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Building a Graduate Employability Community in Computing:
the GECCO Workshops

INCLUSIVITY

01
Defining
employability

Attributes
and capabilities

Specialist,
technical and
transferable
skills

Experience
and networks

Knowledge
and application

04
Measuring
impact

Confidence,
resilience and
adaptability

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employability

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02
Auditing
and
mapping

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and articulation

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and cultural
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Building a Graduate Employability Community in Computing:
the GECCO Workshops

Graduate Employment

In the UK, the government conducts a *Destinations of Leavers from Higher Education* (DLHE) survey each year which collects information on what all graduates from higher education (HE) programmes are doing six months after qualifying from their HE course. The DLHE survey gathers data from all institutions and across all disciplines. For the 2013-14 cohort the rate of unemployment at 6 months post-graduation for graduates of Computing degrees was 11.7%, well above the STEM average of 8.4%. Nor was this a one-off statistic: computing had been at the top of this unenviable table for several years: indeed, in 2008-09 the 6 month unemployment rate was 18.1%.

At the same time, the contribution of digital skills to the performance of the UK economy is substantial. The 2016 report *Digital Skills for the UK Economy* notes:

> "The 'tech sector' alone represents 6% of the UK economy with an estimated Gross Value Added (GVA) per person in the region of £91,800, well above the UK average" and "a study by the National Institute for Economic Research (NIESR) using Growth Intelligence data reports that the digital economy is much larger than conventional estimates indicate. NIESR note that there are approximately 270,000 active companies in the UK (14.4% of all companies as of August 2012); this is much higher than the government estimated figure of 167,000 companies (10.0%)."(ECORYS UK, 2016)

Whilst there is a need for digital skills, there is also a current shortage. The Office of National Statistics (ONS) Labour Force Survey (LFS) data estimates that the number of people working in IT/Comms positions has increased at a greater rate during the past five years (8%) than was the case for workers in the UK as a whole (1%). The high rate of growth is predicted to continue across the 2013-2020 period, with growth in IT/Comms workers forecasted to increase by 19% compared with 6% within the wider market. The sector is expected to employ around 1.4 million people by 2020. Over the year March 2014-2015 the LFS reported that the largest change in jobs was in the 'Professional, Scientific and Technical Sector' (163,000),

with the next largest being in 'Administrative and Support Service Activities' (120,000). As the *Digital Skills* report noted:

> "The shortage in digital skills represents a key bottleneck for industry and is linked to one in five of all vacancies. Currently, 72% of large companies and 49% of SMEs are suffering tech skill gaps."

This anomaly – of the importance of digital skills, coupled with the shortage of people with these skills, combined with large rates of unemployment of graduates from Computing degrees – did not go unnoticed. In 2015 the government established two independent reviews, one into *STEM Degree Provision and Graduate Employability* led by Sir William Wakeham (Wakeham, 2016) (the "Wakeham Review") and another into specifically *Computer Sciences Degree Accreditation and Graduate Employability* led by Sir Nigel Shadbolt (Shadbolt, 2016) (the "Shadbolt Review"). In 2016 the House of Commons Science and Technology Committee reported on the digital skill crisis (House of Commons Science and Technology Committee, 2016).

The Shadbolt Review undertook data analysis, conducted a stakeholder survey, ran three focus groups with the topics supply and demand, measuring the skills gap and accreditation and did telephone interviews with 64 Computer Sciences graduates. The conclusion from this work was that there was no single answer to the problem, but a series of interrelated issues. Firstly, accreditation was not the problem that it was thought to be, nor was changing it liable to achieve a solution: "Accreditation is not well understood by either students or employers".

Secondly, the report identified several partial answers. Departments (most often in prestigious, research-focused institutions) that admitted highly-qualified candidates graduated students with high rates of employment; students that undertook a four-year "integrated masters" course (primarily offered in prestigious, research-focussed institutions) had high rates of employment. Students who undertook a sandwich year had high rates of employment,

"… those studying sandwich courses enjoy the lowest levels of unemployment (6% sandwich vs 15% non-sandwich), the lowest levels of non-graduate level employment (6% sandwich vs 25% non-sandwich), and graduates from sandwich courses are twice as likely to be earning over £20,000 compared to those who did a standard degree" (Shadbolt, 2016)

In the UK, sandwich courses are reasonably common across all institutional types, except in prestigious research-focussed institutions.

Meanwhile, Universities were not doing nothing. CPHC (the UK's national organisation for computing in Universities) in conjunction with the Higher Education Academy organised a series of workshops, focus groups and interviews, involving over fifty institutions, to expose the depth, complexity and richness of employability practices in the sector, and to share those practices more widely. That work identified common "employability challenges" that faculty experienced across institutions, and also identified clusters of similar practice that appears in several institutions in common response to five challenges: Challenge of the employability agenda; Challenge of student engagement; Challenge of curriculum design; Challenge of Reaching the Tipping Point (Placements); Challenge of alternative models to placement, or where placement is not possible (Fincher & Finlay, 2016).

Commons Model

Sharing complex knowledge requires time devoted to either personal interaction or thoughtful documentation of one's expertise, or both (Hinds & Pfeffer, 2003).

The *Disciplinary Commons* is a model devised for sharing pedagogic practice, which has distinctive features. It involves people who teach the same material, but in different institutions, coming together for one day a month over the course of an academic year (nine sessions in total) to examine and share their practice, and document it in a common form – usually a course portfolio. Additionally, participants undertake cross-institutional visits to see each others' work in context (Tenenberg & Fincher, 2007; Fincher & Tenenberg, 2011).

The benefits of a Commons approach are significant for sharing and changing practice, we highlight three here: exposure to practice, change of practice and artifactual literacy.

Exposure to Practice

Firstly, because these practices (of teaching, of employability) are located within institutions, they are each shaped by their institutional context, where views are similar and mindset shared. The mantra "that's not how we do things here" becomes a barrier to change. In order to facilitate change, practitioners need to be exposed to a broad range of different ways – that Java can be taught (for example) – or employability organised. There is also value in knowing not just that it is possible to support students in different ways, but also that that is *precisely* how they do it at the University of St Cosmos and Damien in the Blean. It may be that there are similarities between institutions, so ideas are readily transferable, or perhaps it is that that institution is more prestigious, so practices from there carry more cachet. Participants know their own context very well, and are well-positioned to recognise, adopt and adapt ideas that will "fit" within their situation.

Change of Practice

In order to change a practice you first have to get rid of what is already there. Berg and Östergren (Berg & Östergren, 1979) model pedagogic dissemination as a change process, and one that necessarily involves distinct stages. Grounded in the work of Kurt Lewin they posit that systems (classroom systems in this case) are in equilibrium until a change occurs. Then the system must "unfreeze", must change its conditions or constraints, to allow the change to happen. This process they call "moving". Finally, in order to allow the system to *be* changed, to achieve a new state, it must "refreeze". They say "We have found these three phases between them to characterise the whole span of an innovation process".

The Commons facilitates transfer of practice as a change process by showing participants their context, their home system, reflected in a new light—that of the expertise of other practitioners, other similar practices embodied in other contexts, other systems with different constraints. This very act is permissive of "unfreezing"; extended contact with others encourages and supports actually enacted, allows "refreezing".

Artifactual Literacy

The Commons model foregrounds participants' examination of their own practice in new ways through the use of boundary objects and the artifactual literacy they afford (Fincher, 2012).

Boundary objects

In Commons sessions, participants bring in specified artefacts, concrete things, from their own work. In this way, discussions are anchored, materials can be compared, and the individual pieces of "home" practice are represented in a "foreign" context.This allows participants to talk about their practices, to see them in a disciplinary rather than institutional light. Underlying assumptions (about design and deployment) can be exposed,alternatives considered and different approaches compared.

It is the embodiment of practice in boundary objects that facilitates Commons discussions: "I'll show you mine if you show me yours" encourages questioning that elicits (and illuminates) important features of the originating context. And everyone's practice is similarly present in the room. In this way the material artefacts mediate communities. As originally observed in the identification of the "boundary object" phenomenon (where fur trappers traded animal skins with museum curators) meanings are made clear as they are embodied in the object that is shared, that has meaning for both communities (Star & Griesemer, 1989). In the Commons, objects (e.g. syllabi, student assessments) cross the boundaries of one community (my department) into another (that of my Commons colleagues) and as they are seen in the new context institutional constraints are made apparent (class sizes, QA and other documentary conventions etc.), disciplinary interpretation (e.g. "objects-first") and pedagogic understanding (e.g."pair-programming") are exposed. In this way, all is open for discussion and negotiation.

Artifactual literacy

Within a Commons part of the "work" of a boundary object is to afford "artifactual literacy". This is a concept developed by Pahl and Roswell in the context of schoolchildren and immigrant families,where the telling of important narratives

(of family, home, tradition) is facilitated by being associated with a physical object (Pahl & Rowsell, 2010). So, in their terms, "within everyday lives [a meaningful object] symbolises and represents relationships and events that matter". People can tell a story about an object that they may not have been able to express without it. Artefacts afford the expression of complex realities of a world not present. Children who may be inarticulate in a "school" context can tell a powerful story when it is anchored by a meaningful artefact, the object liberates their literacy. In similar fashion, disciplinary academics who may be daunted by the language of educational development and professional reflection (often disparagingly referred to as "eduspeak") may yet talk fluently and compellingly about their teaching (and its rationale,aims and framing) when the discussion is associated with an object that arises from their practice. It is not so much a case of "every picture tells a story" but "every object allows a story to emerge".

The combination of these features in a Commons supports critical self-examination and peer review helps participants understand their own practice, identify places where innovation and change are desirable, share what works, borrow from others, and see their own work in the context of a broad range of possibilities. Moreover the Commons is successful in this where other sorts of intervention are not. In reviewing 191 papers detailing change strategies in STEM Higher Education, in 2011 Henderson et al concluded

"Two commonly used change strategies are clearly not effective: developing and testing 'best practice' curricular materials and then making these materials available to other faculty and 'top-down' policy-making meant to influence instructional practices. Effective change strategies: are aligned with or seek to change the beliefs of the individuals involved; involve long-term interventions, lasting at least one semester; require understanding a college or university as a complex system and designing a strategy that is compatible with this system." (Henderson, Beach, & Finkelstein, 2011)

This Workshop Series

Following from previous work, CPHC wanted to deepen and sustain a community of practitioners engaged with employability, to examine and share practice. "Employability" is a slightly unusual area of activity within Higher Education in that responsibility falls equally between academic and professional staff, with the precise balance determined by local institutional context, history and situation. Neither is there is such a clearly-determined sequence of activities as there is in the steady progression of teaching undergraduates. These considerations led us to adapt the Commons model in two ways.

Firstly, we reduced the number of sessions (from nine to three). This was partly because professional staff have more difficulty justifying attendance at this kind of external activity, and partly because we could not guarantee that participants were engaged in similar activities at any given point in time (unlike with pedagogic Commons, where it is clear that all students are joining a course together at the start of the academic year, and proceed in a cohort). Secondly, we altered the form of the artefact each participant would deliver from a portfolio to a poster highlighting something interesting or unique in their practice: a showcase rather than a reflection. Other significant aspects of the Commons model – commitment to attend all sessions, cross-institutional visits and peer review – were retained.

There was one other way in which the GECCO series differed from a regular Commons. To minimise participant expense, we ran three instantiations of the workshop series, one in London, one in Manchester and one in Edinburgh.

GECCO

Participants in GECCO were as varied as their institutions: some were heads of schools, others were staff members working in dedicated teams to support students' development of employability skills, and again others were lecturers who had been tasked with a specific focus on employability within their programmes. As we designed and intended, most participants attended all three meetings in the same series; however some participants switched series (so, for example, they attended one workshop in the London series, a second in Edinburgh). To our surprise, this did not seem to alter the experience significantly. Perhaps because the work in each session was the same across the series, participants found no trouble in fitting in with a new cohort, nor in returning to their "home" series. A few institutions also sent more than one representative to GECCO (some of whom attended different series) to gain a broader perspective. In some cases, these participants contributed different practices from their separate viewpoints.

GECCO was designed as a complete interventions, and workshops built on each other, with "homework" in between. This required a commitment to continued attendance in all three meetings: the first two meetings focussed on the analysis of the wider employability practice at each institution, whilst the third workshop culminated in the creation of the showcase representations.

At the first meeting, we explored the broader context of how employability was arranged at participants' institutions (e.g. departmentally-based or located in a University-level service, provisioned by academic or non-academic staff, etc.) and asked them to position themselves in regard to this work. We then used journey mapping techniques more commonly encountered in a commercial context, in customer experience design and service design (Kimbell, 2015), to investigate employability practices from a student perspective. Specifically, participants mapped students' employability experience at their institution over time and identified the "touchpoints" where students interacted with the institution around employability. Such an interaction might be individual or group, face-to-face, or remote; it might have been with the participant themselves, with another person in the department or with another department in the University entirely. However institutionally remote these interactions may be, they are experienced sequentially and perceived seamlessly by the student.

Of course, student's interactions with employability are not identical, and depend on many factors, some identified in the literature (students from low-economic background and minority ethnic groups); some identifiable (such as grades); some intangible (such as motivation and aspiration). Consequently, we asked participants to develop lightweight personas. A *persona* is a tool from interaction design. Personas are fictional. They are created as compilations of characteristics that, when combined, create a reliable and realistic representation of key users or key user groups. The goal of personas is not to represent individuals, but to focus on the major needs of the most important groups (of students). Although personas are fictitious, they must be based on real knowledge. Some form of research should inform them to ensure they represent real users (students) rather than the opinion of the person writing the personas.

Thus, in homework, we asked participants to supplement the identified touchpoints with quotes from students at their institution to add texture to the experience they were describing. Participants were asked to return with the completed journey map for the second workshop.

Whilst the first workshop focussed on creating a map of student's *journey*, the second meeting was instead concerned with creating a map of the *system* relevant to

employability at each institution. In particular, we were looking to explore otherwise invisible aspects of practice, such as what happens in the "back offices" behind the line of visibility (*Shostack, 1984*). The second workshop also introduced the format of the practice showcase. Within this format, the *context* of a practice is (perhaps surprisingly) the most difficult part for practitioners to articulate, as they are constantly immersed in it. We thus asked participants to visit each other in between the second and third meeting: Visitors, with the clarity of outside vision, were tasked with completing the context section of the template for the institution they were visiting.

