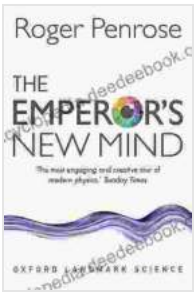
Concerning Computers Minds And The Laws Of Physics Oxford Landmark Science



The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics (Oxford Landmark Science) by Roger Penrose

4.5 out of 5

Language	: English
File size	: 24925 KB
Text-to-Speech	: Enabled
Screen Reader	: Supported
Enhanced typesetting	: Enabled
Word Wise	: Enabled
Print length	: 887 pages
Lending	: Enabled

The relationship between computers, minds, and the laws of physics is a complex and fascinating one. In their book "Concerning Computers Minds And The Laws Of Physics Oxford Landmark Science," authors Roger Penrose and Stuart Hameroff explore this relationship in depth, drawing on insights from a wide range of fields, including computer science, physics, philosophy, and neuroscience.

Penrose and Hameroff argue that the mind is not simply a product of the brain's physical structure, but rather a non-computational phenomenon that emerges from the quantum mechanical interactions of microtubules in the brain's neurons. They propose a theory of consciousness called "orchestrated objective reduction" (Orch-OR),which suggests that

consciousness is the result of the collapse of quantum wave functions in microtubules, leading to the emergence of a unified, self-aware experience.

Penrose and Hameroff's theory is controversial, but it has sparked a great deal of interest and debate among scientists and philosophers. Some critics argue that Orch-OR is not supported by the available evidence, while others argue that it is too speculative and does not provide a clear explanation of consciousness.

Despite the controversy, "Concerning Computers Minds And The Laws Of Physics Oxford Landmark Science" is a thought-provoking and challenging book that provides a unique perspective on the nature of mind and its relationship to the physical world. The book is essential reading for anyone interested in the intersection of science and philosophy.

Key Concepts

- **Computers:** Penrose and Hameroff argue that computers are not capable of consciousness because they are based on classical physics, which does not allow for the emergence of non-computational phenomena.
- **Minds:** Penrose and Hameroff define minds as non-computational phenomena that emerge from the quantum mechanical interactions of microtubules in the brain's neurons.
- **Laws of physics:** Penrose and Hameroff argue that the laws of physics, as they are currently understood, do not allow for the emergence of consciousness. They propose a new theory of physics, called "quantum gravity," which they believe could provide a better explanation of consciousness.

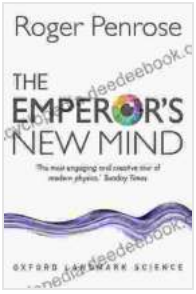
Implications for Artificial Intelligence

If Penrose and Hameroff are correct, then it means that artificial intelligence (AI) will never be able to achieve consciousness. This is because AI is based on classical physics, which does not allow for the emergence of non-computational phenomena.

However, some researchers believe that it may be possible to create artificial consciousness by using quantum computing. Quantum computers are able to perform calculations that are impossible for classical computers, so they could potentially be used to simulate the quantum mechanical interactions of microtubules in the brain.

Whether or not it is possible to create artificial consciousness is a question that will likely be debated for many years to come. However, the work of Penrose and Hameroff provides a new perspective on this question, and it is sure to continue to inspire research in this area.

"Concerning Computers Minds And The Laws Of Physics Oxford Landmark Science" is a challenging and thought-provoking book that provides a unique perspective on the nature of mind and its relationship to the physical world. The book is essential reading for anyone interested in the intersection of science and philosophy.



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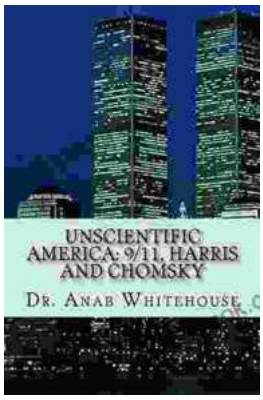

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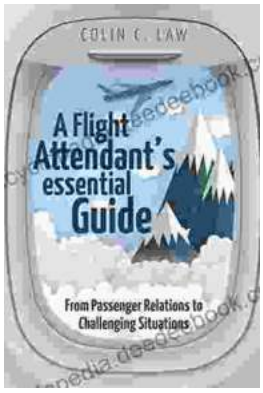

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