

The Faraday Challenge: advice from Sir Mark Walport

Advice to the Secretary of State for BEIS on how to harness UK capability in battery research to support the industrial strategy.

Recording of the week: 'The BBC are coming on Friday, can we show them a prototype?'

This week's selection comes from Tom Lean, Project Interviewer for An Oral History of British Science.

To anyone who grew up in the 1980s the Acorn BBC Microcomputer was the computer they used at school, a machine that gave countless Britons their first experience of computing and sold over 1.5 million units. Yet this iconic piece of computer hardware came about almost accidentally. With the world on the verge of a computer revolution in the early 1980s, the BBC were desperately searching the British electronic industry for a computer to accompany a new educational television series about computing. To a small company in Cambridge called Acorn Computers, having the BBC adopt their new computer as the BBC Computer was a deal that could transform the company into a major player. However, as Acorn designer Steve Furber recalls, there was one problem: they didn't actually have a new computer yet, and they had just a week to develop one...

[Designing the Acorn BBC Microcomputer \(C1379/078\)](#)



This clip is part of [Voices of Science](#), an online resource which uses oral history interviews with prominent British scientists and engineers to tell the stories of some of the most remarkable scientific and engineering discoveries of the past century.

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[Press release: Making sense of big data to improve the nation's defence, security and prosperity](#)

The Defence Science and Technology Laboratory (Dstl) has today announced the launch of the Data Science Challenge. The challenge is designed to bring the brightest minds in data science together to solve real-world problems. The first challenges – detecting and classifying vehicles from aerial imagery and the classification of documents by themes– are now open to entrants, with each challenge boasting a total prize fund of £40,000.

The Data Science Challenge is part of a wider programme set out in the Defence Innovation Initiative that aims to build an open innovation 'ecosystem', harnessing the talents of individuals, academia and industry to

develop new approaches to complex problems. The Data Science Challenge is piloting new ways of working including the use of crowdsourcing to engage the data science community to develop cutting edge solutions to Defence and Security problems.

The Data Science Challenge includes two distinct problems that will test the participants' ability to mine large unstructured datasets to extract useful information:

- Safe passage: detecting and classifying vehicles in aerial imagery

Being able to automatically detect and categorise vehicles in aerial imagery will dramatically improve how quickly we can assess and identify them. This challenge asks participants to detect and classify vehicles such as buses, cars and motorbikes, from a set of aerial images.

- Growing instability: classifying crisis reports

Analysing data in documents such as media reports can provide a better understanding of a potential crisis situation, growing instability in a particular region or specific theme such as terrorism. Using news material, this challenge asks participants to predict topic tags for classifying unseen reports so that they can be used to improve awareness and understanding.

Minister for Defence Procurement Harriett Baldwin MP said:

Our Innovation Initiative is about harnessing diverse and talented individuals from business, academia, and beyond to keep the UK ahead of our adversaries.

In this latest challenge, supported by our £800 million Innovation Fund, we are calling on experts to develop the latest technology to crunch big data and identify the solutions that will keep us safe.

James Srinivasan, a Principal Data Scientist at Dstl added:

Around the world, governments are using the power of data to meet many of the huge challenges that they are facing. By analysing complex, evolving information, data science can provide invaluable insight that informs how we can best respond to event.

There is real talent out there and we want to encourage the curious to experiment and learn. We are determined to push the boundaries of what can be done, and to keep striving to always be better. This is why we are launching the Data Science Challenge today.

We are keen to encourage all data scientists, not just those in the defence and security sectors, who want to rise to the challenges that we have thrown-down today, to get involved.

The Data Science Challenge is sponsored by Dstl, the Government Office for Science, Secret Intelligence Service and MI5.

Participants can register from today at www.datasciencechallenge.org and have between 3 April and 11.59pm on 17 May 2017 to develop and submit their solutions. Winners from each of the challenges will be announced at the end of May 2017.

The top three entrants will receive cash prizes. The first prize is £20,000, the second placed entrant will receive £12,000 whilst the third will get £8,000.

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[Making sense of big data to improve the nation's defence, security and prosperity](#)

Dstl challenges data scientists to solve real world challenges in first public competition

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