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#04 Generative AI in Physical Production

Tuesday 5 November 2024 10:30 (1h 30m)

Generative AI in Physical Production was a semester long course taught during the summer semester of 2024 at BUW. The course focused on working with generative models in physical production and explored how the broad range of digital possibilities can be integrated into real-world production processes. The curriculum emphasized the use of available models and tools, such as text-to-3D and image-to-3D models, and aimed to develop an experimental pipeline from generative AI to physical production.

Throughout the semester, participants were provided with an overview of recent developments in generative models, along with key terminologies. They gained proficiency in using the Stable Diffusion model, experimented with the generation of 3D objects from image and text prompts and were introduced to newly 3D representation techniques such as NeRF and Gaussian Splatting. In the second half of the workshop, students focused on individual projects aligned with their areas of interest. Students then produced an object using either 3D printing or other physical manufacturing techniques that bridge the gap between generative artificial intelligence and material creation.

This exhibition presents a series of works that bridge the gap between generative artificial intelligence and material creation. The works emerge from a semester-long investigation into the open-ended and indeterminate future of generative AI applications in physical production. The exhibition features 3D-printed objects and a hologram created using generative AI tools. The works highlight the limitations and complexities of this technology, murky interfaces, and the unpredictable nature of physical production through AI.

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Session Classification: Showcases im Erdgeschoss

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