Education in the age of Artificial Intelligence

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The mathematician of 2018
The next thirty minutes

- Putting education before technology
- Using AI for personalised learning
- Augmenting teachers’ practice
We’ve been here before

“Books will soon be obsolete in our schools...Our school system will be completely changed in ten years.”
A brief history of personalised learning
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The ‘typical’ classroom
The consequences of shaky foundations
Key Point 1:
A two-fold problem

Address every learner’s individual needs…

… while reducing teachers’ workload.
How to simulate a human tutor
Look inside the black box
Limits of computer-assisted instruction
Key Point 2: What AI can(‘t) do

AI-driven tutors afford systematic knowledge transfer at scale...

...but only represent one dimension of learning and teaching.
Can you make 9000?

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The one question every teacher must ask

Are you maximising your face-to-face time with students?
Shifting teachers’ effort

Marking $\Rightarrow$ Planning

Direct instruction $\Rightarrow$ Guided practice

Assessing $\Rightarrow$ Intimate feedback

Teaching to the average $\Rightarrow$ Addressing every learner’s needs
More than a virtual tutor
Key Point 3: 
The real meaning of personalised learning

Personalised learning must place *relationships* at its core.

1:1 tutoring is only one part of the learning experience, and must enable richer classroom interactions.
Summary of key points

- The problem that AI is poised to address is the spread of learning needs, combined with teacher workload.

- Al-enabled tutors afford systematic transfer of core knowledge/skills only.

- Personalised learning must place relationships at its core.
A cautionary tale
The teacher of 2018
Thank you and stay in touch

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