



MILES BERRY LECTURER

WE NEED A GCSE IN COMPUTING

Let's replace Computer Science with a qualification every student can enjoy

England's education inspectorate, Ofsted, are turning their attention to the curriculum, recognising, at last, the importance of its breadth and its intent. In their new school inspection handbook, they state that a curriculum should be rooted in a consensus about the skills and knowledge that pupils need and that it should remain as broad as possible for as long as possible. I think they're right.

How should school leaders decide what should be taught? Curriculum design should be about preparation for the responsibilities and opportunities of life, further study and employment, and about passing on the best that has been thought and said to the next generation.

These priorities underpinned the design of the English national curriculum for computing. This includes much that pupils will find useful, but also things which might perhaps spark joy. Like the Royal Society report that preceded it, the curriculum identifies three elements of computing: computer science (including programming), information technology, and digital literacy. It's helpful to think of these as the foundations, applications, and implications of computing. What we have here is a statutory entitlement to a rounded education in computing knowledge and skills for children and young people from 5 to 16.

However, curriculum standards are only a starting point. Teaching matters. So does assessment. At times, it can seem that assessment is all that matters. For computing, it's increasingly clear that this is a problem – the removal of GCSE ICT and a cluttered, overly theoretical GCSE in Computer Science seems to have resulted in an

unbalanced experience of computing at Key Stage 4, fewer students leaving school with any computing qualification, and very unwelcome gender, socioeconomic, and academic attainment biases amongst those that do. This is despite the national curriculum's requirement that at Key Stage 4, "All pupils must have the opportunity to study aspects of information technology and computer science at sufficient depth to allow them to progress to higher levels of study or to a professional career."

What then is to be done? Improving the adoption, teaching and uptake of GCSE Computer Science amongst schools, teachers and students will help. However, we now ought to rethink the GCSE, creating a qualification which reflects the whole breadth of computing, which recognises the creative and human elements of the subject, alongside the scientific ones.

I have in mind a qualification that could sit at the core of the Key Stage 4 curriculum, covering things 'essential for learning and life', framing this as an up-to-date, broad specification covering principles and practice for programming, data, media, the web, security and ethics, with an intake that is far more inclusive and representative than what we see at the moment. [\(HWO\)](#)

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