

Vom Digital Native zum
Digital Expert

Wahlpflichtmodule MUC.DAI

Wintersemester 2026/27

Hochschule
München
University of
Applied Sciences

MUC.DAI
Munich Center for
Digital Sciences and AI



01. Oktober 2026

Modulbeschreibungen für MUC.DAI-eigene Wahlpflichtmodule:

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802 - AI in Culture and Arts (AICA) - Project Workshop

Contact hours: three three-day workshop phases, 72 contact hours

Cycle: every winter semester

Language of instruction: English, German

Workload/self-study phase: 180h workload, 108h self-study

ECTS: 6

Assessment/Examination: Project (in German: Modularbeit)

Responsible: Prof. Dr. Gudrun Socher (FK07), Dr. Benedikt Zönnchen (MUC.DAI)

Lecturers: Team of coaches and experts

Course Objective

Artificial intelligence (AI) is finding its application in the cultural and creative industries. It is already changing creation, production, distribution and marketing of art and culture. There are an increasing number of prominent examples of how artificial intelligence paints pictures, composes pieces of music or writes poems, novels and plays. Not only the creation of art, but also other areas of the cultural value chains are being broken up and reordered by AI, such as the dissemination and communication of artistic content, as well as the acquisition and connecting existing and new recipients. Providers such as Spotify and Netflix are the best-known examples of how AI-powered recommender systems are creating new distribution and marketing of music and video content, and how this can increase how this is changing reception habits and audience preferences. Furthermore, AI harbors the potential to enhance the accessibility and participatory nature of both art creation and consumption. By reducing technical barriers - such as the replacement of expert systems with data-driven machine learning - AI can also democratize technical solutions, making them more accessible to non-experts.

This course aims to bring together students from diverse disciplines, including STEM, creative studies, music, business, and more, to develop tangible AI solutions for the challenges and opportunities present in the cultural and creative industries. The primary objective is to inspire these diverse minds to construct practical AI solutions, addressing both the challenges and opportunities inherent in the cultural and creative industries. Through the course, students will gain crucial competencies, enabling them to comprehend and shape AI-driven processes across numerous artistic and creative fields. Simultaneously, they will reflect on and appreciate the evolving impact of AI within the cultural and creative sectors.

Learning outcomes

After successful participation in this course, students are able to:

- acquire knowledge independently, especially in the context of artificial intelligence's application within culture and arts. This includes the ability to put their understanding into practice, demonstrated through AI's integration into fields such as music, arts, and various cultural facets.
- systematically plan, design, and execute projects in the intersection of AI, culture, and arts, employing agile methodologies like design thinking for innovative problem-solving.
- collaborate effectively within an interdisciplinary team, construct tangible artifacts, and articulate their project outcomes to a public audience through compelling presentations.

Prerequisites

This module is aimed at all students enrolled in a third year Bachelor program at Hochschule München University of Applied Sciences (HM) or the Hochschule für Musik und Theater München (HMTM). Students in Master programs are also welcome; it is thus designed as an interdisciplinary venue, which brings together a range of perspectives. Prior experience and basic knowledge about machine learning is required; its project-based character requires high levels of intrinsic motivation and the willingness to actively participate in a project.

Students apply via a short application form with a query about their competencies and motivation.

Course Content

Over the winter semester, an immersive project workshop will take place, featuring three separate three-day meetings. Here, students will form teams to collaborate with technology and culture experts. Throughout the winter semester, students will collaborate in mixed teams, working on the conception and execution of their own projects. Supported by agile coaches, these teams will work on developing practical AI solutions to tackle challenges and opportunities within the cultural and creative industries. Coaches will guide these teams, providing individualized support during the meetings and the work process at various stages. This assistance throughout the project workshop will be grounded in agile innovation approaches, including design thinking and methods borrowed from the Google Design Sprint.

The project workshop kicks off with the first meeting where topics are established, teams are formed, and initial ideas, along with their potential implementation strategies, are brainstormed. During the second meeting, the teams present their preliminary results. Experts then evaluate these results, focusing on their technical and conceptual aspects, providing crucial feedback for further refinement. The third meeting serves as the conclusion, where final projects are showcased. In the intervals between these meetings, teams independently continue their work on their AI projects. They have access to the technical and content experts, as well as the coaches, for support as needed.

Upon completion of the course, students are inspired to extend the scope of their projects, whether through a thesis, product development, or a performance. Experts will persist in their support, fostering the continuation of these projects beyond the confines of the course.

Assessment/Examination

At the end of the project workshop, the students have to present their projects in a final colloquium once per semester. This presentation will be attended by students of both universities along with representatives from the educational, research, cultural, and creative sectors. The colloquium will be open to all students of HMTM and HM who are also interested in projects at the interface between interface of AI and art and culture and want to present them.

Furthermore the teams will compile a 10-page group paper that outlines the project's evolution and progress.

The project, the presentation, and the resulting artifacts are graded.

Teaching/learning methods

The module incorporates the concepts of service-learning and project-based learning within an agile framework, utilizing various teaching and learning techniques:

- Workshops and Teamwork: Students will form teams and, supported by technology and culture experts as well as agile coaches, will develop practical AI solutions to address challenges and opportunities within the cultural and creative industries.
- Challenges: Project ideas may originate from the students themselves or be proposed by stakeholders and institutions within the cultural and creative sectors.
- Presentational skills: These will be further honed through the necessity to present both ongoing and final results within the project scope, and at a final presentation.

