 2010), we critically examine the conceptual terms of creative knowledge of production and expertise in AI. By doing this, we disclose the interdependency of democracy of creativity, creative technology, and communal time perception for the societal understanding of creative knowledge at the crossroads of automation versus new autonomous human action.

2. ***Authorship and hallucination in literary texts generated through artificial intelligence systems***
Daniel Raffini [Rome University "La Sapienza"]

The paper proposes a discussion on the concepts of authorship and creativity in AI-generated literary texts. It will start by defining a corpus of AI-generated texts with literary purposes between 2015 and 2024, whose generation methods and theoretical paratexts will be

analyzed. The purpose of the analysis is to show how the production of literary texts by means of AI systems redefines some concepts of literature theory, especially authorship. The use of natural language and narrative or poetic structures stimulates an empathetic reaction of the reader toward the writer, creating a false relationship and the breaking of the hermeneutic contract; at the same time, the human contribution remains crucial, leading to a definition of authorship as a process as suggested as early as 1967 by Calvino and more recently by some AI novel authors. In a second moment the presentation will focus on the concept of hallucination, a term used to denote the errors of AI systems in the production of meaning, which become expressive possibilities for artistic production and establish a link between automatically generated texts and human creativity.
This has been highlighted by visual artists, such as Anna Ridler, and more recently has been addressed in the context of literary text production, as in the cases of Ross Goodwin and Rocco Tanica. The concept of hallucination understood as a principle of creativity can be compared to the idea of deviation from the norm that determines the evolution of the literary tradition, offering a possible solution to the problem of cultural diversity of generative AI, posed by Manovich (AI Aesthetics, 2019). The creative potential of hallucinating AI systems will be shown through examples from the
texts.

3. ***Gpt-3 and "Storie Tese": the automatic writing of Rocco Tanica***
Luca Gallarini [University of Milan]

Written by humorist and musician Sergio Conforti (known as Rocco Tanica), *Non siamo mai stati sulla terra* (il Saggiatore, 2022) claims to be the first book in Italy to have been written with the help of an AI software, credited as co-author. Since the software is able to learn literary styles and to reproduce them, but it does not easily separate grammatical accuracy from narrative plausibility, the results of this human-machine co-authorship are inevitably humorous. To quote the book's preface, the computer-generated co-author is like "a museum visitor who cannot tell a painting from a photograph".

4. ***Artificial Intelligence in Brazilian secondary education policy***
Lucas Barbosa Pelissari [State University of Campinas]

The proposal aims to discuss the presence of Artificial Intelligence (AI) in the Brazilian basic education curriculum. It is assumed that Brazil is undergoing an educational reform that reorganizes the curriculum based on the model of socio-emotional skills. In this context, the notion of "computational thinking", based on what sociology has called "platformization of education" (Barbosa, 2024), gains centrality. The aim is to analyze the way in which AI has been adopted in the implementation of this reform, especially in secondary education. To this, official national and state normative documents are analyzed, totaling five sources: National Curricular Guidelines for Secondary Education (DCNEM) and for Professional Education (DCNEP), curricular guidelines for the states of Paraná and Piauí and Inductive Guidelines

offering technical courses at the Federal Institutes of Education, Science and Technology. The hypothesis, which is based on results from recent research on the Brazilian reform, is that AI is assumed from a pragmatic conception in the high school curriculum policy and is absent of consistent pedagogical content. The investigation combines documentary analysis and experience reports supported by projects that also analyze secondary education but don't focus on AI.

5. ***The Storyteller. Reflections on the relationship between narrative, imagination and AI***
Elisa Poli [NABA, Nuova Accademia di Belle Arti]

