Review of: "Artificial Self- Awareness In Over Time"

Deepali Virmani[1]

1 VIPS Vivekananda Institute Of Professional Studies

The paper explores the intricate relationship between self-awareness, time, memory, and artificial intelligence, positing that self-awareness arises from the brain's processing of memories over time. It emphasizes the role of memory timing in consciousness of place and time and suggests that compressing and integrating information in memory directly contributes to self-awareness.

The author argues that while digital systems' simple on/off states lack meaningful connections between information units, higher levels of information processing in artificial intelligence can distinguish patterns. However, they assert that true thinking requires an awareness of time, suggesting that consciousness exists outside of time and expands in space-time similar to a wave function in quantum mechanics.

The proposed model for creating artificial consciousness centers on the semantic interpretation of words and numbers within artificial neural networks. Each word is encoded with meaning, and different specifications (e.g., color, volume) are separately encoded, with inhibitory neurons responsible for decoding information during recall.

The paper also discusses the integration of more complex details like frequency and sensory relationships into artificial neural networks, suggesting that artificial sleep could facilitate information processing and classification.

Overall, the paper suggests that consciousness emerges from the general and complex process of information and memory, with awareness tied to time and place. It concludes that designing neural networks based on the proposed method could lead to machines with artificial consciousness, with further exploration of complex patterns enhancing this approach.

The paper offers a thought-provoking exploration of the relationship between consciousness, time, and artificial intelligence. While the concepts presented are intriguing, some minor changes could enhance clarity and coherence. For example, refining the explanation of the neural network model and providing more concrete examples could aid understanding.

 Here are some minor changes and suggestions for improving the clarity and coherence of the paper:

1. Clarify the distinction between "memory timing" and "timing of memories" to avoid potential confusion.

2. Consider restructuring the sentence "The reason for the existence of self-awareness is that the passage of time is not stored in the brain" for clarity.

3. Provide a brief explanation or example to elucidate the statement "Symmetry exists not only in the structure of neurons but also plays a fundamental role in information processing." This would help readers grasp the significance of symmetry in information processing more easily.

4. In the section discussing the neural network model, clarify the roles and interactions of inhibitory and excitatory neurons for better understanding.

5. Expand on the concept of "artificial sleep" for artificial neural networks. Define what this entails and how it contributes to information processing and classification.

6. Add a sentence or two to summarize the main points of the paper before the conclusion to reinforce key takeaways for readers.

By implementing these minor changes and suggestions, the paper can enhance its clarity, coherence, and overall readability, providing readers with a more engaging and informative exploration of the topic.