

El Turco

El Turco presents a large scale (8x3m) triptych installation. We see two digital AI avatars in animated hand-drawing aesthetics projected at the two sides of a screen. Their spoken dialogue appears as continuously evolving text at the center screen.

One of the avatars, called Socrates, is operated directly and live by a human hidden in the system. The setup is similar to the "Mechanical Turk", an automated chess player that surprised the 18th century aristocrat courts, but later appeared to hide a human player. Von Kempelen seems to evoke allusions to what French philosopher Jean Baudrillard describes as a simulacrum: a system that generates a world of symbols and signs without any original reference. Despite the machine displaying impressive and surprising capabilities in mimicking knowledge and understanding, the effortless "talking machine" seems to reveal itself as quite an advanced computational "magician's trick", though the discussion about the machine's degree of intelligence is controversial.

Other than a "text-only module" the presented live audio conversation provides a 360 degree view on the avatar giving much more insight in how the machine and its modules work. Any flaw suspends the illusion of intelligence, every success nourishes it. But if working perfectly, what does it allow for to really state about the machine's true intelligence and what to say about our own? In any case we seem to be compelled to rethink our definitions and perspectives on human and machine intelligence.

Next to the video series of live recorded dialogues called *El Turco / Conversations with an AI* (using a customized chat version of GPT-3) *El Turco / Living Theater* enables the audience to explore any latest version in Large Language Model technology in a live theater performance played by an actor. The figure of Socrates will be displayed in different gender and race formats.

The artwork also offers an interactive live interface, inviting the audience to talk with the AI machine directly by operating the green avatar.

Diemut Strebe, 2023

Technical Description of the Live Dialogue System

The avatar called Socrates, is operated directly and live by a human hidden in the system. The actor's face is captured through a geometrical smart grid and mapped onto the avatar's face. An attached live data stream application enables the actor to operate the avatar directly and in real time, generating a lifelike mimicry of human expressions on the avatar's face. The actor's spoken words then trigger a pre-encoded pipeline of multiple AI components to enable a live conversation: The human voice output is converted simultaneously into text which prompts the second avatar, named von Kempelen. Von Kempelen is creating text through a natural language processing AI system. We use statistical based probabilistic language models called Large Language Models to generate text (such as the GPT series or PaLM 2 and others). The text is simultaneously converted into audio. Through an audio-to-face AI module, von Kempelen's machine-generated audio output also operates his own lip sync, gestures, facial expressions, and body movements.

Some thoughts on the current state of AI Large Language Models

Although the current AI systems generate representations of semantic dimensions, at this point within the accelerating development of AI technology the machines seem to hold no conceptual understanding of language nor the world. Nevertheless, renowned AI specialists are claiming Large Language Models as GPT-4 can perform simple reasoning. Predicting the next word still seems far removed from consistent realistic or hypothetical modeling, critical and strategic thinking or drawing logical and causal inferences for example, which allows us to extract meaning in so many intricate ways instead of being exposed to showers of noise. Nevertheless, the increasing level of coherence in Large Language Models can present a forceful challenge for our ability to even discriminate between true and false. In addition: who codes into the machine what is true and false on subjects that involve value statements and a specific world view? All this could implicate unpredictable manipulative powers. And when considering who encodes goals and motivations into machines, for example into lethal AI weapons, we could start to doubt whom we must fear more - AI machines or ourselves?

Would additional new technology and the chaining of AI modules elevate AI results to a whole new scenario of the much-discussed "singularity"? Could AI involve the end of the lead of human intelligence by its manipulative omnipresence even if artificial general intelligence will be just a fiction? In any case we seem to be compelled to rethink our definitions and perspectives on human and machine intelligence.

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