



**KRISTIANSAND
14-15 SEPTEMBER
2026**

MishMash **Opening Conference**

→ mishmash.no

PROGRAMME DETAILS

An overview of the programme of the *MishMash Centre for Artificial Intelligence & Creativity* Opening Conference, with the most recent session titles and times is available on <https://mishmash.no/events/kristiansand2026/>. Always check that page for the most up-to date programme. The online programme page also includes information on locations. The plenary programme parts are all at Teatersalen at Kilden Performing Arts Centre. The poster presentations are in the foyer at Kilden. Parallel sessions are in different rooms across Kilden and Kunstsilo. The Monday evening event is at Kraftverk in the city centre and the farewell party on Tuesday night is at Kunstsilo.

Below you find the abstracts for all parallel sessions and poster presentations, to help you choose which programme parts you would like to attend.

11:40h – FIRST ROUND OF PARALLEL SESSIONS

You can choose between three sessions:

SESSION 1: HUMANS

‘NE#01 New Embeddings of (ID)entity’

This session will be the second of the New Embeddings workshop series, exploring the simultaneous ossification and fuzzification of identity and identification in the age of data. Who do you think you are, and who does the machine think you are? Join us to find out. Workshop run by: Ida Jahr (INN), Enrique Encinas (AHO), Synne Tollerud Bull (Kristiania), Jon Marius Aareskjold-Drecker (UiT) and Budhaditya Chattopadhyay (UiB).

SESSION 2: MACHINES

‘Building a Norwegian Ecosystem for AI and Creativity’

Most creative work with AI today relies on commercial systems that are costly, opaque, and raise unresolved questions about copyright, privacy and control, while access to research-level infrastructure in Norway is uneven and largely closed to freelancers and cultural organisations. This session maps which AI tools are actually available to MishMash researchers and partners today, asks which we should and should not use, and discusses what needs to be developed to build a meaningful Norwegian ecosystem for AI and creativity research.

SESSION 3: SOCIETY

‘Society, meet AI’

Technological innovations come with societal friction, as multiple sides adapt to change. In some respect, artificial intelligence feels like a continuation of previous disruptive innovations in the creative sectors, yet it also feels different. In this Roundtable conversation, directed by Professor Daniel Nordgård, we try to extract what it is that differs from previous technological disruptions, and what we consider mere continuations, or repetitions. The Roundtable format encourages plenary dialogues, making full use of the hive mind in the room – everyone is welcomed to contribute.

14:00h –

SECOND ROUND OF PARALLEL SESSIONS

After lunch, you can choose between seven different parallel sessions:

Machine agency, shared autonomy, and expressive generative models: perspectives on creative performance with AI

ABSTRACT: This session explores research in augmented instrumentation, self-directed AI agents, and generative design. It features a live performance, presentations from international collaborators, and a discussion with specialists in the topics. We will focus on topics such as small-scale expressive models, real-time interaction, shared autonomy, and the role of AI in co-creative processes.

Aesthetic Intelligence: Showcasing AI in Artistic Processes

ABSTRACT: This session is curated by the 'AI in Artistic Processes' team (work package 2) in MishMash, which explores how artists and researchers critically engage with AI through artistic research, creative practice, and experimentation. The session consists of invited artist talks by Manaswi Mishra, Almagul Menlibayeva and Matteo Marangoni, followed by a discussion. The talks offer various pertinent entry points to the study of AI-led arts, from AI ecologies and artificial life to AI's roles in appropriating culture and heritage and in relation to the archives.

But what is “health” and what do creative uses of AI have to do with it?

ABSTRACT: This spotlight on creative uses of AI for health and well-being begins by taking a step back and examining the various assumptions that underlie our conceptualizations of health and well-being. We then explore different manifestations of these understandings through diverse research examples. We consider how well-being and health are shaped in response to AI-generated creative media and within human-AI interaction.

Press Start to Generate: AI in Game Development Education

ABSTRACT: AI has been part of games since ghosts started chasing Pac-Man. This talk traces the shift from traditional game AI to generative AI, explores how it is reshaping different areas of game development, and considers its impact on teaching and learning. How should game development education respond to a technology that remains contested among developers, students and educators?

Solutions and Opportunities Across the Creative Value Chain

ABSTRACT: AI presents not only challenges but also opportunities for the creative industries. This panel explores how we can move beyond identifying problems to developing workable solutions across the creative value chain—from artistic creation and performances to ownership, rights, and value distribution. Bringing together perspectives from music, film, and visual art, the discussion invites panellists and audiences alike to explore constructive ways forward.

From Collections to Connections: Responsible AI for Cultural Heritage

ABSTRACT: Archives, libraries, and museums hold vast collections of cultural heritage materials waiting to be explored. This session presents projects demonstrating how AI can support the management, discovery, and use of such collections, while also addressing key challenges related to applying AI to cultural heritage. Topics include transcription technologies, metadata enrichment, model evaluation, and ethical considerations in the use of AI.

How can MishMash partners collaborate in and through education?

ABSTRACT: We discuss how we can achieve more collaboration in MishMash by inspiring collaborative courses and multi-partner student collaboration. We present existing successful courses and mini-projects so far. Requirements, cultures and rules are diverse, but success in this will be a long-term impact of MishMash and also help us to scale and involve more people. Please bring examples and new ideas.

12:45h & 15:30h – POSTER PRESENTATIONS

The poster presentations are structured in eight themes, with the following corresponding poster numbers:

1. Human-AI interaction & perception (Posters 1-4)
2. Heritage, archives & collections (Posters 5-9)
3. Music making & AI (Posters 10-16)
4. Artistic research & creative works (Posters 17-21)
5. Understanding and testing AI (Posters 22-26)
6. AI in education (Posters 27-30)
7. AI for health & wellbeing (Posters 31-34)
8. Responsible AI & critical futures (Posters 35-42)

All posters are displayed and presented at the same time, both in the lunch time timeslot and in the afternoon timeslot.

Details about all posters are below.

Poster number 1
Theme: 1. Human-AI interaction & perception
Metaphysical Masks: Understanding movement perception for expressive robots
Benedikte Wallace
<i>University of Oslo</i>
ABSTRACT This research investigates how movement qualities convey intent and context when facial expressions are removed, aiming to identify salient features that can enhance social robot legibility and trust. A three-stage cross-disciplinary framework was employed: (1) Intention, using theatrical "metaphysical masks" to isolate body dynamics; (2) Execution, where eight scenarios (e.g., picking up a box, crossing a bridge) were recorded using 3D motion capture, EMG, and breath/heart rate and (3) Perception, a study with 27 observers involving semi-structured interviews to analyze interpretive processes. Preliminary results show that observers frequently construct narratives to interpret context when facial cues are static and ambiguous. Specific movement descriptors, such as upward-oriented body forms, were consistently linked to perceived confidence. However, combinations that were narratively more complex or counterintuitive, such as "hesitant movement on a stable bridge," proved harder for participants to identify accurately. Based on our findings and previous work on theatre as a framework for understanding and developing expressive movement for robots, we are currently developing an expressive move set for the TIAGo robot.

Poster number 2
Theme: 1. Human-AI interaction & perception
Perception of Human and AI-Generated Emotional Voices in Autism
Liv Merve Abrahamsson
<i>University of Oslo</i>
ABSTRACT Aim and key questions. Atypical sensory processing is a defining feature of the autistic phenotype, but little is known about how autistic adults perceive synthetic voices. This study examined how adults with autism spectrum disorder (ASD) evaluate human and AI-generated voices under controlled, non-lexical conditions. We asked (1) whether autistic adults distinguish human from synthetic voices and (2) whether perceived naturalness varies as a function of emotion. Methods. A total of 121 adult volunteers with a formal ASD diagnosis ($M_{age} = 36.94$ years, $SD = 11.76$) completed two tasks. In a naturalness rating task, participants evaluated human and AI-generated voices expressing pleasure, happiness, sadness, neutrality, fear, and anger. In a real-fake discrimination task, they classified each voice as natural or synthetic. Results. AI-generated voices were rated as less natural than human voices. Naturalness ratings also varied by emotion. Voices expressing pleasure and happiness received the highest, sadness and neutral voices received intermediate, and fear and anger received the lowest ratings. In the discrimination task, participants classified human voices more frequently as real and synthetic voices more frequently as fake. Implications. These findings indicate that autistic adults are sensitive to both the source and affective quality of vocal signals. In practice, this seem to suggest that affective content should be considered when designing AI-based voice technologies for autistic users. Value. Our study provides novel evidence on autistic adults' perception of AI-generated voices by showing that synthetic vocal signals are not evaluated as perceptually equivalent to human voices.