This paper analyzes the discourse concerning AI through narrative works understood both as plot and moving image, read as a phenomenological process and as a repository of philosophical theories. Considering classical parameters such as the subjects, the objects and the places of trans and posthuman iconography, examples related to science fiction in literature and screenwriting will be illustrated. The inquiry engages with instances from various books, films and TV series, best-known and celebrated science fiction masterpieces but, also, classical and philosophical texts, to understand how they encapsulates fulfilled premonitions and unresolved questions about the whirlwind technological growth. The discourse will focus on several themes that seek to overcome the hype of AI through the unraveling of the physical places of immateriality and characters of mediality (*Black Mirror* and *Upload*) but, especially, through a prescient and foundational book. "Emigrate or degenerate! The choice is yours!" is a quote, part of a government tag line, in Philip Dick's science fiction book, *Do Androids Dream of Electric Sheep?* The story is set in a post-apocalyptic San Francisco, where Earth's life has been greatly damaged by a nuclear global war, leaving most animal species endangered or extinct. The main plot follows Rick Deckard, a bounty hunter who is tasked with "retiring" (i.e. killing) six escaped Nexus-6 model androids. The hybridization of those androids allows them to be humans on the surface - skin - and robots in the inner parts. The distribution between human parts - tissues, organs, bones - and robotic parts - mechanical structure, actuators, sensors, control system - is not entirely specified in the book, and it is precisely this sophisticated and complex mixture that makes the Nexus powerful and touching hybrids, not only physically but, above all, emotionally and psychically. Is it the machines who have finally and permanently humanized themselves or, rather, is it the humans who have transferred into robotic and technological mechanization their hope for future and eternal life (Giedion, 1948)?

III Panel

Machine and Language: Models, Interaction Issues and Learning
16.30-18.00
Chair: Anna Rinaldin, Mirko Tavosanis [Pegaso University - Pisa University]

1. ***Beyond ChatGPT: AI Applications to Italian Language Varieties***
Francesco Bianco, Stefania Elisa Ghezzi [Univerzita Palackého v Olomouci, Katedra romanistiky]

Since its first release (2022), ChatGPT became part of the scientists' workflow, both as tool and research subject. The awesome opportunities related to such powerful application increased the interests of scholars for AI and NLP: not only computer scientists, AI and data architects and computational linguists, but also (digital) humanists, philosophers, and literary scholars.
ChatGPT, and LLM's application on text generation, however, are not the only possible NLP outcome in language and text sciences (in the broadest sense).
In this paper, we will present part of our current research program, which is focused on investigating some Italian language varieties with the help (among other means) of AI and data science. Our goals are multiple: (a) testing the existence of some presumed obsolescent varieties; (b) define boundaries between similar linguistic varieties and, more in general, measure the distance between language varieties; (c) define a set of language features and test the weight of them in assigning a given utterance to its language variety.
We will present the results of our first experiments, as well as our next scheduled research steps, and we will reflect on how AI can help, in their daily work, sociolinguists and language historians.

2. ***Lexicon and Onomastics of 'AI-talian'***
Leonardo Terrusi [University of Teramo]

The so called IA-taliano appears to largely align with standard Italian, primarily utilizing, from a lexical standpoint, words from the "Vocabolario di Base". However, if we prompt ChatGPT to fit texts to specific styles or linguistic registers, different outcomes emerge: for instance, if instructed to generate texts in informal style, colloquialisms, occasionalisms, and trivialisms surface; similarly, if we ask to write a text in "youthful language", an increase of anglicisms and typical phraseology is observed (but even stereotyped expressions).
Similar processes are also observed regarding the creation of proper names of fictional texts produced by ChatGPT: when prompted to create fictional texts with proper names, they typically employ common or statistically prevalent forms. But onomastic choices change and

are perfected if we ask to adapt the names to certain diatopic, intertextual or connotative conditions.
We thus aim to verify to what extent the lexical and onomastic components of the writings produced by AI depend on the clarification of pragmatic and diasystemic indications, and which relationship they entertain with corresponding human texts. We will adopt a deliberately descriptive perspective, but without giving up on drawing some more general indications on the influence that the probable diffusion of such technologies could have on contemporary Italy.

3. ***Simplification of Medical Language: AI as a Resource to Explore***
Sabrina Tasso [Leonardo da Vinci University]

Studies on specialized languages have highlighted the difficulty of understanding medical language for large segments of the population (Cortelazzo 1994; Rati 2019). This difficulty hinders the fundamental right of citizens to independently inform themselves and understand the language of the medical field, hindering the achievement of a model of participatory and shared healthcare. Citizen empowerment has been promoted since the 2006-2008 National Health Plan and represents the goal at the basis of numerous projects and services launched in Italy in recent years.
The most difficult layer of vocabulary to understand is that of technical terms: as in many specialized languages, medical language also contains numerous specific, unique and irreplaceable technical terms, and collateral terms, which have the sole function of stylistically raising the register (Serianni 2005, 2012). The syntactic structure can also cause difficulties, especially when the complexity of medical vocabulary intersects with the complex syntax of bureaucratic language (Serianni, 2003). Often, on a syntactic level, bureaucratic language adopts linguistic expedients of a high stylistic level; things, consequently, absent in the common language (Gualdo, Telve, 2021).
Today, artificial intelligence shows a remarkable capacity for analysis, reprocessing and rationalization of texts. Therefore, an experiment of rewriting by the artificial intelligences of ChatGpt and Gemini of a sample of fifty texts found on the websites www.salute.gov.it and www.aifa.gov.it is proposed. Artificial intelligence is asked to evaluate the aspects of the text potentially difficult for an average reader; to outline; to hierarchize the arguments; and, finally, to propose a clear and well-argued simplification of the text. The experiment aims to investigate the effectiveness of artificial intelligence used in the simplification of medical texts to promote understanding by the population.