The last meeting in the series focussed on describing a particular aspect of practice. Each participant brought an artifact to the meeting to illustrate a particular aspect of their practice. Sometimes these were obvious, sometimes indirect, sometimes whimsical.

From these initial discussions, attendees then completed the showcase framework, working on, critiquing, and revising each others' submissions throughout the session.

Finally, completed showcases were submitted after the workshop and peer reviewed by a participant from another series who had not previously been exposed to the practice described in the particular showcase. The resulting practice showcases form the body of this report.
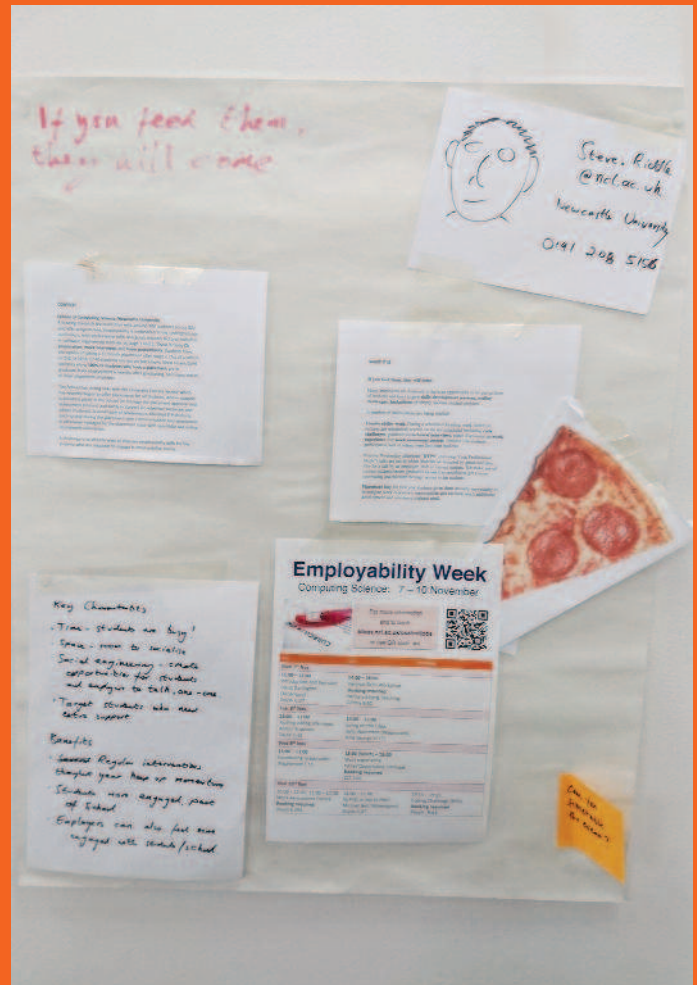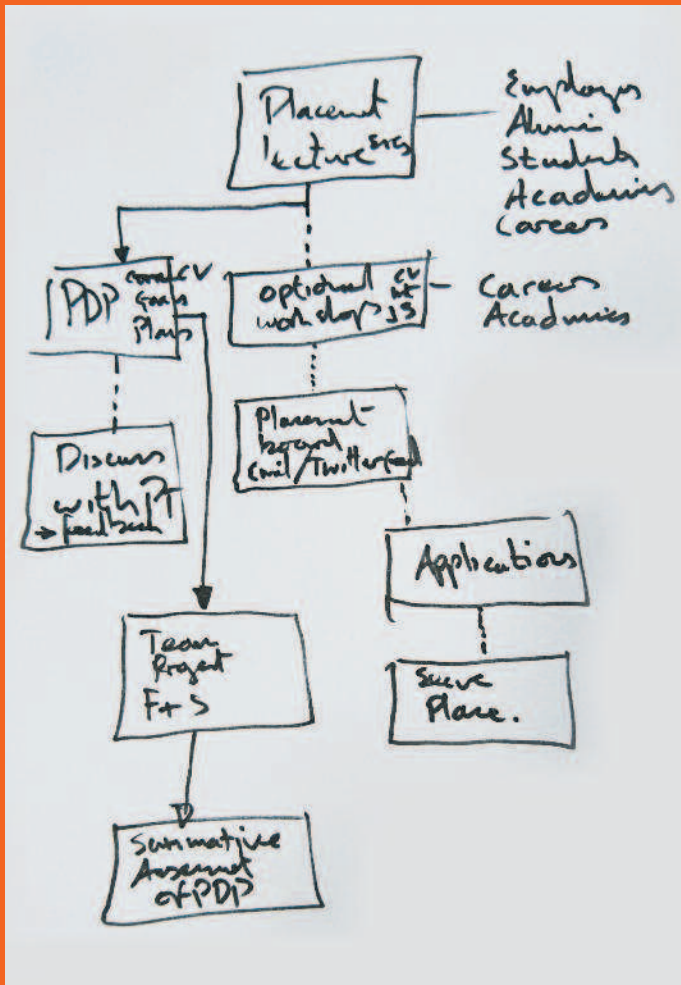
Practice Showcases

Although in the same format, GECCO showcases differ from those in the *Computing Graduate Employability: Sharing Practice* report in that they are individually authored and reflect participants concerns in their own voices. The showcase format comprises the following sections;

Name
Overview of the practice (what it is)
Context, a sketch of the department and institution, to so the practice may be understood as situated within its context.
What they do, a descriptive overview of the practice.

Key characteristics – aspects that are critical to the success of the intervention, or innovative in its application.
Benefits – advantages that the practice affords

This common format was chosen because it emphasises aspects of practice that allow others to access and understand the relevant details. In particular, it specifically includes the three constituents of practice as identified by Shove et al (meaning, competence and materials), memorably summarised by Kimbell as "... practices are the combination of stories (meaning, images), skills (know-how), and stuff (objects, infrastructures)." (Kimbell, 2015)
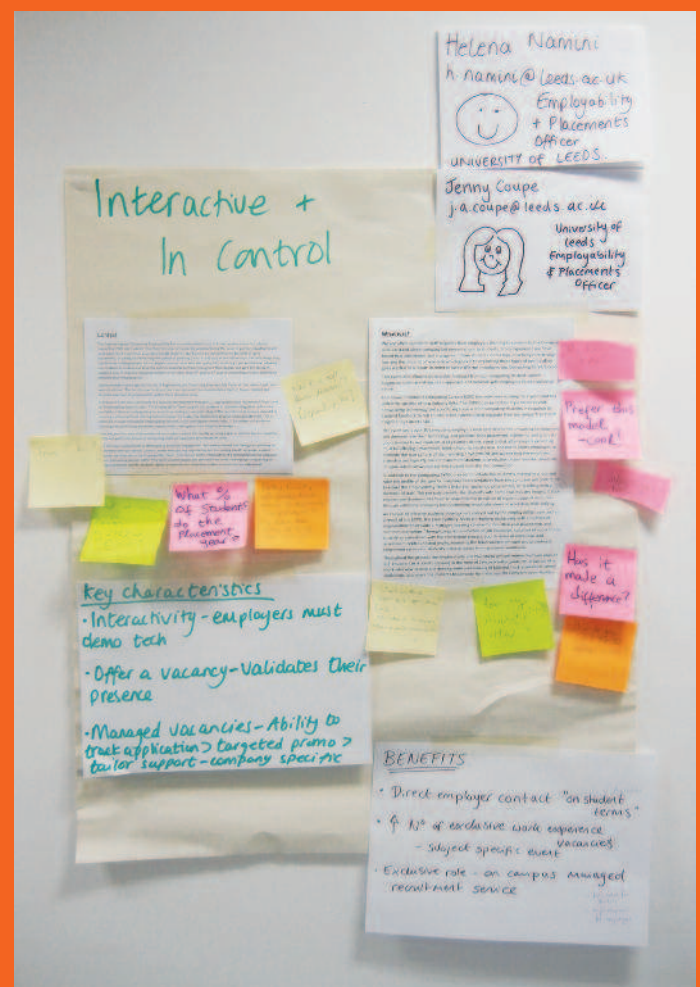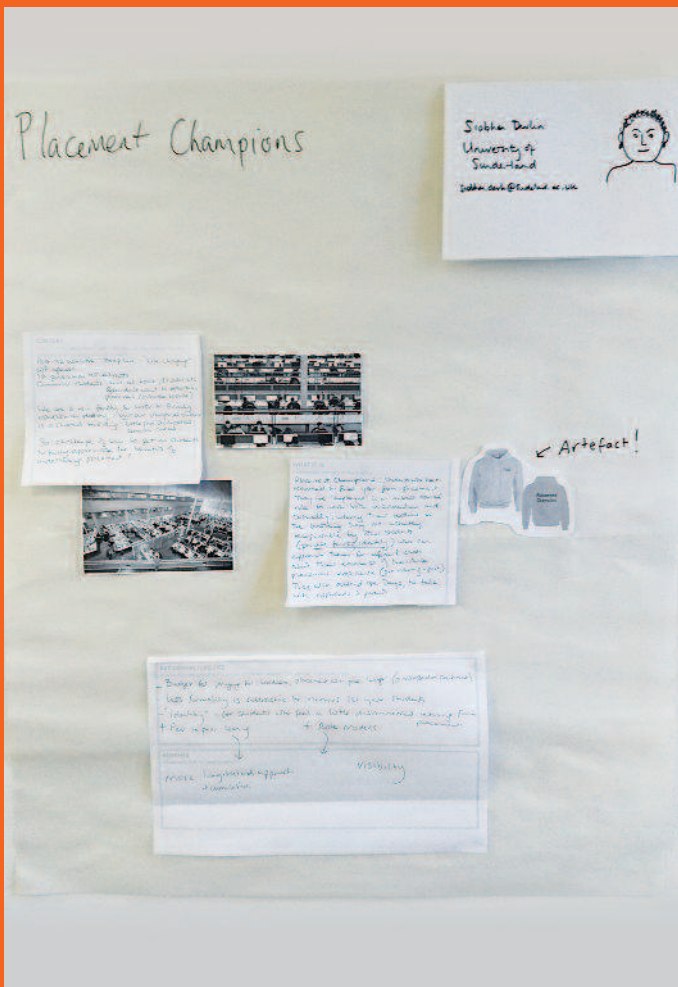
Exposing components of practice in this way allows practitioners who seek alternative ways of doing things, but are taken up in the "blooming, buzzing confusion" of daily (academic) life, to identify those aspects that are relevant in their own situation. Showcases can be matched by *stuff*, common institutional types or similar infrastructure; by *skills*, those competences that we want to imbue in students or ways of engaging employers; or by *story-* shared aims of education or empowerment.

The Higher Education Academy has undertaken considerable work in regard to employability, and has published several reports, including a framework (Cole & Tibby, 2013) and a useful literature review (Artess, Hooley, & Mellors-Bourne, 2017). These provide a common reference point, and we have used their categorisation as an organising principle to index the showcases.

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April 2017

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Practice Showcases

Enhancing employer-student relations through social engineering – or – if you feed them, they will come

Context

School of Computing Science, Newcastle University.

A leading research-led institution with around 900 students across BSc and MSc programmes. Employability is embedded in the curriculum, with professional skills sessions and guest industry lectures.

Most recent DLHE statistics show **100% of students who took a 12 month placement** are in graduate-level employment 6 months after graduating.

But how do we help the others to be ready for industry? We need to:

- Increase numbers of students gaining work experience
- Improving confidence and employability skills for students who are reluctant to engage
- Satisfy the demand from employers to connect to students, avoiding the embarrassment of low turnout for guest talks

What it is

We stage a co-located programme for employers and students to meet, interact and connect – as well as developing student skills:

Employability week. During Reading week (when no lectures are run) several events were scheduled including code challenges, guidance on technical interviews, panel discussion on work experience and mock assessment centres. Around 150 students participated, half of whom were first year students.

Regular Wednesday afternoon "DYPS" (Develop Your Professional Skills) talks are run: students are tempted by pizza and then stay for a talk by an employer, staff or current student.

Employability Week
Computing Science: 7 – 10 November

For more information and to book:
blogs.ncl.ac.uk/csatncljobs
or use QR code =>

am	pm	evening
Mon 7th Nov		
11:00 – 12:00 Introduction and Keynote: David Darlington (Accenture) Daysh G.07	14:00 – 16:00 Deloitte Skills Workshop **Booking required** Barbara Strang Teaching Centre B.32	
Tue 8th Nov		
10:00 – 11:00 Tackling coding interviews, Andon Andonov Daysh 1.29	14:00 – 15:00 Living on the Edge, Sally Waterston (Waterstons) King George VI LT5	
Wed 9th Nov		
11:00 – 12:00 Introducing Gradcracker Stephenson F.13	13:00 (lunch) – 16:00 Work experience panel/Opportunity Carousel **Booking required** CLT 1.01	
Thur 10th Nov		
10:00 – 11:00. 11:00 – 12:00 Mock Assessment Centre **Booking required** Daysh 6.29A	14:00 – 15:00 To PhD or not to PhD? Michael Bell (Waterstons) Daysh G.07	17:15 – 19:15 Coding Challenge (BJSS) **Booking required** Daysh - Rack

Key characteristics

Good use of time – students are busy, and have to balance between academic focus and work experience

Social engineering – create opportunities for students and employers to meet and connect

Range of events and speakers – use current students or graduates as well as employers and academic staff; provide group work, technical talks, soft skills development; some bookable events, some not

Build up momentum – keep going! Students come to expect and anticipate events

Benefits

Students are more engaged, part of the School's community, more aware of range of potential work opportunities

Employers also more engaged, keen to return and run more events

Students **volunteer** to run sessions, gain further skills development

"The Mock Assessment Centre of Accenture was a great experience, because it provided me with an insight of what those kind of group exercises actually include and I learned a lot on what I could improve in the future."

"The work experience panel was the most useful as it gave me practical information and inspired me to undertake this study option."

