
Přednáška prof. Paula Ernesta (University of Exeter)

Paul Ernest (University of Exeter): The ethics of mathematics in education and society

How does ethics impinge on mathematics? Is it even relevant? While there is an enduring controversy as to whether mathematics is imbued with ethical values, it is widely agreed that mathematics has a huge impact on modern life. What principles of ethics can we draw on to evaluate this impact? The applications of mathematics in education and society are widely seen as beneficial and I acknowledge that mathematics is a widespread force for good. But I challenge the idea that mathematics is nothing but good. I claim mathematics is overvalued in society, leading to negative consequences, and I describe three ways in which it causes harm through education.

First, the personal impact of learning mathematics on learners' thinking and life chances can be negative for a significant minority of 'maths rejects'.

Second, by serving as a 'critical filter' mathematical certification is an impediment to equal opportunities for all.

Third, the nature of pure mathematics itself leads to styles of thinking that can be damaging when applied beyond mathematics to social and human issues.

In addition, there are the problems that arise from misapplications of mathematics. I note three uses.

First, governments and corporations using mathematics to make public communications appear more authoritative and definitive than they are.

Second, there are many ethically questionable uses of mathematics such as the apps used by the electronic media to promote 'fake news', and 'the formula that killed Wall Street' that helped trigger the Global Financial Crisis of 2008.

Third, is the performativity of mathematics. Governments and corporations employ algorithms that actively but covertly transform aspects of social life such as stock trading, or predicting individual behaviours including credit repayments or criminality and recidivism. Mathematics underpins the spreading of surveillance capitalism and surveillance governance.

I end with a recommendation for the inclusion of the philosophy and ethics of mathematics within its teaching all stages from school to university to mitigate this harm. This is reduce to the collateral damage caused by mathematics in education and society, through making people more aware of these dangers, and their own responsibility.

If you want to join click here: <https://cuni-cz.zoom.us/j/3270856405>