4. ***Medical dissemination in the texts of generalist artificial intelligences***
Francesco Cicero [University of Milan]

Among the many potential applications of technologies based on large language models in the medical field, the one that seems best poised for early and wide deployment concerns the capabilities of chatbots to answer questions posed by a non-specialist audience regarding diseases, symptoms, blood test values, etc. Medicine, in fact, is a science that closely affects

everyone's experience, and recent surveys have shown that the Internet, especially in recent years, has emerged as one of the main sources to turn to for an initial "consultation". The spread of new artificial intelligence could accelerate this trend by providing tailored responses to users' specific needs, in contrast to the list of content (more or less relevant and accessible) offered by search engines.
The research aims to investigate the informative capabilities of chatbots, analyzing medical texts generated by the three most popular products available in the Italian language: ChatGPT-3.5, Copilot and Gemini. Rather than focusing on the accuracy of the information, which is known to be still fluctuating, the analysis will focus on the linguistic and stylistic characteristics of the texts, highlighting not only constants in textual and syntactic organization, but above all else the presence or absence of recurring divulgation strategies (which may concern the way technical words are presented, the use of metaphors and similes in the explanation, or the presence of typical elements of colloquial discourse). Examining these aspects and comparing them with the writings of health communicators will allow both assessment of the quality and communicative efficiency of AI-generated texts, as well as measuring the ability of language models to approximate human texts, capturing their most typical features.

5. ***To Use or Be Used: AI-Generated Content as a Human Technical Exercise***
Angela Petrone [Illinois Institute of Technology, B.S. Digital Humanities]

This paper delves into the intricate relationship between artificial intelligence (AI) and human creativity, particularly focusing on AI-generated content. It argues that AI should be perceived as a new tool in the creator’s toolkit rather than an autonomous creator. While AI can aid in the creative process, it does not possess the innate ability to independently create content. The question of what it means to create is central to this discussion, highlighting the distinction between AI's role as an aid versus a creator.
The paper challenges the notion that AI expands the possibilities of artistic expression. Instead, it argues that AI primarily aids in the thinking processes that lead to the creation of content. In this context, AI can be seen as a form of prompting —an innovative engineering approach where words become the new equation to solve for. AI serves as a facilitator, much like historical technological advancements such as the camera, the printing press, the radio, and the personal computer.
By viewing AI as yet another interface to translate human knowledge into tangible forms of expression, this paper aims to demystify the fear and skepticism surrounding AI-generated content. The fear of AI stems from the dangerous anthropomorphization of these technologies, where they are erroneously perceived as autonomous creative entities. Drawing parallels to historical technological innovations, such as the camera's impact on visual storytelling, the printing press's revolution in content dissemination, the radio's influence on broadcasting, and the personal computer's democratization of digital creation, AI-generated content emerges as a continuation of humanity's usage of innovative tools. I argue that it is not a replacement for human creativity but an augmentation, an extension of human capabilities.

The paper also explores ethical considerations related to AI-generated content, particularly regarding questions of authorship, ownership, and the implications of AI's role in the creative process. As AI becomes more integrated into artistic practices, understanding and navigating these ethical dilemmas will be crucial for artists, technologists, and society at large.
By examining AI-generated content as a human technical exercise, this paper encourages a critical approach to the integration of AI in artistic practices, recognizing its potential as a valuable tool while cautioning against overestimating its autonomy and creative agency.

