On Why the Computer Is Not Even Grade One as an Invention!

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Abstract: This short criticism refers to the editorial comment of 1975 Best Computer papers. The author argues why the computer, which is an invention and not a concept and therefore graded two overall, cannot be grade one even as an invention.

Key words: Computer, invention, concept, wheel, quality of life, philosophy

INTRODUCTION

This short criticism refers to the editorial comment of 1975 Best Computer papers (Isaac, 1975).

The editor made two interesting observations:

- Among the things that have revolutionized mankind, a computer can only be graded one in the class of inventions but not one overall as it is not a concept but only an invention.
- Computer has affected the quality of life but it is too early to say whether it has also improved the quality of life.

I permit myself to give my own opinion on both in 2007, 32 years after the article was published. Talking about the first point, yes, a computer is an invention. The editor compared it with Marconi's telegraph, Graham Bell's telephone, the Wright brothers' airplane and considered it parallel to each. From there he jumped to the conclusion it should therefore, be grade one in the class of all inventions! The study also compares the computer with the world famous concepts and here it is found (by the judges) inferior to Einstein's theory of relativity, communism of Karl Marx (Workers of the world: Unite.- a concept), Darwin's theory of evolution and Freud's ideas on psychoanalysis. Another that comes to my mind is Mahatma Gandhi's principle of non-violence, clearly a grade one concept in a world threatened by terrorism, war and other major forms of violence (I am writing this note on Oct 3, 2007 after celebrating the Mahatma's birthday only the day before). The editor (as well as the judges) clearly missed the last one. For that matter, the concept that power can reside only within power and hence God's existence is established by the existence of life is also grade one. Anyway, the second comparison (actually the first in the study; I have reversed the order) makes the computer an overall grade two entity in that it can at best

be grade one in the class of inventions. Something like a chimpanzee fighting for the grade one spot in the class of apes but being itself an ape the overall grading would always be two!

But is the computer really grade one even in the class of inventions? Here I disagree with the editor. I would rate the wheel higher as an invention than the computer. Let me explain why. Life did move without the modern computer. I for example never used it up to my post graduate classes (!)-all we had was the scientific calculator. Did this prevent me from being a statistician? I seriously used the modern computer only at Indian Statistical Institute, Kolkata (1993-94) while learning statistical computing after passing my M. Sc. We can have life without the computer. But can we think of life without the wheel? Sadly, the editor did not take the wheel as an invention for a comparison with the computer. Had he done, the story could be different.

I next come to the second point and ask myself: Which is more important-being a great scientist or being a good human being. I am not a great scientist. Nevertheless, my conscience tells me and hopefully the reader even if he/she is a great scientist will not disagree, that both are important qualities but the latter always has an edge over the former. Everything great may not be always good but all good things are great. Said Shakespeare. In any case, philosophy, which is the father of all sciences, in the broad sense is defined as the body of ideas which teaches how human beings should live and behave (Collins Cobuild dictionary). If that is so, ask a computer scientist to prove that he is a better human being by virtue of being a computer scientist (or that I am worse being a statistician). I remember one of my colleagues requested me to engage programming classes of computer science students (which this colleague was supposed to engage) on the ground that the guys were simply not tolerable, that The computer science students imagine themselves as superior humans, in comparison to

students of other departments and hence that, with my more years of teaching experience I could, according to the colleague, tame these supermen. That remark, even though it is only partially correct (UPSHOT: I have published several papers with computer science students in well known international journals and found them to be aggressively entertaining! (Chakraborty and Sourabh, 2007a, b; Chakraborty *et al.*, 2007c, d) is highly alarming in that it brings back the 1975 editorial comment fresh in 2007. No doubt the computer has affected the quality of life. Life has become faster, in many ways more convenient, than before. The quality of research like many other things has certainly improved. But has computer made us better human beings. It is not clear whether the editor used the term "improving the quality of life. Strictly in such a sense. If he did, then I am sorry to have to tell the reader: It has not. And that to me sounds serious enough in that 1975 judging by computer science standards itself should be reckoned as old.

CONCLUSION

We conclude that:

- The computer can be graded only as two both overall and as an invention.

- There is nothing to confirm computers have improved the quality of life although it has undoubtedly affected the quality of life.

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