

# Blockchain for education, Tom Worthington, ANU

## Use case(s)

- Workers acquiring hundreds of micro-credentials
- Need to validate micro-credentials globally in seconds

## Key requirements

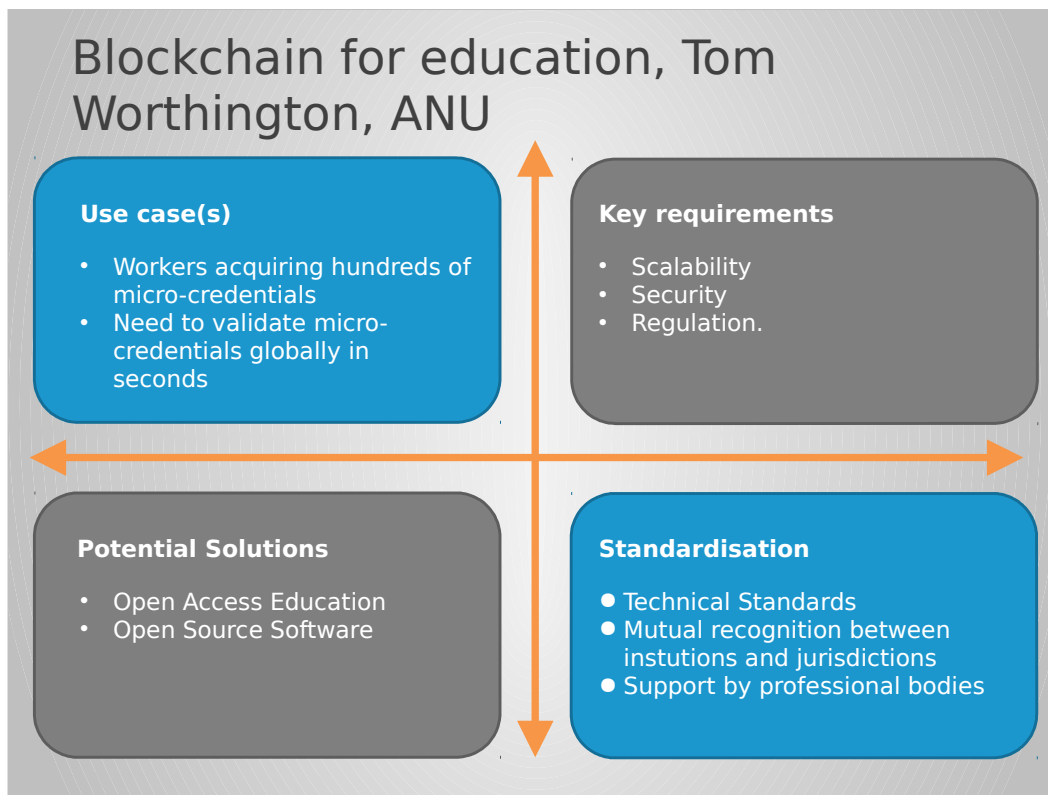
- Scalability
- Security
- Regulation.

## Potential Solutions

- Open Access Education
- Open Source Software

## Standardisation

- Technical Standards
- Mutual recognition between institutions and jurisdictions
- Support by professional bodies



Tom Worthington is an independent computer professional, and educational design consultant. He is an Honorary Senior Lecturer in the Research School of Computer Science at the Australian National University, and a member of the ACS Blockchain Technical Committee.

Micro-credentials are smaller than typical credentials, requiring days, or weeks, or study, rather than months or years. The Australian National University introduced Micro-credentials procedures in October 2019 (Worthington, 2019).

During their career a worker may acquire hundreds of micro-credentials. These would need to be validated before the worker could undertake a specific job, or task. With the gig-economy, this may need to be done several times a day in seconds, in a country away from where the credentials were issued. This will require a system which can scale for billions of workers, securely, and be recognized by governments around the world. Blockchain implementation of micro-credentials could be aided by open source software for implementation, and open access education to teach its use.

The report, Blockchain Challenges for Australia (ACS, 2019), listed micro-credentials as a potential application for blockchain, requiring low computational power, a high volume of data storage and users, but low throughput (ACS, p 22, 2019).

### References

ACS, 2019, "Blockchain Challenges for Australia: An ACS Technical Whitepaper", URL <https://www.acs.org.au/content/dam/acs/acs-publications/ACS-Blockchain-Technical-Whitepaper-2019.pdf>

Worthington, Tom, December 18, 2019, "ANU Micro-credentials Procedure", Higher Education Whisperer, URL <https://blog.highereducationwhisperer.com/search/label/microcredential>