

Signposts to Careers in IT

The Issue

The University of Plymouth has a thriving School of Computing, Communications & Electronics that achieved 32 out of 32 in its assessment by The IET in 2008. But staff were aware that, while students certainly had enthusiasm for the technology, and an aptitude in its application, their perception of employers' needs rarely extended beyond technical ability. Thus students had limited understanding of the reality of a career in the sector. They embark upon a degree because they are interested in the subject area and have an enthusiasm for technology. It is very rare an applicant will turn up on day one of year one saying "I wish to be a Business Analyst for a large corporate organisation within the service sector".

Given that IT is now effectively a graduate level profession, the School of Computing decided that it must promote a realistic view of IT, so that graduates can move into industry ready for a career in a dynamic, constantly evolving sector in a professional manner.

Employers' perceptions

Nationally, the criticism often levelled at Higher Education Institutions is that they are not producing appropriate graduates. This is reflected in news stories that highlight skills shortages within the sector, but also point out that Computer Science graduates have a higher than average chance of being unemployed after graduation: such graduates are usually technically equipped, but often lack the professional and people skills viewed by employers as being crucial for a career in IT.

The University of Plymouth knew that employment rates for its IT graduates were high, but liaison with local employers highlighted some room for improvement in



terms of sector awareness. Plymouth graduates did have good skills mix but they still lacked a clear view of sector needs. While guest speakers would regularly visit to raise the profile of the sector, within the classroom it was difficult to get students thinking about the breadth of careers within the sector.

Applying SFIA

Recognising that SFIA was the first-choice way of describing IT skills, the Computing staff decided to use it as a signpost to the students' careers in IT. SFIA provides an excellent teaching tool that clearly and swiftly opens student's eyes to the breadth of the sector and the relevant skills. Computing staff introduced the concepts so that students could use the SFIA chart to examine the needs of the sector and – more importantly – see where they fit and where they wish to go.

The Use of SFIA in the Curriculum

Year 1: Students are given an introduction to the framework and a brief tutorial to make them think about their own position within the sector

Year 2: Towards the end of year 2, the students are set a piece of coursework based upon SFIA. They are asked to present a profile based upon their current abilities, where they wish to be on graduation, and where they wish to be five years after graduation. They are then asked to consider how they might achieve this profile.

Final year: The students return to their year 2 profile to reflect upon their development and readdress their career goals; they are assessed on this reflection. This is particularly useful with students who have been on a year's industrial placement, as SFIA provides them with a tool to clearly demonstrate their personal development on placement and toward the end of their degree.

Impact

"Initially the size and range of all the options was bewildering but once I had spent some time familiarising myself with the structure I began to see the benefits. I had only a small idea of how my career in IT would begin and an even smaller idea of what progression was available."

"Being able to map my current competencies against the requirements of certain paths meant I was then in a position to flesh out where I would like to be in five years time and how to expand my skills in the correct direction. Along with the lecture guidance the framework has been a real boon in opening my eyes to all the opportunities available in the IT workplace."

Russell Willis, Stage 2 BSc (Hons.) Web Applications Development



"It is good to see the University of Plymouth using SFIA within the curriculum. SFIA is an important part of profiling roles at the Met Office. Having access to students who are already aware of SFIA and know their capability against SFIA skill definitions is a great step forward in aligning Higher Education with the needs of employers."

Peter Lawson, IT Services People Manager, The Met Office.

Future

SFIA looks set to stay as an element in Plymouth's approach to IT.

The key area of expansion for SFIA in the curriculum is to use it more extensively in the first year. That will further the aim of getting students to think more about professional competencies.

Visits by employers will continue and may increase, but SFIA will have enabled students to have a better understanding of the employers' needs, and to map their personal strengths and career aims to the opportunities available.

"SFIA is a fantastic tool to raise awareness of the breadth of careers and skills within the IT sector. A challenge I face with new recruits to our degrees every year is changing the perception that IT is a solely technical discipline. There is a need from day one to ensure students are aware that professional and interpersonal skills are equally important. SFIA, and its visibility in the IT profession, provides me with a clear model to articulate the breadth of the sector and also to help students appreciate their own development through their degrees."

Dr Andy Phippen, Senior Lecturer

School of Computing, Communications and Electronics