

# Review of: "Towards Modeling Artificial Consciousness"

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Potential competing interests: No potential competing interests to declare.

Modelling artificial consciousness with elements from multiple disciplines like neuron science, complex system (physics), information theory is a very interesting topic.

This article emphasizes the two key elements of artificial consciousness: attention mechanism and information correlation and flow. Based on these two elements, consciousness is interpreted as a temporal phenomenon that happens in a complex nonlinear artificial or natural neuron network. Mathematical expressions of certain aspects of this interpretation are given.

This article is still in its early stage, but contains interesting ideas and is worth reading.

My suggestions are:

- (1) Consider other theories of consciousness, such as global workspace (GWT) and integrated information (IIT), and see if a deeper and more fundamental understanding definition of artificial consciousness can be given.
- (2) Consciousness is a multi-discipline topic that currently lacks consent among the community. It might be good to clarify which are the facts and which are opinions on this topic, which are existing work and which are the new contributions.
- (3) A work that has a related idea as this one might worth reading: <https://ieeexplore.ieee.org/document/9794640>
- (4) It is better to (at least partly) computationally demonstrate how artificial consciousness forms and evolves in an example network, for example, the formation of certain strange attractors.
- (5) The English and formatting can be improved.