Feedback - Entanglement

Hi, so now I'd like to explain to you the phenomenon of entanglement. So what is entanglement precisely? Imagine we have 2 particles: we have particle A and particle B. And these particles can be either full, which is the filled have here, empty, or a superposition of the two. Now let's say that particle A and B are entangled. The weird thing about this entanglement is that when we would measure one of the particles, say we'd like to measure particle A, and we get the outcome/result full. Instantaneously the particle at B collapses into the full state as well. This happens instantaneously, so even faster than the speed of light. However, particle B, or an observer at particle B would never know if Alice, the observer at A has already measured her particle. In order for him to know if Alice measured her particle, Alice needs to send a signal over a classical internet, which cannot exceed the speed of light, to notify Bob, who is at particle B, if the particle has been measured. Only then they can compare their results and see if their particles were indeed entangled.

The particles can also be entangled in a different way. So, this corresponds to when the particle A would be full when we measure it, particle B would be empty, and vice versa: if A would result in empty, B would result in full. If we do not know beforehand which kind of entanglement we have, we can also not know what the state of B will be after measuring A.