Poster number 3
Theme: 1. Human-AI interaction & perception
Zoom Out, See Different: Platform Design as an Interpretive Lens on Digital Identity
Ole Goethe
<i>Kristiania University of Applied Sciences</i>
ABSTRACT Aim: This study examines how representational format shapes the interpretation of digital identity. It asks whether spatial aggregation of a personal image archive alters perceptions of pattern, curation, and authenticity compared with a native feed-based interface, and what this reveals about platform design as an interpretive lens. Methods: Using a comparative, within-subjects, exploratory design, 50 participants recruited via convenience sampling viewed the same public Instagram profile in two formats: Instagram's chronological feed and Picturmarks, a spatial aggregation

platform originating from Harvard's metaLAB trajectory. Participants completed parallel Likert-scale and categorical survey items plus open-ended responses, analyzed descriptively and through inductive thematic coding.

Results: Spatial aggregation markedly increased pattern awareness ($M = 4.76/5$) and prompted deeper, more analytical reflection (87.5% rating 4–5). Participants described the identity as more curated and performative after viewing the aggregated format. Yet 80% judged Instagram more authentic, indicating that revealing constructedness does not enhance perceived authenticity, which remained anchored in narrative flow, captions, and platform familiarity.

Implications: Theoretically, the findings support the digital humanities claim that representation is interpretation: authenticity emerges from affective and contextual framing rather than structural transparency. Practically, spatial visualization shows promise as a defamiliarization tool for visual literacy education and reflective portfolio practice, provided cognitive load and emotional safety are addressed.

Value/originality: The study offers rare empirical evidence of a transparency/authenticity paradox in personal data visualization, positioning interface design as a co-producer of identity meaning.

Poster number 4

Theme: 1. Human-AI interaction & perception

Embodied Human-Swarm Music Systems in Extended Reality

Pedro Lucas

University of Oslo

ABSTRACT

Human-Swarm Interactive Music Systems are inspired by swarms in nature, where a group of autonomous and self-organized simple agents exhibits emergent behaviors in a sound and music context. Group and individual control of agents is paramount for providing user interaction in such systems, and embodied principles play an important role in balancing the synergy between a human and a musical swarm. As such, the aim of this research is to design, implement, and evaluate these systems in a context in which humans can interact with the agents in an embodied manner. The embodiment approach is enabled by Extended Reality (XR) technology. The methodology to fulfill the aim includes developing XR systems and conducting user studies to assess suitable interfaces for these systems and to examine how humans compose music in such immersive environments. Results demonstrate that effective human-swarm collaboration requires careful design of embodied interfaces for both group and individual control, and that performers must navigate dynamic Levels of Automation (LOA) by balancing the populations of autonomous and user-controlled agents to enable creative music improvisation strategies. This work contributes to research on artistic explorations in musical multi-agent systems, as well as to a range of real-world applications, including contemporary digital arts, interdisciplinary artistic practices, game development, and XR systems. Ultimately, the results of this work show that collaboration between a human and autonomous agents creates a synergy that reflects an acclaimed quote on “emergence”: “the whole is greater than the sum of its parts.”

Poster number 5
Theme: 2. Heritage, archives & collections
Archival metadata generation with Multimodal LLMs
Anna-Maria Christodoulou
<i>University of Oslo</i>
ABSTRACT Large Language Models (LLMs) are promising for generating metadata from diverse cultural heritage collections. Multimodal LLMs integrate additional AI technologies that extract features from non-textual input. However, their capabilities across different modalities and their suitability for archival description remain underexplored. We present a state-of-the-art review of multimodal LLM-based approaches to metadata and paradata generation across text, audio, video, images, and music scores, with a particular focus on the quality and reliability of generated outputs, the need for transparency, and the role of human expertise in archival metadata curation. The project investigates whether a unified multimodal architecture, integrating modality-specific feature extractors with a shared foundation language model, can support metadata generation across heterogeneous archival collections. A prototype pipeline based on Qwen Omni 3.5 is under development to generate descriptive and semantic metadata together with AI-generated paradata documenting the generation process. We adopt a human-in-the-loop framework in which domain experts guide, review, and refine AI-generated outputs. This framework could support related archival tasks, such as segmenting long audio recordings into meaningful units, where AI can assist experts without replacing their judgment. A key direction for future work is to systematically identify the boundaries of multimodal foundation models' musicological competence by designing challenging evaluation tasks and curated specialist datasets, thereby informing the development of more robust domain-adapted models. Through this work, we aim to identify both the opportunities and the limitations of multimodal LLM-based foundation models and to inform the development of more scalable, transparent, and responsible AI-supported archival workflows.

Poster number 6
Theme: 2. Heritage, archives & collections
Computational Analysis of Jewish and Islamic Recitation Practices
Dániel Péter Biró
<i>Grieg Academy, University of Bergen</i>
ABSTRACT Over the years, together with Peter van Kranenburg at Utrecht University, I have developed methods of analyzing Jewish and Islamic recitation practices via computational means. We are currently expanding this research, employing the newest developments in AI, having analyzed melodic stability within Jewish Torah trope, comparing examples from Ashkenazi and Sephardic traditions and the use of melodic contour within Qur'an recitation, using examples of renowned reciters from online datasets. While scholars have analyzed syntactic and pronunciation functionality within Jewish Torah trope (Avenary 1979, Biró 2004, Jacobson 2017) and the use of melodic profile, scale (maqāmat) and the use of elongation (madd) in Qur'an recitation (al Faruqi, 1987, Nelson, 1985) the functionality of melodic similarity in Torah trope and the use of melodic contour in Qur'an recitation has little mention in

scholarly literature. Employing datasets consisting of Ashkenazi and Sephardic Torah readers and Egyptian, Saudi and Yemeni Qur'an reciters, we have analyzed melodic variation and use of scale tones within the Hebrew bible passage Bereshit and melodic contours within examples of the Qur'an Sura Al-Qadr. Using the YIN pitch extraction algorithm (De Cheveigne and Kawahara, 2002) we estimate the fundamental frequencies within each melodic sign or recited word. Using AI to compare audio examples from these recitation traditions, we can determine patterns and similarities, allowing us to better understand how traditions of recitation develop over time and solidify cultural heritage within these recitation practices, while simultaneously integrating this knowledge into a compositional praxis, responding to and extending these recitation traditions.

Poster number 7

Theme: 2. Heritage, archives & collections

"This is not an AI experience, it's a drawing experience": Value creation and AI as calm technology in MUNCH's exhibition Edvard Munch: Connect the Lines

Lyuba Boncheva

BI Norwegian Business School

ABSTRACT

This research project is an ethnographic case study of the interactive exhibition "Edvard Munch: Connect the Lines" (June - November 2026), where visitors explore the full archive of 7000 Edvard Munch drawings through sketching on a tablet and having their creations matched by an AI system to Edvard Munch drawings sharing similarities.

What makes "Edvard Munch: Connect the Lines" a revelatory case is that AI technologies here are not used as spectacle but rather as what Mark Weiser and John Seely Brown describe as "calm technology": where technology remains in the user's periphery rather than at the centre of attention. Overall this project investigates the value created (/not created/destroyed) for cultural institutions, their technology partners and audiences when human creativity is anchored at the heart of AI-mediated experiences. While existing scholarship often treats AI as the foregrounded feature of AI-mediated cultural experiences, this study applies assemblage theory to examine what unfolds when the technology itself remains in the periphery.

Methodologically, this is an ethnographic case study consisting of observations of work meetings and fieldwork, supplemented by qualitative interviews (n > 50), an audience survey and document analysis.

This research project will contribute to both theory and practice by developing an understanding of the value of using AI in the cultural industries as calm technology; of using something "artificial" to invite people to connect with the very human.

The study is being conducted as part of the NFR-funded project "creAlte: Transformative Technologies, Creativity, and Value Creation in the Cultural Sector".