"I attended one presentation where one guy just came back from Seattle where he was doing his placement year at Microsoft. I was amazed about all technicalities and coding interviews he was talking about. It was really inspiring me how this guy tackled all challenges ... it was amazing for me as I never thought that I might be interested in a placement year."

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Newcastle University

Owning your objectives
Using negotiated learning objectives in placement year assessment

PRACTICE SHOWCASE

Context

QMUL is one of the largest institutions in the University of London with over 20,000 students and is a member of the Russell Group. A large proportion of our students live locally and many are from non-traditional backgrounds.

The School of EECS has offered degrees 'with Industrial Experience' since 2006 and in 2013 extended the option to all students on any of our UG programmes. In 2015 the School also introduced a 'with IE' variant to our MSc degrees. The number of UG students going out on placement has grown steadily since the scheme was introduced and has gone from 7 students in 2006 to 41 in 2016. Approx.15% of the current third year cohort is out on placement.

The School of EECS has a dedicated placements team which consists of an Industrial Placement Manager (IPM) and an Admin Assistant. The IPM is responsible for managing the placement process and supporting students throughout their placement journey. The support includes 1-2-1 guidance on job-search as well as pre-placement preparation workshops. The IPM is also responsible for visiting students who are out on placement and is Module Convener for the assessed Industrial Placement Project.

The School considers feedback from a student's line manager as an important and valuable part of the placement year process. In the first four years of the placement scheme this was gathered through a questionnaire that included a series of 16 headings relating to skills and competencies. Employers were asked to complete the questionnaire and grade the student from 1 to 5 alongside each heading ((1=Unsatisfactory 5=Excellent). This approach had a number of weaknesses. It was more likely to be subjective and we also found that in a number of cases students were not included in the process or even aware of the scores they had been given.

This led to our decision to introduce a new approach that encourages students to negotiate and review their learning objectives with their line manager.

What it is

The placement year is assessed and counts as a 30 credit module at level 5. There are four components of the assessment:

1 A reflective Learning Journal (10%)
2 A 3 part Learning Objectives task (20%)
3 A Report (60%)
4 A Presentation (10%)

The Learning Objectives are discussed and negotiated between the student and their line manager. The student and the manager are given guidelines by the School on the process but the onus is on the student to drive this forward and to arrange meetings with their manager to get it done.

The process has three stages across the duration of the placement.

1 Identifying your learning objectives (week 8)
2 Progress Review 1 (month 4)
3 Progress Review 2 (by the final deadline date)

A set of templates designed by the School are given to provide scaffolding for the process.

The 'Identifying' stage is an opportunity for both the student and the manager to discuss the role and related tasks in detail. For organisations without an existing appraisal or review process in place this may be the only formal mechanism for doing this.

During the two Progress Reviews the line manager is asked to evaluate the student's performance and also to discuss and identify a set of new or amended objectives to take forward to the next part of the placement.

The objectives are evaluated using a 3 point scale that is based on how well a student has met expectations.

The completed documents also inform the conversations the IPM has with students and their managers during the placement year. The Progress Reviews are particularly helpful in highlighting any problem areas that may require further discussion.

Key characteristics

- Employer buy-in to the objective setting process
- Student buy-in to the objective setting process
- Objectives are tailored to the specific role and context
- The process reflects existing workplace appraisal/review systems
- Simple marking scale leaves little opportunity for confusion and adds focus for all parties

Benefits

- The process encourages students to take ownership of their learning and to take an active role in their development
- The objectives are written in the 'employers language'
- Provides a scaffolding for employers to use (especially helpful for SMEs without existing formal appraisal systems in place)
- Objectives are realistic and measurable
- Prepares students for CPD practices post-graduation
- Provides the School with some meaningful context

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Queen Mary
University of London

Embedding of professional skills in the computing curriculum

PRACTICE SHOWCASE

Context

Wrexham Glyndŵr University (WGU) has strong links with the community it serves, such as with the county council, local schools and colleges. Established as a People's College in 1887 and funded initially by the contributions of individual miners, the organisation has maintained strong links to industry, such as AVOX and BT who employ WGU graduates, and its communities throughout its 125 year history. In 2008 it won university title and today has approximately 6000 students.

More than half of WGU students study part-time and WGU is one of the UK's leading universities for supporting students from lower socio-economic backgrounds through university thanks to a comprehensive Widening Access programme in the local community. Wrexham has the largest population in North Wales, providing an opportunity for large-scale community engagement. It also offers access to a ready-made employment market, being local to Wrexham Industrial Estate, one of the largest in Europe with around 300 business and 7000 employees. WGU achieved an employability figure of 92.1% in the Destination of Leavers Survey (DLHE) published in 2016.

Computing at WGU is part of the School of Applied Science, Computing and Engineering. A range of courses are offered and the department prides itself on its student support, teaching quality, and growing research capability.

What it is

Computing programmes at WGU feature modules specifically dealing with professional skills. These modules are thematic and run through all levels of UG programmes. The modules orient themselves around design and implementation of information systems, to maintain subject relevance, and build experience in communication, planning, presentation of information, research skills, and recognising the importance of professional development. Delivery of these is achieved through the use of case studies, scenarios, workshops, and tutorials to give students the opportunity to investigate, discuss and acquire further subject specific knowledge through individual and group work.

Level 4, *Professional Development in Computing: Information Engineering*, students explore the function of information systems, including principles of systems design in organisations, and develop professionalism and social and ethical awareness.

Level 5, *Responsible Computing*, enhances systems design and analysis abilities, students relate theory to practice and identify ethical, sustainable, legal and environmental constraints on IS professionals, and stakeholders in the industry, which shapes the profession.

Level 6, *IT Project Management*, students become critically reflective in their approach. They develop understanding of issues affecting the management of projects and the industry. It increases self-awareness and insight into both professional and ethical issues.

Key characteristics

- Place ethics and professionalism at the core of everything students do throughout their degree studies.
- Assessments allow students the opportunity to explore key concepts and theories whilst developing an appreciation of 'real-life' issues and situations.
- Development of a portfolio of work, allowing students to document, and reflect upon a range of scenarios, in groups and individually.
- Provide students with lots of opportunity to discuss information through student-led seminars, peer group discussion and formative presentations of their work, both individually and as a member of a team.
- Include role play whereby students are allocated a specific professional role and given a problem situation. They will demonstrate IT project management skills and knowledge in identifying and solving problems and defending and justifying decisions made.
- Delivery by Computing staff to retain a subject specific feel.

Benefits

- Developing awareness of the bigger-picture outside the University and away from the often highly focussed content of modules being studied.
- Providing a way for students to identify how specialist knowledge and skills interrelate and are applied to IT/IS project scenarios.
- Giving students ethical and social awareness of how the technologies they develop relate to their user groups and wider population.
- Enabling students to develop strong communication skills and have an appreciation for being able to engage with a range of stakeholders with varying levels of technical knowledge.
- Developing a professional attitude to their careers and the way in which they present information to a range of audiences.

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Personal and professional development for computing science students

PRACTICE SHOWCASE

Context
- 4 year degree
- Broad start, in the first 3 semesters students study 3 subjects, one of them is computing
- From Semester 4 (Year 2), students take only computing modules
- Stirling CS programme is software oriented

- Mostly work with small employers in/around Stirling, but also in Glasgow and Edinburgh
- Getting to companies often requires to be able to drive

- UG programmes include Computing Science/Software Engineering and also Applied Computing which is run jointly with Forth Valley College (students join Stirling in Year 3) and have a compulsory placement after Year 3

Professional Development Module was introduced because:
- Employers often commented on weak professional skills in the past
- Some university organised careers session, not well attended by our students
- Used to run one-off sessions for computing science students, not well attended
- Improve numbers of students who successfully secure a placement

What it is
Professional Development Module during Autumn semester in Year 3 was introduced in Autumn 2016 to prepare students for placements and professional life after their studies.

Not credit bearing, so not to push out technical content of the degree

Contains weekly sessions:
- Use university careers service to deliver some sessions
- External consultant delivers session on presentation skills
- Work with E-placements Scotland to bring a number of companies in for a speed-networking event
- Students do a Myers-Briggs Type Indicator profile, CV, covering letter, elevator pitch

Placement in Summer after Year 3

- Organised by computing academic with help from university careers service and university enterprise group
- 40 students are looking for a placement, which is a steep increase from previous years (in part due to Applied Computing students who have a compulsory placement as part of their degree)
- Students can continue to work with placement company during their final year honours project.

Key characteristics
Professional development sessions are bundled as a module which appears on the transcript to increase the perceived importance of the module and to encourage student attendance. There are 10 workshop style sessions in total which are delivered by external speakers, company representatives and careers service staff. The module is organised and run by Computing Science academics.

We also have a plan to further enhance the PD module with a commercial business game workshop (2 day) to increase students' commercial awareness and to develop project management; leadership; pitching for business contracts; team working; negotiating skills. This is scheduled to run in Autumn 2017.

Activities are linked: Professional development module in Semester 5 (Year 3) to prepare students for a professional life and especially prepare them for placement applications. Semester 6 students apply for placements with placements running during the summer. Afterwards, students may do their final year honours project with the placement company if both parties agree on a suitable project.

Benefits
- Encourage student uptake on the offered sessions and improve their skills.
- Improve students' professional skills.
- Improve students' confidence.
- Increase number of students securing a placement.
- Provide industrial experience to students.
- Improve number of students securing graduate computing jobs

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UNIVERSITY of STIRLING

University of Portsmouth – Value added facts

PRACTICE SHOWCASE

Context

An optional, year-long industrial placement is available to students on all six undergraduate courses offered by the School of Computing at the University of Portsmouth. Over the last ten years, around 35% of students have chosen to take up the opportunity each year, however it forms only one plank of a wide-ranging approach to employability that has been key to the University's student experience since 1992, reflecting the range and combination of experiences students may encounter in their future careers.

There is a strong push across the School of Computing to embed employability into the curriculum for all students, supported by academics within the School and by the Faculty's dedicated Placements and Employability Centre. Whilst the year-long industrial placement remains a core employability tool, the School also supports self-employed placements, which allow students to establish and run their own enterprise for a year, short-duration summer placements and volunteering opportunities. Students are also encouraged to share their experiences through formal and informal exchange processes, perpetuating the spread of knowledge.

Providing opportunities to explore careers and develop skills is only half the battle to embed employability: without a concrete understanding of where students feel they need support and data on the value added by the University's practice over the course of an entire degree programme, developing effective practice is at best a stab in the dark. Historically, much of the support made available to students has been based on either anecdotal evidence from individual students or the experiences and assumptions of staff. These have often proved to be very good indicators of the students' needs, but there is always the potential for gaps in knowledge – particularly ones the students themselves have failed to recognise – to be missed.

What it is

For the first time in 2016, a study was undertaken at the start of the academic year with the School of Computing's Level 5 students, to gain an understanding of how they have engaged with employability opportunities to date, their early intentions with regard to the industrial placement and what further support they felt the University could provide. A similar study was undertaken with Level 4 students towards the end of the academic year.

Adapted and expanded from a study previously undertaken by York University to more closely reflect employability practice at Portsmouth, the study looked at employability activities students had engaged with over the summer break; the current state of their CV and whether they felt they needed help with it; what kind of employability activities they would like access to, for example interview practice, access to guest speakers, information on career options from their course, voluntary work and enterprise activities; their intentions with regard to the industrial placement.

The data arising from the study highlighted a number of valuable findings. Some of the most useful results related to the employability support the students were interested in: 58% wanted to hear more about graduate career options from their course (a finding replicated in the Level 4 survey) and 51% wanted help with interviews, whilst only 17% were interested in volunteering opportunities, one of the University's key focuses for development. The data also highlighted very discrete distinctions between students on different courses, suggesting employability support might move towards more targeted practice compared to the School-wide and University-wide approaches that have been the direction of travel over the last five years. Deeper analysis of the same data showed a second pattern which hints that students consider certain employability activities to be specifically beneficial to students intending to go on placement, for example entrepreneurial events, while others are more universal, for example hearing from more guest speakers. This was not anticipated, but does suggest that some students perhaps feel excluded from certain employability activities because of their decisions about the placement.

The study specifically identified a subset of students, 32% of the respondents, who had not undertaken any kind of employability experience prior to the start of their second year. These students were much more likely than the overall pool of respondents to say they had an up to date CV but also more likely to say that they wanted help with CV development, and less likely to express an interest in enterprise opportunities, which perhaps suggests an underlying lack of confidence. They were also much more likely to be unsure, or against, the idea of undertaking an industrial placement: 75% of all the respondents who rejected any of the suggested opportunities for support came from this subset.

This study is intended to be the first component in a more comprehensive piece of research, examining the experiences of students at all years of the undergraduate programme, as they move through their degree, leading to a deeper understanding of the value added by the range of employability experiences between arrival and graduation.

Key characteristics

- Aggregated, flexible annual data
- Opportunity to reflect on practice and react to changes
- Low input from both students and most staff for relatively high output
- Fast return on most data for both students and staff
- Requires support amongst staff, in particular course leaders
- Need Leadership to drive the dissemination and analysis of the acquired data
- Requires support from local and central management to permit exploitation of the data

Benefits

- Identifies development and intervention points
- Insight into student understanding and mind set
- Actual quantitative data direct from students

For the first time, instead of presenting a buffet of opportunities and leaving students to create their own meal, we have been able to gain consistent, non-anecdotal, insight into what students feel they need and tailor our employability offerings to suit. This has allowed us to target groups of students with information about particular activities, for example advertising volunteering events specifically to students who showed an interest in that area, with the end result that the level of background noise of communications is reduced and students feel less bombarded. Whilst the available evidence is limited, this strategy does seem to have increased student participation. It also provides an opportunity to identify patterns of behaviour and attitudes to employability which can allow us to recognise students at particular risk of not developing the experience sought by graduate employers. This can allow the School to make best use of limited resources, without abandoning the University's central belief that students have a variety of aims and ambitions and benefit from the chance to explore those options within the supportive university environment.

Over a period of three to five years, this study also offers the opportunity to answer one of the key questions in employability across our sector: how much value does the University's efforts add to a student's experience and post-graduation opportunities.

This is adapted from the practice presented in the University of York showcase "Auditing Employability" included in the first report, "Computing Graduate Employability: Sharing Practice".

