

My career - an e-Portfolio career planning activity

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Activity: This case study discusses the development of a bioscience specific career planning activity intended to promote engagement with personal development planning and career management skills. The example highlights the need to customise PDP based activities to the vocational/professional area of the student (in this instance the biosciences) in order to improve student motivation, attitude and performance within such development activities. The methods used to identify which key aspects of career planning and bioscience student career aspirations should be included have been detailed and an outline of the final activity given.

Student Group: Students entering the second year of their bioscience degree programme are offered support and guidance through the activity in a timetabled session at the end of semester 1 (December). The activity is available to any student enrolled on one of the of the 13 bioscience degrees currently offered within the university. There is no time restriction on the availability of the activity and students are encouraged to utilise the activity throughout the third year of their degree programmes.

Aims: To develop an activity, specific to bioscience students which will improve overall career planning and employability skills. The intended outcomes for the project were:

1. To evaluate student opinion regarding personal development planning, career planning and the use of the current e-portfolio system in order to determine any possible causes of poor student engagement.
2. To design a relevant, simple to use and interesting career section to add into the current e-portfolio system.
3. To develop an introductory activity to the newly designed e-portfolio career section which responds to problems students experience balancing career planning with other course commitments.
4. To assess the success of the activity in meeting student demands, improving career planning and promoting positive graduate level job destinations.

Context / Background:

The ability of a graduate to manage their own personal development and career is an increasingly important skill all students must develop and evidence. Significant efforts have been made in recent years to ensure graduates are equipped with the skills and competencies required for their future careers¹. The QAA subject benchmark statement stipulates that '*Bioscience degree programme students should be able to identify and work towards targets for personal, academic and career development*'². This concept is included as a learning outcome in all Bioscience programmes offered at Newcastle University and is supported by a number of career management sessions given by the Careers Service throughout the three year programmes. Despite sporadic attendance and lack of apparent interest in these additional sessions first destination surveys of our graduates show high levels of graduate employability with 66.3% of all 2006/07 undergraduates in employment. What is of greater concern however is that in-depth analysis of first destination statistics shows a number of students in employment at six months after graduation are in jobs that are not classified as graduate level jobs. Anecdotal evidence from both staff and students suggests this may be because students delay thinking about career aspirations until the final year of study and at this stage feel unable to spare time

from course-work or examination commitments to take action. Although numerous opportunities do exist within the current provision to support students in achieving this goal a large proportion of students are failing to take advantage of them.

The challenge

We have previously developed, with the support of funding from the UK Centre for Bioscience, a custom designed e-portfolio to support student's personal development planning³. However recent e-portfolio uptake data has highlighted a need to make the skills of career planning and self-management of personal development more explicit. Students need encouragement to take on ownership of the process of skills development in the context of their personal career aspirations Research suggests that this is only achieved by customising PDP based activities to the vocational/professional area of the students⁴. With this in mind the project intends to develop a specific career planning activity which utilises the currently available Newcastle Bioscience e-portfolio system which is both interesting and relevant to the career goals of young bioscientists.

Project development work

In order to design the career planning section of the e-portfolio system for bioscience students a number of development projects were undertaken. Current second year student opinion on career planning, PDP and the e-portfolio system itself was collected in lecture-based questionnaires (using TurningPoint® response technology; see table 1). These data were then used to analyse how much prior experience students had of e-portfolio systems and the stage of career planning students were currently at. This provided valuable information on how much guidance would be necessary for both of these aspects in the new activity.

