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Assignment 2

1. I am majoring in Computer Engineering with a minor in Computer Science. Before reading the article, I thought of computer science as more of "the study of algorithms or programs, not computers" like Objection 3 states. It seemed to me that computer science was more of theoretical study of the software and use of the computer, not including the hardware. Which is why I am going the Computer Engineering route because it covers more of the hardware aspect of computers which I'm interested in. But technically, hardware falls under computer science as well according to the article, which I thought was interesting. I guess the term "computer science" is more of an umbrella term for the study of everything to do with computers. But the actual Computer Science degree from USU seems more focused on the theory and software of computers compared to the Computer Engineering degree offered. Also, before reading this article, I probably would have agreed that computers belong more to engineering than science. Especially seeing as Computer Engineering and Computer. But now I agree with the article's statement that computers belong to both science and engineering. But, however we classify it all, computers are amazing and I'm excited to continue learning about them!

2. Searching "computer science" on Google, I found a video called "Map of Computer Science" which I find very interesting. It explains computer science as a "diverse and overlapping field" but then breaks it down into three main parts: Theoretical Computer Science, Computer Engineering, and Applications. It then explains each of them and their subcategories. It's starts off the theoretical part by introducing Alan Turing and his Turing Machine, a general theoretical computer that all computer designs since have been based on except quantum computers. I was curious as to when this machine was conceptualized, so I looked that up and it was in 1936. So, not considered the earliest computer or computer theory, but it played a big part in the development of the computers we have today. Because of this video, I also watched another video about quantum computers and the evolution and limits of technology. Transistors are approaching the size of an atom! Which creates a barrier because of the differences in physics once you enter the quantum realm. But continual research is being performed with certain breakthroughs, hopefully leading to technology continuing to advance beyond that of the physical limits it is currently approaching.

Map of Computer Science: https://www.youtube.com/watch?v=SzJ46YA_RaA

Quantum Computers Explained – Limits of Human Technology:
https://www.youtube.com/watch?v=JhHMJCUmq28