

Panel 1

The Scientific Documentary and the Invisible

**Animation and the Digitally Invisible: GUI, AI,  
Glitch and Blackboxing**

**Nea Ehrlich**

Ben-Gurion University of the Negev, IL

# Figuring the Invisible

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**HSLU** Lucerne University  
of Applied Sciences  
and Arts

Dr. Nea Ehrlich

Arts Dept.

Ben-Gurion University of the Negev, Israel

and

Visiting Scholar at the Image Processing and Multimedia Technology Center at Universitat Politècnica De Catalunya (UPC) and at the Faculty of Fine Arts at the Universitat Politècnica de Valencia (UPV) in Spain.

[neamou@gmail.com](mailto:neamou@gmail.com)

**Bio:**

Dr. Nea Ehrlich is a Senior Lecturer in the Department of Arts at Ben-Gurion University of the Negev in Israel. She completed her PhD in the Department of Art History at the University of Edinburgh and was a Polonsky postdoctoral fellow at The Van Leer Jerusalem Institute. Her research appears in *Animation: an Interdisciplinary Journal*, *Studies in Documentary Film* and *Visual Resources*. She is co-editor of *Drawn from Life*, the 2018 anthology about animated documentaries, and author of the 2021 monograph *Animating Truth*, on animated documentary and the virtualization of culture in the 21st century, both published by Edinburgh University Press. Her work lies at the intersection of Art History, Film Studies, Animation, Digital Media Theory, Gaming and Epistemology. She is currently working on a project on art and robotics, focusing on AI and machine vision. In 2023-4 she will be a visiting scholar at the Image Processing and Multimedia Technology Center at Universitat Politècnica De Catalunya (UPC) and at the Faculty of Fine Arts at the Universitat Politècnica de Valencia (UPV) in Spain.

## **Animation and the Digitally Invisible: GUI, AI, Glitch and Blackboxing**

What is animation's role as visualizer of digital culture and can animation help approach the blind spots of inaccessible algorithms? Has animation itself become invisible due to omnipresence and what may this mean epistemologically and ethically in an era of post-truth?

The visual aesthetic of animation has often been used to engage with and theorize the notion of the invisible. Animation literally means 'bringing to life' and thus it expands the aesthetics of documentary by giving life to sounds and images that cannot be recorded, such as memories, subjective perspectives, nano-particles, scientific visualizations, censored events, or non-physical online realities. This paper, however, focuses on a different kind of un-representability – the often unattainable or blackboxed algorithms below the surface of digital culture. My talk examines animation as a graphic user interface that makes the invisible world of code visually accessible. It is animation's ability to mediate between digital realms and human perception that explains its pervasive use in contemporary virtual culture as well as its growing centrality in epistemological contexts as a conveyer of information, as seen in documentary, serious games, simulation, data visualization etc.

I will explore how the essential logic of animation as moving imagery based on subtle visual changes is a form of morphing, a central contemporary characteristic, and offers insight into impenetrable AI algorithms, as a case study. Images such as these are often overlooked and under-researched because they are a component within a larger operating system or algorithm, rather than being analysed as images in their own right. This is part of a larger process of blackboxing whereby technological processes are made invisible due to their complexity and success (see Latour, 1999: 304). As James Bridle (2018) describes it, as a growing reliance upon technology and value of big data where we model our minds on the understanding of computers and the belief that automatically generated data can provide an understanding of the world (and appropriate solutions), which actually results in incomprehension due to the impenetrability of these synthetic minds. By returning to the logic of Glitch Aesthetics I will introduce AI artworks that celebrate the forced visualization of the otherwise unrepresentable, shedding light on what would otherwise remain unseen and how this influences viewers in the post-truth era.

**Keywords:** Animated documentary, Artificial intelligence, Graphic user interface, Ethics, Epistemology

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