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Capturing Transformative Stories: How does experiential learning through data fellowships benefit students and employers? | UoM
Social Science Gruaduates in the Big Data Era

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A new era: data covers the world

Overview of the Data Fellowship

The project is a service to higher education graduates and seeks to examine the data skills, university training and employability of this group. It was a pleasure to work with Professor Carter and another smart fellow over the summer to complete the pre-research for this meaningful project.

- Our work consisted of reading relevant government reports and literature and produced some good results. Firstly, we created a typology of data skills based on academic definitions and the current state of development of the digital economy. Secondly, we summarised the multi-level requirements of employers for data skills from the relevant literature and job boards. Finally, my fellow and I developed a view of the skills gap from our respective studies and compiled a reference report for subsequent research.

Data Analysis

In the early stages of the project, work was centred on searching and organising the relevant literature for browsing and summarising. This part of the project was very clearly mapped out by Professor Carter and helped me to develop a basic understanding of the field very quickly. I then summarised three different frameworks for data skills. These frameworks will be used to define and classify data skills as well as measure the level of specific skills.

After studying academic articles and government reports separately, my fellow and I proposed that an empirical study was necessary. Our study was based on two large job search websites. The study will be divided into two levels: entry-level data workers and advanced data workers. Using 'data' as a differentiator for the four tar-

get jobs, we collate the data skills required for each of the eight jobs in groups of five employers. The preliminary collation was complex and difficult due to the amount of data being more than predicted. However, we effectively merged the individual requirements of different employers and attempted to fit the previous framework in terms of classification to achieve the analysis of employer requirements.

Findings

- With regard to employers' data skills requirements: the requirements are highly variable based on geography and business content. Employers describe the level of data skills mostly in terms of specific software, relevant certifications and work experience, and less in terms of the candidate's university training.

- Regarding the skills gap: it is not a perceived difference, it exists objectively. Data skills are often integrated in the career descriptions of a significant number of professions with a basic understanding of the context of the job content. The data skills that graduates are trained in at university often differ in their objectives and extent from the workplace.

Key Skills Learnt

Looking back on my research, skills such as reading and organising and writing were further honed during the intense workload. More significantly, the project has provided a valuable atmosphere for academic communication. On the one hand, I was able to improve my communication skills and become more confident in my presentations. On the other hand, the teamwork has complemented the gap in my academic life.

From graduate to workplace: about data skills