

Abstract Submitted  
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**A Quantum Signaling Device** DOUGLAS SNYDER — One may construct a message (i.e., binary information) and send it from one location to another where there is no relevant discernible measurable difference in the specified physical situation in the intervening space between where the message is constructed and where the message is decoded that allows for decoding the message. Also, attempting to intercept the message in the intervening space between where the message is constructed and where the message is decoded would likely result in the transmission of the message being disrupted. The ability to send a message in the manner noted is an extension of the idea in quantum mechanics that between the initial state and final state of a quantum system one does not really know what is happening “in the middle.” The quantum wave function allows predictions of what will occur if a measurement is made. In the absence of a measurement, there are only quantum mechanical predictions. In the device presented, these predictions for detecting a photon are the same in the two possible pathways in the intervening space between where the message is constructed and where the message is decoded irrespective of the nature of the two possible types of photon source/s. Yet because of the two possible types of photon source/s that can be used to create the message, the predictions regarding photon detection after the photons leave “the middle” of the device and reach the detectors are different, allowing the sent message to be decoded at the detectors.

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