Poster number 8
Theme: 2. Heritage, archives & collections
Hybrid AI for Expert-Assisted Transcription of Norwegian Hardanger Fiddle Music
Olivier Lartillot & Lars Monstad
<i>University of Oslo</i>
ABSTRACT The traditional Norwegian Hardanger fiddle repertoire is a rich oral heritage. Existing score transcriptions are scarce and rarely capture essential performance features, particularly ornamentation, microtonal intonation, two-string textures, and systematic beat unevenness. We develop an innovative AI-assisted transcription framework producing detailed, performance-aligned MIDI representations that preserve fine-grained timing and pitch. The neural front-end adapts a state-of-the-art deep-learning model for polyphonic music transcription to our small but growing dataset of expert annotations. It progressively learns from expert corrections, providing increasingly robust results, as reflected by a rising F1 score. The model is complemented by signal processing, musicological knowledge, and cognitive principles addressing repertoire-specific challenges such as non-standard tuning, sympathetic-string resonances, sustained drones, and symbolic note offsets. Acoustic analysis refines pitch beyond the conventional twelve-tone MIDI grid, while tune-specific pitch distributions organise the performed notes into musically meaningful categories. These results are transformed into a new score representation proportionally aligned with the recording. Colours make stable “micromodal” pitch categories visible and highlight ambiguous notes or pitches lying outside those categories. This makes the score useful not only for reading and performance, but also for checking AI output, exploring intonation and texture, and identifying recurring patterns. This expert-in-the-loop workflow drastically reduces transcription correction time, with the aim of progressing towards full automation. The resulting transcriptions and scores will support performance, education, archive exploration, corpus research, and future AI methods for musical heritage. This original hybrid AI approach also demonstrates the limitations of purely machine-learning approaches to music transcription.

Poster number 9
Theme: 2. Heritage, archives & collections
The need for new models of authorship and provenience in metadata
Pierre Beauguitte
<i>National Library of Norway</i>
ABSTRACT Through a few real-life and imagined scenarios, we want to focus on the questions of authorship and provenience in metadata for musical works. AI-assisted and mixed music, where the role of the machine can be hard to document, challenges classical model of authorship. Indigenous and traditional music, where oral tradition is often the

norm and composers and authors can be unknown, also forces us to reconsider how works are catalogued.

AI and algorithmic musicological analysis promises to enrich our metadata descriptions and make it possible to interlink objects in our collections. For the sake of accountability, it becomes important to document the provenience of these new automated analyses.

These questions are of particular interest for The National Library of Norway, which aims at building a new infrastructure for its music collections, in order to unite the different types of material (printed and manuscript scores, archive recordings, and objects obtained via legal deposit) and make it available for research, as much as legally permitted.

Designing a single ontology that will allow for rich and precise metadata across a wide range of musical genres and traditions is a challenging task. Document-based cataloguing practices can fail to fully capture relationships between objects, actors, and more abstract entities. FRBR entities of work/expression/manifestation are heavily influenced by the book-cataloguing practice and are not well suited for music outside of the western classical music canon. We hope to find a solution flexible enough to cover all scenarios, while remaining in line with international standards for interoperability.

Poster number 10

Theme: 3. Music making & AI

Audio-Guided Reinforcement Learning for Symbolic Music Style Adaptation

Abdolrahim Tooranian

Østfold University College

ABSTRACT

Aim / key questions:

This paper addresses the difficulty of controlling the stylistic behavior of symbolic music generation models. It asks whether audio-domain reward models can be used to steer editable symbolic outputs toward target musical styles.

Methods:

We propose an audio-reward fine-tuning framework that renders generated MIDI to audio and optimizes the symbolic policy with Group Relative Policy Optimization (GRPO). The framework uses a composite reward that can combine prompt alignment, learned musical-quality estimation, and reference-audio similarity. We apply the method to MIDI-LLM and evaluate it through focused style-adaptation experiments and a listening test.

Results:

The framework can steer generated outputs toward target styles in focused style-adaptation settings. In the listening test, listeners generally rated tuned models as closer to the target style. The experiments also show that reward optimization is sensitive to prompt distribution and reward configuration, and can lead to training instability or reduced diversity.

Implications:

Audio-side reinforcement learning offers a practical way to bridge editable symbolic generation with stronger audio-domain evaluation models, but its use requires careful

control of reward design, prompt scope, and training stability.

Value / originality:

The paper contributes a composite audio-reward framework for fine-tuning symbolic music generators, extending style control beyond token-level training while preserving the editability of MIDI-based outputs.

Poster number 11

Theme: 3. Music making & AI

Composing for Acoustic Robots

Alexandros Drymonitis

Ostfold University of Applied Sciences

ABSTRACT

Composing for Acoustic Robots focuses on instant composition for computer-controlled acoustic instruments through live coding, assisted by AI. The key questions of this research are:

- How can state-of-the-art text-based AI frameworks enhance live coding?
- How can such an AI framework be trained, and how can an effective training dataset be assembled?
- How can an ethical use of AI in the arts be promoted and communicated?

The research was split in two stages where two different computer-controlled instruments and two different sets of original compositions were used.

The methodology of this research is split between a micro-methodology and a macro-methodology. The micro-methodology was developed prior to the beginning of this research and adapted to the needs of the research as informed by the macro-methodology. This experimental and qualitative micro-methodology concerned the methods of collecting datasets to train AI models for instant composition, the AI model architectures, and the result of using these models during a live performance. The macro-methodology followed an observation design where the results of the first iteration dictated changes to the methods used in the micro-methodology.

The results of the research were a series of short instant compositions for a robotic piano and one instant composition for a computer-controlled organ. Both instruments were controlled by a computer and performer by a human instrumentalist at the same time.

Implications involved the assemblage of training datasets and/or finding copyright-free datasets, training and fine-tuning the models, as well as adapting the models' output to the performers' capabilities.

Poster number 12
Theme: 3. Music making & AI
Musical partnership during interaction with a gesture-based digital score
Laura Bishop
<i>University of Oslo</i>
ABSTRACT Increasingly, people can involve machines in collaborative music-making in different capacities, raising questions about how they adapt their expectations to the machine's affordances and what social and musical relationships emerge. This poster is about a project investigating musical interaction between people and a "dancing" AI-driven robot called RAMI. RAMI was designed as a digital score but also integrates aspects of a musical partner through its interactivity and embodied, movement-based cues. Our aim was to investigate how people integrate RAMI into their music-making and, more specifically, to test whether people would relate to it as a musical partner. We drew our concept of musical partnership from the musical togetherness model, which posits a set of factors underlying musicians' rewarding experiences of togetherness when playing in ensembles. In a series of studies, musicians improvised with RAMI and reported on their experiences. Bodily engagement was also indexed via quantity of head motion and electrodermal activity. A key finding was that the musicians perceived moments of social and musical connection with RAMI that were suggestive of musical partnership. They established a role for RAMI, attributing it with some degree of agency, based on their perceptions of its responsivity. RAMI's responsivity was sensed or felt, often despite a lack of belief in its intentionality, in contrast to how it tends to be perceived in human ensemble interactions. The poster discusses how the musical togetherness model might be extended to account for forms of musical partnerships that arise between humans and machines.

Poster number 13
Theme: 3. Music making & AI
Music Production in the Age of AI
Ruzbeh Smiley
<i>University of Agder</i>
ABSTRACT This project examines the impact of artificial intelligence on music production. The First sub-question is: To what extent do AI-audio-based assisted tools (mixing and mastering plugins) impact the creative processes in sound design and mixing phases of popular music production? The Second Sub-Question is: How do symbolic music composition tools influence emerging producers' creative processes and harmonic decisions? The third sub-question is: How do audio-based tools enhance or diminish the producer's technical skill during the creative tasks and redefine the producer's role? By employing a qualitative research method with semi-structured interviews and auto-ethnography, the project investigates the role of the music producer in a progressively AI-integrated studio setting. The findings suggest that while AI tools might enhance efficiency and reshape technical practices, they often fail to foster genuine creative trust as a collaborator. These tools can only operate within their pre-determined parameters and pose a risk of homogenization and dismantling the

artistic identity and decision-making. The papers argue that AI-assisted tools enhance short-term productivity while challenging the long-term development of technical judgment and creative expertise. Ultimately, although AI can efficiently automate tasks, it provides commodities rather than being a creative partner. In contrast to papers that view AI from the engineering point of view and technical complexities rather than creative processes, this research examines the influence that AI has had on music creation from an artistic point of view.

Poster number 14

Theme: 3. Music making & AI

Learned Behavior: Machine Listening and Adaptive Mapping as Compositional Agency in Mixed Electroacoustic Practice

Stylianos Dimou

University of Bergen

ABSTRACT

This poster asks how machine learning can function as compositional agency, rather than automation, within mixed electroacoustic practice, and how adaptive systems can be authored, not merely applied, inside a hybrid score that coordinates sound, space, and system as interdependent behaviors. A Max/MSP system integrates three complementary libraries — FluCoMa for machine listening, MuBu for real-time gesture modeling via Hidden Markov Models, and Spat5 for multichannel spatialization — through which a tracked gesture is segmented in real time and mapped, via a neural network trained on example data, into simultaneous, multidimensional control over convolutional, DSP (digital signal processing), and spatial parameters. This chain of gesture recognition, learned regression, and distributed parameter control lets a single embodied gesture animate multiple, interacting sonic behaviors with economical performative means, demonstrated through ongoing creative practice and system design in acousmatic and mixed electroacoustic composition. Agency is thereby redistributed, not relinquished: the composer authors the training data, learning domains, and mapping architecture, while the network mediates real-time response, reframing human–AI interaction as mutual becoming rather than tool use. The poster offers a concrete model for machine learning, specifically, as an intellectually authored collaborator, moving from fixed, pre-trained mappings toward a continuously learning system, and toward the hybrid score as a transmissible method beyond a single system or piece.

