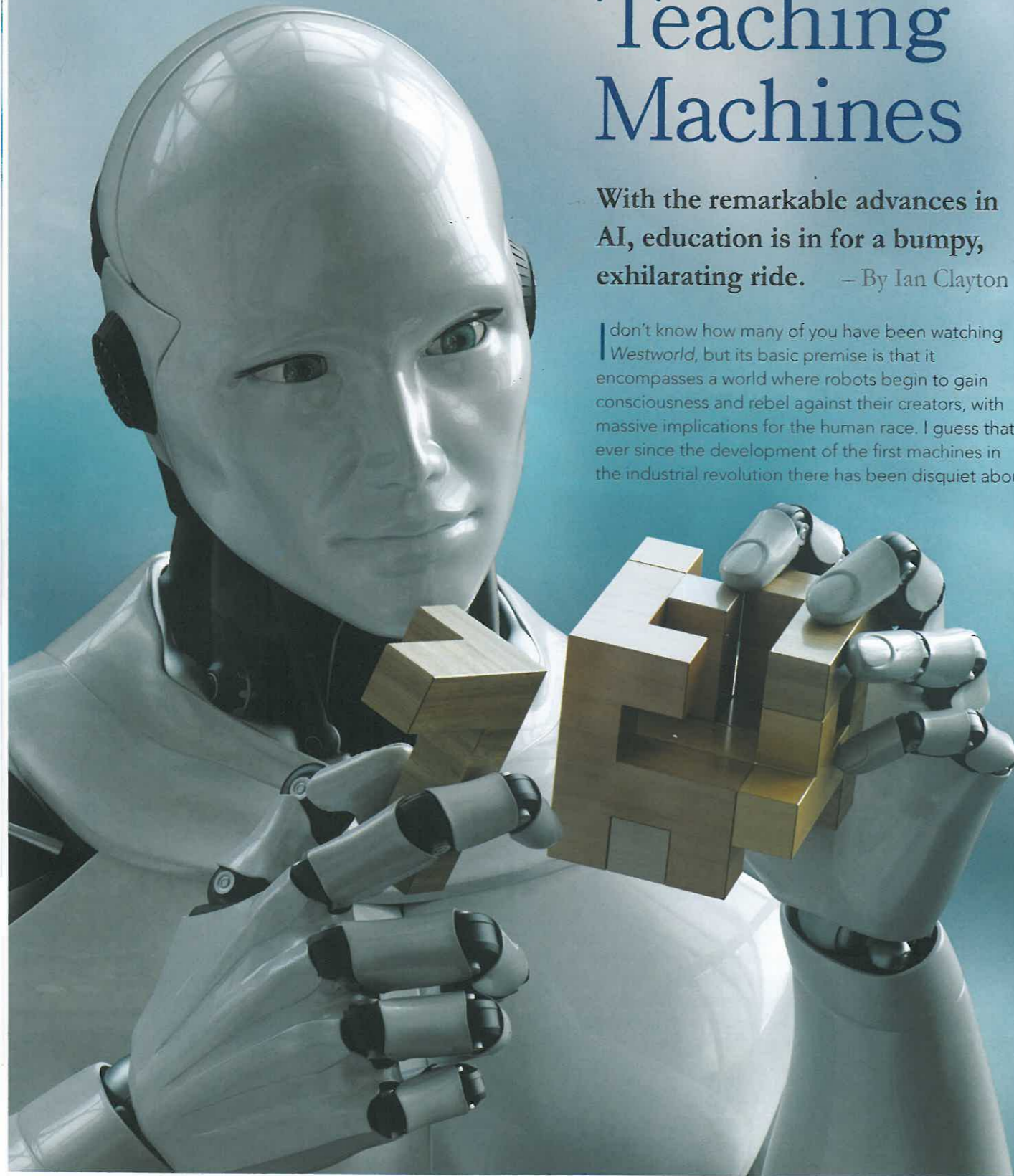


# Rise of the Teaching Machines

**With the remarkable advances in AI, education is in for a bumpy, exhilarating ride.** — By Ian Clayton

I don't know how many of you have been watching *Westworld*, but its basic premise is that it encompasses a world where robots begin to gain consciousness and rebel against their creators, with massive implications for the human race. I guess that ever since the development of the first machines in the industrial revolution there has been disquiet about



the extent to which technology will take over. It may not be that machines will rise up and eradicate the human race, but there are profound consequences of the massive developments that are currently taking place in the area of artificial intelligence (AI).

We have all heard of driverless cars and their potential impact on jobs in many sectors, transport, insurance and the petroleum industry to name a few. It has been estimated by various organisations that by 2030, half of the current jobs in the USA will be automated.

The Bank of England expects 15 million jobs to be threatened by automation.

These are not just traditional jobs on a production line, but other cognitive-based jobs. It seems that careers in medicine, law, banking, marketing and journalism could be affected by the rise of the robots! To cite some examples: British computer scientists created software that was able to judge hundreds of real-life court cases. The AI "judge" reached the same verdict as human judges in 79% of the cases involving torture, degrading treatment and privacy; the algorithm was able to identify patterns in cases.

In medicine, software is routinely able to diagnose certain illnesses with greater accuracy than humans can. In surgery, it is possible for a surgeon in Singapore to be operating on a patient in London, thousands of miles away.

What does this mean for education? For learning, it means that the world has and is changing exponentially and that the old certainties have gone. Therefore students must be equipped with life skills of collaboration, flexibility, communication skills,



creativity and critical thinking. Teachers must adapt to this changing landscape and quickly, as these skills will still be strong currency in the changing world.

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For teaching the impact is equally massive, it will not be immune from the onslaught of technology. There is software that can read students' facial expressions and body language; it can identify problems with their learning and adapt teaching accordingly. Learning will be quicker and more intense. There is even software being worked upon that can mark and grade homework and exam answers – Hallelujah!

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Although there is some evidence that the demand for secondary school teachers may decline a little, all this brings into sharp focus the invaluable skills and attributes that a great teacher brings to the table. Surely the ability to inspire, provide pastoral care, encourage, motivate, chastise and so on will continue to be the traits of the effective teacher of the future.

I am not sure that we have reached the point yet where our technology will rise up and rebel, but one thing is for sure: the impact of these applications and developments will only become more profound over time. ■



**Ian Clayton**  
Head of the International Stream, French International School of Hong Kong

**French International School (FIS)** was established in 1963-64 as one of the first international schools in Hong Kong. The school offers two streams: the French and International Streams, preparing students towards certification in the French national examination, the French Baccalaureate or the International Baccalaureate (IB) Diploma. In 1988, FIS became the first in Hong Kong to be authorised as an IB World School.

