

A Perspective on Education to Support Industry 4.0: An Exploratory Study in the UK

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Abstract : Industry 4.0 is a term frequently used to describe the new upcoming industry era. Higher education institutions aim to prepare students to fulfil the future industry needs. Advancement of digital technology has paved the way for the evolution of education and technology. Evolution of education has proven its conservative nature and a high level of resistance to changes and transformation. The gap between the industry's needs and competencies offered generally by education is revealing the increasing need to find new educational models to face the future. The aim of this study was to identify the main issues faced by both universities and students in preparing the future workforce. From December 2018 to April 2019, a regional qualitative study was undertaken in Liverpool, United Kingdom (UK). Interviews were conducted with employers, faculty members and undergraduate students, and the results were analyzed using the open coding method. Four main issues had been identified, which are the characteristics of the future workforce, student's readiness to work, expectations on different roles played at the tertiary education level and awareness of the latest trends. The finding of this paper concluded that the employers and academic practitioners agree that their expectations on each other's roles are different and in order to face the rapidly changing technology era, students should not only have the right skills, but they should also have the right attitude in learning. Therefore, the authors address this issue by proposing a learning framework known as 'ASK SUMA' framework as a guideline to support the students, academicians and employers in meeting the needs of 'Industry 4.0'. Furthermore, this technology era requires the employers, academic practitioners and students to work together in order to face the upcoming challenges and fast-changing technologies. It is also suggested that an interactive system should be provided as a platform to support the three different parties to play their roles.

Keywords : attitude, expectations, industry needs, knowledge, skills

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