Poster number 15

Theme: 3. Music making & AI

SCSCI (Synthesizer Control System for Co-Improvisation)

Vincenzo Madaghiele

University of Oslo

ABSTRACT

SCSCI (Synthesizer Control System for Co-Improvisation) is a modular software system for designing personalised co-improvising artificial agents that listen to a live performer and control a sound synthesizer in response. When training SCSCI, performers can choose how the agent responses adapt to the specific material and

style of the sound they produce through repeated practice with the system. The system employs sequence-to-sequence models, flow-matching and model fine-tuning techniques to adapt to musicians' preferences while improvising, balancing novelty and aesthetic coherence throughout a performance.

Poster number 16

Theme: 3. Music making & AI

Modes of aesthetic re-negotiation towards an artistic understanding of AI models

Zoi Efstathiou

NMH

ABSTRACT

During the past few years, text-sound multimodal models have become increasingly widespread. These models can generate a new sound given a text prompt, or an audio file. Given an audio prompt, the model aims to, either suggest a plausible continuation of the input sound, or provide a sound that is similar to the input sound. These models are based on very deep architectures that require vast amounts of data and significant computational power for their training. The state-of-the-art models of this type are commercial models. Open-source models are research prototypes usually trained on generic audio in the public domain, typically generating around 10 seconds of audio per prompt.

An artistic use of these models that would afford a degree of artistic agency poses significant challenges, not only due to the generic nature of the training datasets, but also due to the pairing of audio with text, that limits control over the musical output to generalised concepts. In this context, working with generative machine learning models involves iterative methods of aesthetic re-negotiation that emerge as the artist attempts to assert aesthetic agency over these black boxes.

I will present a set of criteria and methods for artist-model aesthetic negotiation that have emerged through my practice, and share methods of reclaiming agency within my artistic process. I will introduce a taxonomy of modes of aesthetic re-negotiation based on the degree of agency they allow and question whether these modes of aesthetic re-negotiation can provide new forms of artistic understanding of AI.

Poster number 17

Theme: 4. Artistic research & creative works

:: TAO :: Transductive Acoustic Organism

Enrique Encinas

Oslo School of Architecture and Design

ABSTRACT

TAO — Transductive Acoustic Organism: a persistent, self-hosted AI instrument for artistic research

Aim / key questions. What AI infrastructure do artists and cultural institutions actually need to work critically, experimentally, and sustainably — at a moment when the

compute shaping cultural production is owned and governed elsewhere? And where is the boundary between analysis and confabulation in a persistent AI system: one that runs continuously and accumulates context over months, rather than living session to session?

Methods. Artistic research through building and operating. TAO is a persistent instrument assembled from open-weights models — language, realtime audio (Magenta RealTime 2), sound generation (Stable Audio 3) — running on self-hosted consumer hardware, portable enough to travel in a bag. Two performance prototypes exercise it: Open Ambient (acoustic telepresence for maritime operations) and Warp (navigating latent audio space as live material). An embedded field experiment, the workshop NE #00 at Ars Electronica 2026, runs its own mechanics as a model runs — encoding, embedding, forward propagation: a local model groups thirty participants by stated needs and offers; each group reconstructs why; the room amends the machine's ledger.

Results. The instrument runs. Adjacent team work placed ~30 AI agents on national scientific e-infrastructure for four days (CERIT-SC, July 2026) and produced an 18-reading calibration corpus revealing per-model identity-confabulation signatures. The Ars workshop is confirmed.

Implications. Theoretical: the analysis/confabulation boundary can be probed empirically through embedded participation. Practical: persistent, sovereign AI infrastructure is within reach of small institutions.

Value/originality. An instrument, not a product — infrastructure that is itself the research object.

Poster number 18

Theme: 4. Artistic research & creative works

Feral Epistemologies: Artistic Processes, Concept Production, AI and Generative Media

Luz María Sánchez Cardona

University of Bergen

ABSTRACT

Aim / Key Questions

Feral Epistemologies is an artistic research project in progress developed within MishMash WP2 at the Department of Contemporary Art, KMD, University of Bergen. It proposes a framework for artistic research that investigates environmental and political approaches to sensing beyond dominant Western and colonial models of knowledge production. Building on long-term artistic research on political violence and territory in Mexico, the project extends this trajectory to Norwegian ecologies. It asks how artistic research produces symbolic-epistemic forms of knowledge, how AI and generative media contribute to concept production, and how artistic apparatuses mediate these processes.

Methods

The project uses Sensing-Based Transdisciplinary Artistic Research (S-BTAR) as its methodology. S-BTAR operates through six linked processes: sensing, fieldwork, archival construction, making, reflection and communication. Research combines environmental recording, 360° video, spatial sound, photography, computational

experimentation, AI and generative media. These elements are integrated through the design of artistic apparatuses.

Results / Research in Progress

The current Norwegian phase develops through two artistic investigations: Trøndelag Sky Apparatus and Fjord Sensing Apparatus. They extend the early FERAL investigations in the Sonoran Desert, Mexico. The apparatuses under development reconstruct fragmented environments through computational and generative processes, producing evolving immersive systems.

Implications

The project positions the artistic apparatus as the site where sensing, computation, embodiment, AI and generative media converge to support concept production.

Value / Originality

The project introduces Feral Epistemologies as a conceptual framework and S-BTAR as its methodological contribution. Its originality also lies in the artist-led construction of tools and apparatuses integrating AI and generative media into self-designed artistic systems.

Poster number 19

Theme: 4. Artistic research & creative works

Slow Dance XR

Marie Dahlén & Signe Alexandra Domogalla

Kristiania University of Applied Sciences

ABSTRACT

- Aim / key questions: The study aim to defining the processes of using AI in distribution and development of hybrid XR dance performances.
- Methods consist of a mixed methodology of embodied somatic knowledge from dance practices and qualitative methods such as post phenomenology. The demo explores telepresence and co-presence by connecting virtual and physical audiences into a shared performative environment where the audience is actively participating and contributing to the experience. AI is used in development of the interactions and performance environment.
- Results will show a demo and present a framework for incorporating AI to help with development and assistance in hybrid XR dance performances.
- Implications (theoretical and/or practical) Using AI in a sustainable and ethical way, to ensure this the study critically examines the training data and options to use ethical training models as well as knowledge sharing to mitigate gatekeeping and making AI more accessible to use in the creative industry.
- Value/originality: The aim is to foster collaboration and connection through dance, emphasizing visual art's role in engagement and community building and expand knowledge on virtual choreography to identify global opportunities for creative XR work in a sustainable way. This study contributes to the larger development of affordable methods and frameworks for the creative performing arts industry.

Poster number 20
Theme: 4. Artistic research & creative works
Exploring Authentic Anonymity in Documentary Film through AI
Mette Nyseter
<i>University of Inland Norway</i>
ABSTRACT This project is an artistic research exploration of how artificial intelligence (AI) can be used to anonymise real people in documentary footage while preserving authenticity and credibility. The immediate motivation is a concrete challenge: I have extensive video recordings from an ongoing artistic research project on role-play and embodied methods in documentary education at the TV School in Lillehammer. These recordings are rich empirical data, but they cannot be published without proper anonymisation. Traditional anonymisation techniques in documentary – heavy blurring, pixelation, strong voice distortion – are not suitable in this context. They remove exactly what is central to the research: facial expressions, body language, emotional intensity and relational dynamics. They also introduce stigma and distance, often associated with crime or shame, which misrepresents ordinary learning processes. The core question is therefore how we can achieve authentic anonymity: protecting identity while keeping the embodied expressions that make the material meaningful. Together with MishMash partner Reimagine AS, I will explore how we can use AI to anonymise people while still preserving their expressions, emotions and interactions. Ensuring ethical and legal compliance, we will test existing AI tools for audiovisual anonymisation and develop new tailored models that transform participants while preserving the environment. If we succeed, it will not only be a key enabler for sharing material from my role-playing project in an ethically responsible way, but also a pioneering contribution to the cinematographic toolbox of every documentary filmmaker who needs to protect their participants in any genre.