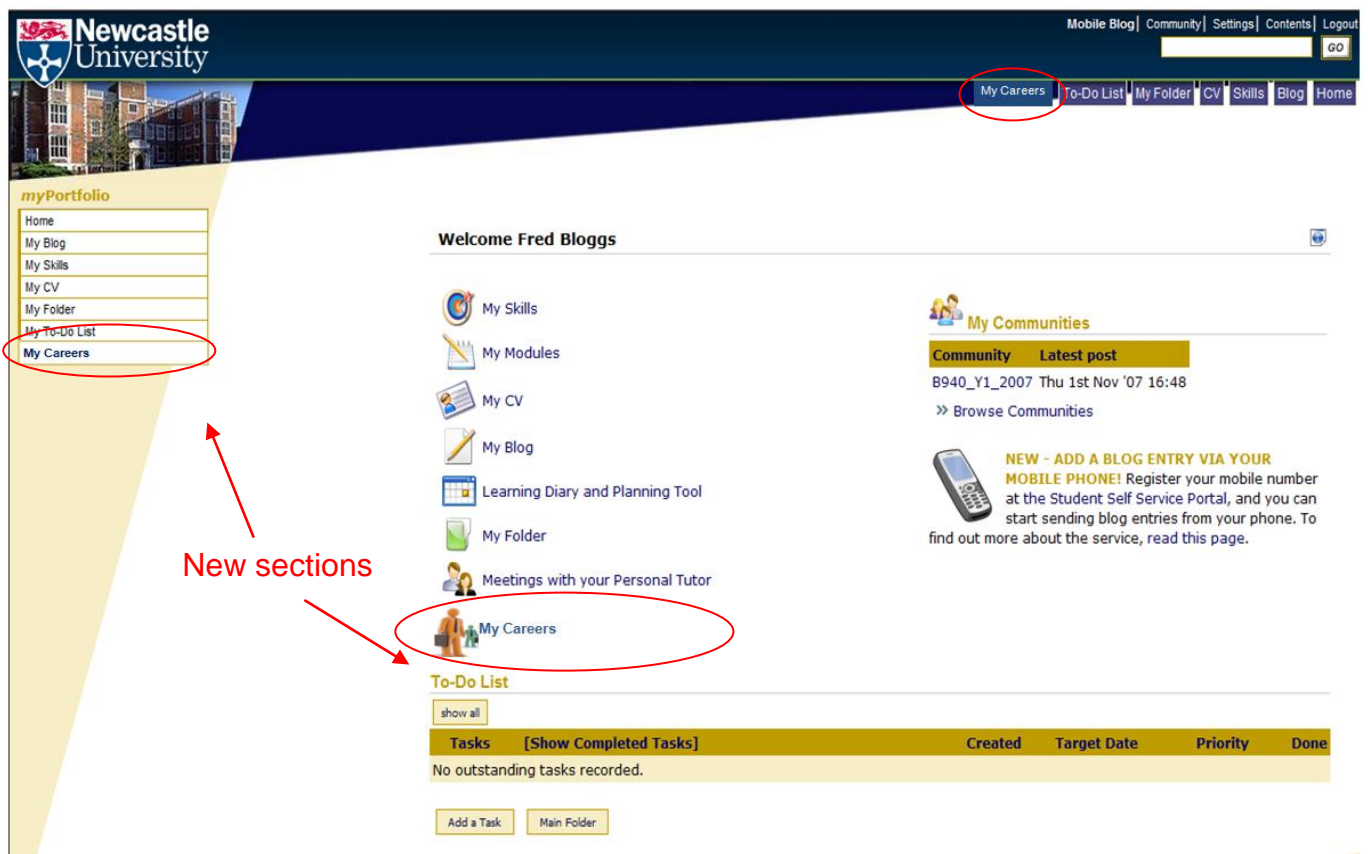
Question		Response %			Responders
		Yes	No	Don't know / a little	
1.	Have you ever used a portfolio system before coming to university?	13.10	86.90	-	145
2.	Do you think PDP and e-portfolio systems are used outside of a university setting?	65.54	4.73	29.73	148
3.	Would you like to be taught more about PDP within your degree?	46.81	40.43	12.77	141
4.	Before today have you heard of the term personal development planning (PDP)?	18.75	81.25	-	144
5.	Have you started thinking about your career options?	53.79	7.59	38.62	145

Question		Top 3 Responses (%)		Responders
6.	What do you think are the MAIN benefits of using a portfolio system? Select 3 from the list.	Creating a CV	22.30	148
		Employability	21.17	
		Achievement record	18.92	
7.	What steps have you taken to support your careers options?	Created CV	23.61	144
		Visited careers website	21.76	
		Work experience	20.60	
8.	Which 2 parts of the e-portfolio are you most likely to use this year?	My skills	38.95	142
		My CV	24.91	
		Learning diary	15.44	
9.	What might prevent you using the e-portfolio system? Select any from the list which apply.	Coursework deadlines	57.84	185
		Paid/voluntary work	18.92	
		Design of system	9.73	
		Lack of credits/marks	9.73	
10.	What has prevented you from thinking about your careers options? Select 2 from list.	Coursework	43.53	127
		Still undecided/unsure	36.47	
		Don't know how to	12.94	

Table 1. Stage 2 Bioscience student responses. Turning Graphical® results itemised by question.