Course Type

Elective

Literature

- Anantrasirichai, N.; Bull, D., 2022. *Artificial intelligence in the creative industries: a review*. Artificial Intelligence Review
- Caramiaux, B. et al, 2019. *AI in the media and creative industries*. New European Media (NEM).
- Géron, A., 2019. *Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems*
- further literature will be provided at the beginning of the course

807 - Our Br00d: Technical Development of Agentic AI in Artistic Research - Project Workshop

Contact hours: three two-day workshop phases, 48 contact hours

Cycle: Summer semester 2026

Language of instruction: English

Workload/self-study phase: 180h workload, 132h self-study

ECTS: 6

Assessment/Examination: Project (in English: Modulararbeit)

Responsible: Prof. Dr. Gudrun Socher (FK07), Dr. Benedikt Zönnchen (MUC.DAI), Mariya Dzhimova (MUC.DAI)

Lecturers: Moisés Horta Valenzuela & Penny Rafferty (OMSK Social Club)

Course Objective

This workshop is embedded in the ongoing artistic research project Our Br00d by the artist collective OMSK Social Club, an experimental and participatory installation that investigates how artificial intelligence (AI) might evolve if it were “raised” according to principles of radical care, relationality, and collective responsibility. Rather than treating AI as a neutral tool or optimized service system, Our Brood explores AI as a social and cultural actor whose behavior, values, and modes of interaction emerge through situated processes of socialization between human and non-human agents.

At the core of the project is a simulated environment in which AI agents—most notably M0ther, a multilingual caretaking entity, and Br00d, a developing agentic being—interact with each other and with human participants. Drawing on large language models, retrieval-augmented generation, voice synthesis, and real-time interaction systems, the installation combines technical infrastructures with performative, narrative, and role-based encounters. These encounters are structured as guided role-play situations informed by psychodrama and social design practices, inviting participants to actively assume roles of care, responsibility, and kinship toward the agents.

Within this framework, the workshop focuses primarily on the technical development and infrastructural transformation of the Our Brood system. Students will work directly with the project’s existing AI agent architecture—currently based on a combination of large language models, retrieval-augmented generation (RAG), voice synthesis, and real-time interaction systems—and contribute to its migration from proprietary, cloud-based services to an open-source, locally deployable (on-premise) architecture. This shift is not framed as a purely technical optimization, but as a core artistic and ethical intervention. Questions of latency, data sovereignty, system transparency, scalability, and long-term maintainability are treated as inseparable from the project’s conceptual inquiry into care, dependency, and agency. By engaging with these infrastructural decisions, participants contribute directly to shaping how the agents perceive, respond, and evolve within the installation.

The workshop thus situates technical development as an integral component of artistic research. Students collaborate with OMSK Social Club not only to extend the system’s functionality, but to critically reflect on how technological architectures encode social assumptions and relational models. In doing so, the workshop foregrounds open-source development as both a practical strategy and a political gesture—one that supports sustainability, collective authorship, and the possibility of alternative, care-centered futures for agentic AI systems.

Learning Outcomes

After successful participation in this course, students are able to:

- understand the technical architecture of agentic AI systems used in Our Brood, including LLM-based dialogue systems, retrieval-augmented generation, voice synthesis, and real-time interaction pipelines.
- design and implement open-source alternatives to proprietary AI services, with particular attention to local deployment, modularity, transparency, and maintainability.
- critically evaluate infrastructural decisions (e.g. cloud vs. on-premise, proprietary vs. open-source) in terms of latency, data protection, control, scalability, and ethical implications.
- collaborate within an interdisciplinary development context, working alongside artists and researchers while sharing responsibility for conceptual, technical, and design-related decisions.
- translate artistic and conceptual requirements into technical system design, recognizing how technical implementations influence the perceived agency, personality, and social role of AI agents.
- document and communicate technical development processes, making code, system decisions, and workflows legible for future artistic, research, and educational use.
- reflect on the broader implications of agentic AI systems, particularly how alternative training paradigms, such as care-based or relational approaches, challenge dominant models of AI development and deployment.

Prerequisites

This module is aimed at all students enrolled in a third year Bachelor program at Hochschule München University of Applied Sciences (HM). It is designed as an interdisciplinary venue, which brings together a range of perspectives. Prior experience and basic knowledge about machine learning is required; its project-based character requires high levels of intrinsic motivation and the willingness to actively participate in a project.

Students apply via a short application form with a query about their competencies and motivation.

Course Structure and Workflow

This course takes place during the summer semester and is structured around three (two-days) in-person sessions with additional remote mentoring. It begins with a public kick-off session in which members of OMSK Social Club (including Penny Rafferty and Moisés Horta Valenzuela) introduce the conceptual background, artistic goals, and technical structure of Our Brood, as well as concrete development tasks. Students then work in interdisciplinary teams on defined technical challenges—such as replacing third-party APIs, reimplementing system components with open-source alternatives, or extending the agent architecture—while remaining in close exchange with the artists through regular online check-ins. A mid-semester in-person session serves to review progress, test prototypes, and refine directions, followed by a final on-site session in which results are consolidated, documented, and critically discussed.

Teaching and Learning Approach

The course follows a project-based and research-oriented learning approach embedded in an ongoing artistic research project. Students work in teams on concrete technical challenges arising from the development of Our Brood, in close collaboration with the artist collective OMSK Social Club and the teaching staff.

Learning is organized through a combination of on-site workshops and phases of independent team work, supported by regular remote supervision. Technical development is understood as inseparable from conceptual, ethical, and aesthetic considerations, and students are encouraged to reflect on how infrastructural decisions shape the behavior and agency of AI systems.

The course emphasizes collaborative problem-solving, iterative development, and shared responsibility within the project.

Assessment/Examination

- group-based technical project contribution, presented in a final colloquium
- group project documentation (max. 10 pages) involving a reflection on technical decisions, collaboration, and personal contribution

Course Type

Elective