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Introduction

This issue of *Scenari* takes inspiration from the rapid growing of AI-based technology in the most diverse fields and from our need to explore and understand what impact it has and will have on society. The great pervasiveness of Artificial Intelligence raises many questions, coming not only from philosophers and experts in the development of AI, but also from policymakers, opinion leaders, and the general public. In this respect, the ethical domain is particularly involved, especially for what concerns the possibility to distinguish between the actions of humans and AI systems, the responsibility and accountability for the behavior of AI systems, the possibility for the robot to learn and stimulate the development of social skills in sensitive situations (schools, healthcare, elderly care, etc.) or, on the contrary, its negative effects. Phenomenology, on the basis of its relational perspective, offers an interesting background to address these issues, especially in its post-phenomenological version, which is also particularly involved with the problems of new technologies. This issue of *Scenari* opens a new debate on the ethics of Artificial Intelligence, by adopting a post-phenomenological point of view and integrating it with the suggestions of classical phenomenology and other philosophical perspectives.

Roberto Redaelli's "Composite Intentionality and Responsibility for an Ethics of Artificial Intelligence" tries to offer a general overview on this topic, by focusing especially on the concepts of intentionality and responsibility. The author is particularly inspired by Peter-Paul Verbeek's version of post-phenomenology and his idea of "composite intentionality". Redaelli well thematizes this notion and applies it to the contemporary issue of the relation between humans and AI-machines. The mediation that technology offers between our bodies and the world, which is a key issue in post-phenomenology, assumes moral significance in Verbeek's thought, so that the concept of composite intentionality may be also applied to the notion of responsibility, thus giving rise to "composite responsibility".

Claudio Carvalho's paper, entitled "Ethical challenges of AI-based psychotherapy: The case of explainability" focuses on how traditional ethical issues reemerge with the use of chatbots in psychotherapy. Carvalho argues that an adequate model of explainability needs to overcome the mere algorithmic accessing and retrieving of personal information. Post-phenomenology, which shares a relational view, particularly focuses on the role of technological mediation in understanding the "in between" of therapeutic communication. Chatbots have a great potential in psychotherapy, but, in order to be efficient, they do not need to resist the contingency of the inputs given by the user, but they shall rely on it, in order to help the user with a more personalized approach. Through the sketching of five vectors of explainability, Carvalho shows how the introduction of AI-based ethical agents face the traditional ethical problems of psychotherapy.

Alistair Macaulay's contribution, "Composing Improvisors: Habit and Agential Responsibility", deals with the topic of an AI-machine of music improvisation, called *Voyager* and developed during the 1980's. The realization of a machine reproducing an activity which is usually associated with human freedom shows that, as the author of the paper argues, improvisation is enabled by intense preparation, based on the habituated skills of the performer. *Voyager* is able to pass the Turing test, since it adapts to the performance environment and is indistinguishable from human improvisors. This raises a discussion about the difference between human and AI in the domain of improvisation and in which sense an agent may be defined as an improvisor. Macaulay faces this issue through concepts mainly developed by post-phenomenology and Deleuze and Guattari.

Floriana Ferro's paper, entitled "Meeting the Gaze of the Robot: A Phenomenological Analysis on Human-Robot Empathy", focuses on the development of AI technology in humanoid robots and raises the question of human-robot empathy. The author's analysis shows that humans feel a certain kind of empathy towards robots, since they recognize them as *alter egos*. Ferro takes inspiration from both classical phenomenology (especially Husserl, Stein, and Merleau-Ponty) and post-phenomenology (Ihde and Verbeek), in order to explain how the empathic relationship between humans and robots takes place. Meeting the gaze of the robot means meeting its face and its body, which is not identical to a human face and body, but shows important similarities with them. Ferro finds a *transcorporeal analogy* between two ways of being embodied, which becomes evident through the effects that the robot gaze has on humans and which is brought out by contemporary studies in robotics.

Luca Possati's paper "The Paradox of Quantum Information and Its Ethical Consequences" explores the impact of the measurement problem

in quantum mechanics on quantum information theory. It intends to see whether Floridi's theory of information can be appropriately extended or adapted to the quantum domain. The claim is that it doesn't seem possible for Floridi's theory to be applied to quantum systems because it requires a process of validation whose requirements are incompatible with quantum mechanics. The paper shows how in the quantum field the veridicality thesis, that is, the core of Floridi's approach, fails.