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University of **Portsmouth**

"All Aboard!"

The Swansea Employability Academy (SEA) Award.
Imbedding employability skills for all computer science students.

Context

Computer Science department at Swansea University.

The Computer Science department is one of 6 departments that form the College of Science. The department runs a comprehensive range of computer science programmes starting at a foundation level through to postgraduate taught and postgraduate research programmes; currently there are just over 700 student enrolled throughout the department.

All Computer Science students have to undertake careers development, traditionally this support was via stand alone timetabled 6x1 hour sessions, delivered by the careers service. However these traditional 'chalk and talk' sessions were poorly attended; it was evident that something more attractive was needed. There was good will from the department and the staff in careers who agreed that something was needed which better used existing time and better used those personal committed to delivering employability skills to students.

In 2011, Swansea University reviewed its careers delivery strategy inline with growth objectives. The result was that careers support would come under the auspice of the newly created Swansea Employability Academy (SEA). One initiative the Academy brought forward was the development of an on-line employability award; consisting of 4 levels, the award, which would be recorded on a student's final transcript, was made available to all Swansea University students to undertake on a voluntary basis. Whilst the award was of value, there was little take up by Computer Science students.

Swansea Employability Award

The award has 4 levels, all students can undertake any level of the award, but the more levels they take the higher award they gain, from Bronze (level 1) through to Platinum (level4). The 4 levels are (see diagram for details):
1 Know Yourself (KY)
2 Get an Experience (EXP 1)
3 Get an Experience (EXP 2)
4 Plan and Make it Happen (PLAN)

What it is

To combat both the existing low take up of the award by Computer Science students and low attendance at the stand alone careers lectures, staff in the computer science department and SEA devised a new approach: embedding the SEA award into an existing credit bearing module. Rather than the stand-alone careers lectures, students would undertake the first and arguably the most important part of the award, which was integrated into the mandatory Computers in Society 15 credit module. This first year module, led by a departmental tutor is jointly delivered with SEA staff in a traditional pc lab. Students are supported in the classroom by postgrads; they assist throughout the 3 x 2 hour sessions, providing a peer-to-peer mentorship role. The award element of the module attracts 10% of the overall module mark.

The first level of the award is based on a series of self-reflection exercises, CV development and concludes with a one-to-one careers meeting. Specifically there are 7 areas of self-reflection, which all students complete through the online pebble pad+ environment with assistance from Post Graduate student support.

The 7 key areas explored are:
Values and Motivators
Learning styles
Type Dynamics – Myers Briggs
Careers Inventory
Numerical Inventory
Numerical Reasoning
Verbal Reasoning
Abstract Reasoning

Each section is undertaken through a series of questionnaires, which helps provide an individual careers inventory, showing the most important careers theme to the student. Students then use the MyWorkThemes.com to explore possible careers options before concluding with a one to one careers interview. Once this is completed the student receives the Bronze level SEA award.

Key characteristics

To make this practice possible there are a number of resources required:
- A positive approach by the academic tutor working closely with the Careers Service. Delivery is further enhanced with strong support from Post Graduate students, who act as peer mentors, providing hands on support in completing the tasks.
- Embedded and credit bearing. All students seamlessly undertake the practice as part of the wider module, all of which carries credits. There is added value too; they quickly see the benefits of taking part in the SEA award, which is recorded on their final transcript.
- A technology based platform, requiring a PC lab. The students are able to work individually, at their own pace using the online pebblepad+ platform. The tasks they undertake and submit are externally validated.
- Students must book and attend a one-2-one Careers advisor meeting to complete the award.

Benefits

the workload to pass the module. Therefore they come with an open and positive mind in regard to exploring their employability skill strengths, weaknesses and potential careers pathways. Students are motivated and quickly see value in the award. The award is recognised via a certificate, will be recorded a student's official transcript, and will add value to their CV.

The structured approach, but yet students can learn at their own speed. Using the online process students can work individually but will also discuss with their peers elements or tasks to better understand what's required. They feel confortable speaking to the postgraduate assistants who will have already undertaken this module.

Undertaking this module early at level 1 it helps students to think about their personal and transferable skills and articulate an early careers focus. They not only have completed the module, which by doing so they have created a well-constructed CV, they also have had to book and attend a careers meeting to pass. By undertaking the module they come prepared to the one -2-one meeting ready and open to exploring career pathways and have a good understanding of what steps are needed to fulfill their expectations, due to the exercises they have previously undertaken within the module.

By using Pebble Pad+ Students create an on-line book of work which forms a strong portfolio pulling together the self-reflection and reports produced by the student. This asset is then accessible post completion, giving the students something tangible to reflect on and refer back to in the future. This was a key prerequisite which was central to the e-platform procurement process.

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What do you want to be when you grow up?

Using a Year 2 placement module to encourage maturity in computing students and to highlight the importance of early career planning.

Context

The School of Engineering and Computing at the University of the West of Scotland (UWS) has a strong focus on vocational courses. Most computing students follow a generic syllabus for the first year of their studies. At the mid-point of second year, they are given the opportunity to undertake a short placement in industry (two days per week for eight weeks). This placement is designed to raise the student's awareness of the reality of working in an industrial setting and to develop their graduate attributes and employability skills. The placement module is optional but all students are encouraged to take it. There is often a great deal of complacency when the students first meet to discuss this module. The relaxed nature of their first year or so at university can often have a negative impact on their ability to understand and fully appreciate the potential of a placement and to recognise the maturity that is required to successfully negotiate the module and gain the full benefit of the placement experience.

The title of this poster has an intentional double meaning: the module allows students to consider the types of industry roles that could be available to them in relation to career planning but also stresses the importance of them "growing up", with an increase in maturity being viewed as one of the key outcomes of this module.

What it is

The key artefact that encourages this "growing up" process is the Placement Learning Partnership Agreement. This is a document that forms the basis of a tripartite agreement between student, university and placement provider. It functions as a legal document and, amongst other things, clearly sets out the responsibilities of all three parties with respect to the placement process. The document is used as a teaching tool with students working through it in a considered manner at a number of tutorial sessions. In doing this, students gain an understanding of the significance of the placement and of the responsibilities that will rest on their shoulders. They realise very quickly that the placement is not just a bit of fun – that it is a serious undertaking which can carry grave consequences if it is not effected in a professional manner. Some students do not make it to the placement stage as they do not develop the level of maturity that is required. The students who do manage to successfully complete their placement can be seen to have developed real maturity in their approach to their studies and a real awareness of the importance of career and personal development planning. The Placement Learning Partnership Agreement document is a key contributor in enabling student growth and maturity and could potentially be viewed by many seasoned graduates, reflecting back on their career, as the seminal artefact that ignited the flame of career-focused maturity in them during their time at university and that was instrumental in influencing their choice of career and their ability to achieve graduate success.

Key characteristics

Students must recognise the career-focused nature of the placement module and not be taking the module as an "easy option" to avoid examination-based assessments . Dedicated classroom time prior to the commencement of the placement is essential for students to develop an understanding of the maturity required. It is also essential that placement providers work in partnership with the university to develop a career-focused maturity and a sense of professionalism in placement students. Students are assessed on their ability to critically reflect on their placement experience and on its impact on their personal and professional development and career planning – this assessment assists in developing maturity.

Benefits

Students who have successfully completed this placement module display a level of career-focused maturity that is often absent in their peer group. These students also display greater maturity in their approach to their academic studies, are more engaged with personal development planning, and appreciate the importance of participation in extra-curricular activities. There is also a recognised improvement in student motivation and commitment to studies as a direct consequence of this placement experience. Students are encouraged to establish and maintain contact with industry professionals and potential employers and those students who have the maturity to do so benefit greatly from these contacts in later years.

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UNIVERSITY OF THE
WEST of SCOTLAND
UWS

Enterprise in Action

University of HUDDERSFIELD
Inspiring tomorrow's professionals

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The Enterprise Placement Year enables students to set up their own company on campus, supported by business advisors and an industry mentor.

CONTEXT

The School of Computing and Engineering offers 4-year sandwich degree programmes to around 2000 students, and every year over 250 students will undertake a supervised work placement as part of their studies; up to 10% of placement students engage in an Enterprise Placement Year (EPY).

Based on campus in dedicated workspace provided through the Duke of York Young Entrepreneur Centre, students form start-up companies through which to develop their own IT sector business idea throughout the EPY, during which they research, plan and prove the concept of their idea. Supported by a series of seminars on starting their own business, and gaining valuable advice through regular meetings with Enterprise Team Business Advisors, students manage sales and negotiate contracts for their companies to provide products or services in their chosen market.

Credit-bearing assignment work focussing on the development of business plans, product specifications, and marketing strategies contributes towards 25% of students' final degree classifications, and on completion of the EPY, businesses are assessed by a panel comprising a University tutor, an external business expert, and an Enterprise Team Business Advisor.

PRACTICE

The Enterprise in Action programme aims to:

- provide the skills, facilities and support to enable students to set up and run their own business during their sandwich year

- enable students to develop and apply both the technical knowledge and personal/social skills learned through their studies

- give students experience of working in a self-employed capacity in an area of the computer industry appropriate to their pathway

- provide opportunities for personal development in the area of innovation and entrepreneurship

- allow students to self-fund through their company, or to work part-time to support themselves as they build the business.

CHARACTERISTICS

Flexibility   Innovation   Entrepreneurship
Creativity   Enterprise   Active Learning
Start-Up Support   Business Mentoring

BENEFITS

Students graduate with a degree and a functioning enterprise, and current students have told us:

Danyl Jones, Computer Games Design, Enterprise Placement Year, setting up his own games studio

"I'm setting up my own Games Studio with three classmates. We get office space in the Duke of York Young Entrepreneur Centre, plus business advice and support. So far my experience has helped greatly in terms of making new contacts within the games community."

Dayna Davison, Computer Games Design, Enterprise Placement Year, setting up her own games studio

"My most memorable event of my time here was pitching for my place on the Enterprise Placement Year. I had never pitched for anything real before, we had done practice pitches on my course, but so much was riding on this and it was real. I felt so proud we got the place, it made me feel like my game idea was validated by the panel made up of academics, a business mentor and placement experts."

Build your future:
Guiding students to enhance their employability

Context

We are a small department with 164 UG, 39 PG and 34 PhD students. We have 20 staff. We offer core computing as MA and BSc degrees, which most students. 95% of our graduates are employed or in further study (90%, 5%) per DHLE 2014-15. Etc. We also offer these with a year long placement too, which appeals to a growing number of students.

A UoA degree is based on the Melbourne Model so one-fifth of the degree comprises non-CS courses. Students don't always know what is possible between their degree courses, non-degree course options, and other opportunities.

Students worry about what employers will think when they see course titles like 'Restless Vulcan', or 'An Appetite for Food and Health' on their transcript. Others take other options such as 'Globalisation', or 'Science and Society', but these don't appeal to many students. We needed to find a way to make the work better for our students.

What it is

We created a diagram illustrating opportunities for students to work alongside professionals during their degree. The leaflet provides a diagram (as shown below) to illustrate how students should pull different parts of their university time together to best advantage. The reverse side will explain the components in detail how the curriculum of their degree can be used to develop a degree to suit their needs..

There are four components to this:
- Breadth degree requirements for non-computing components, which can work well with the CS components.
- Co-curriculum activities that regularly occur on campus and offer places where students can work with professionals
- CS degree requirements
- Placement and other work opportunities.
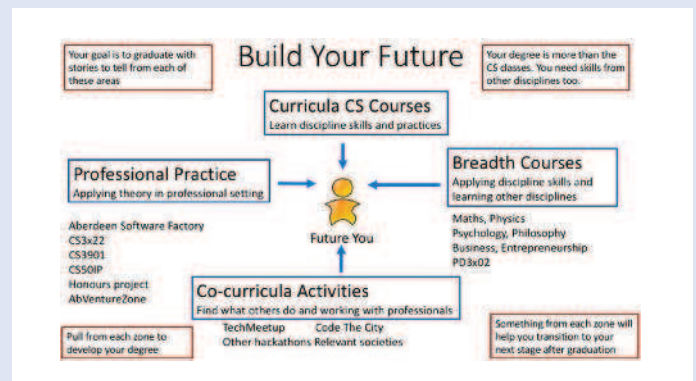
Key characteristics

Students don't know the options available to them and tend to think only of their discipline with respect to their courses. Computing students don't always think about business classes, or psychology and how these apply to their subject. Nor do they always think of what other experiences would help their degree. Many think of placements, and about half of our students do a summer or year-long placement. However, few take part in other activities beyond the classroom.

The classroom should become more integrated with the co-curricula.

Students should mix more regularly with professionals.

Disciplines should become more mixed during events and courses.

We have only recently realized that this message is missing from what we tell our students. This diagram is the start or our delivery of that message.

Benefits

This diagram will help raise awareness to students and can be reproduced in a variety of formats.

Students should appreciate the diverse perspectives available.

Students should make more informed options decisions that work well for them.

This practice should enhance student engagement.

This is a new experimental item. We will use it as the focus of talks with students and also modify it as needed with the help of students.

If it works for computing, then we can develop a generic version for all students, or tailor it to different disciplines.

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UNIVERSITY OF ABERDEEN

PRACTICE SHOWCASE

Context

The School sits within the Faculty of Sciences and has its own dedicated Placement Office of two (1.6 fte) who work solely with second year students registered for the Year in Industry. Annually there are around 240 students (BSc and MSc), most of whom register for a YII, 75% of whom go on placement. We visit students during their year, helping them keep reflective journals, speaking to their managers and identifying development areas. We also mark their placement reports.

We begin formally working with students at the start of Stage 2, meeting on a per-request basis and organising weekly timetabled sessions. Considerable effort goes into building relationships with students and networks of relationships with employers and alumni, allowing us to recommend placement opportunities based on character and skill set. Students are frequently overwhelmed by the choices available to them and an initial exploratory conversation provides them with a strategy to apply to their search. **It's this conversation that we are showcasing as it enables students to 'get in the game' quicker and with more focus.**

What it is

Questions are asked about three areas/preferences, as illustrated below. The discussion allows us to get to know the students well, which helps us steer them towards companies/roles (whether UK or international) they may like. A shortlist is drawn up on the same form (below right) and there is an action for the student to draft the first in the list, which is followed up at each meeting.