Graduate destination data from Careers Service databases was collected detailing the types of graduate employment Newcastle Graduates achieve and how this compares to other HE institutions in current league tables. From this, a short list of 8 job destinations were selected based on popularity, quality and distinction by a panel of academics and career advice specialists. The key skills, personal attributes and qualifications required for successful employment in these jobs was also listed.

Finally 'mock-up' visual representations of the career planning section were designed and shown to both student and academic focus groups to establish the suitability of the content and the visual appeal of the sections (see figure 1). The design followed a similar format to already existing sections of the e-portfolio to make technical implementation of the new career section easier and for ease of use by students. The career planning section of the e-portfolio was designed to be a flexible framework of careers and skills for students to access and fill in as a 'trial run' of a career option. This framework would support those students who have no previous experience of recording their skills on an e-portfolio system by giving set areas for information input and would provide job destination ideas for those students who may not have identified potential career routes. It would also motivate students to strategically plan the development of their skills if they see that they possess the majority of skills required for a successful application to a certain career.



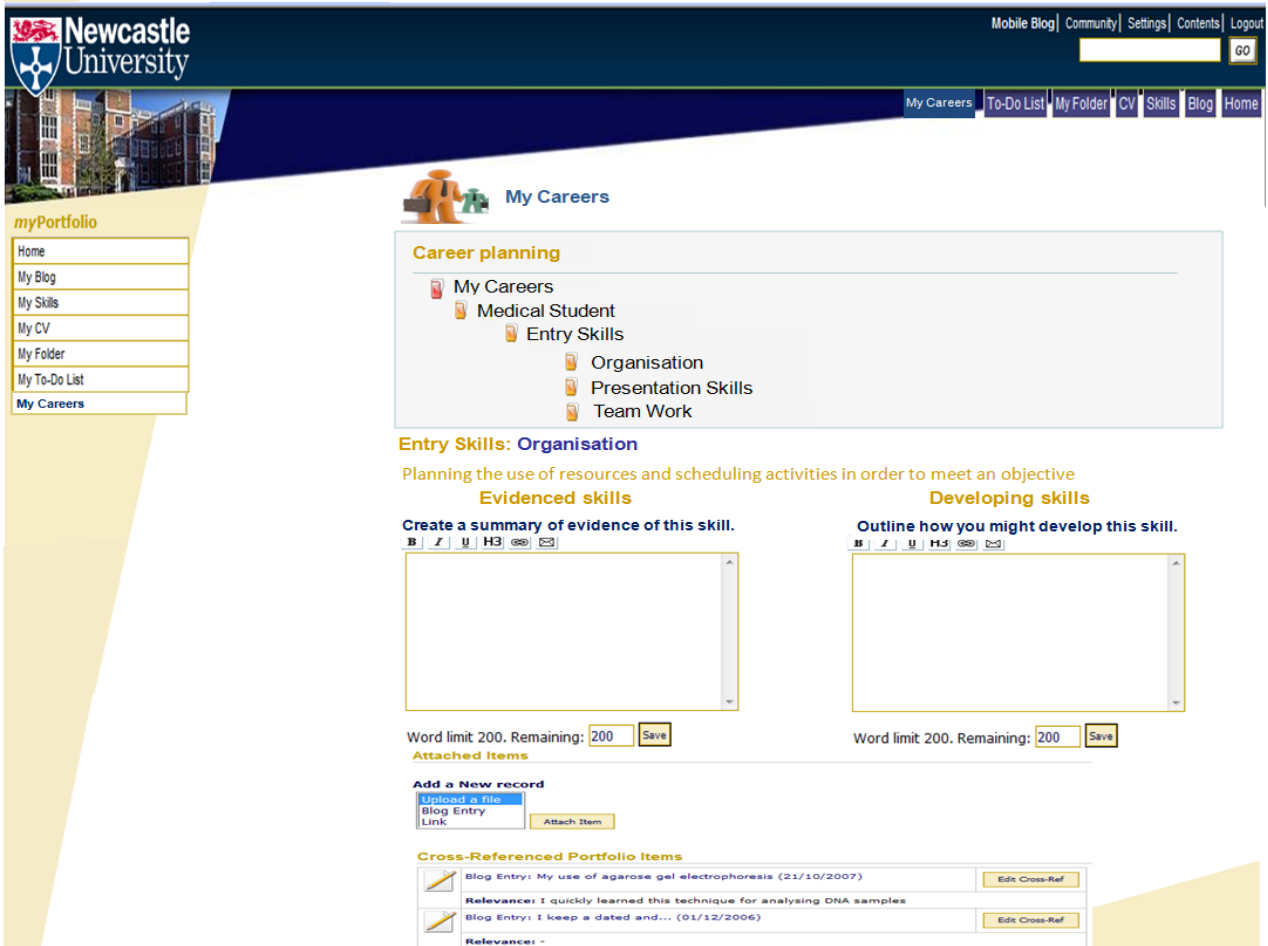
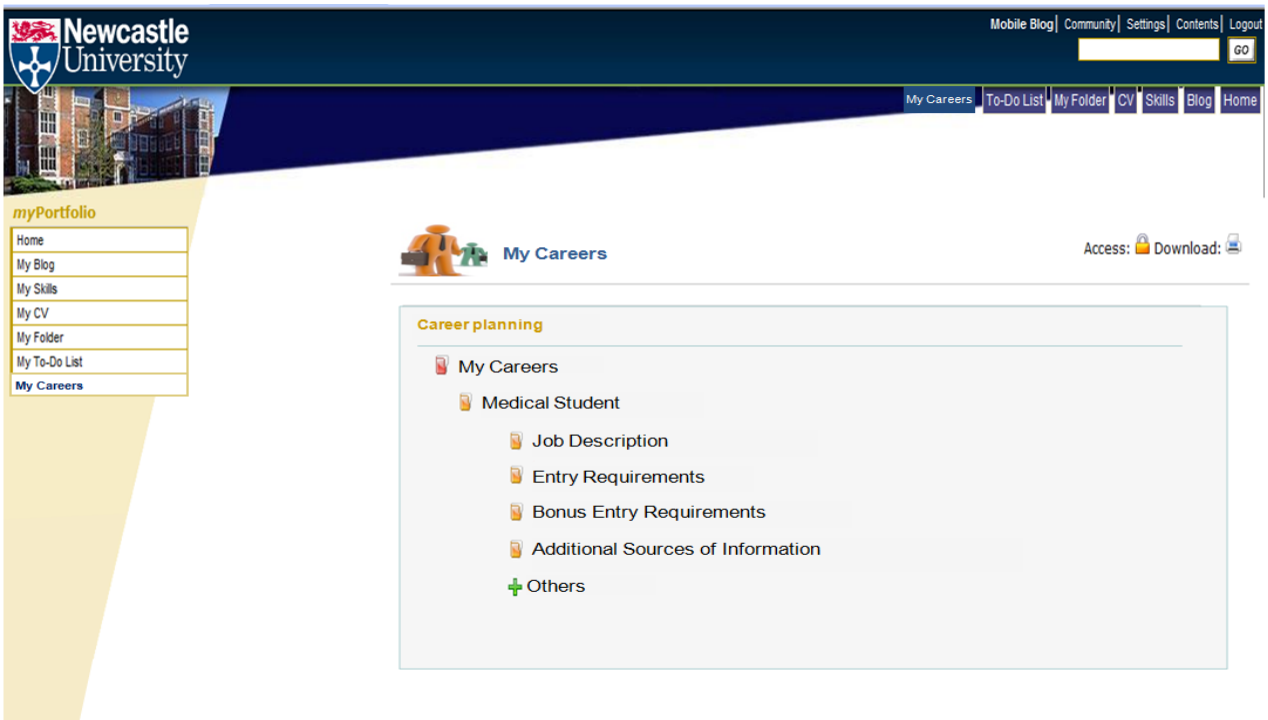


