THE PRAYER

by Diemut Strebe

presented in the show:

'*Neurons, Simulated Intelligence*'

at Centre Pompidou, Paris

curated by Frédéric Migayrou and Camille Lenglois

February 26th- 20th April 2020

P r e s s   R e l e a s e

Diemut Strebe and AWS

The Art Piece:
The Prayer is an art-installation that tries to explore the supernatural through artificial intelligence. The artist Diemut Strebe created a talking mouth, which creates and voices original prayers on its own. It is part of a computer system using AI technology, to explore the possibilities to connect to 'the divine', 'the noumenal' as the mystery of 'the unknown' as it appeared in various ways throughout the history of mankind in religious belief and philosophical speculation. The installation's software uses deep learning, a method of machine learning, that attempts to mimic human brain circuits. Several questions are involved within this artwork, the most provocative being: How would a divine epiphany appear to an artificial intelligence? The question may sound absurd but the focus of the project could maybe shed light on the difference between humans and AI machines in the debate about mind and matter. It reflects on the potentials and implications of deep learning AI within both its narrow, targeted setting and general (human-like) state. On the one hand AI could reach out much further and deeper into "the unknown", detecting subtle patterns and combinations in vast and complex amounts of data, transferring information and drawing precise predictions, we could never see and draw on our own without AI technology. But the results are still read out by us. This could change or not in the future: The installation could touch on a potential principal limitation of AI learning concerning any capacities of understanding its own results and the universe. Such a potential principal lack would manifest most obviously and in particular in so called holistic cognitive activities like religious observance and the creation of art. While as of today the answer is unknown, future AI explorations could solve some of the biggest mysteries about the universe and us within it. Such "quantum leaps" of mankind could potentially come at a high price. The exponential increased influence of AI technology in almost all areas of life could at some point evolve into "higher powers" as specialists in the field are predicting "the singularity".

The artist Diemut Strebe worked with scientists from the MIT/ CSAIL to realize this piece of art, based on AI Free Text Generation tools and the Text to Audio/Speech generation by the use of customized Amazon Web Services (AWS) Cloud technology.

Description: *The Prayer* is a small installation, an artificial mouth connected to a nose: two organic and partly flexible forms mounted in a technical construction attached to a computer with a self-learning software. The whole set-up mimics the human speech apparatus in a simplified way. It is constructed of motor-controlled rudiments of vocal organs such as a mouth and a vocal tract using an integrated speaker to produce sound. The machine voices canonized prayers from most practiced religions as well as personal contemplations, using AI based free text generation tools by applying Natural Language Processing techniques to the specific text genre (this part has been developed at MIT/ CSAIL Regina Barzilay 's lab) as well as applying customized Amazon Polly technology (AWS) that converts written text into human- like speech generation in real time using machine learning.

The show: The Prayer will be on view in Paris from February 26th- 20th April on, at an exposition at the Georges Pompidou Museum. The theme is: '*Neurons, simulated intelligences*' exploring the history and the varipus concepts of Artificial Intelligence until today curated by Frédéric Migayrou and Camille Lenglois.

A talk by Diemut at IRCAM, the Institute for Research and Coordination in Acoustics/Music and affiliated to Centre Pompidou is scheduled on February 27th, 14:30
Theme: *Artificial and Human Perception -*
The Limits of the Simulation of Cognitive Functions and the Supernatural

Collaboration:
Diemut Strebe, author of concept and final design

The production is a collaboration with Regina Barzilay, Tianxiao Shen, Enrico Santus, all MIT CSAIL, Amazon Polly, Bill and Will Sturgeon, Elchanan Mossel, MIT, Stefan Strauss, Chris Fitch, Brian Kane, Keith Welsh, Webster University, Matthew Azevedo.

With extraordinary and special thanks to Hideyuki Sawada, Waseda University and Thanh Vo, The University of Danang, whose speech machine for the hearing impaired has been a point of departure for the design of the outer features of the artwork.