Key characteristics

The meeting needs to be right at the start of the process

It needs to be a one-on-one meeting (of at least 30 minutes) so there needs to be enough resource to dedicate to this for the whole cohort. The meetings are not compulsory and some students take advantage more than others. We do need to proactively chase students, particularly post-Easter.

Most students engage fully with the placement process (it's embedded in our School)

We need to have a good knowledge and understanding of the market, the nature of organisations and roles, and past students' experiences

Benefits

- Students start to think about placements in a more focused way
- It's a great way to develop an important rapport with the students
- Students leave with an action (drafting a specific application)
- It's fluid. We can revisit the circles and tighten/widen them as required during the year
- It's iterative. We can look back over time and track its value
- Employers get more applications from suitable candidates
- Students get moving quicker, and/or waste less time on blanket applications and therefore have a higher success rate
- 75% of our students secure meaningful placements, around a third of which lead directly to graduate employment.

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Identifying exit on arrival: Key registration questions

Context

Every year as part of the annual registration process (since 2014) all of the students enrolling at Lancaster University are asked about their level of Careers Thinking. This applies to all UG, PG, f/t and p/t students in every discipline. The questions have been categorised into 3 sections which are:

Decision Making

Action Planning

Competing

Based on the student responses to the registration questions, shown opposite, an automatic, personalised, email is generated within 24 hours. This email provides details of actions, opportunities and pertinent information around upcoming events, opportunities and links through to self help guides and the appointment booking system for the careers team.

Having started the process in 2014 the Careers service now has 3 full years of data following a complete student journey through Lancaster University.

Using this we are now working with individual departments to understand what the data says and to see how successful interventions have been over the 3 years with us and also what new activities we can introduce at key times of the year.

What it is

Below are the the questions asked during the registration process. This annual mechanism allows us to measure the careers thinking of the students and to see how their values change as they progress.

Please select the statement which best represents your current careers position:

- I am not ready to start thinking about my career yet (Decide)
- I have no career ideas yet but want to start thinking (Decide)
- I have some ideas about my career & am ready to start planning (Decide)

- I have a career in mind & intend to gain relevant work experience (Plan)
- I know what I want to do but not sure how to get there (Plan)
- I want to spend a year gaining experience (Plan)

- I am ready to apply for graduate level / professional opportunities (Compete)
- I am ready to apply for further study (Compete)
- I have been applying for opportunities & have not been successful (Compete)

- I have a job, further study or my own business plan confirmed (Other)

Key characteristics

The responses provided by the students are not held in isolation. They link through to other systems, primarily onto TargetConnect, the institutional database for all of the careers activity. The individual profile contained within has details of the student including their registrations onto development courses, one to ones with the careers advisors & attendance at employer events and careers fairs. This combined data source allows our Careers Service to develop and enhance their offering.

Further developments to the process have been the introduction of free text boxes to provide additional information on levels of work experience and any other information that the students perceive as relevant. Alongside this we are working across departments to understand what insights the data set can provide and to measure how successful our interventions have been.

Benefits

Using the 3 years worth of data we are able to review the whole student journey, identifying archetypes, common issues and challenges. The purpose of this is to identify the best way to address each individuals requirements as their expectations and priorities change. The data set allows us to make more informed decisions as the knowledge of the student journey provides powerful insight into how careers activity is perceived during a degree scheme.

As we are enhancing the process new challenges arise and we are keen to develop systems that allow us to interrogate and effectively interpret the free text box information that the students provide automatically. We are looking to develop these smarter solutions so that staff time is focused on student facing support and to allow for more bespoke and timely interventions.

Some developments to date have been a refined final year support programmes as we have been able to identify tailored support opportunities and the development of new widening participation projects to fulfill demand.

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Lancaster University

Context-rich student engagement

in the Department of Computer and Information Sciences at Northumbria University

Context

The department of Computer and Information Sciences (CIS) at Northumbria University offers computing and information systems related programmes at undergraduate and postgraduate level. Over the last few years, there has been an emphasis on building strong research expertise in the department, accompanied by an increase in the required entry level points for new students. This has been in line with the introduction of integrated Masters programmes at undergraduate level. Overall, all of these measures have had a positive effect on the academic quality of students in the department.

All undergraduate programmes in CIS provide the optional opportunity to take a one year work placement after the second year of study; the programmes also offer semester based placements in combination with a study abroad semester, with the one year work placement being the most popular choice with students.

The positive impact of a one year work placement is well researched and documented within the University. For the Computer Science undergraduate programme cluster, the starting salary for students who completed a one year placement for example is on average approx. £7,000 higher than for those students who did not take up a placement.

Considerable effort is therefore going into communicating to students the positive impact a placement can have on their career, and to motivate them to pursue the optional one year work placement. The first session on employment in the digital sector for example already takes place in the first-year induction week, and is typically jointly delivered by a company (e.g. Oracle), the Director of Placements and Employability, a student from a relevant programme who has just returned from placement, and a member of the central University Careers team. This initial session is then followed by several engagement opportunities throughout the students' first two years of study, with a more intense offering from the start of the second year, which includes the Faculty's Employers Fair.

Engagement opportunities are not timetabled and optional, and typically include technical talks by companies, company presentations, CV and interview preparation, mock assessment centres and mock interviews, LinkedIn workshops and other opportunities.

Students who would like to embark on a work placement are supported by members of academic staff, namely a placement tutor for CIS, and the Director of Placements and Employability for the Faculty. In terms of professional support, the students can access the Faculty's placement support team, and the central University's careers service.

What it is

An example for context-rich student engagement in the department of CIS at Northumbria University is an offer for a student bursary which is sent out to students approx. two weeks before the Faculty's Employers Fair. The student bursary is usually provided by a company not necessarily well known to students in terms of their computing-related activity, for example an accountancy firm with a requirement for computer security specialists, or a manufacturer looking for information systems placement students.

The student bursary provides the winner with a guaranteed interview for a placement with the company, and offers a cash prize to encourage students to apply. The offer for the bursary is sent out by an academic well known to the student cohort involved, who encourages the students to discuss their bursary application with representatives of the company at the upcoming Employers Fair to strengthen the application's content.

> **Student Bursary:**
> - £250
> - guaranteed interview for a placement
> - publicity

The bursary application requires students to carry out some brief research on the company in order to answer some of the questions on the application form, e.g. "What do you think which skills you have that would benefit X as an employer?", or "What do you know about the company X". The application deadline is approx. one week after the Employers Fair with a direct submission to the academic who originally sent out the application form.

Key characteristics

A single point of student engagement, in this case the Employers Fair, is taken out of its one-off engagement nature and put into a context for students that provides them with the opportunity to engage with the event over a period of time. The student bursary turns the single engagement opportunity of the Employers fair into a progressive journey with an aim – to win the student bursary.

Critical aspects for this intervention are the timing around the Employers Fair (when the bursary is offered to students before the Fair; and the deadline after the Fair); and that the academic advertising the bursary is well known to the students.

Benefits

This model provides the opportunity to build stronger relationships with companies as it encourages good application levels for placement job offers to companies who might otherwise not enjoy a healthy number of student applications. It can generate publicity if required for the company, the student winner, and the department; a photo is usually taken with a company representative handing over the bursary to the winner, which can be used in departmental newsletters, company brochures etc.

The bursary encourages students to prepare job applications in a professional manner by carrying out relevant research on the company prior to interview. Feedback from employers who have participated in the bursary scheme so far has been very positive, both in terms of student application numbers and the quality of applications. The intervention also supports the development of a stronger community of stakeholders, with students, academics and employers supporting each other on the students' journey to employment.

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northumbria
UNIVERSITY NEWCASTLE

The last mile – bridging the gap between the University's employability strategy and academic department response

Developing initiatives to increase staff awareness of business links, help them to help students make informed choices.

Context

The University of Portsmouth's Employability Strategy is part of its Education Strategy. Employability is one of the missions of the University and the qualities expected of "the Portsmouth Graduate" have been defined. The university-wide Department of Employability (Purple Door) provides comprehensive services to students which can be individualised for every stage of their job search. There is an in-house recruitment agency, with focus on local companies. Purple Door has also provided a toolkit on the VLE with resources for personal tutors coaching specific skills such as communication, confidence and working in teams.

The Faculty has a dedicated placement office, which liaises with businesses and offers multiple levels of support to students depending on their stage in the placement process. Although Purple Door and the placement office have excellent offerings, there are issues with consistent staff knowledge of them and with full student engagement in the School of Computing.

In the School of Computing there are 650-700 on-campus undergraduates and 41 staff. Each member of staff is personal tutor to 8-10 students in each year, including their final year project students. For levels 4 and 5 there is timetabled personal tutor contact. There is a strong push across the School of Computing to embed employability into the curriculum although its realisation is left to individual academics. Every course in the School has the option of a placement year.

There is considerable business contact "on the ground" within the department, as individual members of staff use their personal contacts (who can be alumni) for a range of teaching and employability activities, mostly in an ad hoc way. Attempts have been made in the past to collate this information, but haven't been sustained. There has been a lack of joined-up thinking on this in the department, and only interested students engage with employability.

What it is

This practice concerns bridging the "last mile" between high level strategy and provision of employability resources, and actions on the ground taken by academics to support their students in employability matters. This is achieved in two ways:

- First: making staff more aware of options for working with their current business contacts, and providing contact-sharing opportunities.
- Second: Encouraging staff to bring their knowledge and experience of business contacts to their one-to-one discussions with personal tutees and students on their taught units.

Recording contacts and interaction types centrally offers staff a joined up approach to employability activities, allowing ideas and good practice to be shared, and identifying and managing multiple contacts with the same organisation. A list of interaction types is a business-engagement template for staff. Types include: guest lectures, joint projects (students and business) / KTP, Research topics, placements and internships, graduate recruitment, student enterprise cooperation, Athena Swan mentoring for female students, business mentoring.

Communication is key to the practice being adopted by staff. A staged approach is used. Firstly, the School's senior management team and course leaders are consulted, being concerned with University metrics for employability. The Employability and placement teams and the Associate Dean (Students) are also informed and are supportive.

The next stage is to enter discussion with other staff members on a whole-department and a one-to-one basis, about student employability generally, and their thoughts on the plan specifically. The pattern and the supporting system will be discussed at staff meetings and follow-up conversations will be held with individual staff. Contacts and information which staff are willing to make available will be collected into the database, and information shared about multiple interactions with the same company. Course leaders and individuals with soft power are advocates, sustaining the practice over an trial period (two years). To assist in maintaining the contact list, periodic informal audits of contacts will be carried out and staff working independently with the same organisation areput in touch with each other.

The student body is to be consulted via course reps, at Staff-Student Consultative Committee meetings.

Key characteristics

The characteristic of the pattern are: using knowledge of academic – business liaison activities throughout an academic department to inform all staff so that they can have meaningful discussions about employability with their students.

This is done by using a tangible mechanism to get staff to share their contacts and experience with businesses, with recording of practice.

A communication-based activity which seeks to inform rather than control staff. Use of soft power to bring staff onboard.

Use of the personal tutor system and work in relevant units will help staff communicate their knowledge and experience to students, who will make more informed choices about their career plans.

Benefits

A resource for the School of Computing, bringing staff into the employability process.

Provides a structure for staff to work with, embedding in their practice.

Encourages staff to get involved and plays to their strengths / interests.

Students gaining meaningful employability support from personal tutors.

Reanimating personal tutor sessions and encouraging staff and students to make better use of Purple Door's tutor toolkit.

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University of **Portsmouth**

From thinking about applying to making an application: Triggering engagement

PRACTICE SHOWCASE

Context

The Computer Science and Engineering subject area at Leeds Beckett University has 6 Undergraduate Awards with approximately 600 Fte enrolled students.

The employment rate of students is relatively positive when compared to the national picture, with 90-95% of graduates employed within 6 months of graduation. Of these 65% are deemed to be in graduate roles. The university has high aspirations for our graduates and has set a target for all awards to have an employment rate of 95% and graduate employment rate of 75%.

We believe that to address the target for graduate employment we need to increase the number of students that take a sandwich placement. Currently 20% take a placement, yet 80% indicate they are interested in taking a placement at the beginning of level 5.

Support for employability and placement preparation is primarily the responsibility of academics. Central careers service provides generic support, such as CV writing and interview workshops. Faculty office provide admin support to track students on placement. Central employer engagement support careers events such as visits by employers and careers fairs.

What it is

We promote placements as a positive choice at open days, applicant days, prospectus and during level 4 – particularly through modules with a professional development focus. Consequently many enter level 5 motivated toward securing a placement year. But this early flush of enthusiasm quickly loses impetus for many. Hence we have adopted an approach to our support which imbeds activity aimed at triggering positive action by students at different points throughout level 5.

At the start of level 5 there is a 10 week programme of lectures covering all aspects of preparing for and applying for work. This is delivered primarily by academics supported by the careers service and including guest slots by employers, alumni and students that have been on placement. As part of this lecture series students are introduced to Personal Development Planning and provided with a template to develop their own plan. Students submit their plan and CV early on in the first semester in the knowledge that they can receive feedback on this prior to the plan being assessed at the end of the year.

To give the PDP process a nudge after submission students are invited to a meeting with their Personal Tutor where the contents of the PDP drive the agenda, and at which students are given feedback on their plans.

In semester B students take a Group Project module and aspects of the PDP related to work experience and career aspirations are shared with their group to help foster group forming.

The PDP is completed during the second semester through the addition of a reflection of progress made against the original plan and the development of a plan for the following year. This is submitted and forms part of the summative assessment (10%) for the Group Project module.

Key characteristics

The approach uses a number of touch points:

- The initial lecture series includes input from alumni, employers and students that have been on placement. The combination of voices has proved a good way to motivate the students with a strong inclination toward placement.
- The one-to-one meeting with a personal tutor to review the PDP acts as an effective trigger for those students that have expressed an interest in placement but have begun to procrastinate.
- Voicing their goals and plans with peers as part of team working helps students to renew their commitment to seeking a placement. This is at a point in the year where we traditionally see a second wave of applications as a result of local SME's advertising posts.
- Handing in their PDP and CV provides a final nudge to those still considering placement to ensure their plans are clear. This at a point when we see that students - having completed the year academically - are inclined to turn their focus to job applications.

