

Abstract Submitted  
for the NES19 Meeting of  
The American Physical Society

**A new operating system for your quantum computer** JEFFREY BOYD, Retired — The new OS is TEW (Theory of Elementary Waves). The bad news is that the word “superposition” is divided by TEW into a valid half and an invalid half. The same is true of the word “entangled.” The good news is that only the valid halves are used in quantum computers. Thus TEW would bring our vocabulary into sharper focus by eliminating ideas that are not actually used in computing. Why and how would anyone change operating systems? There is only one possible answer: if TEW rather than QM were the operating system of Nature, as we propose. Why would this change the word “superposition”? Waves and linear vectors in a Bloch sphere can be in a superposition, but according to TEW particles are never in a superposition (contrary to what QM says). Qubits would be “entangled” when a Hadamard gate is followed by a C-NOT gate. But entanglement never stretches over space faster than the speed of light. TEW shows that there is no instantaneous entanglement effect, contrary to what QM says. Now for the good news. If TEW (instead of QM) were the OS of Nature, quantum computers would lose nothing, because computers don’t require particles to be in two places simultaneously, nor do they require instantaneous communication across a distance.

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Date submitted: 09 Mar 2019

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