Title: About the consciousness of intelligent systems

Abstract:

The concept of consciousness is complex and takes various forms. The fact that an intelligent system can be conscious has long been discussed and the questions are getting louder as we see systems springing up everywhere that seem capable of dialoguing with humans in a very natural way. We propose to look at several facets of consciousness, from phenomenological consciousness linked to perceptions to access consciousness, which gives us information about one's actions. We discuss indicator properties derived from scientific theories to assess consciousness for an intelligent system.

We give an overview of some interesting aspects of consciousness from the angle of intelligent systems, which can be different from human consciousness, and we wonder to what extent a present or a future system can have such a form of consciousness and what the advantages and drawbacks are.

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