

### Leibniz' (1646-1716) Dream

a generalized mathematics, by which thinking could be replaced by calculation:

"If we had it, we should be able to reason in metaphysics and morals in much the same way as in geometry and analysis... If controversies were to arise, there would be no more need of disputation between two philosophers than between two accountants. For it would suffice to take their pencils in their hands, to sit down to their slates, and to say to each other (with a friend as witness, if they liked): let us calculate."

### Leibniz' Dream modernised

a generalized mathematics, by which thinking could be replaced by *computation*

If we had it, we should be able to reason in *computer science and its applications areas* in much the same way as in geometry and analysis... If controversies were to arise, there would be no more need of disputation between two *computer scientists* than between two accountants. For it would suffice to *sit down at their laptops, enter the question at hand, and say to the machine: calculate this!*