Poster number 21
Theme: 4. Artistic research & creative works
Reimagining Immersive Art for Living Rooms
Trond Lossius
<i>University of Inland Norway</i>
ABSTRACT Throughout my artistic career, I have created collaborative site-specific installations combining immersive audio with video, painting, drawings, and objects. These works are experienced only in specific locations for limited durations; afterwards, they exist only as documentation, typically a stereo video that struggles to capture their temporal, spatial, and immersive qualities.

Recent technological advances offer new possibilities. Dolby Atmos support from Apple and other providers now enables the distribution of spatial audio media for home consumption. Additionally, Swift and SwiftUI allow developers to build feature-rich media applications across Apple's ecosystem, including iOS, macOS, and tvOS. For artists with limited coding skills, agentic coding tools in Xcode open unprecedented opportunities to develop artworks as applications.

I have applied these technologies to recreate the site-specific installation "Lento o Tempo Muda em Poço do Canto" (first shown in Portugal in 2022) as a "home edition." Using Apple TV, the application presents four videos on a split screen with an immersive spatial audio track, with all media files playing and looping asynchronously.

This project demonstrates how recent technologies open possibilities for developing artistic works to be experienced in domestic surroundings that, from a programming standpoint, might appear simple but, depending on the quality and composition of the media content, can still offer rich experiences.

Poster number 22

Theme: 5. Understanding and testing AI

Lightweight Non-Contrastive Self-Distillation for Creative Musical Applications

Bálint Laczkó

University of Oslo

ABSTRACT

Creative musical applications of deep representation learning, such as timbre space modeling, timbre transfer, and synthesizer control, rely on latent representations of audio. In a musical context, these representations must align with human psychoacoustics and the dynamic artistic intentions of live performance. Currently, standard representations are derived from massive models trained on broad-domain web-scraped datasets (e.g., AudioSet). These models require specialized hardware accelerators (e.g., GPUs) for low-latency inference, which hinders deployment in resource-constrained or embedded live performance setups. Furthermore, the computational overhead required to fine-tune these large networks on custom data remains prohibitive for standard consumer hardware, preventing musicians from shaping the latent space topology to their specific aesthetic requirements. This poster demonstrates the application of non-contrastive self-distillation architectures to small, curated, and private artistic datasets. We show that using non-contrastive self-distillation is a viable representation learning technique even when constrained to lightweight architectures, such as basic multilayer perceptrons operating on low-dimensional audio features. Consequently, these models can be trained and fine-tuned efficiently on standard laptop CPUs as an iterative part of the creative process. Crucially, we reframe data augmentation not merely as a mechanism for perceptual alignment, but as a creative interface that allows users to explicitly define representational invariances. Our prototype is planned for integration into the Fluid Corpus Manipulation library to make the algorithm accessible across multiple creative coding environments.

Poster number 23
Theme: 5. Understanding and testing AI
Know-Thy-Not: Training-Free Targeted Negation in Dual-Encoder Vision-Language Models
Changkyu Choi
<i>University of Inland Norway/University of Oslo</i>
ABSTRACT Dual-encoder vision-language models systematically fail at negation, scoring “a cat without a dog” nearly identically to “a cat with a dog.” We show that this failure is inherent to the single-embedding framework. Under contrastive training, single-embedding methods can at best ignore the negated concept (dilution) but never penalize its presence (rejection). We propose <code>\textbf{\ourmethodlong}</code> (<code>\ourmethodshort</code>), a training-free method that introduces an image-side rejection dimension to penalize the negated concept directly in the visual representation. We also introduce COCO-Confusion, the first benchmark requiring genuine rejection to succeed. Across 9 backbones, <code>\ourmethodshort</code> improves COCO-Confusion mAP by up to +25.6 over vanilla VLMs and +9.6 over the strongest existing method.

Poster number 24
Theme: 5. Understanding and testing AI
Sonitra: A Controlled Benchmarking Toolkit for Automatic Music Transcription
Hans J. Skaug
<i>University of Bergen</i>
ABSTRACT Automatic music transcription (AMT)—the process of converting audio recordings into symbolic scores—is difficult to evaluate fairly because most benchmarks rely on a single, fixed recording environment. Consequently, it is often impossible to discern whether poor performance stems from inherent algorithmic weaknesses or challenging recording conditions. Sonitra addresses this by systematically varying acoustic factors such as reverberation, dynamic-range compression, and signal distortion to measure how these common degradations affect transcription accuracy across a consistent set of reference scores. The toolkit utilizes a modular four-stage pipeline: (1) a digital score (e.g., MIDI), (2) rendered audio via software instruments, (3) transcribed audio back into a symbolic score using AMT models, and (4) a comparison between the original and transcribed results. This architecture allows for interchangeable components and benchmarking of various AMT models in a controlled environment. Evaluation metrics include note accuracy, timing, and loudness, following established practices in the music information retrieval (MIR) field. Additionally, a resynthesis metric aligns transcribed notes against the original recording. As an early-stage tool, Sonitra provides a controlled, reproducible benchmark with an extensible design. It will also investigate which metrics best correlate with perceived audio quality and whether condition-controlled rankings align with results on standard industry datasets.

Poster number 25
Theme: 5. Understanding and testing AI
Steered Creativity, Calibrated Trust: Making LLMs Divergent and Reliable Partners in Creative Workflow
Karthik Shivashankar
<i>SINTEF Digital</i>
ABSTRACT Key Questions Large language models (LLMs) are optimized to predict plausible next tokens, not to reason creatively or to communicate their uncertainty faithfully. This mismatch produces two related problems [1]. The first is a calibration gap: users' confidence in an LLM's answer diverges from the model's actual internal confidence, and longer explanations inflate user confidence without improving accuracy. The second is a discrimination gap: although internal model confidence separates correct from incorrect answers reasonably well, users relying on the model's verbal output discriminate barely above chance. Our central question is whether activation steering can make a model's reasoning more creative and divergent while keeping it calibrated and trustworthy, narrowing both gaps together rather than trading one off against the other. Approach A model's latent space can be pictured as a topographical landscape in which reasoning flows along the deepest, most well-travelled channels. This convergent flow yields fluent, high-confidence outputs, but fluency guarantees neither correctness nor originality. We apply activation steering, injecting interpretable feature directions such as sparse-autoencoder latents into the model's residual-stream activations at inference time. Candidate features are identified and validated with open-source interpretability tooling such as Neuronpedia [2], which supports feature inspection, attribution-graph tracing, and live steering. Steering redirects reasoning toward divergent and unexplored creative paths, while monitoring features associated with hallucination, sycophancy, and deception helps keep outputs reliable. Rather than inferring trust from input–output behaviour alone, we surface circuit-level confidence and attribution signals directly to the user. Extending evidence that aligning explanations with internal confidence narrows both gaps [1]. Value This early-stage work unifies divergent reasoning and trust calibration in a single steering-and-interpretability framework. We present this poster to spark discussion and welcome collaborators in divergent thinking, interpretability, and trust in creative practice. Keywords: creative workflows; trust calibration; activation steering; mechanistic interpretability. References 1. Steyvers, M., Tejada, H., Kumar, A., Belem, C., Karny, S., Hu, X., Mayer, L. W., & Smyth, P. (2025). What large language models know and what people think they know. <i>Nature Machine Intelligence</i>, 7, 221–231. https://doi.org/10.1038/s42256-024-00976-7 2. Lin, J. (2023). Neuronpedia: Interactive reference and tooling for analyzing neural networks. Open-source platform for exploring, visualizing, and steering language model internals. https://www.neuronpedia.org

Poster number 26
Theme: 5. Understanding and testing AI
Evaluation of Cultural Bias and Workflow in AI Music Generation
Shayan Dadman
<i>UiT, The Arctic University of Norway, Narvik</i>
ABSTRACT Evaluating AI-based music tools has traditionally focused on final outputs rather than creative processes. To address this gap, we proposed SCOPE (Situated Creative Operation and Process Evaluation), a methodology that assesses these tools by examining the entire creative workflow from idea formation to iterative revision rather than just end results. It is designed to support evaluation across multiple stakeholder groups—researchers studying tool impact, developers refining features, and users reflecting on their creative processes. The framework operates as an interactive feedback loop capturing both qualitative insights through reflective notes and quantitative data via structured scoring against predefined criteria. This approach enables stakeholders to understand how ideas form, features are experimented with, work is revised, and experiences documented when engaging AI music platforms. By centering the user's workflow, including prompts, interface states, iterative cycles, and creative decision-making, SCOPE offers a nuanced perspective on tool usability in real-world music creation contexts while identifying friction points that support fluid artistic processes. To validate SCOPE, we conducted one-day studio sessions with 5 professional music producers from diverse age groups and backgrounds. Participants engaged in exploratory experimentation with Suno AI-music platform features within defined musical contexts established as composition briefs at session onset. The goal was to incorporate generated results into actual compositions while documenting their creative journey throughout the workflow, including real-time decision-making, iterative experimentation, and moments of discovery or friction. Our study yields an assessment of SCOPE through real-world application, alongside in-depth insights into how AI music tools, such as Suno, impact professional creative workflows from practitioner perspectives. These outcomes collectively inform both the practical utility and theoretical implications of process-centered evaluation frameworks for AI generative technologies.

