Artificial Intelligence (AI) beckons

Roy Blatchford

February 2020

The word 'robot' comes from a Czech word *robota* meaning 'forced labour'. It was first used to denote a fictional humanoid in a 1920 play. By the 1940s Isaac Asimov started popularizing robots and intelligent machines in his great science fiction short stories.

Perhaps it has taken longer than Asimov, George Orwell, Aldous Huxley and Ray Bradbury predicted in their fiction. This decade will surely see robots come of age in the shape of artificial intelligence reshaping diverse aspects of our lives.

- In the arena of climate change, sophisticated software programmes will allow robots to distinguish between biological organisms and pollutants.

- In transport, the autonomous, driverless car is already upon us.

- In home alarm systems, AI can distinguish between occupants and unknown persons.

- In healthcare, robotic surgery assistants will become commonplace.

- In finance, junior accountants are being replaced by AI.

- And 'transhumanism' – the fused human/robot – rightly excites ethical discussions.

What about in education?

The extraordinary becomes the commonplace - at a faster and faster rate. Like the frog which slowly boils in the pan, realising too late that it is cooked, do schools risk society's new technologies eluding them. In too many schools currently, the potential of e-learning is not fully harnessed. And the GCSE and A Level examination system has barely begun to respond to on-line assessing.

Schools are conservative organisations in the best conserving traditions. They rightly protect the past. At their best, they are also crucibles of change powered by the young.

The Z generation students with us today live actual and virtual lives intertwined. Their social media habits and views on the climate-challenged world are set to impact significantly on how adults lead nationally and internationally.

Forward-looking school leaders are setting aside time now with staff, students and governors to reflect on the lifestyles, technologies and everyday practices of their school communities.

Working groups, comprising learners and teachers of all ages, are studying:

- How to deal effectively with cyber-attacks and ransomware demands - a key safeguarding issue for schools and colleges.

- How best to introduce facial and voice recognition, protecting individual privacy.

- How to introduce 'bring your own device' (BYOD) into schools, so that all students have real-time access, as appropriate, to the world's knowledge.

- How to bring about carbon-neutral school environments, including home to school travel.

- How any part of a school's provision can be enhanced by the presence of intelligent robots.

- How classroom environments can be improved by AI as deployed in healthcare, transport or finance.

- How curriculum content and assessment of students will be created and monitored through AI.

It was another celebrated sci-fi author William Gibson (*Neuromancer*, 1984) who cannily observed that the future is already here, but it's just not very evenly distributed. All of the above - already in place somewhere on the planet - will inevitably arrive on *all* schools' doorsteps. Astute leaders have started their preparations.

When railways were introduced, the questions of the time were: What would happen to the human body at speed? Would passengers faint? If cows saw the red-hot funnels, would they bolt or abort? And now HS2 beckons.

The problem with the almost tangible future is that the lead-in times are a killer. As with the apocryphal frog, schools risk realising too late that they are cooked – marooned in a different age. Optimistically, the students will ensure that their schools and teachers escape that fate.

****