Benefits

Having noted that only a minority of students have sufficient motivation to make serious efforts to find a placement post as a result of initial briefings, this approach formalises touch points across the year. In so doing students are able to engage at their own pace. The mixture of approaches, which involves the presentation of plans and goals to a number of different audiences, targets a range of triggers to prompt activity. The use of PDP to underpin activity drives preparation for job applications and fosters reflective practice and goal setting.

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LEEDS BECKETT UNIVERSITY

Build a robot, build a community

Context

RGU is situated in the North East of Scotland, and thus attracts students from rural and remote locations, as well as more urban students. A number of the undergraduate student intake are international students, leading to a disperse cohort with a diverse background, all studying degrees within the School.

This practice happens in the first four weeks of the first year and is labelled as an "extended induction" for students. Meanwhile, they are still taking normal classes.

This is a compulsory event for all first years; numbers are approximately 100 students from within the School of Computing Science and Digital Media participate.

What it is

The first thing that all undergraduates do is to be randomised in teams of 5-6, and participate in a 4-week LEGO Mindstorms competition. The teams are responsible for their own time and also responsible for the major decisions that need to be taken throughout the project.

The instruction given is fairly minimal: students are placed into teams, asked to build a 'base robot' from a number of parts as a common starting point, and then given four weeks to build and program the robot further to solve a number of predetermined challenges. There is no incentive for them to complete this challenge, as this is not part of an assessment.

This forces them to work in teams (sometimes multidisciplinary) from the start, become more independent learners, and start to approach problem solving in a more engaging manner – these are all traits that employers request of our graduates.
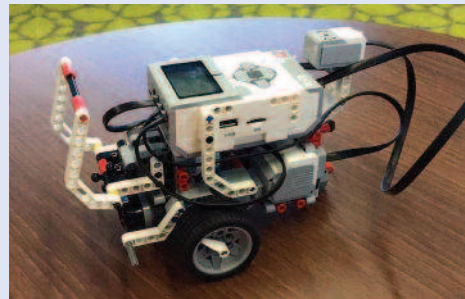
Key characteristics

- Requires a budget for initial robot purchase, especially if catering for large student numbers.
- Requires an amount of buy-in, training and initial enthusiasm from staff
- Timetabling constraints – requires rooms large enough for the challenges to be set up.

Benefits

- Can be rolled out as wider outreach to the general public to excite and enthuse about computing
- Embeds soft skills (time management, independent learning) in a different setting
- Engages students; this is a fun, hands-on way to meet the people you will be with for the next 3-5 years!

Dr Mark Zarb
Robert Gordon University

RGU ROBERT GORDON UNIVERSITY ABERDEEN
SCHOOL OF COMPUTING SCIENCE AND DIGITAL MEDIA

Employable-me! Students in transition

Students' personal constructs of graduate employability: An adapted repertory grid tool to enable students to 'connect' to employability in the curriculum

PRACTICE SHOWCASE

Context: Students in transition

Direct entry Level 3 students or 'top-ups', face significant challenges during the transition process into university. For computing top-ups at Sunderland, they experience a steeper learning curve than mainstream students at Level 3, have less confidence in and undervalue their abilities, underplay previous work experience, may be in part-time paid employment and have had siginificantly less time to assimilate the university's diverse and embedded 'employability' message. An employability self-assessment questionnaire undertaken by 45 students showed that while 23% of students felt they could compete effectively for graduate jobs in computing and non-computing contexts, nearly 50% did not see themselves as effectively competing for any kind of graduate job. A more in-depth study into students' personal constructs around employability was undertaken using a 'Repertory Grid' (Fransella et al, 2013), a structured interview protocol which asked students to identify the skills and qualities needed by computing professionals in various job roles. Top-up students were interviewed using this technique, generating a student-centred diaglogue which revealed their personal constructs around employability using their own individual language and explanation. Early analysis suggested some 'gaps' in personal constructs in key curriculum areas, indicating that students were not making appropriate *connections* between the taught curriculum and knowledge skills sought by employers.

What it is: Connections workshop

All computing top-up students undertake the module CET333 Product Development during the second semester. In this module students learn how to work on a real world project scenario with a client. The module takes a very interactive approach, including group activities during workshops and individual meetings with clients. The practice developed in this module is to adapt the Repertory Grid technique to create a group-work activity where students interview each other to explore what they understand by different job roles in the computing industry.

Protocol

1. Conduct a short demonstration showing students how to interview each other using the Repertory Grid structured interview technique;
2. Identify interviewers and interviewees and facilitate the interview process encouraging students to reveal their own personal constructs around employability;
3. Ask students to summarise the constructs they have revealed, categorise these and map them onto their taught programme structure to identify 'connections' and 'missing links';
4. Explore/discuss connections and gaps to help students understand the connections between their taught programme and the knowledge and skills they will need as computing graduates;
5. Students will then incorporate their individual personal constructs into the formulation of a personal 'Practitioner Statement' which constitutes 15% of their assessment for the module.

Key characteristics

Through its 'Sunderland Futures' programme, delivered by the Careers & Employability Service and teaching staff in the Faculty of Computer Science, mainstream students benefit from three years of a strong, focused 'employablity' messages; top-up students, coming direct entry into Level 3 miss two years of this important extra- and intra-curricular acitvity. It is critical for top-up students therefore, that there are strong and clear connections made between what is delivered in their taught programme and the skills, abilities and qualities they will need in computing job roles and that they can see more effectively the relevance of the learning and teaching context. This practice being showcased has taken a very student-centred approach, encouraging students to self-assess their employability skills, engaging them in a small scale research study to explore their personal constructs around employability and providing structured classroom activities which faciliate students in making connections between what they are learning and what is needed by employers in computing job roles. The ultimate goal is the acheivement of an authentic 'graduate' identity (Holmes, 2013). Upon graduation top-up students will need to compete effectively for jobs alongside students who have taken a more straightforward route on a three year degree programme. This practice sets out to mitigate against the delayed impact of 'employability' messages for these students by engaging them in a focused dialogue around what they understand by employability and potentiating the impact of their taught programme and what the Sunderland Futures initiative can offer them realistically during the one year they are with us on campus.

Benefits

The benefits of this practice are that it (i) builds a richer awareness by students of how their knowledge, skills and qualities links with specific graduate job roles in the computing industry; (ii) fosters more confident students through helping them to appreciate the value of the abilities and skills they already have and lessening the impact of disorientation during the transition process; (iii) develops students' own dialogue and personal narrative around their employability to empower them as they move from university into a graduate role and (iv) helps students on their journey to achieving an authentic graduate identity.

References

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Holmes, L. (2013). Realist and relational perspectives on graduate identity and employability: a response to Hinchliffe and Jolly. British Educational Research Journal, vol 39, no. 6, pp 1044-1059.

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School of Computing and Mathematics

The AWARE Framework – A Progressive Approach to Employability

Practice Showcase

Context

The School of Computing and Mathematics has approximately 900 fulltime undergraduate students across four degree programmes: Computing Science, Software Engineering, Computing Technologies and Interactive Multi-Media Design. The University's third strategic aim is "*to enhance Ulster's role as a sector leader for student employability as an integral part of the wider student experience.*" As a School we wanted to develop a collective framework to draw isolated employability activities together. We were keen to develop an enhanced employability strand, underpinned by a greater awareness and understanding of professional issues within the curriculum.

A progressive approach to employability was devised and introduced in September 2013 - the **AWARE Framework**. Since introducing AWARE we have seen the percentage of students securing professional employment in Computing Science increase from 85.3% (2012/13) to 92.1% (2014/15). Our coverage of employability has had some very positive outcomes. For example, a placement employer recently commented about a student, "*his attitude to his work is meticulous, and his career attitude is always 'how can I do better' or 'give me some advice!'*" Through AWARE we aspire for all our students to receive this response.

Awareness (Year 1)

Work preparation (Year 2)

Acquire experience (Year 3)

Reflect / refine / refocus (Year 4)

Employed

AWARE helped formalise our existing employability coverage.

It is implemented through an 'anchor' module in each of Years 1 - 4, with employability skills taught, developed and assessed elsewhere as appropriate, including CPD modules.

What Is It

Awareness (Year 1)

Year 1 is about **raising awareness** of the role and importance of employability skills.

| Academic Skills ⚓ 10/4 | Professional Awareness ⚓ 10/4 | | | |
| Mathematics for Computing 20/4 | Programming I 40/4 | | Computer Technologies 20/4 | Introduction to Databases 20/4 |

Figure 1 – Year 1 Modules

⚓ Professional Awareness is the anchor module (See Figure 1) for initial development. With Academic Skills and other level 4 modules Year 1 addresses inter alia:

- Employer expectations.
- Role of Year 2 and Year 2 marks in securing early placement interviews.
- Returning students meeting with new intake.
- Careers talks and guest lectures.
- Initial introduction to CVs, and skills acquired to date,.
- Presentation skills – taught in Academic Skills and reinforced across the year.

Awareness is also developed by the use of CPD modules for example: PPD105 "Building your Skills".

Work Preparation (Year 2)

In **Year 2** the focus is on **work preparation** and engaging with the placement preparation process.

| Data Communications & Networking 15/5 | Professional Development ⚓ 10/5 | Programming II | Systems Development 20/5 | Client / Server Application Development or Database Engineering 20/5 |
| Systems Software 15/5 | | Programming III or Mobile Development 20/5 | | |
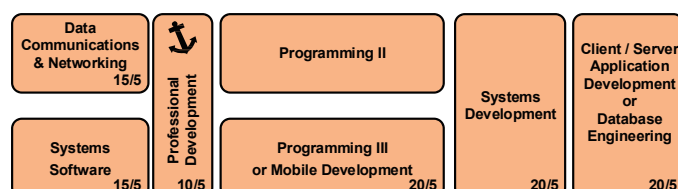
Figure 2 – Year 2 Modules

⚓ With Professional Development as the anchor module, Year 2 considers:
- Ongoing development of Year 1 professional development activities.
- Technical competence for professional practice.
- Ongoing CV development.
- Employability skills development and practice.

Recently we have seen an increase in opportunities for short, one week, Easter Internships (Year 1) and Summer Internships (between Years 1 and 2). AWARE enabled us to react quickly, engaging students in early and sustained CV preparation. One student noted, "*I was invited for my first Placement interview in Semester 1. My CV got me through the door, step two was making a presentation to ~15 people; it was nerve-racking, but the experience developed in Year 1 really helped.*"

Acquire Experience (Year 3)

Year 3 professional practice is a mandatory requirement of the course and is fundamental to the development of employability skills for the student. This is the primary opportunity for all students, within the context of professional practice, to **acquire experience and knowledge.** Professional practice often influences Year 4 module choice, project choice and future career pathway.

Where professional practice is not mandatory 'Acquire Experience' may relate to short periods of work experience and / or internships.

Reflect / refine / refocus (Year 4)

Having **reflected** on their placement experience, **Year 4** is the opportunity for students to **refine their skills** and **refocus on their career direction**.

| Option 1 20/6 | ⚓ | Software Process Eng 10/6 | Option 2 20/6 |
| Option 3 20/6 | | Computing Project 30/6 | Option 4 20/6 |
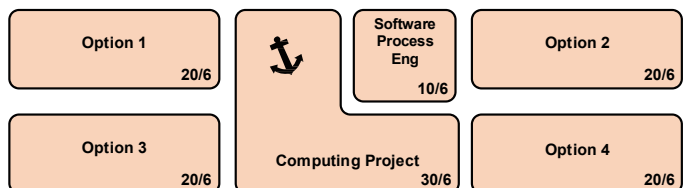
Figure 3 – Year 4 Modules

The final year Project module is an important aspect of this. Students may choose a project derived from, or building upon, their placement experience. The Project provides a context to:

- Assess what employability skills have been learned throughout the programme so far.
- Allow the student to reflect on why they are doing a project and its employability benefits. For example: showcasing their strengths, time management and presentation skills.

Further **reflection, refinement and refocusing** is encouraged by the use of CPD modules for example: PPD102 "Graduation – What Next?".

Employed

As part of the Year 4 reflective activity each student prepares a Project Showcase – an assessed reflective report which allows the student to explore their project work from an employability perspective. One student noted, "*the Project Showcase made me think about my project as something I could use at interviews*." Another said, "*the project showcase was something I could talk confidently about at my interview, I've just secured my dream job, it really helped.*"

Key Characteristics

- AWARE is a <u>generic</u> framework which can be amended / applied to formalise any employability context irrespective of discipline.

- It provides a structured, cumulative approach to increasing employability awareness and embedding activities across the curriculum.

- As many employability activities are now embedded within the curriculum it is relatively easy to secure course team buy-in.

- Student buy-in increases as they progress through each stage and start to recognise / understand the incremental nature of their employability journey.

Benefits

The AWARE Framework provides a number of benefits:

- Employability is embedded in the curriculum – it is no longer a neglected add-on to study.

- Early and ongoing exposure to employability which is timely for where each student is in their employability journey.

- Students learn to contextualise learning and skills to employability opportunities.

Its true value however, is in facilitating a growing body of students to become more self-AWARE of the skills they have developed and learn to review their progress against targets they have set.

#Embedding Teamwork
Developing team work and work-based skills within Computer Science.

Context

Computer Science at Hull is a medium to large subject, with a first year intake of approximately 300 students, and over 800 in our current body.

Hull is the 14th oldest university in England, with generally a mid- to higher league position in performance tables. Intake qualifications are typically moderate (C-B grades, with foundation routes for lower tariff). However, employability rates are high – both in terms of gaining employment (approx. 94%), and on that employment being a graduate destination (i.e. a graduate level role, approx. 92%); this rate has been consistent for a number of years. A particular feature of our course has been a structured approach to team work from the first year onwards.

Resourcing for teaching remains challenging, with relatively high Staff-Student Ratios meaning that effective and scalable approaches to teaching are critical.