Poster number 27
Theme: 6. AI in education
Staying with Uncertainty: Experimental Pedagogical Spaces for Generative AI in Higher Arts Education
Hanne Maren Meldahl
<i>Høgskulen på Vestlandet</i>
ABSTRACT As generative AI becomes part of higher arts education, many artists and educators are still negotiating how to respond to it. In artistic communities, conversations about

AI quickly move beyond questions of authorship, creativity and craftsmanship to concerns about environmental sustainability, the growing influence of large technology companies, and more fundamental questions about what it means to create, teach and learn as human beings in a changing technological world. This project asks how educators can facilitate experimental pedagogical spaces where these questions can be explored collectively through artistic practice. Rather than treating uncertainty as something to overcome, the project approaches it as a condition for inquiry, dialogue and experimentation (Haraway, 2016).

The study follows a four-day interdisciplinary workshop at the Oslo National Academy of the Arts (KHiO), where artists, educators and researchers move between analogue materials, digital technologies, conversation and generative AI. Drawing on Critical Utopian Action Research (Aagaard Nielsen & Nielsen, 2006; Husted & Tofteng, 2014), the workshop is designed as a space where making, dialogue and reflection unfold together. Postdigital (Jandrić et al., 2018) and postcritical perspectives on education (Hodgson et al., 2017) frame the workshop as a space for collective inquiry rather than consensus. Empirical material consists of participant observation, field notes, interviews, written reflections, photographs, video documentation and artistic artefacts.

The study will examine how facilitation shapes collective inquiry as participants negotiate curiosity, hesitation, resistance, discomfort and joy in their encounters with AI. The analysis focuses on the pedagogical conditions that make it possible to stay with uncertainty while exploring questions of artistic practice, responsibility and technological change. The project contributes a methodological perspective on facilitating experimental learning environments in higher arts education and offers an approach to engaging with AI before institutional positions become fixed. Instead of asking what AI should become, the project asks what kinds of educational spaces are needed if higher arts education is to respond thoughtfully to a changing world while remaining attentive to artistic practice, material engagement and our shared responsibility for a common world (Hodgson et. Al., 2017).

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Poster number 28

Theme: 6. AI in education

From Black Box to Open Strings: Towards a living framework for responsible AI Use in Music Education

Karan Choudhary

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ABSTRACT

Aim / Key Questions: The growing use of artificial intelligence (AI) in music education presents both opportunities and challenges. Although Norwegian policy documents increasingly promote digital competence and responsible technology use, it remains

unclear whether existing frameworks adequately address the pedagogical, ethical, and legal implications of AI in music classrooms. This study asks: (1) How do Norwegian policies and guidelines conceptualise AI in music education? (2) What challenges and gaps emerge for educators and students? (3) To what extent do existing frameworks support responsible and creative uses of AI?

Methods: The study adopts a qualitative, multi-method research design. It analyses national policy documents, educational strategies, curriculum frameworks, and institutional guidelines governing artificial intelligence in Norway. The analysis is informed by the AI4People Ethical Framework, particularly the principle of explicability.

Results: Preliminary findings suggest that Norwegian policies acknowledge the transformative potential of AI but provide fragmented guidance regarding its use in music education. Existing frameworks emphasise digital competence and innovation while offering limited direction on questions of authorship, creativity, transparency, assessment, and ethical responsibility. Consequently, educators are often left to navigate these challenges independently.

Implications and Value: The study highlights the need for interdisciplinary and context-sensitive governance frameworks capable of addressing the distinctive challenges posed by AI in music education. By bringing together perspectives from law, ethics, and music education, it contributes to emerging debates on responsible AI adoption in music education.

Poster number 29

Theme: 6. AI in education

Mediator, Shortcut, or Collaborator? A Study of Music Teacher Students Learning Music Production With and Without Generative-AI Tools

Kristian Tverli Iversen

Høgskulen på Vestlandet Campus Bergen

ABSTRACT

This study investigates how generative AI tools mediate music teacher students' learning and creative processes in music production education, asking how such tools mediate students' learning and creative processes, how their self-efficacy and DAW technical knowledge develop across AI-supported and non-AI conditions, and how students experience and reflect on their learning across these conditions. Using a teacher-research experimental design within a sequential mixed-methods approach, eight Norwegian music teacher students, all novices in the DAW Ableton Live, were divided into an AI-supported group using a chatbot of choice alongside the AI music generator Suno, and a non-AI control group, across a nine-session music production course. Quantitative data, comprising a self-efficacy scale and a DAW technical knowledge test administered before and after the intervention, were analysed descriptively, while qualitative data from reflective student logbooks, teacher observation notes, and focus group interviews were analysed using reflexive thematic analysis. Self-efficacy and DAW-competence scores showed no major differences between conditions, pointing to limited objective benefit of AI access on measurable

short-term learning outcomes. Qualitatively, AI scaffolded learning through technical and compositional guidance, but knowing what to ask and translating AI responses into concrete action in the DAW remained a major obstacle for several students, and teacher and peer mediation remained central to learning regardless of condition. Perceived ownership of musical products depended more on students' level of compositional involvement than on whether AI was used. Rather than democratizing music production, the AI tools examined appeared to advance students who already possessed relevant capabilities, while offering comparatively little to novices lacking AI literacy, suggesting that AI literacy is a precondition for meaningful AI-mediated learning in music education, not a natural byproduct of access to AI tools themselves.

Poster number 30

Theme: 6. AI in education

AI Integration in Film and TV Education (In progress)

Sigmund Trageton

University of Stavanger

ABSTRACT

The project aims both to investigate the adoption of AI tools among students and faculty within Norwegian Film and TV programs, pilot-testing at the University of Stavanger, and to evaluate and implement ethically grounded AI workflows into the traditional curriculum. The teaching approach will be innovation pedagogic and through three key learning objective we hope to pin down strategies and experiences that can be adopted by other institutions within the audiovisual field. The objective was formulated and discussed with our industry partner on first R&D meeting in Stavanger in May 2026

1. Critical and Responsible Awareness of AI Use

Relevant for documentary and news production, but also advertising, content production, labelling, model training/IP and plagiarism, restrictions, and regulatory frameworks.

2. Workflows

How AI can support and streamline all stages of production—from idea development to pre production, production, post production, and distribution. This includes vibe coding and the development of customized systems.

3. Generative AI Tools

Overview of different models and aggregators; integration of AI into existing editing software.strategies for generative video production such as text to video, image to video, and video to video; and the degree of generative AI used alongside traditional production methods (compositing, effects work, automation, etc.).

The method for the investigation will be empirical case study based on practice research tradition with questionnaire and focus group interviews both of students and industrial partners. The result will be on the latest development of AI technology with a practical approach that strengthen the students ability to confront this new technological paradigm.

Poster number 31
Theme: 7. AI for health & wellbeing
Training at the Edge: AI-Adaptive VR for Cognitive-Motor Performance in High-Demand Populations
Adam Lewartowski
<i>Nicolaus Copernicus University in Toruń, Poland</i>
ABSTRACT Aim / key questions How can VR bimanual training be designed to keep elite performers operating at the productive edge of their coordinative capacity — and can AI-driven adaptation, responsive to real-time physiological state, make such training scalable without a researcher in the loop? Methods A standalone VR system (Meta Quest 3, Unreal Engine) trains bimanual coordination using Lissajous cross-recurrence plots (CRP) with melodic sonification — real-time audio feedback coupled to the relative phase between hands, decoupling coordination quality from raw movement amplitude. Empirical grounding comes from a laboratory study (N = 28 healthy adults, bimanual polyrhythm task at 2:3, 3:4, 4:5 ratios) with kinematic, spectral, and momentary flow measures. Pilot sessions with an elite-level athlete (track and field, national and European level) provided initial out-of-lab validation with physiological recording (HRV, EDA). Results All participants showed pacing deceleration under sustained load — task-driven, not skill-driven, and independent of accuracy level. This is a signature of operating at the edge of coordinative capacity: even the best performers throttle down under increasing ratio complexity. Above a coordination threshold, spectral purity of movement increased sharply ($d = 2.3\text{--}3.5$), identifying a categorical boundary between managed load and breakdown. Flow state on one attempt forward-protected bimanual phase coordination on the next ($\beta = -0.27$, $p = 0.0002$) — a motivational buffer against drift. Implications These findings reframe high-performance training: the challenge is not reaching the edge but sustaining precision there. A stress-inoculation protocol — operational acoustic stimuli (drone sounds, tactical environments) co-presented with the bimanual task — is in development with military partners, targeting simultaneous motor and autonomic regulation under load. Value / originality The platform operates outside medical-device regulatory frameworks, enabling rapid deployment in defense and elite sport settings. The open design question for AI: can physiological signals (HRV, EDA, spectral entropy of movement) detect when a user is approaching breakdown — and adapt difficulty in real time to keep them at the productive edge rather than beyond it? Answering this requires both the sensing infrastructure and the theoretical model this work provides.

