Coding the online teacher

In what configurations can a non-human teacher be as good as, or better than, a human one?

Promises of 'teacher-light' tuition and of enhanced 'efficiency' via automation of teaching have been with us since the early days of digital education, sometimes embraced by academics and institutions, and sometimes resisted as a cost-cutting measure which is damaging to teacher professionalism and to the humanistic values of education itself. Generally, teachers in higher education are very resistant to the notion of any automation of the teacher function. This project re-visits the notion of teacher 'automation' from a critical perspective which looks freshly and openly at the possibility of coding the teacher.

The project is led from the School of Education at the University of Edinburgh, in collaboration with the School of Informatics and Edinburgh College of Art.

We are using our 'E-learning and digital cultures' Coursera MOOC (total enrolments to date of 70,000) to test a twitterbot which 'codes in' something of the teacher function to the MOOC, researching some creative and critical futures for a MOOC pedagogy in which the 'teacher function' might become less a question of living teacher presence and more a posthuman mash-up of code, algorithm and teacher agency.

Using our MOOC as a test-space for researching our teacherbot as a proof-of-concept, we are looking for more funding to develop critical, creative teacher automation applications, capable of operating in a range of ways within online educational space. We are also creating a web interface – potentially usable by any teacher, anywhere – which will allow teachers to build their own 'teacherbot assistants'.

This project is strongly committed to the notion of good teaching, exploring not how automation can stand in for the excellent human teacher, but how it can help us re-think how such a teacher might operate and perform in partnership with code.

We aim not only to make some interesting research-informed advances in online teaching technology, but also to make a substantive critical statement about the nature of online education and its pedagogies. We are interested in probing at where the boundaries between human and non-human 'good teachers' lie, and in making a resistant response to Arthur C. Clarke's much-quoted truism that 'Any teacher that can be replaced by a computer, should be'.

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