

Review of: "On Qubits and Quantum Information Technologies"

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This article shows that a quantum superposition is a pure mathematical entity and has no physical realization. Therefore, the “quantum” information technologies exploiting quantum superpositions, like a quantum computer, cannot be realized physically.

If the article is true, we should rethink the impact of the quantum information technologies on our society. However, I have some doubts on the article.

First, the title does not reflect its subject. The reader may think that the article will review the uses of qubits in quantum information technologies.

Second, I'm interested in how the author can explain the existing experimental results showing quantum superpositions using their formulation.

Third, the author states that quantum mechanics, based on Hilbert spaces, omits the unattainability of precise time and space coordinates, which produces quantum superpositions. I doubt this only means that the formulation based on Hilbert spaces cannot contain the unattainability. Can we find another formulation coping with both superpositions and the unattainability?