IV Panel

Artificial Music: Limits, Opportunities and Perceptions
11.00-12.30
Chair: Alessandra Micalizzi, Massimiliano Zanoni
[Pegaso University/SAE Institute – Politecnico di Milano]

1. ***Creativity in the times of Art, Reproduction, and Generation***
James Brusseau, Luca Turchet [Pace university NYC - University of Trento]

How can we understand today's artificial creativity within the concepts and analyzing style that Walter Benjamin introduced? To respond, this paper argues that creative art can be conceived in three ways. First two come from Benjamin: his conception of traditional art, and his conception of creativity as subjected to the technologies of reproduction. The third understanding applies to artificial creativity and exists as a recombination of Benjamin's earlier ideas. The result will be a definition of artificial creativity as simultaneously individual, inauthentic, and radical.
The paper is divided into three parts. The first outlines Benjamin's distinction between traditional art, and creative art as conditioned by the technologies of reproduction. Critical distinctions include: Aura, Accessibility, Individual versus Society, and Mode. The main idea is that the transition to the art of reproduction detracts from the individuality and the authenticity captured in art, but adds to the accessibility and socially mobilizing power. The second part extends each of these categories of analysis to examine artificial generative creativity, especially in images and music. The main idea is that AI allows for the return to individuality – but not authenticity – for artistic creators. The argument will be that in the context of artificial creativity, the end of authenticity is not detrimental but liberating. Eliminating authenticity empowers creativity. Stronger, there now exists the possibility of radical creativity, that is, individual creation unconstrained by the demands and limitations of particular places, times, and experiences.
The third part exemplifies the ideas with a use-case involving a musician interacting creatively with a prerecorded music generated by an AI agent.
Our conclusion is that artificial intelligence returns the artistic focus to individuals but without the constraints of authenticity, and that has the potential to maximize creativity.

2. ***Creativity, Digital Music Education (AI-ED) in the AI Era***
Antonella Coppi, Sara Valente [IULM University - Conservatory "L. Marenzio", Brescia]

Although there is now numerous scientific evidence that shows us that the first 6 years of life-and even more the first 1,000 days - are crucial for individual growth and the people's future because they are linked to the quality of the experiences they have had, the richness of the opportunities accessed, the good encounters and good relationships had in this time frame

that affect the development cognitive, sense-motor, emotional, relational and social, research in the field of Gamification and the use of Serius Games in educational-training paths of the 0-6 segment, have not been investigated and deepened as much, even more more so when oriented to the issues of sustainability education (Michael, Chen, 2005, p. 17).
Based on this reflection, the project "Edugame for building sustainable and accessible worlds of the future. In-service training of educators/teachers in the Key 0-6 ", a research project, oriented to the development of the skills of teachers/educators in the 0-6 years segment, which intends to offer an initial cognitive analysis of the state of the art with regard to learning approaches through Gamification and Serius Game in Early Childhood both in the formal contexts of school and in the non-formal contexts of the family, an age of life increasingly involved in the use of technologies from the first months (Panciroli, Rivoltella, 2020).
To this initial investigation, the research project intends to approach a phase of reflection in the educational perspective necessary for the design of approaches aimed at early childhood, based on serious play-analog and/or digital-involving a sample of teachers/educators and parents, finally landing on a training and updating proposal. This paper will draw the state of the art, phases and first results.

3. ***Toward Human-AI Collaboration in Music Composition: Insights from Composers' Practices***

Tron Gianet Eric Luigi Di Caro, Amon Rapp [University of Turin]

The advent of Generative Artificial Intelligence (GenAI) is redefining the role of humans in creative processes. This study focuses on music composition as a case study to explore the nature of human-AI collaboration and co-creation. Prior research has examined the effect of current music AI models on composers, focusing on their impact on the creative process and on emerging strategies to address the challenges they pose. However, this research often overlooks the intricate nature of music composition, which involves a complex interplay of personal motivations, socio-cultural factors, and the unique characteristics of different musical
genres and styles.
To address this gap, we propose an ethnographic study that delves into the practices and needs of music composers. Through semi-structured interviews and participant observation, we can investigate the situated nature of music creation, considering both the musicians' personal motivations (e.g., creative aspirations, musical sensibilities, career goals) and the socio-cultural context in which they operate. By doing this, we aim to inform the design of more effective human-AI collaborative tools that support composers' creative practices and empower them to explore new musical possibilities, rather than supplanting their creative skills with autonomous systems.
Preliminary results from the first set of interviews show that: creative goals and intentions are key elements in defining compositional strategies and guiding the process of iteration and evaluation of creative outcomes; composers draw deeply from their lived experiences and contextual factors in an often improvised search process; this creative work is frequently

characterized by an interplay between different figures (e.g., collaborators, clients, and sound engineers).
Bringing to light these elements, usually overlooked by existing AI models, emphasizes the necessity of developing adaptable human-AI collaborative systems that are flexible to human intentions and can be used and adapted to different situated contexts. More findings will be reported in the final paper if the abstract is accepted.

