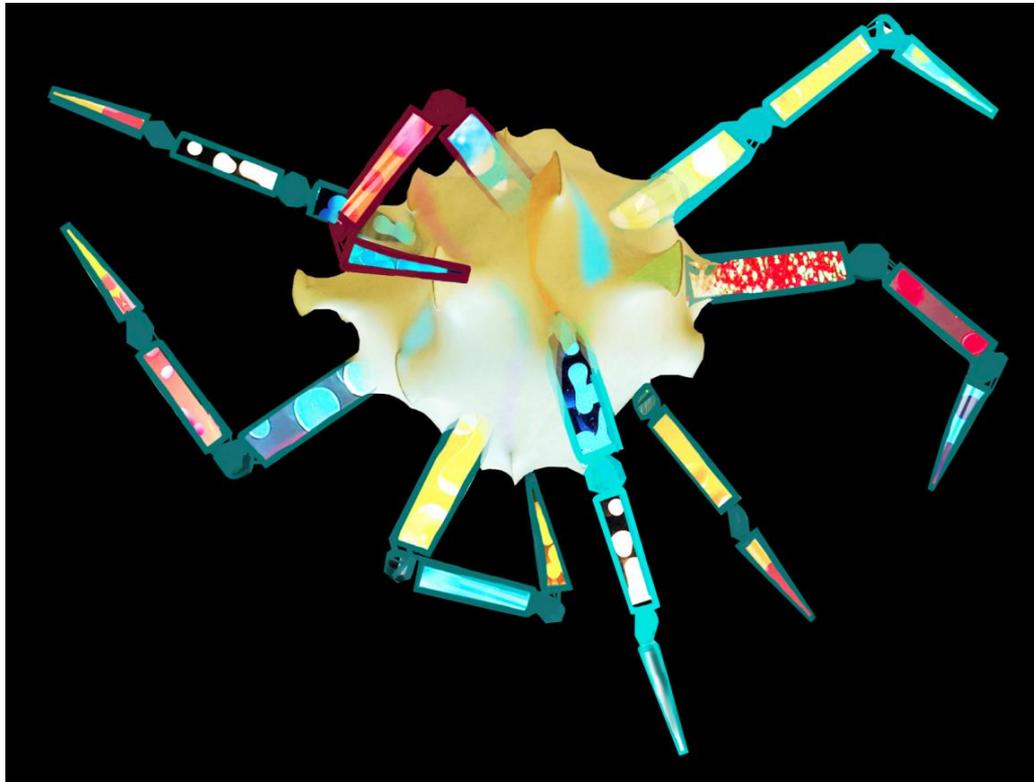


ARTIFICIAL INTELLIGENCE-BASED INTERACTIVE ROBOTIC SCULPTURE IN COLLABORATION WITH IBM AND KTH



A Work by Artist Duo Di Pisa & Stasinski

This art project aims at translating the innermost thoughts and ideas of people interacting with the sculpture, into a physically dynamic, interchangeable robotic form. It will be based on IBM Watson, an artificially cognitive system that will be “trained” in philosophy, with a focus on ontology and phenomenology. The change in the robot happens when humans answer a question posed by Watson through a smart phone app. The change involves dynamic movement of the multiple arms of the sculpture, as well as a shift in color and light.

The artistic idea is to flip the traditional way of utilizing AI, by not having the system providing humans with answers or shortcuts, but instead challenging the viewer to think, by posing disruptive questions. IA - Intelligence Augmentation, where the AI works like a bicycle for the mind, is a way to utilize the artistic process in order to disrupt the trajectory of the development of future AI-technology.

