

Approaches to learning and teaching in evolving technology fields to enhance graduate employability

pluridisciplinary.com.au

Jason West (Project Leader)

Contact: jason.west@une.edu.au

There are many aspects of tertiary study that are too complex to be properly investigated within a single, traditionally-defined discipline. This program developed a *pluridisciplinary* approach in learning and teaching where collaboration occurs between people from different disciplines with varied skills and experiences to complement each in addressing complex and multi-faceted matters. This approach provides students with opportunities to develop 'in-demand' graduate attributes related to entrepreneurship, critical thinking, leadership, relationship-building and communication skills that improves underlying knowledge as well as graduate employability.

Project Impact

Fellowship participants widely consulted with academics and students across Australia to share and create awareness of alternative learning and teaching practices in pluridisciplinary fields. Alternative methods addressing cross-disciplinary initiatives were disseminated across universities to build awareness of emerging pedagogical frameworks specific to developing pluridisciplinary fields of research, through the deployment of targeted learning and teaching resources. A range of interdisciplinary recommendations for policy and practice were communicated using the framework for specific disciplines resulting in the redevelopment of Data Science programs in some institutions. Other impacts include the widespread use of the pluridisciplinary framework in content and assessment development, several peer-reviewed research papers, two case studies of good practice for use in subject development, several conference presentations and access to materials via a website including an online curriculum validation tool. The curriculum validation tool has been used extensively by several institutions to validate their Data Science programs.

Deliverables

- A comprehensive report describing the framework, the e-tool and the case studies as a set of resources for other institutions seeking to enhance graduate employability through pluridisciplinary curriculum development
- Development of a learning and teaching framework for Big Data/Data Science-related fields that captured approaches to cross-disciplinary pedagogy strategies, views of research, views of learning in rapidly developing areas of inquiry, learning outcomes articulated in the language of educators, educator roles adopted and aids and barriers in the environment
- Provision of an integrated e-learning repository and platform that hosts an integrated set of innovative technologies to support dynamic and agile modes of learning and teaching including an online curriculum validation tool (pluridisciplinary.com.au)
- Case studies for Big Data/Data Science learning and teaching development, based on interviews and workshops focused on graduate employability, strategies and successes