

Industrial Engagement for 21st Century CS Education

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Computer Science, or however else we like to talk about our discipline, has strong practical aspects. Our students will have to deploy their knowledge and skills on real computer systems, which can range from an office application running on a single PC to a multi-million line mobile phone billing system, which is distributed across machines, countries and time zones.

As academics, we are particularly well-equipped to instruct and mentor students in mathematical, theoretical and scientific studies, but it is more difficult for us to convey to students what the principles mean in the context of the billing system or the office application. It is here that our industrial links can benefit our students, and indeed our departments and our industrial partners themselves.

This presentation will cover the industrial links between the Computing Laboratory at the University of Kent, and in particular it will address a number of topics.

- How the Computing Laboratory administers one year 'sandwich' placements for its students.
- The strong evidence of quantitative improvement in students' performance as a result of industrial placements.
- Feedback on the placements experience from our industrial partners.

Sandwich placements are well-established across a number of disciplines and countries, even if they are not perhaps given as much recognition in the IT press as they deserve. A more recent and novel mechanism for industrial engagement is the 'Kent IT Clinic'. The KITC allows students to work as consultants to local businesses under the mentorship of an experienced consultant. The typical KITC experience of working across the life-cycle on a project with a small company is quite different from a sandwich placement experience in a large corporate enterprise. The presentation will go into more detail about

- The administrative arrangements of the clinic.
- How clinic activity fits into the IT curriculum.
- A number of the surprises which we have encountered in its two-year history.

The presentation will conclude by examining the prospects of making placements and IT Clinic activities a springboard for student exchange activities across Europe; in the Computing Lab and other departments at the University of Kent international placements provide the potential for enhanced technical and cultural programmes which will be more attractive to students than the straightforward model of studying abroad for a period. This is something on which we can and should collaborate.

This will be a 25 minute presentation; I will attend the pre-conference workshops.