4. ***Crafting Music and Audio via textual descriptions: Exploring the Future Evolution of Music Production and Audio Content Generation***
Comanducci Luca, Ronchini Francesca [Politecnico of Milan]

Generative Artificial Intelligence (GenAI) has been one of the biggest break- trough in the recent history of technology, and will likely shape the field of artistic practice in future years. GenAI models have been applied to a wide variety of content types, enabling audio, video and image generation. Early GenAI models were not thought to be used by the wider public and were mostly confined to machine-learning and computer science practictioners. This has recently
changed with the advent of text-based generative models, where the generation is controlled simply by providing a textual description of the desired output.
In this paper, we will focus on text-based models for the generation of music and audio content. Most Tech Giants have released, with different degrees of open-sourcing, their own version of text-to-music/audio models, often providing web-based apps to try them. While this has lowered the bar of the technical proficiency needed to use audio generation models, at the same time it has made almost impossible for other research communities to develop competing
text-to-music models. The introduction of such models brings both opportunity and concerns. Opportunities regard the possibility of inserting these models into music production practices as easy-to-use sketching tools for audio samples, democratizing the access to music creation without the need to access to sample libraries or instruments. At the same time, several important concerns are raised, text-to-music models could make obsolete the role of music producers in simple creative tasks (e.g. music for video commercial). Also, they are a concern relative to rightful copyright attribution, being often trained on undisclosed music datasets, which means that the authorsip of the content is not known. In this paper we present a much-needed analysis of text-to-music models by first analyzing their history and them framing them in terms of advantages and dangers to the wider creative community.

5. ***Something Like Orpheus: making new music heiring the past thru AI methods***
Alessandro Francesco Ratoci [Conservatorio L. Campiani, Mantova]

According to R. Murray Schafer, widely regarded as the progenitor of modern sound ecology, the myth of Orpheus not only signifies the emergence of the first musical celebrity but also

represents, through his instrument, the lyre, one of the earliest attempts to connect scientific knowledge with the manipulation of human emotions. While it is acknowledged that the deity Hermes invents the instrument, its ultimate fulfillment is achieved only when entrusted to human hands. In pursuit of this ideal, a composer, a vocal performer, and a classical instrumentalist collaborate, integrating historical musical artefacts and methodologies based on machine learning into a practice bridging musical composition and electroacoustic improvisation. The output of this collaboration is a mixed work,“Something Like Orpheus”for 3 human performers and computer (2024). Selected excerpts from classical tradition, drawn from the first modern operatic rendition of the Orpheus myth (Monteverdi, 1607), serve as the foundation upon which to apply generative methods based on artificial intelligence sourced from prominent repositories accessible to the general public (such as IRCAM RAVE, Dicy2, etc...). These methods include audio mosaicking (reconstruction of a musical entity using materials taken from another) feature transfer (low level features as timbre or high level style or genre) and content-aware sound transformations.In this frame it is possible to conceive any element of a repertoire as a database freely traversable with the aid of computer resources and susceptible of generating musical material to which the human performer becomes, in turn, a co-improviser or co-composer. Granting the musician final authority in human-machine interaction reflects the perspective that artificial intelligence is a natural evolution of numerical tools historically employed for music composition across genres for millennia. In the author's perspective, favoring the approach of continuity over the often hyped notion of "disruption" proves advantageous, as it allows for the demonstration and enrichment of connections and links across temporal and geographical context.

V Panel

New Gaze Era: Digital Images, Visual Effects and Audiovisual Products
15.00-16.30
Chair: Corrado Santoro, Fabio Pelagalli [SAE Institute Milano – NABA, Nuova Accademia di Belle Arti]

1. ***Looking and experiencing creativity with artificial intelligence: an intervention for older adults***
Giorgia Del Bianco, Lucia Monacis, Giuseppe Annacontini [Pegaso University]