Our courses are accredited by the British Computer Society, and our portfolio includes 4-year integrated masters (MEng) programmes with guaranteed commercial experience based on an in-house industrial software development unit (SEED software); this is only available to a small number (approximately 20 out of 120 students last year). Few students go to external placements (10 to 15).

Support for employability is via our own careers contact, as well as an overall culture of working with industry through projects, placements and visits. This is further supported by an allocated central careers lead. Work with employers – such as local IT companies or national games employers – is generally informal, though we are attempting to enhance this.

What it is

Group work: offers practical mechanisms to enable students to develop transferrable skills – team-working, communication, presenting ideas and developing project/time management. This is embedded throughout the course, with modules at each level and semesters, and included organized formal and assessed team activities. Support and advice to staff enables this to be widely adopted.

Authentic assessments embed legal, social, ethical and professional practice provide motivational activities as well as assisting in achieving accreditation requirements. Teaching staff specify problems that cover the range of project stages: from conception through to evaluation. Team projects are utilized through all the degree stages, with self reflection required to ensure students learn from their own practice and improve their approach to team working. Team allocation can be based on Seeding from different degree programmes (to mix skills and knowledge), performance criteria (to stream by ability) and engagement indicators (e.g. attendance).

Assessment of team activity includes self- and peer-assessment of the relative contribution to team work, using the WebPA peer review tool to provide individualized weighting. The main team deliverable(s) is(are) marked. The weighting enables individual marking. This is intended to encourage students to engage – since their contribution is recognized. Those who do more can get a higher mark (higher even than the team achieved). Student concerns about team work e.g. "freeloaders" are managed through the weightings, so little contribution would lead to a minimal mark.

Key characteristics

Group work is utilized across all levels so this becomes the norm and students accept it even where it contributes to their individual degree classification.

Authentic assessment means being able to demonstrate the application of theory, as well as being more engaging through a realistic context, such as developing a software solution for a client.

Students are supported through tutors and within modules in the practice of team work.

Mechanisms to deal with team issues include using group-ware to provide audit trails, along with tools to collate and apply individualized weighting (e.g. through WebPA) provide individual marks meaning that students accept this as a fair process. Appeal mechanisms (though informal) are clear – and include the options for team & individual interview/viva: though Academic judgment is the final arbiter

Examples: Developing an app based on a requirements analysis; Investigating and producing a website on a given green computing problem; Updating an existing open-source software package, working with actual clients.

| Working With Others | Communi-cation | Project Manage-ment | Self Reflection |

Inquiry Based Learning with Authentic Tasks, Team Work and Peer Assessment

Benefits

Team work is a useful transferrable skills, valued by employers and other stakeholders. The experiences of working with others provide specific and direct examples that can be used in applying for jobs or further study. Whilst students may have reservations about it contributing to their marks, many have wide experience from previous studies. Building in suitable team activities – i.e. activities that benefit or require a team effort and reflect discipline practice – from the start of their degree, and embedding it throughout their studies improves student engagement with it. Ensuring the students are aware of the marking criteria and they have the opportunity to contribute (via WebPA) and to query the process (request interviews) minimizes concerns: typically this approach has less queries than traditional individual exams or coursework.

The group activities motivate and embed other skill development e.g. communicating with others, presenting ideas as well as developing communities within the student cohort which can contribute to overall retention and attainment[$].

"Coming together is a beginning, keeping together is progress, working together is success."
Henry Ford

$ Gordon, N.A. (2016) Issues in retention and attainment in Computer Science. Published by the Higher Education Academy. [Online] available: www.heacademy.ac.uk/resource/issues-retention-and-attainment-computer-science

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UNIVERSITY OF Hull

Placement champions

Using placement returner knowledge, experience and enthusiasm to enhance personal and subject identity and promote the value of the sandwich year

Context

The University of Sunderland is a post-92 institution with the strap line: "Life Changing". We have a strong Widening Participation agenda, with many students being first generation HE entrants. These students are largely commuter students, living at home, with existing commitments including part-time employment, who often don't want to undertake a placement outside the region or sometimes at all, preferring to graduate in as short a time as possible. Our challenge is how to get them to realise the extra commitment of a placement pays dividends down the line.

Add to this that the faculty was restructured in 2016 and our physical context is an open plan building once solely ours but now populated by several other faculties. There are few identifiable computer science areas and next to none exclusively used by us. Challenge number two: how to enhance the Computer Science identity?

What it is

Placement Champions are drawn from the pool of students who return to final year from placement. They perform an ambassadorial role, working both within the curriculum – e.g. presenting to first and second year students – and casually, as by wearing their placement champion hoodies in the building they are instantly recognisable by other students (plus they give us a positive faculty identity!). The 'younger' students can then strike up a conversation with the hoodie-wearer about finding, doing and returning from the placement.

The champions also help out at open days and applicant days to talk to applicants and their families about their placements and their courses more widely. They produced posters which are displayed in the building, further enhancing the identity of the faculty and the champions themselves.

Key characteristics

- Key to the success of this intervention has been the student willingness to participate (we thought we might get half a dozen interested people – we got 15!) and to contribute ideas as to what they could do. They had the idea of making experience posters to display and these have positively enhanced faculty identity in the building.
- A budget is needed: for the hoodies and, if you choose to follow an 'ambassador contract' model, for paying the champions. We have been surprised by how much our champions want to offer irrespective of payment, and it is worth noting that without payment their contributions are completely impartial – we are not paying them to say nice things – but they are in their most important year of study and time is precious to them. The formal aspects of the role (in-curriculum, at open days etc.) can be reckoned and remunerated, while the informal aspects ("come and ask me about placements if you see me wearing my hoodie") are not easy to count and don't need to be.
- If you end up with a large pool of champions, as we did, you can more easily rotate them so as not to use up too much time formally (see above) or else divide their activities according to their specialisms/experience/preferences.

Benefits

- Identity for the placement returners – in a focus group prior to setting up the champions initiative they talked about feeling disconnected from university when they came back from placement. Being a champion gives them a new/reinforced university identity. They become role models.
- Identity and visible presence for the faculty.
- Visibility – placements themselves become visible and desirable, not just a relatively hidden (and entirely optional) part of 2nd year study.
- The informal access to the champions ("come and ask me about placements if you see me wearing my hoodie") is attractive to nervous 1st years.
- Peer to peer learning. The champions cited seeing the confidence of placement returners when they were 2nd years as a motivation. As we further establish the initiative in the coming years we think the students will not only inspire each other but will provide support, encouragement and scaffolding to the process of thinking about, applying and securing the opportunity, and returning and giving back to upcoming cohorts.

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University of Sunderland

EXPOTEES: an innovative way to engage students with employers

PRACTICE SHOWCASE

Context

The School has a number of undergraduate and postgraduate courses from computer science and games programming to animation, visual effects and games art and design.

We know placement provides a positive opportunity and the School has a thirty-year experience in this area, although like most institutions the take-up has been in decline. Much of the decline can be traced back to the change in the fee structure, with students becoming increasingly reluctant to take on what they consider to be the 'burden' of an extra year. The majority of placement opportunities are taken up by Computer Science students (41%) and Games Programming (35%). While only 5% of placement opportunities are taken up by students in the areas of animation and games art and design. This is primarily because the latter have fewer placement opportunities in the region and some students are reluctant to travel. Additionally there can be IP and copyright issues with employers in games and animation and therefore a reluctance by an employer to take on students during highly confidential production periods.

On average 95% of students who complete a placement achieve a 2.1 or first class degree and dramatically improve their employment potential.

What it is

Recognising that placement and engagement with industry is important, but that not all students take advantage of the opportunity, the School established 'ExpoTees' – a graduate showcase event for final year students to meet employers.

At the event the students showcase the project work they have created through the final year project module. The module provides them with the time, structure and supervision to create an appropriate project that is the culmination of their undergraduate degree studies.

Students are asked to pitch their projects for the expo event during the development phase of the module. All final year students are aware of the expo as it is part of the briefing for the module and they will have had the opportunity to attend the event in previous years and even help previous final students prepare for the exhibition. The final selection process for the expo is undertaken by a tutor-led panel.

Held on campus at the end of the academic year in an exhibition style arena over two days students have the opportunity to pitch and demonstrate their completed project work to invited employers. As a minimum it secures feedback for the student from the employer, but it can also lead to internship and direct employment opportunities.

Key characteristics

- The buy-in from industry, staff and students has been very good as it provides an authentic context for students to showcase their work – essential to developing employability skills and confidence. Students have bought into the process as they are encouraged to attend 'ExpoTees' as first and second year students and see first hand the types of projects produced and the opportunities that can be realised. Employers keep coming back because the School delivers graduates with the necessary skills and attributes they require. Additionally some are committed enough to offer sponsorship and prizes for the event. Moreover, academic staff are directly involved in the benefits from the scheme through the student learning experience and graduate prospects.
- Importantly students secure real-world feedback and opportunities from industry, which boosts their self-assurance and employment opportunities.
- The branding for 'ExpoTees' is distinct and understood within the institution and by the key stakeholders we work with. There is a dedicated website and catalogue of student work. www.tees.ac.uk/schools/scm/expotees/

Benefits

- Improved DLHE statistics, which has seen graduate employment improve by 25% over the last three years.
- Graduates who enjoyed the experience of expo stay in touch and in some instances return as visiting speakers to inform the wider curriculum of the courses in the School.
- Enables employers to influence the design of the curriculum, such as through their advice on choices of programming languages and asking that the School includes more team working.
- It has longevity, evolving over time with leadership and resources in place.
- The School has recently developed other mandatory iterations of the scheme to raise awareness of the importance of working with industry to first and second year students through 'ExpoTential' and 'ExpoTalent'.

We also get great feedback from employers as a result of 'ExpoTees':

"Best year yet!...I was like a kid in a sweet shop...they were all so professional and industry ready...can't believe the standard of work that they are producing...innovative development projects were so advanced and complete...you could fill an entire studio with these students...awesome!...the place was buzzing...so much to see I ended up staying for the whole thing...extremely impressed!"

ExpoTees 2016
Showcasing the next generation of digital expertise
School of Computing

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Employability Week at Birmingham City University

For one week during each semester a number of events and activities targeted on improving students' employability take place

PRACTICE SHOWCASE

Context

Employability is key to BCU's mission, so initiatives, resources, functions and processes which contribute to this strategic imperative are given a very high priority and are championed at the executive level of the university. Employability has been embedded into the teaching and learning environment of BCU for many years. This supports the 'practice-led' context of teaching, research and development activity at BCU. Embedded employability is programme specific and reflects bespoke, tailored elements which benefits particular groups of students.

What it is

A structured week of both university, faculty, school and programme-led activities which complement embedded practice-led teaching. Computer Science and Business Information Systems students are taught via a flipped curriculum wherever possible. Programme Leaders use this experience along with student feedback in other forms to inform a programme of bespoke events for them which are more suited to building employability capability for CS and BIS students. There are two EW's per year, one in each semester. No formal teaching takes place during these weeks. Students are 'rewarded' through BCU's Graduate+ initiative (an individual 'register' of activities which qualifies students for bronze, silver and gold awards).

Key characteristics

- Commitment and participation from all levels of BCU
- Provides a wide range of opportunities and experiences for students
- Planning, organisation and implementation of university-wide events happens centrally – so resource efficiencies are possible- with additional resource available to Faculties, Schools and Centres to plan and run bespoke events
- Examples of activities include motivational talks, visits from major employers, and alumni –led events and activities.

Benefits

- Potential to improve NSS
- For students: Graduate + is a formal recognition of their participation; both generic activities and also programme specific; free!
- For staff: Supports embedded employability; enables 'cross-university' initiatives and partnerships; enables economies of scale

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BIRMINGHAM CITY University

CLOSE ENCOUNTERS OF THE INDUSTRY KIND

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CONTEXT

- research-led Russell Group university in Scotland.
- 94.9% of graduates are either in employment or further study.
- top 10 university in the Russell Group for teaching.
- School of Computing Science is top in Scotland for research impact.
- School of Computing Science ranked first or joint first in NSS four times.
- first university in Scotland to have an electronic computer.

WHAT IS IT?

- two-day workshop to develop an IT architecture as part of a Masters course.
- workshop is designed to afford students an intimate interaction with industry.
- students segment into teams of six and tackle an unseen case study.
- workshop comprises of various activities with feedback and peer-review.
- workshop is led by six representatives from IBM for 36 of the strongest students.
- workshop culminates in teams pitching solution to panel and receiving feedback.
- teams have one week to refine solution inline with feedback and pitch again.

BENEFITS

- students are exposed to unfamiliar industry activities.
- students interact with an authentic case study and industry staff.
- considerable peer-review of artefacts produced during workshop.
- refinement of soft skills in terms of communicating with peers and panel.
- authentic assessment with feedback delivered from industry.
- strong performance recognised by industry with separate certificate.

CHARACTERISTICS

- support of academics to consume two full days of timetable.
- university support in terms of space for workshop as well as catering.
- industry support to provide senior staff for two full days.
- genuine case study with prior approval of client.

University of Glasgow

CPHC
The Council of Professors and Heads of Computing

60 YEARS OF COMPUTING AT GLASGOW

Context

The Engineering and Computing Employability Team provide a dedicated, in-house service across five schools, supporting 2000 UG students from their first year at University and promoting the value of gaining industrial based work placement experience as undergraduate students. Our focus is on highlighting the benefits of work placements, in particular reinforcing the option of pursuing a Year in Industry as one of the most valuable things they can do as an undergraduate. All our degree courses come with the option of completing a placement year, allowing our students to understand all of the options available to them throughout their degree and with the ability to uptake a Year in Industry following completion of either their 2nd year or 3rd year (if completing a 4 year degree), to enhance their employability.

Approximately 4 years ago the Faculty of Engineering and Computing Employability Team at the University of Leeds was established. The Faculty saw the importance and demand from students for a more in house, tailored and bespoke approach to employability within these discipline areas. The Engineering and Computing Employability Team are unique within the University with many other faculties now adopting their methods.

A dedicated team of 4, comprised of a Business Development Manager, 2 Employability and Placement Officers and an Employability Administrator. The Employability Team support our students in understanding what options are available to them as undergraduates, assist in providing an understanding of the recruitment processes involved in securing a placement and offering tailored support to enable the students to develop employability skills. This is achieved through timetabled employability lectures, skills development workshops, 1-2-1 advice and guidance, sourcing and advertising placement opportunities and support from targeted employers.