Figure 1: Screen shot images of the e-portfolio career planning section.

The activity:

Students entering the second year of their degree programmes are given a two hour workshop session covering career planning via the e-portfolio system. The session is run with the additional support of staff from the careers service as well as the computer service. During this session students are directed to the e-portfolio

home page where the newly designed career planning section has been implemented. Within the career planning section a list of 8 selected high quality and distinctive graduate careers that previous Newcastle graduates have achieved is available. Students are asked to select one of the given destinations that they feel is of potential interest to them. Students also have the option to input a graduate destination of their own choosing. Students are asked to input a general personal specification for the job from an external source such as www.prospects.ac.uk or the Newcastle Careers service (suitable internal and external web links are provided). Following selection of a career of interest a list of key personal skills and/or attributes for that career is displayed in a drop down option list. Students can then undertake a self-audit to determine the extent to which their skills map against the requirements of the person specification by providing evidence for at least two of the identified skills options. Students are asked to highlight at least one skills gap they believe they could develop in the next six months and an action plan stating how they think this could be achieved. Throughout the session students are encouraged to reflect on the subject-specific and generic skills they are developing through their degree programmes and to incorporate these into their e-portfolio evidence. They are also encouraged to identify how extra-curricular activities can contribute to their personal development and employability. Attendance at research seminars, optional careers sessions, voluntary activities or paid work will all be highlighted as key development activities of use in career planning and future employment success.

