Review of: "Artificial Life from Talos to Qubit"

Laura Pagani[1]

1 University of Genoa

Potential competing interests: No potential competing interests to declare.

The article "Artificial Life from Talos to Qubit" by Hossien Hossieni offers a thorough investigation into humanity's journey towards creating artificial life, spanning from ancient myths to modern quantum computing advancements. As a reviewer, I find the article to be well-structured, informative, and thought-provoking.

The author effectively sets the stage by discussing ancient Greek and Jewish myths, highlighting mankind's early fascination with creating life-like entities. The transition to medieval automata and the industrial revolution's impact on automation provides a historical context for the evolution of artificial intelligence and robotics.

One of the strengths of the article is its detailed explanation of classical artificial digital life, particularly focusing on von Neumann's theories and Conway's Game of Life. These examples help readers understand the complexities and limitations of classical computers in simulating life-like behaviors.

The introduction of quantum computing as a potential solution to these limitations is a pivotal point in the article. The author explains quantum principles such as superposition and entanglement concisely, making the concept accessible to readers unfamiliar with quantum mechanics. The discussion on recent advancements in quantum artificial life research, including experiments demonstrating Darwinian evolution principles using quantum computers, adds a contemporary and forward-looking perspective to the topic.

Moreover, the article's conclusion effectively ties together the historical narrative with current advancements, highlighting the ongoing quest to create artificial life and the role quantum science may play in achieving this goal.

However, one aspect that could enhance the article is a more in-depth analysis of the challenges and ethical considerations associated with creating artificial life. Exploring topics such as consciousness, autonomy, and societal impacts could enrich the discussion and provide a more holistic view of the subject.

Overall, "Artificial Life from Talos to Qubit" is a well-researched and engaging article that appeals to readers interested in the intersection of technology, biology, and philosophy. It effectively traces the evolution of artificial life concepts throughout history and speculates on the future possibilities offered by quantum computing.