



Counting Craters on the Moon

Kyriaki Goni

Kyriaki Goni Counting Craters on the Moon

Exhibition

📅 2 – 25 October 2019

Curated by

Daphne Dragona

📍 [Aksioma | Project Space, Ljubljana](#)

ARTIST TALK



Encounters With
the Other Mind

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29:23



In her talk, Kyriaki Goni discusses her artistic and research practice, which explores the synergies and interactions between the human and the algorithm. Datafication, memory, oblivion and prediction are the core elements of this exploration. In which ways does the algorithm affect the ways we perceive not only the world but also ourselves? How can we create new metaphors in order to grasp these processes and cope with them?

THE AUTHOR





To a great extent, the understanding of the world today is mediated by machines. Deep learning algorithms define what we see or hear, and influence what we accept as real or possible. Based on the use of artificial neural networks, which are modelled after the human brain, machines now learn and act autonomously, exceeding the human capacity to memorise and process information. Trained to classify information, predict outcomes and cluster data, they are meant to free us from labour intensive activities, and to assist us in decision making. What challenges, though, does deep learning bring to human-based knowledge? What changes when machines self-learn? What do they see and do differently than humans? How can artificial intelligence enhance new forms of experience and understanding? Wishing to address these questions, Kyriaki Goni purposely turns her gaze to a distant and uncanny territory: the Moon and its surface. The Moon, according to the artist, constitutes a fascinating example and offers an interesting analogy. Lacking an atmosphere, it operates as a data center which stores in its body the memory of our solar system and allows predictions for the future. The indicators for this chronology and evolution have been its craters, which for this reason have been closely examined by astronomers from the 17th century until today, based on the technological affordances of each period. At its core, the project *Counting Craters on the Moon* presents an imaginary encounter between an astronomer and an AI system. Johann Friedrich Julius Schmidt (1825–1884), who dedicated his life to studying the moon with his telescope and drew the most accurate lunar map of his era, meets DeepMoon, a convolutional neural network (CNN) developed in 2018 to specifically identify lunar craters. Their dialogue is presented as a two-channel video, which captures the human-machine relationship and playfully tackles the hopes and fears, possibilities and limitations, achievements and errors, different ways of learning and knowing related to each side. Parts of this conversation take shape in the exhibition space, in the form of drawings, objects and archival material, which shed light on the real facts behind this fictional encounter. We see the portrait of the astronomer

Based in Athens, Greek artist **[Kyriaki Goni](#)**, creates extended multimedia installations focusing on the relations between technology and society. By utilising fiction and research, she investigates subjects such as human, non-human and machine interaction, data and privacy, perception and construction of the digital self. Her works have been exhibited in galleries and new media festivals worldwide: Museum of Contemporary Art Skopje, transmediale19, IMPAKT, Athens Biennial, Melbourne Triennial, Tomorrows, ADAF, ISEA21, SIGGRAPH2016, etc. She was recently selected for an art commission by the New Networked Normal ([theNNN.eu](#)). Following her practice, she also designs and conducts workshops for youth and adults, and presents her research on conferences and digital platforms. Her paper *Deletion Process_Only you can see my history* was published in *Leonardo, Journal of Art, Science and Technology*, MIT (August 2016). She completed a BA Hons in Visual Arts and an MA in Digital Arts at the Athens School of Fine Arts, as well as graduate and postgraduate studies in Social Anthropology at Panteion University (GR) and in Visual Anthropology at Leiden University (NL).



THE CURATOR





Samples of the dataset with images of the craters indicate how human and machine vision differ. A CNC marble sculpture of a crater manifests with its materiality the effects of a possible error as well as the potential it holds for further learning and improvement. The big, hand-drawn lunar map of Schmidt reveals the meticulous and passionate human observation, while the detection icons of pattern recognition imply the accuracy, efficiency and velocity of artificial intelligence systems. Finally, a hand-made drawing of a lunar crater by Goni after Schmidt's map indicates her own positioning and methodology.

For the realisation of the project, Goni has herself become an observer and a "machine learner".^[1] She has placed herself in the shoes of the meticulous astronomer, on the one hand, and has attempted to inhabit, to impersonate an artificial intelligence system, on the other. Studying historical and contemporary scientific resources and having reached out to the scientific team behind DeepMoon, she has traversed and bridged the distance between human- and machine-based knowledge. Like in her previous works, in which she has studied the entanglements and relationships between users and interfaces, technological and living networks, human and more-than-human worlds, in *Counting Craters on the Moon* Goni passionately strives to reveal the synergies between human and artificial intelligence and to underline their interdependence. She is interested in the new languages, metaphors and aesthetics which emerge within these synergies, but also in the surprising continuities that can be found from past to present. Speculating upon what has been described as "augmented"^[2] or "generative"^[3] intelligence, she invites us to imagine how we can learn *from* and *with* machines in order to build different, multiple and, possibly, collective understandings of the surrounding world and its cosmos.

– Daphne Dragona

been collaborating with transmediale festival since 2015. Her writing has been published in various books, journals, magazines and exhibition catalogues by the likes of Springer, Sternberg Press and Leonardo Electronic Almanac. Her talks have been hosted at Mapping Festival (Geneva), MoMa (New York), Hek (Basel), Arts in Society (London), Leuphana University (Lueneburg) and Goethe University (Frankfurt). Among her curated – or co-curated – projects are the exhibitions: *Tomorrows, Fictions spéculatives pour l'avenir méditerranéen* (Le Lieu Unique, Nantes, 2019), *"..." an archeology of silence in the digital age* (Aksioma, Ljubljana, 2017), *New Babylon Revisited* (Goethe-Institut Athen, 2014), *Afresh, a new generation of Greek artists* (EMST, 2013), *Mapping the Commons Athens* (EMST, 2010), *Homo Ludens Ludens* (Laboral, 2008). She holds a PhD from the Faculty of Communication & Media Studies of the University of Athens.

CREDITS

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[1] Mackenzie uses the term "machine learner" for both humans and machines as well as their relationships, reminding us of the



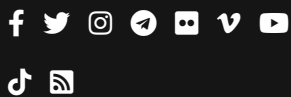


intelligence would only be acquired with the human observer, he notes and suggests the term "Augmented Intelligence". Matteo Pasquinelli, "Machines that Morph Logic: Neural Networks and the Distorted Automation of Intelligence as Statistical Inference," in *Glass Bead*, Site 1, November 2017, p. 15. <https://www.glass-bead.org/article/machines-that-morph-logic/?lang=enview>.

[3] According to Bratton, artificial intelligence may augment any intelligence already existing in the world, on the planet.

Benjamin Bratton, "Strelka Talks. Benjamin Bratton 'Alternative Models of AI (at Urban Scale).'" *YouTube*, video uploaded by Strelka Institute, 26 June 2019, <https://www.youtube.com/watch?v=A3C31DhoPQ4>.

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