



# Blockchain Applications in Education: A Case Study in Lifelong Learning

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# The Author



**Dr Alexander Mikroyannidis** is a Research Fellow in the Knowledge Media Institute of The Open University. He has more than 10 years of research experience in the field of Technology-Enhanced Learning and specifically in personalised learning, self-regulated learning, lifelong learning, open educational resources and rich interactive learning materials, as well as applications of blockchain technology in education.

# The QualiChain Project



**Decentralised Qualifications' Verification and  
Management for Learner Empowerment, Education  
Reengineering and Public Sector Transformation**



# Project Pilots



# The Lifelong Learning Pilot



# Stakeholders

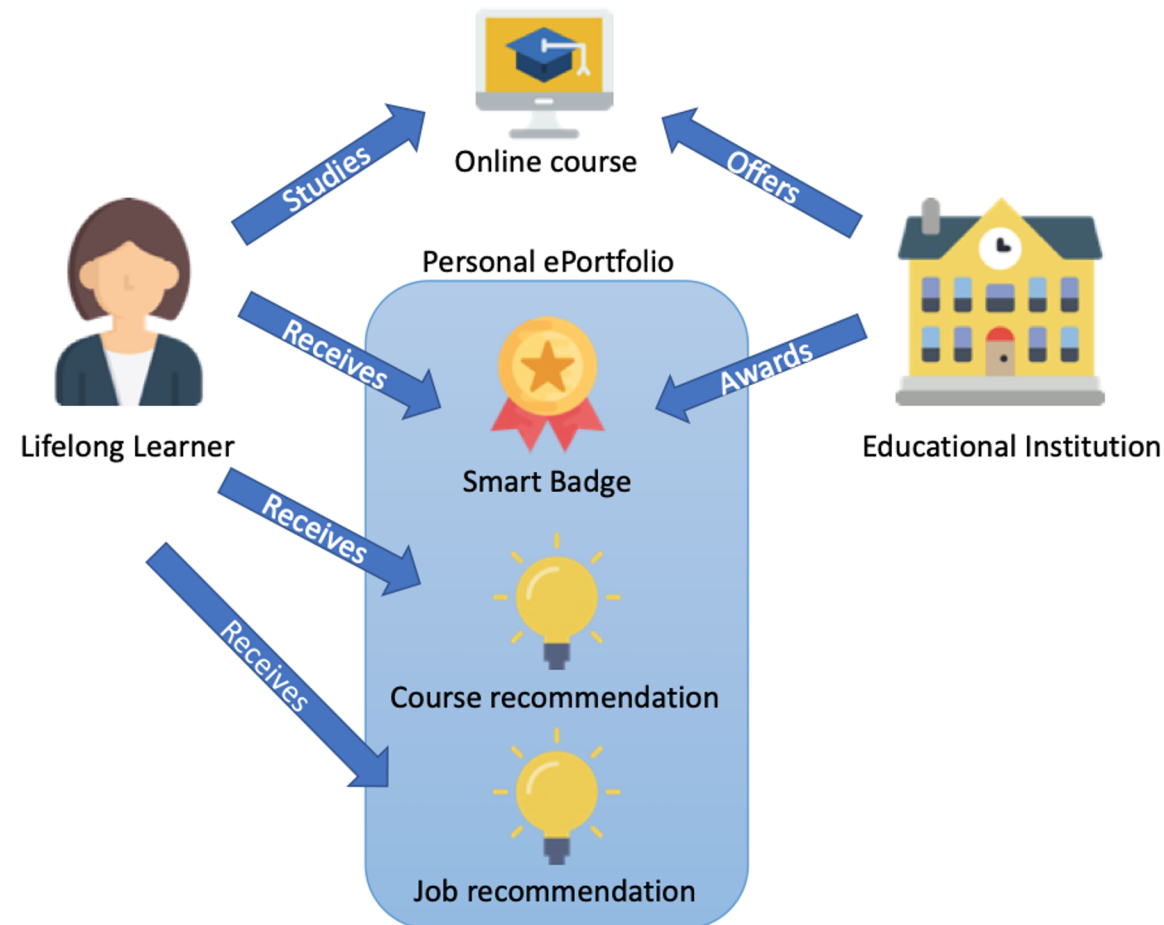


**Lifelong learners:** They pursue learning throughout their lifetime, for either personal or professional reasons.



**Educational institutions:** These are institutions that provide education or training services, either paid ones or free.

# Use Case



## Smart Badges

- Immutable & instantly verifiable accreditation.
- Offering personalised recommendations about jobs & courses.

# Consultation Workshops



Eliciting requirements from groups of **learners, educators, researchers and practitioners** in the context of major educational technology conferences.



**OOFHEC2019**  
16 - 18 October 2019



# Findings



ePortfolios should aggregate formal and informal qualifications validated by employers and educational institutions.

*Immutable Formal  
& Informal  
Qualifications*



Learners should receive guidance in building lifelong learning pathways and acquiring micro-credentials in order to achieve their learning goals.

*Lifelong Learning  
Pathways &  
Micro-credentials*



Job seekers should be provided with a comprehensive overview of the job market and the latest market trends.

*Career  
Counselling*



Learners/job seekers should own their digital identity and their ePortfolio data and should be able to control third-party access to it.

*Data Ownership  
and Privacy*



# Next Steps



- Moving from the **requirements elicitation and specification** phase to **testing, deployment and evaluation**.
- Currently conducting a series of **pilot workshops**, with a two-fold purpose:
  - **Dissemination** of the QualiChain framework and platform.
  - Collection of **evaluation data** via logs, questionnaires and face-to-face feedback from participants.
- In response to the COVID-19 pandemic, all pilot workshops are conducted **online**. Additional opportunities will be explored to engage stakeholders online, e.g. via **open online courses** and **webinars**.



Thank you for your attention!

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