Poster number 32
Theme: 7. AI for health & wellbeing
Exploring Music, Movement and Human-Centred Interaction in Dementia Care
Ingerine Dahl
<i>Universitetet i Stavanger</i>
ABSTRACT Aim / Key Questions This project explores how creative technologies combining music, movement and sensory stimulation can support wellbeing, communication and participation among people living with dementia. The project asks how human-centred AI and adaptive technologies can enhance meaningful engagement while preserving the human dimensions of care. It further investigates how interdisciplinary collaboration between artists, researchers, healthcare professionals and technology developers can contribute to future creative health technologies. Methods The project uses Muzziball as a case study for human-centred technology development in dementia care. Activities include interdisciplinary workshops, stakeholder engagement, collection of experiences from existing pilots and implementations, and exploration of future AI-supported personalisation and adaptive interaction. The project draws on perspectives from health sciences, creative technologies, music, design and innovation. Result Expected outcomes include a publicly available report, dissemination materials and a roadmap for future collaborative research initiatives. The project aims to identify opportunities for data collection, interdisciplinary collaboration and larger national and international funding applications in the field of creative health technologies. Implications The project contributes to discussions around human-centred AI, embodied interaction and the role of creativity in healthcare innovation. Practically, it may inform the development of technologies that support wellbeing, participation and quality of life in dementia care and other health contexts. Value / Originality The project combines perspectives from arts, technology and healthcare in a real-world implementation context. By positioning creativity and human interaction as central components of future health technologies, it contributes a novel interdisciplinary perspective to both creative AI research and health innovation.

Poster number 33
Theme: 7. AI for health & wellbeing
Creative AI for Well-being Monitoring and Adaptive Control in Dynamic Systems"
Jim Tørresen
<i>University of Oslo</i>
ABSTRACT Aim / key questions: This poster explores how creative and generative AI can enhance emotional well-being and facilitate adaptive problem-solving in high-pressure environments. Key research questions include: How can AI systems monitor and classify mental conditions to improve therapeutic outcomes? Further, how can AI assist in creative problem-solving and situational awareness during emergency command and control operations? Methods: The proposed research utilizes a multimodal approach, integrating deep learning for time-series sensor data, Vision Language Models (VLMs), and affective computing. Specific techniques include physiological monitoring (e.g., heart rate and facial expressions) to gauge operator emotions and the application of reinforcement learning combined with generative design to develop creative recommendation systems for operational strategies. Results: Drawing from previous work in mental health monitoring (INTROMAT) and adaptive robotics, current research indicates that AI can effectively analyze behavioral patterns and sensory input to estimate well-being. Preliminary frameworks demonstrate AI's capacity to provide temporal summaries and contextual interpretations of complex, evolving scenarios. Implications (theoretical and/or practical): Practically, these systems aim to improve human-AI collaboration in healthcare and emergency response by ensuring smooth transitions between autonomous and human control. Theoretically, the work contributes to new metrics for assessing AI's creative quality based on its functional impact on human engagement, attention, and operational safety. Value/originality: This research contributes to bridge the gap between creative AI and high-stakes real-world applications. By combining affective computing with generative problem-solving, it offers a novel approach to both individual therapeutic well-being and collective crisis management.

Poster number 34
Theme: 7. AI for health & wellbeing
AI Art as a Method to Visualise Lived Experience
Marielle Reuser
<i>Leeds Beckett University</i>
ABSTRACT Can Generative AI help people visualise experiences that have previously been impossible to photograph? This PhD explores how photography, creative writing and text-to-image AI can be combined within a creative peer support network to make the lived experience of (peri)menopause visible in the workplace. Conducted within a

National Health Service (NHS) Trust in the United Kingdom, the study examines how arts-based co-creation can support wellbeing, strengthen social connection, and amplify participants' voices.

The menopause, typically occurring between the ages of 45 and 55, is associated with symptoms including hot flushes, sleep disturbance, mood changes and cognitive difficulties, all of which can affect work performance. In the NHS, where a large proportion of the workforce are women in this age bracket, these impacts are particularly significant. Rooted in Feminist Participatory Action Research (FPAR), the study engaged NHS staff in a series of creative workshops using photography, creative writing and text-to-image AI and collected stories of their experience. Drawing on Photovoice principles (Wang, 1997), participants collectively identified enablers and barriers to wellbeing in the workplace, before transforming personal narratives into AI-generated imagery.

By extending traditional Photovoice beyond the limits of the camera, Generative AI enabled participants to visualise embodied, emotional and often invisible experiences of menopause. These AI-generated images became powerful tools for visual elicitation, stimulating reflection, dialogue and collective meaning-making while giving participants new ways to communicate experiences that had previously been difficult to articulate. The resulting artworks and narratives were brought together in a public exhibition to raise awareness and advocate for more inclusive workplaces.

Poster number 35

Theme: 8. Responsible AI & critical futures

An Ecosystem of Creativities: Do Music Artificial Intelligence's Creative Capabilities Now Rival Human Output?

Guy Morrow, Daniel Nordgård, Rasmus Rex Pedersen and Julia Toppin

University of Melbourne

ABSTRACT

This presentation provides a unique insight into historical discussions that took place amongst members of the international music industries in 2023, 2024 and 2025 concerning the impact artificial intelligence (AI) was having, and could have, on the music ecosystem. A glimpse into this moment in time is provided by transcripts from the Kristiansand Roundtable Conference (KRC) which took place in Kristiansand, Norway in November of each of these years. These conferences function as a two-day-long focus group and as such they provide a rare opportunity to follow discussion among key stakeholders in the international music industries due to use of the Chatham House Rule. This presentation uses data from the 2023, 2024 and 2025 KRC events to address the research questions: How have creativity researchers found narrow AI impacts human creativity? Did the KRC participants believe that music AI's creative capabilities now rival human output? We then compare our findings from these two questions and argue that thinking in terms of an ecosystem of creativities is useful.

Our research is significant because in the music ecosystem the threshold for whether artificial intelligence's (AI's) creative capabilities now rival human output is low. This is because, for the purposes of how the entities within this ecology operate, AI simply

needs to generate work that is copyrightable, as opposed to it having to meet the standard definition of 'hard' creativity from the field of psychology. This makes AI more complex than other issues the recording and music publishing industries have had to face because the question of whether a work even attracts copyright must now be asked. Copyright is the asset at the core of these industries and simply having to ask this question means that the music ecosystem is at a crossroads, with traditional industry models in one direction and alternative models in the other.

Poster number 36

Theme: 8. Responsible AI & critical futures

Metaphor of Power: Visual Storytelling to Question Absurdity in the AI Industry under Capitalism

Haruna Inagaki

University of Bergen

ABSTRACT

This is a resistance project that produces visual storytelling—primarily video works—that question the AI industry's continued "growth" under capitalism. The term "AI" used here refers primarily to industries that utilise generative AI as a business product. As the climate crisis deepens and political turmoil grows increasingly complex, AI and data are being used not to resolve these issues for justice or equality, but rather as tools and materials that reinforce and perpetuate the very structures causing them. This is by no means a coincidence. It is the result of an absurd design imposed by those in economic and political power.

My project explores practical and artistic resistances, such as what forms we can express and how we can unite, by creating visual storytelling works that use metaphorical expressions to depict this reality. By investigating "Why is AI a problem?" and examining this issue from a decolonial and feminist perspective as an Asian female filmmaker, I aim to challenge and deconstruct the capitalist and patriarchal political narratives surrounding AI.

