Definition of AGI

Tom Rochette <tom.rochette@coreteks.org>

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When discussing a topic, it is always important to define the vocabulary we're using so that a common shared definition is used.

When it comes to AGI, this definition is not yet 100% clear.

Here I share my own definition. I will try to explore alternative properties as this article evolves.

0.1 Properties

0.1.1 General AGI

- Is able to learn (behavior, facts) from input
- Is able to retrieve (behavior, facts) from memory
- Is able to regenerate (behavior, facts) as output
- Is able to generate predictions
- Can interact with an environment (either virtual or real)
- Does not need to know everything

0.1.2 Humanoid AGI

- Is able (after some amount of learning) to accomplish some humanoid behavior
  - We expect an AGI to be able to reproduce human behaviors,
- Can interact with human beings at an appropriate speed
  - Interacting too slowly would make it appear dumb/non-human
- Can interact with the physical environment

0.2 Wikipedia's definition

Artificial general intelligence (AGI) is the hypothetical ability of an intelligent agent to understand or learn any intellectual task that a human being can.

0.3 Arguments for specific requirements

In this section we explore why certain requirements are necessary as part of the definition of an AGI.

0.4 Arguments against specific requirements

In this section we explore why certain requirements are not necessary as part of the definition of an AGI.

0.4.1 Language based

An agent does not necessarily need to use an advanced language like writing to be able to accomplish human-like behaviors.

If we claim that communication implies language, then language is a requirement. It however does not mean that language needs to be complex. The simple fact that there is a medium that allows two agents to

communicate implicitly means that there is an underlying language. The point here is that spoken and wrriten languages are not a necessity but likely something that emerges from the evolution of simpler languages.

1 References

- https://en.wikipedia.org/wiki/Artificial_general_intelligence
- A Survey of Artificial General Intelligence Projects for Ethics, Risk, and Policy