

Is data literacy being taken seriously enough in the UK?

 By [Cath Everett](#) April 23, 2019

SUMMARY:

As the amount of information everywhere continues to mount, many pundits believe that data literacy should be taught as a basic skill like English and Maths. But is the UK educational system set up to cope?



As the ability to use information effectively becomes an increasingly vital life skill, it will become progressively important for the UK's education system to ensure that learners are sufficiently data literate to flourish on a more and more competitive world stage.

According to the Massachusetts Institute of Technology's [definition](#) of data literacy, it is the "ability to read, work with, analyse and argue" with information. And being able to do so is important, believes Dmitry Bagrov, UK director of software design consultancy DataArt, because:

"In its simplest form, data literacy is similar to English literacy – it's the ability to derive meaningful information from core data. Why that's important is that there are now mountains of information not just at work but in everyday life, which is stored in computers and is searchable. But to do that, you have to know the right questions to ask and how to formulate them in order to get the right answers. So we need to teach children how to ask those questions and learn what to do with the answers."

James Browning, head of digital platforms at educational technology specialist RM Education, agrees. In his opinion, data literacy is about being competent and confident in using data and knowing how to be creative with it. He explains:

“It’s a critical skill and one that I’d put alongside reading, writing and maths in terms of importance. In future, it will become one of the foundational skills. So while there’ll always be a role for people working with information on the infrastructure side, that is data scientists, in a wider sense the entire population will also need to have some level of competence and not be fazed by data sets from, say smart meters or online banking. The same will be true of work, where every job role will also have a requirement to use data and make decisions based upon it.”

But while the educational systems in China, Singapore and the Scandinavian countries are already leading the way in terms of data literacy teaching, the UK’s approach appears to be decidedly patchy.

England versus Northern Ireland

For example, in England, the largest of the UK’s four countries/regions, data literacy, or general computing skills, are not taught at all. Instead a narrow, theoretical computer science syllabus with a much-criticised focus on programming was introduced in 2014 to replace a more generalist Information and Communications Technology (ICT) predecessor, which focused on teaching learners how to use applications, such as spreadsheets.

Although the subject is compulsory from Key Stage one (for pupils aged six) to Key Stage three (for learners aged 14), the number taking qualifications in the subject has fallen dramatically since the subject’s introduction, [particularly among girls](#).

At the other end of the spectrum though is Northern Ireland, with Scotland and Wales being somewhere in the middle. Here ‘Using ICT’ is taught as a basic, cross-curricula skill alongside ‘Communication’ and ‘Using Mathematics’ from the early years Foundation Stage to the end of Key Stage three.

The aim is to help learners become:

1. Digital citizens by providing them with the skills to take part in the digital aspects of society safely and easily;
2. Digital workers by enabling them to use their digital skills at work or to further their learning;
3. Digital makers by furnishing them with the skills, which include programming, computational thinking and computing, to start creating their own technology.

While Browning describes this approach as “very forward-thinking in the way it’s designed”, he fears that data literacy across the UK is not being taken as seriously as it should be. This situation is manifesting itself in the lack of general computing training available for teachers. He explains:

“Many people have taught themselves data literacy skills, but no one’s gone back and said ‘here’s the 101 in this’, and that includes with teachers. So there needs to be a real focus on addressing the gap between the current teaching approach and how teachers are expected to adapt. Just changing the curriculum isn’t enough – you have to think about equipping the educators to deal with it too.”

Skills shortages

In England at least, the government tried to address the issue by making £84 million (of a total £100 million across all the regions) available to set up a [National Computing Centre for Education](#) in October 2017. The aim of the four-year programme, which is still a work in progress, is to create sector resources and set up a network of 40 hubs with the aim of training and equipping local teachers with the skills required.

Moreover, it appears that the latest education secretary Damian Hines is taking a less traditionalist approach to computing education in general terms than his [unpopular predecessor](#), Michael Gove. In April, he introduced his [‘Realising the potential of technology in education strategy’](#) in a bid to equip teachers with suitable skills and resources and highlight good practice in exemplary schools so that others can benefit from their experience.

But such moves cannot come soon enough for Andy Cotgreave, technical evangelist at data visualisation software provider, Tableau Software. He says:

“Data literacy should be taught a basic skill as many people today are afraid to use data. They lack the confidence as they don’t have specific literary skills to know how best to present, read and have a conversation about it. Some basic data literacy coverage exists in the curriculum and it’s OK at primary school level in that it covers what a data point is and basic charts. But the progression isn’t as good at secondary level and there’s not such a well-defined path. It’s all a bit higgledy-piggledy.”

What all of this means, according to RM’s Browning, is that, while young people across the UK leave school and university with some basic data literacy skills today, their ability to undertake data-driven decision making, which is a key capability, tends to be limited. He explains:

“When it comes to key business decisions, if you can base them on sound data rather than emotions or anecdotes, you’re more likely to be successful. While some young people have these skills, many don’t, and the fact that this situation is unlikely to change for a number of years is a bit depressing. The number of data points is growing and, while technology such as artificial intelligence will start to do more of the heavy-lifting, the need for a data literate population is only going to increase.”

My take

The government has pledged that, after years of upheaval, the educational curriculum in England will not be subject any further change in the near future. But it seems that the inadequacies of the current computing syllabus will make some kind of shift inevitable if

the country is to compete on the world stage in skills terms into the future. The current education secretary would certainly appear to making quiet moves in that direction anyway.

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Source:

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