Communicating Computer Science in Schools: A Case Study

Anandha Gopalan and Jackie Bell
Department of Computing, Imperial College London

Background

- Big drop in the numbers of students studying GCSE Computer Science in the UK [1]
- New GCSE curriculum launched in 2014 has made things worse [2]
- How can we help?

Method

- An optional course 'Communicating Computer Science in Schools' to help plug the gap [3]
- UG students go into schools to assist with and lead computer science lessons
- Help to develop schools' competency in teaching modern computer science

Insights

- Better to have a subject specialist teaching
- Better to have a teacher who is passionate and willing to learn rather than an expert who seems disinterested
- Pupils seem to be more engaged when shown the applications of what they are learning
- Misconceptions about the subject abound and start early on
- Children love to learn concepts kinaesthetically
- Involving computer-based activities too early can put pupils off
- Very important to win the parents support

Future Work

- More in-depth analysis
- Publicise findings
- Leverage existing contacts for more activities

References
1. https://www.bbc.co.uk/news/technology-48188877
2. https://www.bbc.co.uk/news/technology-40322796
3. https://www.imperial.ac.uk/computing/current-students/courses/322