The aim of the study was to test new methods to stimulate creativity in the elderly with the help
of applications implemented by artificial intelligence (AI) and to evaluate their efficiency. The Toyforming application aims to quickly 'bring to life' the participants' creativity through AI power. Method: An intervention was carried out in an RSA to 68 inpatients aged 70-90 years old with dementia and Alzheimer's disease. The intervention was aimed at stimulating creativity through the use of the Toyforming app. During the intervention, the guests drew, by means of simple tools, characters elements to which the AI brought to life by making it animated in 3D and experienceable through the use of augmented reality in a virtual Planet created by Toyformig. Results: The results of the intervention are promising, as they obtained high overall scores on the liking scale (85/100), on the involvement (20/20) and originality of the proposed activity (8/10) scales, results higher than those obtained from manual creative activities (drawings, colours, charades game) (68/100).
Discussion: Although further studies are needed, this preliminary research shows that applications implemented by artificial intelligence can be useful and welcome tools to stimulate creativity, even in elderly dementia patients.

2.
Masters or Puppets?The normative power of glamourous fashion within and beyond AI
Michele Varini, Silvia Mazzucotelli Salice, Eleonora Noia [Catholic University of Sacred heart]

The emergence of Artificial Intelligence (AI) stands as a pivotal moment in modern society, notably within the realms of culture and creativity. Specifically, the rise of generative visual AI represents a fundamental shift, impacting not only artistic/creative processes but also the productive facets of cultural industries. Historically, cultural industries have been instrumental in interpreting, elaborating, and disseminating representations and narratives that shape prevailing aesthetic and normative standards. Today, therefore, AI challenges and questions this role.
Within the fashion realm, the widespread embrace of AI technologies begs critical questions: What aesthetic propositions does it offer? How does it influence notions of body and beauty? There exists a lack of understanding regarding, on one hand, the impact of generative AI on

the fashion imaginary, and on the other hand, the institutional dynamics within the fashion domain that govern the utilization of AI technologies.
This paper aims to address this research gap by adopting a multidimensional approach. Central
to this investigation is an exploration of the role of visual artificial intelligence in fashion communication and its potential to reinforce or challenge established norms concerning aesthetic codes and body representations. The study compares two data set: a) A collection of 874 images, encompassing covers and
content from every issue of Vogue Italia throughout 2023; b) The entirety of visuals featured of the first ever AI produced fashion magazine, Copy (August 2023). The first data set act as a storyboard of images, manufactured by some famous photographers. In contrast, the second dataset comprises visual outputs generated using Artificial Intelligence tools. By scrutinizing the visual representations and narratives generated by AI-driven fashion communication, this research endeavors to determine whether prevalent stereotypes pertaining to beauty, imagery, and gender standards are perpetuated or subverted and thus weather the normativity of fashion shapes the visual imaginary produced by AI.

3. ***GenAI in Creative Processes: Exploring Professionals' Perspectives and Experiences in Comics, Illustration, and the Visual Arts***
Claudio Melchior, Manuela Farinosi [University of Udine]

Producing creative ideas has traditionally been viewed as one of the distinctive capabilities of humans and, despite technological advancements, there is a widespread belief that the idea of AI independently achieving creativity is still a distant prospect (Elgammal, 2019; Gondek, 2021). Nonetheless, with the arrival of Generative AI (GenAI)-empowered co-creative tools on the public scene, the prospect of human-AI co-creativity has garnered considerable attention among pratictioners and scholars. On the one hand, this development actively challenges established professional practices
associated with creative jobs (Vinchon et al., 2023) and reduce the expertise required for creative tasks (Tigre Moura, 2023). On the other hand, it raises numerous questions about the impact of GenAI on various forms of cultural production (Anantrasirichai & Bull, 2022).
To gain deeper insights into the roles GenAI-empowered tools play at different stages of human creative processes and to explore their impact on traditional and emerging cultural production practices, we focused on artists and creative professionals. Through the lens of "technology appropriation" (Eglash, 2004), we delved into the fields of illustration, comics, and the visual arts, drawing insights from 20 in-depth semi-structured interviews conducted with professionals and privileged informants within the Italian context. The findings shed light on complex dynamics inherent in creative processes, unveiling distinct patterns of appropriation that emerge across various creative and artistic fields under investigation. Moreover, the results highlight the need to problematize human-machine "collaboration" by analyzing the diverse ways in which GenAI and its users mutually shape each other as their collaboration unfolds.

