**ECP281 ASSIGNMENT**

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| **DATE:** | 13TH FEBRUARY, 2021 |

**ASSIGNMENT:**

**THE BRAIN OF A 9 YEAR OLD BRAIN AND A SUPER COMPUTER WHICH IS MORE SUPERIOR IN TERMS OF POWER, INTELLIGENCE AND SPEED ?**

The Computer is a **digital device that stores information in memory using input devices** and manipulate information to produce output according to given instructions. The actual machinery, the physical parts of a computer system refer to as Computer hardware; the instruction (a program ) that tells the computer what to do or how to do, that is called Computer software (often called just software).

A **supercomputer** is a computer with a high level of performance as compared to a general-purpose **computer**. The performance of a **supercomputer** is commonly measured in floating-point operations per second (FLOPS) instead of million instructions per second (MIPS).

**DISCUSSION**

First of all we’ll start by discussing some of contributions by fellow coursemates.

One of them made the claim that the computer is faster in terms of processing information than a 9 year old brain because they are made for a specific purpose and therefore they will be faster and more accurate in what they do, that is why we consult computers in most of our calculations to save time. From my opinion he not entirely due to the fact his point was getting away from the question, by saying his points about humans generally with lack of knowledge towards achieving a task precisely .

Another course mate stated that a 9 year old brain is more intelligent than that of a super computer because of it's ability to adapt to new ideas and methods to solve problem or situation at hand, but the computer is limited to a specified method. He went on saying that the reason for this limitation of the supercomputer’s operation is based solely on the instructions given to it. But this point was quickly dispatched by another coursemate, stating that the modern super computers actually have the ability to learn, unlearn and relearn, which is referred to as ***ARTIFICIAL INTELLIGENCE.***

**FROM MY RESEARCH ANALYSIS**

***When we discuss computers, we are referring to meticulously designed machines that are based on logic, reproducibility, predictability, and math. The human brain, on the other hand, is a tangled, seemingly random mess of neurons that do not behave in a predictable manner.***

Since the inception of the first computers, there has been a direct comparison between these “computational machines” and the human brain. One of the common phrases that has stuck around for decades, and which encourages the idea of a brain vs. computer argument, is “brains are analogue, computers are digital”. This makes it seem like computers are superior, but in truth, the human brain is far more advanced and efficient, and possesses more raw computational power than the most impressive supercomputers that have ever been built.

Biology is a beautiful thing, and life itself is much smarter than computers. For example, the brain is both hardware and software, whereas there is an inherent different in computers. The same interconnected areas, linked by billions of neurons and perhaps trillions of glail cells, can perceive, interpret, store, analyze, and redistribute at the same time. Computers, by their very definition and fundamental design, have some parts for processing and others for memory; the brain doesn’t make that separation, which makes it hugely efficient.

The same calculations and processes that might take a computer a few millions steps can be achieved by a few hundred neuron transmissions, requiring far less energy and performing at a far greater efficiency. The amount of energy required to power computations by the world’s fastest supercomputer would be enough to power a building; the human brain achieves the same processing speeds from the same energy as is required to charge a dim lightbulb. Biological processes have had billions of years to evolve perfect, efficient organs that far supersede technology, and we are beginning to reach those artificial “limitations”.

**In Conclusion**,

**While we can't completely dismiss the idea of a AI driven robot in the distant future, a new study has found that even today's most advanced supercomputers are only one-thirtieth as powerful as the human brain, so we should be able to out-think the robots we're sharing our lives with for some time yet.**

**REFERENCE**

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