

## **Blockchain Applications in Education – A Case Study in Lifelong Learning – Video Transcript**

ALEXANDER MIKROYANNIDIS: Hi. My name is Alexander Mikroyannidis. And in this video, I'll talk to you about blockchain applications in education - a case study in lifelong learning.

I am a research fellow in the Knowledge Media institute of The Open University. I have more than 10 years of research experience in the field of technology-enhanced learning and specifically in personalized learning, self-regulated learning, lifelong learning, open educational resources, rich interactive learning materials, and more recently, applications of blockchain technology in education.

This work is conducted in the context of the QualiChain Project. This is a three-year Horizon 2020 project funded by the European Commission. QualiChain investigates the verification and management of decentralized qualifications for learner empowerment, education re-engineering, and public sector transformation.

The project is conducting pilots in four key areas. These are lifelong learning, smart curriculum design, public sector staffing, and HR consultancy and competency management services.

The lifelong learning pilot is focused on supporting lifelong learning through transparent and immutable accreditation and personalized recommendations. In order to facilitate the personal and professional progression of the lifelong learner.

These are the stakeholder groups we are targeting within this pilot. Lifelong learners who pursue learning throughout their lifetime for either personal or professional reasons. And educational institutions that provide education or training services either paid ones or free.

This is the main use case of this pilot. At the very centre of it we have the personal ePortfolio, which stars the learning assets of the lifelong learner. And in particular the smart badges that have been awarded to the lifelong learner.

The smart boxes are stored on the blockchain and offer immutable and instantly verifiable accreditation. They also contain the key skills that the learner has acquired, in order to offer to the learner personalized recommendations about what to study next and which jobs are suitable for them.

So far I have been conducting a series of consultation workshops in order to elicit requirements from groups of learners, educators, researchers, and practitioners, within major educational technology conferences.

These are the findings of this consultation exercise. The first theme that emerged has to do with immutable formal and informal qualifications. More specifically, ePortfolio should aggregate formal and informal qualifications validated by employers and educational institutions.

The second theme has to do with lifelong learning pathways and micro credentials. In particular, learners should receive guidance in building lifelong learning pathways and then acquiring micro credentials in order to achieve their learning goals. The third theme has to do with career counselling. Job seekers should be provided with a comprehensive overview of the market and the latest market trends.

And finally, the fourth theme that emerged from this consultation exercise has to do with data ownership and privacy. More specifically, learners and job seekers should own their digital identity and their ePortfolio data. And should be able to control who has access to this data, in what ways, and for how long.

The next steps of this work will be focused on moving from the requirements elicitation and specification phase to testing, deployment, and evaluation. Towards this goal I have been conducting a series of pilot workshop that have a two-fold purpose. First of all the dissemination of the QualiChain and framework and platform, and secondly the collection of evaluation data from participants through logs, , questionnaires and also face to face feedback.

In response to the COVID-19 pandemic, all pilot workshops are now conducted online. And I will be exploring additional opportunities to engage stakeholders through online

challenge, for example through Open online courses and webinars. Thank you for your attention.