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Improving the Education Employability Mismatch for IT Graduates

Hijab Alavi

Macquarie University, hijab.alavi@students.mq.edu.au

Stephen Smith

Macquarie University, stephen.smith@mq.edu.au

Peter Busch

Macquarie University, peter.busch@mq.edu.au

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Reducing the Australian IT Education vs. Employability Mismatch

TREO Talk Paper

Hijab Alavi

Macquarie University

hijab.alavi@students.mq.edu.au

Stephen Smith

Macquarie University

stephen.smith@mq.edu.au

Peter Busch

Macquarie University

peter.busch@mq.edu.au

Abstract

The world is constantly changing to adapt to new societal ways, resulting in changing demands required by employers, in turn resulting in the constant updating of university curricula (Brown et al., 2011). Today, there exists a gap between experts exploring where the world of work and state of learning will need moving to the future; relatedly higher education institutions face increasing pressure to better prepare their graduates for the workforce (Ryan et al., 1996). Full-time employment immediately following graduation was 70.9 per cent in 2016, demonstrating a correlation between employment and education (Yezdani, 2017). There has been a great concern in the research literature about the job–education mismatch, meaning there exists a lack of correspondence between the job-qualification level required, and that acquired through higher education. The aim of this study is to reduce such a mismatch, ensuring graduates are work ready upon completion of their undergraduate degree.

To reduce this mismatch, third-generation activity theory (Bloomfield and Nguyen, 2015) is used in an educational setting to ascertain a relationship between universities, students/graduates and employers, to gain better understanding of all viewpoints. Comprehending professional experience through the perspective of activity theory, will enable all stakeholders to identify perspectives of employers, students, and educational institutions, to better ascertain their requirements. A mixed-methodology is used to collect data and assist in better understanding such interaction - between students, universities, and employers, which can then be seen as the foundation to initiate a partnership between organizations and the higher education sector. The primary focus of a partnership is to develop university curricula, where such different elements of the two systems come into view and can be renegotiated for the benefit of graduates.

Our research will analyze current trends within Australian undergraduate Information Technology (IT) curricula to better understand the education-employability mismatch by identifying the strengths and weaknesses of current curricula. An empirical analysis of secondary data from a range of publicly available undergraduate unit guides from Australian universities, is used to test a proposed framework derived from the information literacy framework (Lupton and Bruce, 2010), and the Australian Qualifications Framework (AQF). We aim to improve the undergraduate IT curricula, with a view toward increasing employability rates post-graduation. The aim of this project is to ensure students are taught state-of-the-art information. In doing so, the curriculum should aim for graduates to not only possess current technical skills, but also the ability to further develop their own learning with a variety of new skills - categorized as fundamental, people, personal and thinking. Additionally, primary data was collected from interviews with IT recruiters, to identify the needs of employers and matching those with our proposed education-employability matrix. Future work will examine perspectives of students and academics through first-hand data collection (i.e., interviews and surveys). The findings should enable the following key items: (1) better understanding the current education-employability mismatch; (2) identifying employability gaps in current IT curricula; and (3) improving current curricula and learning outcomes with a view toward increasing IT employability rates post-graduation.

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