

Is Computer Science Science?

A summary

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In his paper “Is Computer Science Science?”, Peter J. Denning tries to answer the question whether computer science is an actual scientific field. The rationale behind the question is easily explained: all sciences are about fundamental laws of nature whereas the subject of computer science is man-made.

The author explains that computer science is a blend of three disciplines: computing science, engineering and mathematics. As any other science, it proposes hypotheses and test them through experiments. However, computing science does not study man-made objects. It studies information processes. The computers — as in many other fields such as physics or chemistry — are just the tools for conducting efficient research.

Depending on which research area in computing people come from, they have different opinions whether computer science is a science or an art. The author concludes that there it is both. He then questions if computer science has elements other scientific areas have: depth, a future and credibility.

Depth meaning computer science has fundamental principles: it has; a future: yes, since it combines with other disciplines to create new research areas. The problem of credibility however is self-inflicted. Too many times the field of computer science has claimed to be able to do something but ultimately failed to deliver (i.e. artificial intelligence). This kind of marketing however does not adhere to the scientific standard. Fortunately, this problem is fading away, as younger scientists enter the field.