

# Capturing and transacting 'value for students' in the Digital University: the Blockchain Educational Passport

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**HE leadership: caught between the Scylla and Charybdis of efficiency and inclusivity**

# HE REFORM ENGLAND - POLICY JOURNEY

## STUDENT CENTRED MARKETISATION OF KNOWLEDGE?

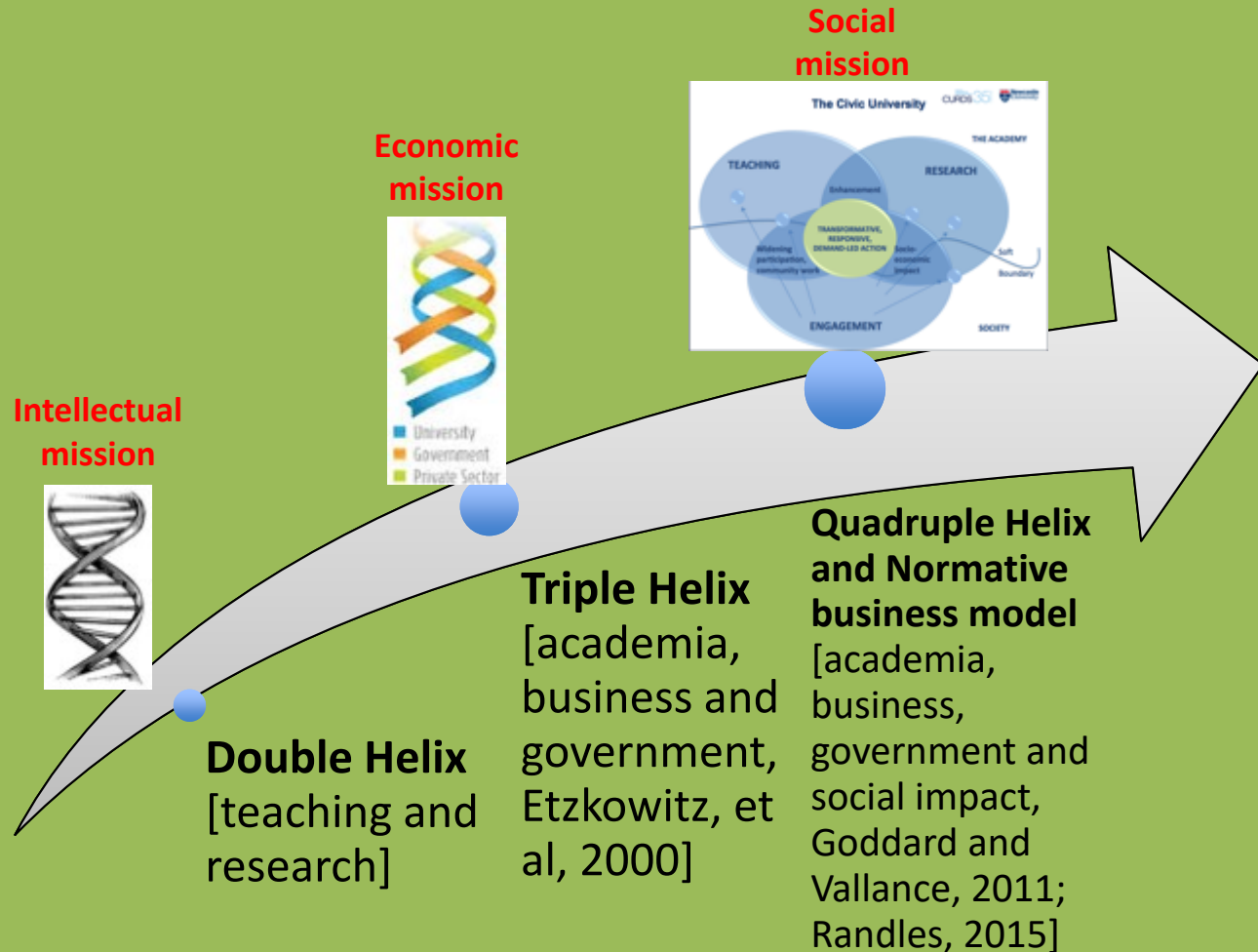


## 25 years of HE reform:

- \* Opening to new providers (massification of HE)
- \* Opening to competition (Marketisation)
- \* New funding system
- \* New regulatory system
- \* Teaching Excellence Framework
- \* Value for money & cost efficiency
- \* Students as consumers
- \* Focus on employability

