PARALLEL PAPERS II
FRIDAY 7th JULY 1600-1715
ROOM I - 7.0.01

Thibault de Swarte

Transitional spaces vs. domestic spaces: psychoanalytical reflections based on artificial intelligence and its applications

Companions robots are still a dream and in a certain way a fantasy for/of searchers in artificial intelligence. They could become a nightmare for elderly persons when such virtual creatures will assist them. The "space" that is concerned here is the domestic one. My assumption is that it is also a transitional space in a psychoanalytical perspective. Artificial intelligence is yet around us. It will be more and more *inside* us as a kind of second "brain" linking our subjectivity, emotions, and unconscious on one hand with our objective understanding and reality principle on the other hand. The paper will be organized in three parts. Part 1: The first part will be based on previous work on domestic spaces and deal with the multimedia spaces of young engineers using PC as a second brain 10 years ago. I will wonder in particular about the transitional space (in Winnicott's sense) that could represent such a space.

Part 2: The question will be what exactly are the differences between communicating, cooperating by digital media versus by interactions with talking, seeing, listening, smelling and radiating bodies in rooms?

Communication with a robot cannot be as rich as that with a human because a robot has no subjectivity and does not speak. It is not a "*parlêtre*", an "*être de parole*", a human who speaks (Jacques Lacan). Under which conditions can it be a "companion" in a domestic space?

The companion robots allow humans to interact with "virtual humans" that could seem to understand them and satisfy some of their expectations; The answers to the human questions are analysed through artificial intelligence so as to be able to provide the most appropriate answer. And maybe vice versa. Therefore, companion robots would be "ideally suited" entities because their behaviour has been programmed by humans for humans.

However, this standardization of interactions involves, *a fortiori,* an imaginary representation of reality. Psychoanalysis has clearly something to say about that. Robots currently developed by industrialists are becoming more intelligent and empathetic. They are able to simulate emotions, detect the basic emotions of humans and respond to them in real time, as well as to influence some emotions of their interlocutor. But the current robots still remain very naïve in psychological terms.

Part 3: The third part will put the observations from parts 1 and 2 into a psychoanalytical perspective. It will be based on the work of Serge Tisseron on empathic robots. It will also present a synthesis of Lacan's work on cybernetics and try to apply it to companion robots.

Dr. Thibault de Swarte
Co-chair of social sciences field, IMT Atlantique and Idea Lab LASCO, IMT, France