

Name **Heritage in Action: Designing against cultural biases of Gen. AI models**

Classroom
 Studio or workshop
 External venue
 Online

Codes **M-KF-301-DI-242502-03, M-KF-E-301-DI-242502-03**

Host **Design Institute**

	Type	ECTS	Contact hours	Student work	Course type	Semester	Unit
Basic info		5	40	106	Classwork	2024/2025/2	RDI

- Recommendation
- Understand the origins and types of biases in AI models.
 - Learn methods to audit and critique AI-generated outputs for ethical concerns.
 - Learn to build database and train your own AI model
 - Learn about repurposing cultural heritage using AI tools

Short Description

This course explores the complex interplay of biases in text-to-image/video AI models, focusing on both their challenges and opportunities in design practice. Students will investigate how biases are embedded in AI systems through building their own visual database, training data, algorithms, and learn strategies to critically assess and creatively leverage these biases in their work. Through hands-on projects, discussions, and case studies, participants will gain practical skills to identify, mitigate, and strategically use biases. Students will learn how to train an AI model, and learn about building text-to-image apps. The course emphasizes a balance between critical theory and applied design, equipping students to innovate responsibly in the evolving landscape of AI-driven creativity.

Teachers	Name	Contact information	Short bio	Office hours
	Iványi-Bitter Brigitta	06303190963 brigitta.ivanyi@gmail.com	Brigittaivanyiibitter.com	https://calendly.com/brigitta-ivanyi-bitter
	Horváth Viktor			

Semester schedule	Course scheduling	Weekly class appointments
		Friday, 11.30-14.20

#	Date (Friday)	Weekly educational content
1	Feb 14	Text-to-image apps: operating apps behind the hood. Biases. Practice based learning
2	Feb 21	Text-to-image apps, using the apps, building blocks of AI videos
3	Feb 28	Testing apps for biases, algorithms responsible for biases
4	Mar 07	Building images and videos based on known biases, critical theory in action
5	Mar 14	Building AI videos on showing biases in the system
6	Mar 21	UX and UI in Gen AI apps, best practices. Building new UI solutions
7	Mar 28	Mid-semester presentation of Research Journals
8	Apr 04	Working with data, annotation and metadata, database
9	Apr 11	Machine learning: concept and practice
10	Apr 18	No class (holiday)
11	Apr 25	Training models with your own database, microtraining
12	May 02	No class (holiday)
13	May 09	AI video creation, Making your own AI video with your own trained model

Requirements and evaluation	Assignments	Evaluation criteria	Deadline	% in evaluation

<p>To complete the course you have to deliver the following:</p> <ul style="list-style-type: none"> – Presentation of Research Journal – PPT export of the presentation – A 2 minute video (16:9) that demonstrates your concept. The minimum resolution is Full HD, format is MP4. The video should be self explanatory using narration and subtitles/labels. – A max 1 minute AI video generated by your microtrained model. 	Regular attendance, In-class assignment activities	Every class	50
	Research Journal documenting all in-class assignments in detail. Final presentation of the Research Journal and a 2 minutes narrated video. Attention to detail is critical to success.	Midsemester presentation By 28 March 2025.	25
	Final presentation of your AI video.	Final presentation by 09 May 2025.	25

Compulsory readings

Mi Zhou, Vibhanshu Abhishek, Timothy Derdenger, Jaymo Kim, Kannan Sirinivasan: Bias in Generative AI. (2024, március 5) Cornell University, [arXiv:2403.02726](https://arxiv.org/abs/2403.02726) [econ.GN]

Markowitz, D. M., & Hancock, J. T. (2024). Generative AI Are More Truth-Biased Than Humans: A Replication and Extension of Core Truth-Default Theory Principles. *Journal of Language and Social Psychology*, 43(2), 261-267. <https://doi.org/10.1177/0261927X231220404>

Recommended readings

Sedkaoui, S. and Benaichouba, R. (2024 augusztus 1.), "Generative AI as a transformative force for innovation: a review of opportunities, applications and challenges", *European Journal of Innovation Management*, Vol. ahead-of-print <https://doi.org/10.1108/EJIM-02-2024-0129>

Koponen, J. M. (2023, augusztus 23). How to harness generative AI for designing great customer experiences. Fast Company. <https://www.fastcompany.com/90941570/how-to-harness-generative-ai-for-designing-great-customer-experiences>

Learnings

Knowledge	<p>Students will understand</p> <ul style="list-style-type: none"> ● an extended set of approaches to design with AI ● the nature of LLM models, machine learning, training AI models and limitations
Skills	<p>Students will be able to</p> <ul style="list-style-type: none"> ● develop, explore usage of Gen AI tools ● prototype for showing limitations and possibilities of Gen AI
Attitude	<p>Students will improve</p> <ul style="list-style-type: none"> ● analytical, critical and design skills ● open-mindedness <ul style="list-style-type: none"> • Entrepreneurial thinking

Responsibility	Students will develop competence/confidence in working with AI tools and training models based on ethical and sustainable AI solutions.
----------------	---

Exemption

- Exemption from attending and completing the course cannot be granted
- Exemption may be granted from the acquisition of certain competencies and the fulfilment of tasks
- Some tasks can be substituted with other activities,
- A full exemption can be granted

Curriculum connections

Unit	Parallel courses	Course proportion in unit
Emergent and experimental design		

Course prerequisites	Is it available as an elective?	Prerequisites in case of elective
	Yes	-

Misc. information

Technology for in-class assignments: laptop or desktop, prepaid plans for AI tools (Midjourney, Ideogram, ChatGPT 4.o, Flux),

Max 15 students,

Priority: Interaction Design MA, Photography MA, Media design MA, Doctoral School.