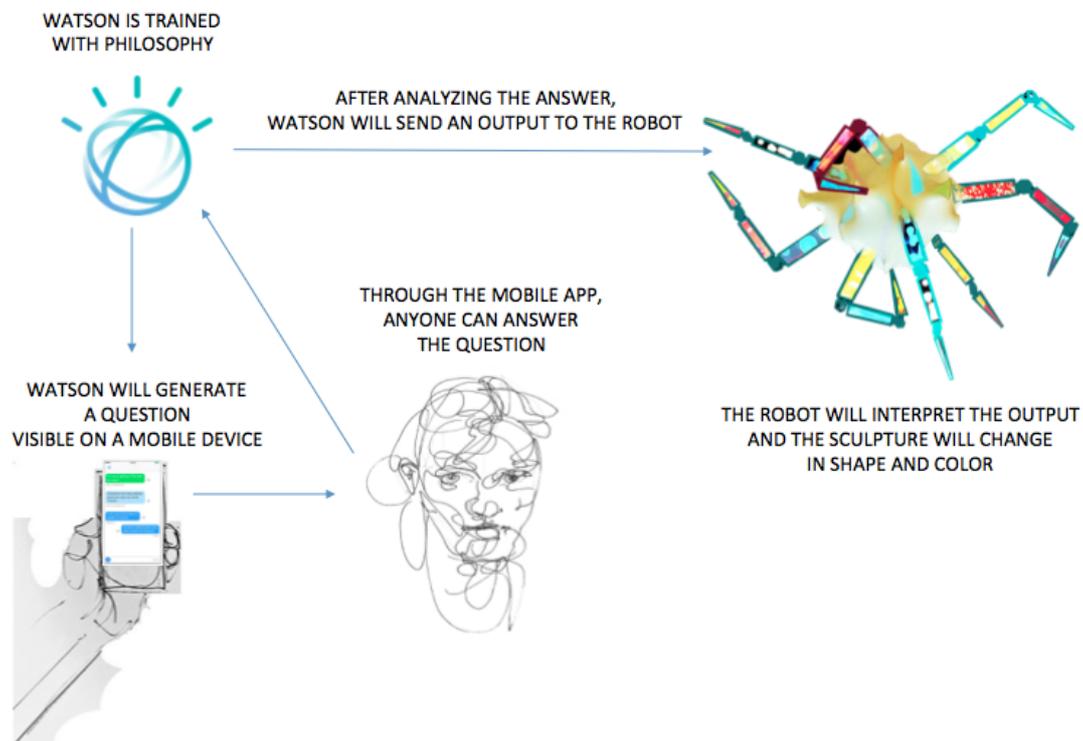
Project description

IBM Watson is a supercomputer that combines artificial intelligence (AI) and sophisticated analytical software to process vast amounts of data. It uses Natural Language Processing, Neural Networks and Machine Learning to respond to human questions and commands.

The artistic idea of artists Alessandra Di Pisa & Robert Stasinski is to flip the traditional way of using AI, by not having the AI system providing us with answers, but instead posing challenging and disruptive questions.

The idea is to disrupt the AI system by training it with ideas from philosophy and the meaning of existence. In the first step, Watson is "trained" in philosophy, meaning the AI system is fed with thousands of pages of philosophy writing.

As these questions are answered by humans in an interactive space, both physical and virtual, this information will be fed back into Watson via the smart phone app and will add to the data that Watson uses to pose new questions. Watson will also analyze the answer and send an output to the robot based on that analysis. The robot will change in shape and color based on the input from Watson.



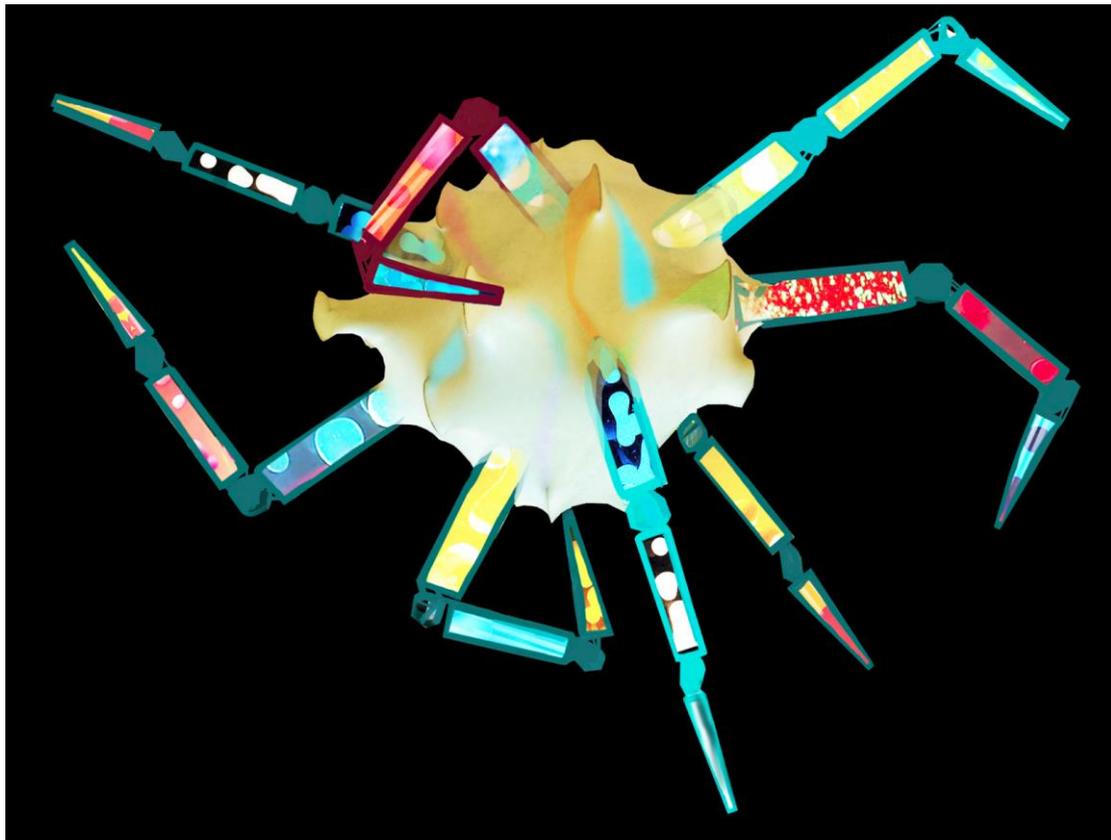
The Robotic Sculpture

The process of searching for a form for the robotic sculpture has involved both conceptual and technical challenges. The form has been reiterated multiple times, during a year long process, working with roboticists and engineers.

The conceptual idea is to utilize color, movement and the aesthetics of chance and randomness. These ideas stem both from psychedelic aesthetics as well as from the development of addictive technologies, such as slot machines, screen interfaces and advertisements. These technologies use color, movement and randomness to capture people's attention in order to make them pay attention. We see many connections between the drug-infused psychedelic aesthetics described by writers such as Aldous Huxley and contemporary technologies of addiction. These are often based on the same ideas, but for completely different ends.

Another framework is to examine a non-android design for the robot. Since Watson is a non-physical intelligence network, we are interested in a design that is not constrained to the humanoid form.

The artwork started in 2017 and will be completed in early 2019.



Preliminary sketches 2017-18, by Alessandra Di Pisa & Robert Stasinski