Over the past four years the number of our students across the Faculty securing a Year in Industry has increased by 290% (from approximately 40 students out on placement in 2013 to now over 165) and within the School of Computing itself we have seen an increase of 154%.

The increase in placements is attributed to employer engagement. The Employability Team have achieved this through establishing an agreement with our central Careers Centre whereby any engineering and computing specific employer related requests are directed to the Employability Team. This has led to the introduction of a computing specific employer event, Computing Careers EXPO. This event accommodates the demand from both the employers requesting on campus presence and the students ability to network with them face to face in an interactive style event.

The Employability Team are often inundated with requests from employers wanting to come in to the University and run stand-alone company led presentations to students. From experience we have found that attendance and engagement from students in this type of activity is relatively low and the amount of resource which goes in to organising these types of events often goes wasted as a result. In order to tackle this we introduced our Computing Careers Expo.

This event also allowed us to tackle feedback from our computing students which suggested their lack of desire to approach and network with employers in the traditional sense.

What it is

Our newly introduced Computing Careers EXPO has now been running for 2 years and has aided the success of new industry links. The EXPO which takes place across a full day during semester 1, is an exhibition style careers event, showcasing technology and specifically focussed for computing students in response to student feedback to run an interactive careers event separate from our annual traditional Engineering Careers Fair.

The event sees over 20 computing employers, of various sizes each year attend the University to showcase and demonstrate their technology and promote their range of placement, internship and graduate opportunities to our students. A key feature of this event is that all employers exhibiting must be offering a placement, internship or graduate role. The event allows employers to promote the true culture of their working environment and we see that the employers attending are typically current placement students or graduates often from the University of Leeds which allows our current student to make that connection.

In addition to the Computing EXPO, in order to initiate the student's interest in a role and raise the profile of the specific company, representatives from the company will contribute to either the Employability Team's lecture or workshop programme, co-teaching with a member of staff. This not only benefits the students with some real industry insight, it also enables the Employability Team to maximise the provision of student support resources through additional company led CV checking, mock interviews or workshop style activity.

Throughout this process the Employability and Placement Officers within the team provide 1-2-1 support to students applying in the form of CV/cover letter guidance, provision of a mock interview service and development and delivery of tailored mock assessment centre workshops to prepare the students to compete for these specific company opportunities.

Key characteristics

For companies to be successful in securing a stand at our Computing EXPO they must devise an innovative way to engage with our students, either through showcasing a piece of technology equipment, running a computing skills based challenge on the day etc. and must have either summer internship or industrial placement undergraduate work experience placements to offer our students.

Due to the investment of resources to provide an end to end high level of professional support, The Employability Team must be guaranteed a level of exclusivity over roles, which is discussed with the potential future employer. A high level of support continues to be provided to the company following successful student recruitment and commencement of placements, both by the Employability Team and academic colleagues delivering on-site placement visits.

In order for this approach to be successful The Employability Team ensures the content of presentations and workshops are focussed on a skills development approach, which will benefit all students in attendance from the teaching cohort, regardless of whether they are interested in applying to the company in question, avoiding a "sales pitch" approach.

To enable these employer relationships to remain successful the Employability Team work closely with the students to ensure their applications are of high quality, they are fully prepared for the interview/assessment process and they are assisted through their preparation to transition into the workplace to ensure positive outcomes for both the student, company and repeat business for the Faculty for future placements or other project/research work.

Benefits

There are many direct benefits achieved from this practice:
- Increased provision of work experience opportunities for University of Leeds students.
- Accommodates a high number of employer student engagement requests within one event, within a student friendly interactive environment enhancing engagement.
- Encouragement of on-campus interview and assessment centre selection provides a cost-free and convenient service for students' mid-semester balancing academic workload.
- Building established industry links leads to repeat business for work experience opportunities and wider opportunities for collaborative working outside this area including research and academic projects.
- Increased skills based resource delivery from industry to complement the work of The Employability Team with the taught programme.

As a result of effective business development carried out by the employability team and as a result of the EXPO, the Employability Team are working exclusively with a number of organisations to provide a managed vacancy service for industrial year placements and summer internships. Through targeted promotion of job vacancies, collation of applications to assist organisations with the shortlisting process, coordination of interviews and assessment centres hosted onsite, removing the financial cost of travel and providing a convenient service for students under pressure from academic workloads.

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UNIVERSITY OF LEEDS

Meet the employers

Annual event organised by the School of Computing, Mathematics and Digital Technology in conjunction with the University Careers and Employability Service.

PRACTICE SHOWCASE

Context

MMU has strong central support for employability, including the Careers and Employability Service and its online portal 'My Career Hub'. The Hub enables students and graduates to search job and placement opportunities, book careers events and careers consultations.

The Service and the School work as a team to maximise our students' employability, and all academic staff contribute to employability activities integrated into the curriculum (e.g. programming/games hackathons; including communicative skills in assessment criteria; deconstructing relevant job specifications) and the personal tutor system (e.g. video and live mock interviews). Final year undergraduate student numbers are currently in the region of 200, spread across eight, mainly BCS-accredited programmes, that include an optional placement year.

The institutional Employability, Employment & Enterprise Strategy (E3) articulates graduate prospects and strategy for curriculum, teaching and personal development as well as employer engagement, and emphasises the strategic need for more of the University's students to move rapidly into graduate jobs. It is this need that has been the driver for the 'Meet the Employers' event. E3 enabling initiatives include the one stop job hub; job coaching and employability support for graduates who are not in appropriate employment in the first six months after graduation; a specific plan to increase SME employment in the North West; an Employer Engagement Plan; and a Graduate Recruitment to direct clients to our graduates and students.

Students in the School are exposed to a number of employability events, including Insight days, where students visit employers to find out more about graduate opportunities and required skills; a professional development L5 unit; video interviewing that integrates with the tutorial system; participation in cross-institutional employment fairs; MMU graduate placement fairs, hackathons; alternative options outside of Computing; a regular newsletter; MMU Futures (extra-curricular development); and Business/Technology challenges.

Meet the Employers is one of these, and has grown in scale from 7 to 14 employers over the past 3 years and towards a more round-table networked format rather than a series of talks. We invite a variety of employers who will be of interest to students from the different programmes, and also small and medium sized companies as well as large multi-national companies. Employers who attended the last event included IBM, Fujitsu, Barclays, TOPDesk, Sysrepublic, and Avecto.

The event is publicised via our VLE, Course Leader messages to individual courses, just-in-time talks in timetabled sessions, and in our Employability Newsletter. 199 students registered to attend and 115 (from a range of courses and years, with a predominance of L6 students) actually attended. Student attendance increased by 65% in 2017 compared to 2016, and feedback from students and employers was positive. One employer told us it was "one of the better events" they'd been to, and that "the students seemed really engaged and interested in developing their careers"; a student thanked us "for organising such a great event" and for introducing them to employers. The success of the event has led to the format cascading down to other Schools in the University.

What it is

It is a time-constrained round-table networking event, resembling speed dating. Following an initial talk on networking students spend 10 minutes with an employer (typically 2 representatives per employer), finding out more about their company and vacancies, before moving onto the next table. A whistle is blown and PA system is used to make students aware of when to move from table to table. The students choose which employers they wish to speak to, based on the vacancies the employer has on offer. There are typically 8-10 students per table at any one time.

After around 6 sessions of 10 minutes (we respond to how the conversations are flowing), there is a break for a finger buffet (paid for by the School). This leads onto the next part of the event, when there is an opportunity to network more informally with employers at a stand. Students can talk to employers they haven't had the opportunity to talk to during the initial networking table sessions, or if they wish to continue a conversation with an employer, they have the opportunity to do this.

Throughout the year any expressions of interest received from employers are recorded and used when it comes to inviting employers. Any gaps in provision relevant to particular pathways are proactively filled, by researching organisations and contacting them directly.

Key characteristics

1   Interactive and communicative rather than didactic format

2   Collaboratively organised and run via the School and Careers and Placement teams

3   Prioritised: timely promotion, food, optimal time-slot, e-registration (via EventBrite; 58% registrant attendance)

4   Just-in-Time briefing on handling interactions with employers

Benefits

1   Well-attended (115 students in 2017)

2   Positive employer feedback (see above)

3   Students are more likely to get jobs as a result

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Manchester Metropolitan University

Employability at the University of East Anglia:
The Hub Connecting Academic Life to the Real World

Context

The **School of Computing Sciences** sits within the Faculty of Sciences at UEA. The school has a yearly intake of around 120 students and runs standard three year programmes and parallel programmes with a year in industry. The school has a **faculty member** who coordinates employability activities in collaboration with the **central UEA careers service.** CareerCentral employs **two careers advisors per faculty**, who liaise with specific schools.

UEA is located in **Norwich**, a region with a very high density of large and smaller IT companies. A large proportion of UEA computing graduates remain in the area . As such, a key element of employability work is based on the **establishment of relationships** with the local IT industry.

Employability for UEA Computing students is **high** (**96.1%** DHLE), but **engagement** with employability is relatively **low**. As a result students do not make the most of the graduate employment offers potentially available to them. As such, there is a strong focus on educating students so they can be both **ambitious** and **realistic** in their career expectations.

The **core function** of employability activities at the School of Computing Sciences is to **connect students and industry**, increasing awareness, insight and opportunity for their future career.

Employability at the School of Computing Science

@CMP_Employ

http://seg.cmp.uea.ac.uk/employability/

What It Is

The **core philosophy** in the School of Computing Science is to **provide an access point** for both the students and employers, i.e. to be a hub that connects study to the professional world. Activities and initiatives therefore always carry the goal of shortening the paths and easing access. This falls into two distinct focal points, **industry involvement** and **student engagement**.

Industry involvement is primarily aimed at introducing students to companies and careers paths by **embedding activities** such as guest lectures and collaborative final year projects, as well as pop-up presentations and on-site visits. In addition the School has an **Industry Advisory Board** to help reflect on and update curriculum material and industrial developments.

Student engagement is encouraged and achieved through adding employability content such as CV writing into the curriculum as well as the **coordinated participation** in conferences and events in the local community. The **UEA Award** System encourages students to train and expand their soft skills in a structured manner. Feedback for **reflection** on these activities is sought through **evaluation** and student participation in **focus groups.**

Key Characteristics

- **Employability** at the School of Computing Science is the **hub that connects the academic world to the industry**. It focusses on bringing together students and employers in a variety of settings that encourage the exchange of information and experience.

- Most activities have an **interlocking character**, i.e. while engaging with one activity students are automatically exposed to others. For example, a student manages their UEA award activity through their Career Portal, a place where employment opportunities are also published.

- **Diverse communication** is at the core of employability as well, with students having their own Career Portal, a dedicated employability website with events and opportunities, shout outs in lectures, dedicated social media feeds such as twitter, facebook and slack, etc.

University of East Anglia

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Employability engagement activities to support computing students seeking a year long placement

Context

All computing students have the opportunity to complete a credit bearing year long placement at the end of 3rd year which provides the additional wording "with placement" on their Degree Certificate. Employers want to engage with students in order to promote the opportunities available within their organization and are willing to work hard to do so. Computing placement opportunities are available locally, nationally and globally. Employability is an important feature of our computing programmes and we strive to encourage students to engage with the opportunities that are available. The main idea is to encourage more students to take up the offer of a year long placement in order to learn about technological employment and to increase their employment prospects upon graduation.

Uptake of Placement opportunities is low with only 4 students in 2016/2017 and 2015/2016 taking the opportunity of a year long placement. Typically there are around 250 3rd year students on paper looking for placements. Student surveys indicate a small core of students each year are actively looking for a placement but many are not active, citing reasons such as not wanting to give up their part time job or not wanting to prolong their stay at University.

What it is

A Program of employability activities primarily aimed at third year students. The programme is in addition to "taught" activities and attendance at the employability events is voluntary.

There is no additional credit available other than the prospect of a paid placement at the end of third year and the wording "with placement" on their Degree Certificate. The intention is to provide students with the opportunity to engage with employers as part of their normal weekly activities in order to encourage students to consider placement opportunities. Attendance is variable and often depends on what skill the employer is looking for. So, Networking employers get a good turn out from networking students and employers looking for software developers get a good turn out from students on programmes with a high development content.

Sessions and Events consist of:
- Former placement students give talks on their experiences
- Employer input into Integrated Group Projects
- Employer talks on company activities and placement/graduate opportunities
- Computing Careers Fair and Hackathon Events
- Career Conversations with Employers in conjunction with the Careers Service
- Opportunities to meet former Graduates and to find out about their work experiences
- Professional input from the Careers service to prepare students for the application process. This includes CV preparation, interview skills etc.
- Industry led mock interviews
- Work with organisations such as ePlacement Scotland to provide Students with placement opportunity

Key characteristics

The programme of employer activities requires a good level of engagement from employers and runs throughout Trimesters A and B, keeping students active throughout that period. The programme requires an active Employability Lead who is willing to act on opportunities available and to seek out employers who are looking to interact with undergraduate and taught postgraduate students. Organising a programme such as this requires a wide range of contributors from within the University and from outside. There is no magic bullet that can be applied and the major strength of the programme is in accommodating a range of engagement opportunities with employers and related agencies such as ePlacement Scotland. Placement opportunities become available throughout the year and student attitude to placements can change during this period, so it is important to have a process in place to encourage students to remain active throughout the year.

Benefits

The main benefit is that employability is visible throughout the 3rd year of study encouraging students to apply for placements right up to the start of their 4th year. In 2015/2016 3 out of the 4 students on placement were made job offers subject to successful graduation at the end of 4th year. 2 of those students are also working part time for their placement employer during their final year of study. When students are successful employers tend to come back looking for more students of the same calibre. A programme of employer engagement and placement promotion seeks to show students that relevant placements will lead to a much smoother transition into the workplace on graduation. The programme of employer activities helps students to build confidence and develop there own network of contacts. Some students actively seek 12 week summer placements at the end of 3rd year and the active programme of employability activities helps them to identify suitable employers.

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GCU
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