The benefits:

The activity adds quality to all of the bioscience degree programmes by improving a students' general career management skills. Students are encouraged to engage with career planning at an earlier stage in the degree programme and to take ownership of their personal development. Similar strategies employed by other higher education institutions have shown a clear increase in student engagement with PDP and employability following structured activities such as the one described here⁴. The activity supports students in analysing their achievements whilst also providing the opportunity to formulate a plan for future achievements in academic, career and life pathways with the intention of promoting a more confident and self-directed individual. The work undertaken in the activity and the evidence accumulated and logged in the e-portfolio also feeds into the student's curriculum vitae and applications for jobs and further study.

Additional benefits for the University include gaining a unique insight into student progression through the course or in general, as well as identifying key skills gaps in the curriculum. The activity will also provide a way to assess one of the more difficult skills outcomes of the degree programmes; *"the ability to develop and work towards targets for career development"*⁵.

Feedback:

Student focus groups held to determine the usefulness of the proposed activity have indicated an overall positive response from students. Comments include *"I think it's a fantastic idea"* and *"it's a brilliant idea for where I am now!"* The motivational aspect of the activity was supported by comments like *"if you find a career you like the sound of you might work a bit harder over the Christmas revision period"*. Most students suggested they would be willing to come along to the workshop on a voluntary basis but that compulsory attendance would *"help a lot"* with student engagement. The greatest discussion during focus groups centred on the timing of this activity with a variety of responses being expressed. Most students agreed that timing was crucial so as not to panic students about the stage of their career planning at a time when course workloads were also relatively high. The majority of students agreed that the end of semester 1 was the most suitable time at stage 2 for such an activity. Student responses were very enthusiastic about the bioscience-centred approach of the activity and reported that this would be a large factor in their use of the activity.

Academic focus groups have also produced positive responses with the majority of attendees suggesting the activity will effectively support improvement in relation to graduate destinations. Positive responses include *"it is really targeting a core need in the course"* and *"the signposting to sources of support is invaluable"*.

Pitfalls:

One problem identified in this project is the issue of the engagement of both students and teaching staff with a web 1.0 based system such as e-portfolio. The use of 'push' technologies, micro-blogging, and mobile

solutions which offer a more rapid interaction without the need for computer access have all been suggested as more effective technologies compared to the e-portfolio for career planning and personal development skills⁶. However the benefits of e-portfolios to enhance the learner experience, promote a lifelong learner and support development and thus employability are still widely recognised^{7,8}. Data input via mobile based SMS is currently available for the Newcastle Bioscience e-portfolio however the use of this more flexible approach to PDP will be encouraged within the current activity.

Evaluation:

Evaluation of the impact of the activity on career planning and graduate destinations will be a long-term project. e-Portfolio usage statistics will be collected prior to the activity for both stage 2 and 3 students and then again after a six month period to measure student uptake. In the short-term the effectiveness of the activity in engaging students with career planning will be assessed by means of questionnaires. Questionnaires will be delivered to students at stage 3 (who have not undertaken the career planning activity) and later to the cohort of students who have undertaken the activity. In addition student feedback on the activity itself will be sought after the two hour workshop.

Key Points for effective practice:

The customised career planning framework provided in this activity is likely to be the most effective outcome of the project. Providing our bioscience students with this unique planner will not only improve current engagement with career planning but will motivate students in achieving employability skills in general. Responding to our students demands with regards to the development of employability skills in such a customised and unique manner will highlight the university's goal of producing students with not only academic skills but life skills. This is a key competitive issue for any HE institution when approaching prospective students.

Effective cross-departmental team work was a crucial aspect in the success of this project. Support was needed from both computing services to implement the new career planning pages of the e-portfolio and the careers service to identify bioscience specific career development issues.

Conclusion and recommendations:

1. The framework of careers and skills for students to access and fill in as a 'trial run' of a career option provides specific guidance to students who have no previous experience of recording their skills on an e-portfolio system.
2. The activity provides job destination ideas for those students who may not have identified potential career routes but would like focussed guidance on this.
3. The career planner section can motivate students to strategically plan the development of their skills if they see that they already possess the majority of skills required for a successful application to a certain career.

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Case study published: November 2009