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CS 292

Debate 10 Topic: CS K-12 Education

Background: Computing jobs are now the number 1 source of all new wages in the US, and it is one of the most in demand skillsets of our current job market. Computing also drives innovation and changes society as we know it, which all together is probably why we all chose to study it. There is immense value in studying computer science beyond this as well, for the rich problem solving skills, incremental thought process, creativity, and persistence to stick to a problem. CS is being slowly adopted into the curriculums of 16 states and many think it should be expanded to all states. Though this seems to be a good idea, there are many education budget cuts, so some programs may have to be cut to allow for more computing classes.

Side 1: CS should be an added requirement in K-12 education. CS teaches applicable skills to all other subject areas and opens the mind to a new logic way of thinking. With the computing job market exponentially growing, we need to start teaching CS earlier to K-12 students to give them the exposure of all the jobs they could possibly choose from. With learning CS, students also learn computational thinking, which makes better problem solvers and critical thinkers. There is currently a huge gap in computing jobs and the amount of people with degrees to fill those jobs and this wouldn’t be as significant if K-12 students were exposed sooner. I know if I was exposed to CS before college, I would be much further along in my learning by now and I could have known sooner how much I would like CS instead of spending some time having no idea what I wanted to do.

Side 2: CS should replace foreign language in K-12 education. State education budgets seem to have more and more cuts as the years pass, and something must give. Foreign language classes should be a non-required elective rather than a requirement for graduation. Programming languages can be seen as a new ‘language’ and comes with a much richer set of skills than learning another spoken language, but if you are very interested in it, it should still be available. Many high school students take a foreign language just to get the required credits, then forget about it completely. With CS, many of the skills you learn and ways of developing technology can be applied to any field you could be interested in and would teach a new way of thinking. Also, many countries are now almost completely bilingual, with some speaking a better level of English than the US.

Possible Resolution: A possible resolution would be to have more flexible graduation requirements for high school students and a more diverse exposure for younger students to see what they might like sooner rather than later. For example, a CS course could fill a math or language requirement, rather than just an elective. The main goal of education is to prepare students for the workforce, and more than half of all new jobs are in computing. Students would be at a major advantage if they were exposed to CS ideas sooner to start integrating the logical thought process, rather than having to switch a lot about the way their brain works in college. CS seems very intimidating at first, but this wouldn’t seem nearly as scary if the exposure started sooner.