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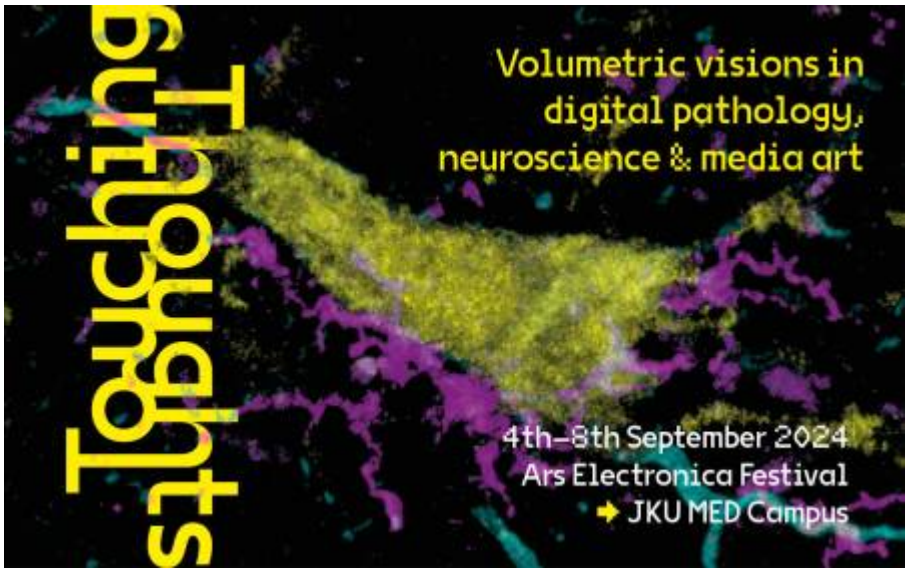

about

Touching Thoughts. Volumetric Visions in digital pathology, neuroscience & media art
18.–27. October 2024
Linz, AT
Project website https://touching-thoughts.servus.at/
Participating Artists: Simone C Niquille, Chaeyoung Kim & Francesco Luzzana, Błażej Kotowski, jiawen uffline and Sofia Talanti.
Curated by: Davide Bevilacqua

Touching Thoughts

Touching Thoughts is an art-science cooperation project that aims at exploring protocols and modes of three-dimensional imaging in the field of digital pathology, and how scientific and medical knowledge and truth are generated through digital technologies.

The collaboration involves researchers from the Medical Faculty of JKU and invited artists Simone C Niquille, Chaeyoung Kim & Francesco Luzzana, Błażej Kotowski, jiawen uffline and Sofia Talanti. The scientists worked together with the artists on a set of images of body tissues realized by confocal and light sheet microscopy, which allows the production of three-dimensional microscopic and nanoscopic visualizations of brain samples and other body tissues affected by cancer or other pathologies. Such advanced imaging technologies allow researchers to reach a new order of magnitude of reality, effectively taking a medical investigation beyond the limits of physical observation.

How does the digital make all this possible? How can such a research process, which relies on complex machines and large data processes, be made more visible through everyday digital technologies? How can we demystify the technological layers of machine vision and make the scientific process behind the image more visible? What is the role of the human being in such algorithmically created realities?

The artists involved in the project explored the visualizations and data produced by the scientists, examined the production protocols, and each focused on selected aspects of the imaging process. Simone C Niquille created an audio piece about the three dimensions of the human body and the technologies that attempt to capture its volume, interviewing scientists and documenting their goals, ideals, and visions for volumetric representation. Chaeyoung Kim & Francesco Luzzana followed the journey of the sample and the protocols that regulate its movements, inviting the audience to become part of this choreography of hands and gestures. jiawen uffline reflected on the porous boundaries between what is the scope of observation, the cells and their components, and the inevitable leakage of interstitial fluids and data. Błażej Kotowski tested the invisible rules that govern the uncoordinated synchronicity of cellular automatisms, creating an evolving simulation of living, healthy, and cancerous tissues. Finally, Sofia Talanti imagined the final transcendence of the cyborg, a creature of organic and mechanical nature that represents both the quest for scientific knowledge and the limits of any technology.

These projects together with new images produced by the scientists and further documentation materials about the imaging protocols, are on display during Ars Electronica Festival at JKU MED Campus in two presentation sessions in the medSPACE and in an exhibition.

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Presentations

Exhibition medSPACE foyer

4th–8th September 10.00–19.00 Presentations medSPACE

5th + 8th September 16.30–18.00

JKU medSPACE LAB building, MED Campus I Krankenhausstraße 5 4020 Linz

Documentation

Project website: https://touching-thoughts.servus.at/

Trailer: www.dorftv.at/embed/46008

Project Credits

A project by	JKU – Department of Pathology and Molecular Pathology JKU – Institute of Anatomy and Cell Biology in cooperation with servus.at – Kunst und Kultur im Netz
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Project Coordination	Sabina Köfler – Department of Pathology and Molecular Pathology, JKU Linz Jan Maximilian Janssen – Institute of Anatomy and Cell Biology, JKU Linz Davide Bevilacqua – servus.at – Kunst & Kultur im Netz

Artists	jiawen uffline, Chaeyoung Kim, Błazej Kotowski, Francesco Luzzana, Simone C Niquille, Sofia Talanti
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Tissue processing and staining	Sewmi Delana, Lisa Wurm
Image post-processing	Saad Ahmed Faisal
Lightsheet microscopy operation	Andreas Roschger – FB Chemistry and Physics of Materials, MorphoPhysics Group, University Salzburg
Image rendering advice	Joachim Smetschka – Department of Time-based and Interactive Media Arts, University of Arts Linz
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Technical Production & Setup	Vinzenz Landl
Photo Documentation	Sabina Piñeros
Video Editing	Eva Maria Dreisiebner
Video	Franziska
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JKU, servus, exhibition, ars electronica, 2024, curating, cooperation, medicine, art-science, 3D, volumes, cells, digital, pathology, anatomy, body, visualization, screen, projection