4. ***Narrative Metamorphosis: Digital Media Characteristics and the 'Period Eye' in Heritage Interpretation***
Adine Gavazzi, Lorenzo Cantoni, Silvia De Ascaniis, Anna Picco Schwenderer, , Anna Siri [UNESCO Chair University of Genoa, *USI* - Università della Svizzera italiana, Pegaso University]

This study examines the intersection of artificial intelligence and digital storytelling in the context of World Heritage conservation and dissemination. Our pilot study, titled "The influence of digital media characteristics and of the users' 'period eye' on the interpretation of heritage online exhibitions" investigates the narrative efficacy of Google Arts & Culture (GA&C) in enhancing heritage value communication. Using a quasi-experimental design with focus groups, participants interacted with World Heritage images in two distinct formats: enriched with GA&C's digital storytelling and as standalone visuals in a basic slideshow. This comparative analysis foregrounds the role of narrative in shaping audience perception and determining the impact of functionalities. The research progresses further to the profoundly transformative effects of digital representation technologies, such as landscape scanning, photogrammetry or artistic photography on WH and IH imagery and conservation practices. This comparative analysis compares traditional interpretations with modern digital narratives, to explore new ways of safeguarding of endangered sites and address IT digital warp in museology and exhibitions. By charting visual and interpretive trajectories through this uncharted landscape, our paper advocates for a multidisciplinary dialogue on conveying World Heritage's Outstanding Universal Values, into the debate on the future digital humanities.

5. ***Blue brains and holograms: visual representations of AI***
Romic Bojana [Malmö University]

In this presentation I will introduce my work-in-progress research that investigates trends in visual representations of AI across media. The starting point for this project is an understanding that all technologies are inherently political, and visual representations shape imaginaries (Jasanoff, 2015) thus contributing to stabilisation of certain visual discourses. One of the aims of this research is to discuss 'tendencies' or 'popular approach' in representations of AI. What are those images? They can be seen in digital news media, conference posters, social media, and so on. Most of them are sourced from stock image databases, or social network sites for creators, such as DeviantArt. These images then become part of training image databases for AI, which leads to further consolidation of existing imaginaries. Part of my argument is that discussion surrounding artificial creativity (images by AI) is intrinsically linked to a discussion surrounding images of AI initially made by human

creators. Across ten search engines, familiar themes can be found: images of AI are almost always bathed in blue hue, feature a brain ("a thinking thing"), a robot or a floating face consisted of various particles. Based on this, I identified several visual tropes that keep reoccurring: "blue brains", "the floating face of AI", "Creazione di Adamo in a technoworld", and "Imagined corporeality of AI". Each of these themes will be discussed in a separate chapter of my book. I am looking into relational aesthetics of these images, with stylistic choices borrowed from another media artifice (e.g, a recognisable blue hue can be linked to the sci-fi movie TRON (1982)). In my presentation, I will explain the key themes of this ongoing research. My book will be published by Palgrave Macmillan in the second half of 2025.

Presentation of Artworks & Posters

16.30-18.00

1.
1+1=11
Letizia Monti, Crissi Campanale [IUAV, Venice]

2.
SUA
Stefano Costi, Alessandro De Santis [SAE Institute]

3.
AIneid - The Virgilian Aeneid in the age of AI
Fabio Morotti, Sumru Deniz [IULM university and Koç University]

4.
Concrete Poetry 3D
Francesco & Giuseppe Piano [AsymetriA Art Lab]

5.
Digitizing Tradition: The Opera out of Opera 2 Project's Journey to Engage the Next Generation
Michelangelo Galeati [Pegaso University]

6.
I-Art: New Ways to Compose
Camatta Alessandro, Ferliga Luca e Corradini Alex [SAE Institute]

7.
Explaining Pain Visually
Sasha Mazur-K [Central Saint Martins College of Art and Design, London]

8.
Of gods, tricks and weirdos. A perspective related to content, practices and aims in the usage of AR for touristic experiences and spatial storytelling
Paolo Bigazzi, Mariano Equizzi [SAE institute]

9.
Impact of Artificial Intelligence on Creative Teaching: An Investigation of Education in the Technological Age
Sabrina Lucilla Barone[Pegaso University]

10.
The impact of Artificial Intelligence on tourist experiences: a critical analysis with focus on Eco-museums
Caterina De Marzo [Pegaso University]

11.
Intersectional Artifacts: Enlisting AI After the Datalogical Turn
Renata Morresi, Mauro Carassai [California State University Northridge]

12.
Conversational AI and autobiographical writings: training ChatGPT to provide useful feedback for self-awareness
Lara Balleri [Pegaso University]