



# WHY IT MATTERS... COMPUTER SCIENCE



# Loughborough University

## Dr Russell Lock

### Senior Lecturer

I'm fascinated by the way in which Computer Science research can impact on the world. As such I am an applied Computer Scientist.

People in my role within Computer Science are essential to bridge what is called the 'valley of death', which is the problem of taking good academic research ideas and getting them to work in industry. I trained at PhD level as a Socio-technical Software Engineer. That means I develop and evaluate software but with an emphasis on exploring the real world interaction of individuals with those systems.



Have you ever noticed that many of the systems we use are awkward, frustrating, and dysfunctional? This is partly because the people who create systems and the people who use them spend insufficient time exchanging views etc. I undertake observational research to understand the problems people face in their daily lives, to ensure that when we develop technology, that technology is adapted to meet their needs.

Post 16 Education	Higher Education
A Levels Computer Science, Maths, History, General Studies	BSc: Computer Science, Lancaster University  PhD: Computer Science, Lancaster University

### Why did you choose to study computer science?

I have always had a fascination for computers, dating back to my first Sinclair Spectrum ZX. Computer Science is a subject with the potential to impact all areas of industry & research, and as such offered the diverse variety of challenges I needed to keep life interesting.

Computer Science is about understanding the theoretical underpinnings of computers, and the problems to which they can be applied. The achievements of Computer Science are both everywhere in the form of the internet, social media etc and hidden, in the form of millions of lines of code running happily in your home domestic appliances without you even knowing about it.

Computer Science is a young discipline, but we have changed the world in very little time, and we are not finished yet.





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### Russell's Career

I'm a Senior Lecturer within the Department of Computer Science. I'm responsible for teaching Software Engineering to our first and second year students. I'm also Senior Tutor, so I oversee the pastoral care of our 600 or so students.

I moved to Loughborough in 2010 from the University of St Andrews where I was working as a post-doctoral researcher. I currently manage a number of research projects, including working with a national construction company, optimising and enhancing their IT work processes.

### What was it like for you studying at university?

I studied Computer Science during the internet bubble of the late 1990's, a time when the World Wide Web was young, with a hint of the Wild West about it. Computer Science was inventing new paradigms and approaches at breakneck speed (Agile, Social Networking etc), which would go on to revolutionise the way we work, and socialise.

I studied at a campus based university, a decision I believe was very valuable to me, as I found it very motivating to be surrounded by people all in the pursuit of knowledge. University really broadened my horizons and showed me what was possible if you just put your mind to it.

**Russell's advice:** Many of the degrees on offer in Computer Science departments require A-level maths, but not all, with some really interesting joint honours programmes available without it.

There are many careers available to those who are not mathematically oriented. I myself am terrible at mathematics but have had a long and exciting career in Computer Science so far.

### Loughborough University offer undergraduate BSc and MSci degrees in

Computer Science, Computer Science and Artificial Intelligence, Computing and Management, Computer Science and Mathematics, Information Technology Management for Business, Chemistry with Computing, Physics with Computing.

Please note: Degrees and their titles change over time. Some of these graduates may have studied degrees that have evolved and changed in response to changes in demand from employers.