Poster number 37

Theme: 8. Responsible AI & critical futures

EPIS(T)EMIC EROTIC: The Terror of the Other, Undead Faces, Epistemic Harm and Relational Knowledge Practices

Katherine Butcher

*Norwegian University of Science and Technology (NTNU), Trondheim
Academy of Fine Art (KiT)*

ABSTRACT

Aim: We are living in the age of Peak Face: a historical threshold at which the human face becomes the primary site of extraction under algorithmic capitalism. Drawing on Isabel Millar's concept of Patiopolitics, this contribution examines how the face shifts from relational organ to optimised infrastructure, asking how dialogical based artistic research can create conditions for collective knowledge in response.

Methods: This project does not begin with predetermined outcomes. As researcher, I initiate rather than author, finding ethical resonance in the Nansen Fredssenter

methodology. The dialogue is intentionally private: no photography, no recording, a countermove to perpetual capture. Leaning into the Norwegian fairytale 'De syv fedrene i huset', the project works with bureaucratic structures and the tension between individual and collective agency.

Results: Deepfakes disrupt the material-semiotic conditions under which persons become knowable through the face as a site of public appearance and intimate self-determination. Privacy is not the absence of exposure but the active agency to control one's own conditions of self-revelation. Results include dialogue-based research at NTNU with the Section for Security and Preparedness, and a meeting with Norwegian political office in digitalisation, producing collective knowledge across a siloed decision landscape.

Implications and value: Through EPIS(T)EMIC EROTIC and Facing Deepfakes, convened at the Kavli Institute, NTNU, with Nobel Laureate May-Britt Moser, this research proposes friction, opacity, and preserved ambiguity as ethical counter-practices against the pornographic drive for total knowledge and machinic intimacy, offering an original model for socially engaged artistic research in the age of AI.

Poster number 38

Theme: 8. Responsible AI & critical futures

Sustainable use of AI in creative work – an interdisciplinary dialogue in MishMash

Lina Plataniti

NORSUS

ABSTRACT

The goal of this work is to create a sustainability stream across WPs and initiate an interdisciplinary dialogue within MishMash. Sustainability scientists and AI scientists got together in a workshop to lay the groundwork for this effort. Through three exercises, we defined (environmental) sustainability within the MishMash context from the perspective of both disciplines, mapped our research interests, and set basic ideas for future research projects and collaborations. The main findings indicate that environmental sustainability cannot be considered separately from the socio-ethical implications of using AI in artistic and creative work. Perspectives from other disciplines are crucial for understanding the necessity and manner of using AI in creative processes - what AI improves and what it replaces. On the other hand, creators need to become aware of the impacts of using AI in their work. What happens each time they type a prompt? What kind of mechanisms are triggered? What resources are needed and at what cost? Materials, machines, energy, water, and land but also labour, communities, culture and cultural heritage should be considered. We invite MishMash partners and collaborators working with AI and creativity to engage in a dialogue for a more (environmentally) sustainable use of AI in creative work. A survey will serve as a starting point for this dialogue; it will be accessible through a QR code on the poster to collect responses on the spot.

Poster number 39
Theme: 8. Responsible AI & critical futures
When Curiosity Becomes Optional for Knowledge Creation
Murtaza Mohiqi
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ABSTRACT For centuries, knowledge has typically begun with curiosity. Questions came before answers, and discovery depended on uncertainty, exploration, and dialogue. That sequence is now beginning to change. As generative AI becomes an increasingly common starting point for learning, research, and creative work, answers often arrive before curiosity has the opportunity to develop. This raises a broader question than whether AI can generate knowledge: what happens when curiosity is no longer needed to begin creating it? This study explores how the widespread use of generative AI may reshape the human processes through which knowledge is produced. Rather than focusing on the capabilities or limitations of AI systems themselves, it examines how immediate access to AI-generated responses may influence questioning, exploration, collaboration, and intellectual risk-taking. Drawing on perspectives from education, law, philosophy, and human-centred technology, the project develops an interdisciplinary framework for understanding curiosity not simply as a personal characteristic but as an essential condition for creativity and knowledge creation. The central argument is that the most significant transformation brought about by AI may not be the automation of knowledge production, but the gradual reconfiguration of how knowledge begins. If curiosity becomes less necessary, the practices that sustain original thinking, collaborative inquiry, and meaningful discovery may also begin to change in subtle but important ways. By shifting attention from what AI produces to how it reshapes the conditions under which humans create knowledge, the project offers a new perspective on the future of learning, innovation, and human-centred technological development. Keywords: Curiosity, Knowledge Creation, Human Inquiry, Generative AI, Human-Centred AI

Poster number 40
Theme: 8. Responsible AI & critical futures
Can art arise without search or exploration?
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ABSTRACT Aim / key questions: As generative AI becomes embedded in creative practice, the speed of creation has never been higher and the temptation to skip the slow parts of the work never greater. We ask: what does creativity actually require, and what is at risk when AI is allowed to bypass those requirements? We approach this as an empirical question about creative process — and as a starting point for a comparison between human and machine modes of musical thinking. Methods: This artistic research project documents a two-day recording session at Grieghallen in Bergen, where we deliberately worked from a position of "try and fail"

and "not knowing" — refusing pre-planned outcomes, making sketches on the spot, and staying with uncertainty long enough for something unexpected to emerge. We treat the recording process as a case through which the preconditions of creative work can be examined.

Results: The work surfaced a chain of preconditions: time enables process, process enables exploration, exploration enables reflexive judgment — what we identify as creativity itself. Each link depends on the one before. Generative AI tends to compress this chain — offering averaged ideas, weakening ownership, and removing the productive resistance the not-knowing depends on.

Implications: In a next phase, we will examine our findings in dialogue with the Robotic Musicianship group at Georgia Tech (Weinberg et al.), whose improvising robots such as Shimon raise the question from the opposite direction: what does machine improvisation share with — and lack from — human musical thinking?

Value / originality: A practice-grounded contribution to MishMash, opening a comparison between embodied, communal music-making and AI-driven musical generation.

Poster number 41

Theme: 8. Responsible AI & critical futures

AI as Environment: A Framework for Cultural Knowledge Production

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ABSTRACT

Aim / key questions. AI is transforming the cultural sector, yet the analytical frameworks needed to understand this transformation do not yet exist. Current approaches treat AI as a singular technology to be adopted or resisted. This project instead asks: what happens if AI is reconceptualised as a complex environment, understood as a series of interwoven material, energetic, and algorithmic systems that co-determine cultural knowledge production and planetary life?

Methods. Building on Félix Guattari's *The Three Ecologies*, which distinguishes the environmental, social, and mental registers through which any system can be analysed, we adapt this tripartite model to AI, tracking it across three mutually determining registers: epistemic (how AI reshapes perception and knowledge), infrastructural (material substrates, supply chains, energy systems), and operational (how AI enters creative processes and institutional workflows). Three cases combine institutional, artistic, and policy perspectives: the National Library of Norway's development of a Norwegian LLM from digitised cultural heritage; the artistic projects *Urban Ecologies* and *Oslofjord Triennial*; and the National Museum's critical cataloguing initiative.

Results (in progress). The National Library case provides the site for the first life cycle assessment of AI in a Norwegian cultural institution and for analysing archival transformation. The artistic cases demonstrate artistic intelligence, understood here as the capacity of artistic practice to generate critical knowledge through citizen science and public engagement.

Implications and value/originality. By treating AI as environment rather than tool, the project generates knowledge that strengthens society's capacity to navigate AI's transformation of creativity, participation, and public debate, bridging institutional, artistic, and policy analysis within a single analytical model.

Poster number 42

Theme: 8. Responsible AI & critical futures

How AI-tools feed on cross-industry collaboration: The case of music and computer games

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ABSTRACT

This poster addresses how video game composers navigate the intersecting industries of music, games, and technology, and how artificial intelligence is reshaping the terms of that collaboration. Drawing on theories of creative industries and boundary-spanning competence, it proposes a cross-industry framework that positions game musicians at the meeting point of distinct professional logics, production practices, and revenue models. It highlights the structural pressure on musicians to absorb multiple specialist functions—composition, sound design, and technical implementation—that are traditionally distributed across separate professional communities. The poster argues that this cross-industry position is increasingly defined by the technology sector's expanding role: technology companies no longer simply supply tools but actively structure workflows, pricing, and now content itself. AI intensifies this shift unevenly: it seems to be embraced where authorship concerns are lowest, but resisted where it threatens the stylistic coherence and creative ownership central to musicians' professional identity. This selective adoption reveals a precise between AI as executor of musical intentions and AI as autonomous generator of ideas. As technology firms move from providing infrastructure to offering finished content, the conditions for entry, specialization, and sustainable careers across these intersecting industries are being fundamentally renegotiated.