Yutong Du 2022-04-20

## **Debate 2 Introduction Outline**

- Define mental performance/complex thought as creative and critical thinking, problem solving, and moral or ethical reasoning.
  - Here we will be focusing specifically on the critical thinking and problem solving portion
- Define multitasking as trying to complete two separate tasks, one of which involves interacting with some sort of media (audio)
- · First let's talk about how this affects mental performance
  - Multitasking hinders our mental performance as our brains are jumping back and forth, meaning that we don't really focus on a single task for long before getting distracted
  - Hinders complex thought since you're not really staying on a single task for a very long time
  - As a result of this it also takes longer to do these tasks
    - study done where people who were instructed to read a passage while also texting spent significantly longer on it
  - this isn't limited to just working, but also learning: in order to learn something
    you need your brain to be focused specifically on one task (for maximum effect),
    and if your mind is distracted during this period of time then it's clear that it won't
    work.
    - If you really need to focus on something, then staying distracted really doesn't help and has a negative impact on your cognitive abilities
  - \*\*It's also important to note that all of these distractions from multitasking also affect our ability for complex thought → since complex thought requires focus, and we've just shown that multitasking *hinders* focusing ability.
- Now let's talk about information access and memory
  - having the ease of access to information means that we have to be less reliant on our own abilities to remember things and instead "offload" them to some application
    - the idea of "why bother remembering something when you can just google it in two seconds" type thing.
    - a paper published to World Psychiatry in 2019 described how people who rely on technology to remember things often remember where to get the information rather than the information itself.
      - this is an example of "cognitive offloading", reducing the mental strain of remembering things becasue we know that we can easily access it later
    - From an outside point of view, you're basically just working your brain less, and getting less "practice" for memory.
  - having access to such information, we reduce our ability to actually remember that information as well
    - in a study people who were instructed to look up information in an encylopedia were shown to retain that information for longer than those who performed a google search

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• fMRI scans on the brain have also shown that there is less connectivitiy in the brain after subjects were instructed to perform search tasks for an hour a day.

- suggests that online searching may impede memory retrieval as the connectivity between points in the brain are reduced.
- Overall, we can see that there have been extensive studies done that show how
  multitasking with media can impact our ability to perform complex thought as it forces
  our brain to "divide and conquer", and also how ease of information access hinders our
  ability to recall memories as we become more reliant on these technologies.