Building a SMART VET System in Australia

The Action Learning Institute and Klarrio APAC have made significant progress on two innovative solutions to facilitate systemic reform in vocational training and education in Australia. https://actionlearning.edu.au/smart-skills-reform/

The VET Data Platform: This platform integrates multiple data sources, including the National Register of VET, Australian Skills Classification framework, and Core Skills framework, in a cloud-based platform. It employs data engineering, data science, and machine learning for data transformation, analytics and processing to serve learners, employers, training providers, Jobs and Skills Councils, regulators and other key stakeholders in VET and associated sectors.

Enterprise Microcredentials: Designed to engage employers directly in qualification design and add value to the National Skills Passport, enterprise microcredentials are generated from workplace documents and co-designed by Registered Training Organizations (RTOs) using AI and machine learning. Mapped to Units of Competency on the National Register of VET, these credentials facilitate Recognition of Prior Learning (RPL) and provide a reliable record of an individual's work experience.

Progress to date: An early prototype of the VET Data Platform has been built with funding from Skills SA. This has been used to co-design enterprise microcredentials for entry level roles in the Creative Industries[1] and ICT[2], which have been endorsed by the South Australian Skills Commission. A prototype for an AI-assisted microcredential generator to semi-automate the design methodology is under development. Together with our existing software, myLearningMap, this is a fully integrated system for Recognition of Prior Learning, a vehicle for employer-led qualification reform, and the basis of a meaningful National Skills Passport.

B&R Enclosures, a leading advanced manufacturing technology company, is collaborating with ALI by providing their Adelaide manufacturing facility as a testing ground for software development. A suite of microcredentials for their factory operations is being created.

Assistance requested: We believe this work is highly relevant to the national skills reform agenda and the National Skills Passport. We are seeking invitations for competitive tender for any state and federal government funding related to these initiatives.

Background: The Action Learning Institute (ALI) is a private research and training organisation (Provider no. 40676) with a focus on work-based learning. This has led to the development of myLearningMap[3], a cloud-based portfolio application, which maps evidence collected in the workplace directly to searchable performance criteria in Units of Competency on the National Register of VET. ALI's expertise and technology are central to the proposed innovations in vocational training and education reform https://actionlearning.edu.au/publications/

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[1] *SMART Credentials: Applying Industry 4.0 principles to design micro-credentials*, Skills SA Building Capability Project Final Report September 2022
[2] *Youth Options Raising the Game,* Skilling South Australia Final Report March 2023
[3] *myLearningMap: A digital platform for work-based trainees*, Skills SA Building Capability Project Final Report December 2020