

# Review of: "Early Renaissance Concepts of Time and the Invention of Mechanical Clocks"

Shokhan M. Al-Barzinji<sup>1</sup>

<sup>1</sup> University of Anbar, Iraq

**Potential competing interests:** No potential competing interests to declare.

Dear Editor...

The paper titled "Early Renaissance Concepts of Time and the Invention of Mechanical Clocks" explores the relationship between early Renaissance concepts of time and the development of mechanical clocks.

Here are some strengths and weaknesses of this paper:

## 1- Strengths:

The article provides well-researched historical context surrounding the invention of mechanical clocks and their evolution during the Renaissance, highlighting key philosophical debates of the time. The integration of philosophy, science, and technology creates a comprehensive view of the intellectual environment that led to advancements in timekeeping technology. The discussion on the Condemnation of 1277 and its implications for Aristotelian philosophy adds depth to the understanding of how scientific thought evolved during this period.

The analysis of different clock mechanisms, including the oscillating verge and the pendulum, is clear and informative, illustrating the technological advancements in timekeeping.

## 2- Weaknesses:

While the article discusses the oscillating verge and pendulum mechanisms, it could benefit from a broader exploration of other contemporaneous timekeeping devices, such as sundials or water clocks, to provide a more comprehensive understanding of the period.

The article may overstate the impact of the Condemnation of 1277 and the discoveries of Buridan and Oresme on the development of mechanical clocks, without adequately addressing other concurrent influences in science and technology. Although the mechanisms are described, there is a lack of technical detail regarding how these advancements specifically improved accuracy beyond the broad claim of a "30-times accuracy improvement."

While the article presents valuable insights into the interplay between early Renaissance concepts of time and the development of mechanical clocks, addressing these weaknesses could enhance its scholarly contributions and provide a more rounded perspective on the subject.

