**Transforming the student experience by integrating interdisciplinary challenge-led learning**

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**Abstract**

There are a number of recognised fundamental principles that enhance the student experience, one being the development of an individual’s sense of belonging within an institution. Students are more likely to integrate if they feel valued, included and encouraged within their studies and the wider support mechanisms. Extensive studies have been conducted that suggest that when students fully engages with the wider Higher Educational experience they are more likely to succeed in their studies, develop resilience and skills required to sustain them in their career; and less likely to drop out of the Higher Education system. Therefore designing opportunities for engagement within the higher educational context is a key strategic priority since it has been proven to contribute significantly to student’s identity and place.

The fourth industry revolution (4IR) is interdisciplinary in nature, crossing fields and transcending traditional academic disciplines. Universities of the future must equip students with the skills and attributes required for an ever changing commercial landscape. It is recognised that innovative and sustainable approaches to addressing today’s, and tomorrow’s global challenges reach far beyond the boundaries of a single academic discipline or methodological approach and require new ways of working. Graduates endowed with the necessary discipline knowledge combined with technical, problem solving, critical thinking and social integration skills are better equipped to contribute to the global environment and societies of the future. In order to be part of the solution higher education graduates need to be prepared for such messiness and complexity through the integration of interdisciplinary problem solving within their learning experience a view supported widely by UK government policy-makers, funding councils and professional bodies.

A case study is presented that synthesizes the impact of integrating interdisciplinary challenge-led learning into the undergraduate learning experience. The case presented is based on extensive evidence gathered during 2012-2017 at a UK HE institution. It evaluates impact from the perspective of three stakeholder groups: the student, the institution and commercial sector using various data collection techniques and offers interdisciplinary challenge-led learning as a new mode of knowledge production, which contributes a blue-print for innovation in transforming the student experience. The framework presented builds intellectual capacity through creating sustainable networks to co-create knowledge and develop learning communities. Thus, enabling students to enhance their skills and attributes to contribute more effectively to commercial and society 4IR challenges, whilst creating sustainable networks and developing a sense of belonging.

**Bio – Professor Jess Power**

Professor of Teaching and Learning and Associate Dean Students at Staffordshire University. She is a Senior Fellow of the Higher Education Academy, Fellow of The Textile Institute, Fellow of Chartered Management Institute, and a National Teaching Fellow.

Jess has extensive teaching experience and has contributed extensively to the development of quality assurance, policy enhancement at national and international levels. She has led a variety of research projects and has published widely. Jess is particularly interested in contributing to shaping the future of Higher Education through design challenge-led learning integrating academic disciplines, creating learning networks and knowledge co-creation.