# Macro-changes - Part 1

## HE in transition: From core mission to social mission?



# Accountability, marketisation and mechanisation of teaching and learning?

Tending the Higher Education Landscape: Priorities for the Office for Students  
Sir Michael Barber, 23rd June 2017

ENGINES OF OPPORTUNITIES  
Access, Success and Progression

21ST CENTURY ECONOMIC  
GROWTH  
Employability and the  
Industrial Strategy

## The Five Priorities



- Value for money
- Student experience
- Student satisfaction
- Learning gains

## Macro changes – Part 3

**Knowledge economy, AI, IoT, blockchain  
disruptive innovation**

**The real change is still to come.**

Artificial intelligence, blockchain and the Internet of Things have the potential to disrupt what and how universities work, not just how they do research and teach.

# **OUR RESPONSE TO THE CHALLENGE**

[#BlockchainEducationalPassport](#)

# Measuring value as combined worth



## Valuation

A valuation is the appreciation of something based on the values we hold as determining the intrinsic and extrinsic quality of the object under valuation.

**VALUES**

## Accountability

Accountability is the way in which we account for and therefore we are responsible for the efficiency and effectiveness by which we achieve what we value

**VALUE**

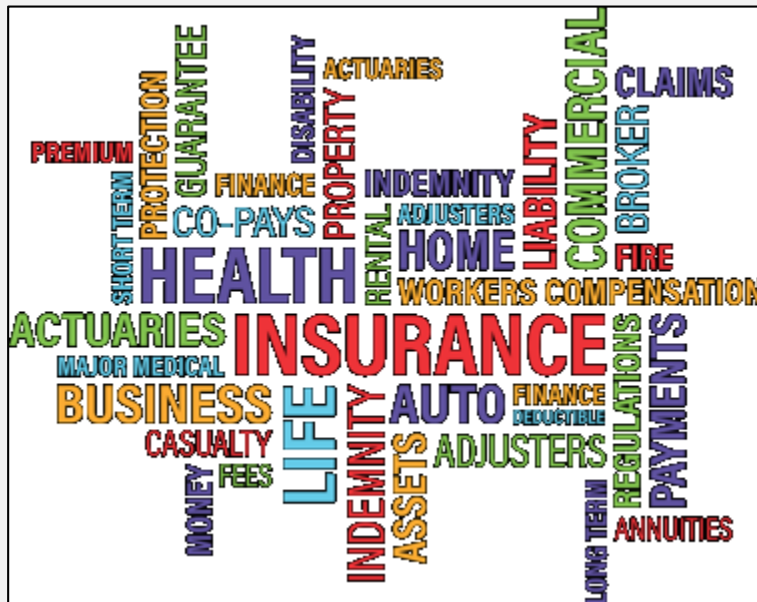
## Evaluation

an evaluation is the method/s by which we determine the extent to which our valuation of quality matches the parameter used to ascertain the value of the object

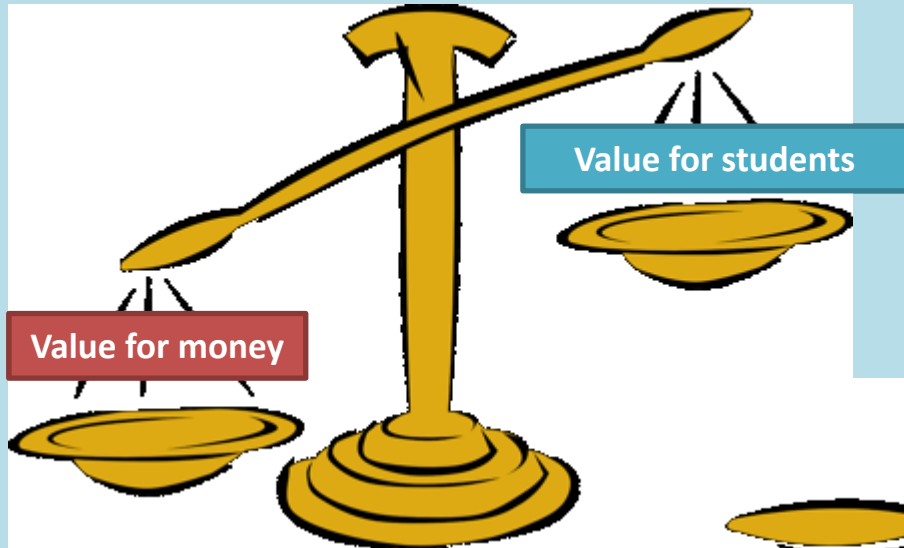
**COMBINED WORTH**



# But what is that we value?



# A Balancing act?

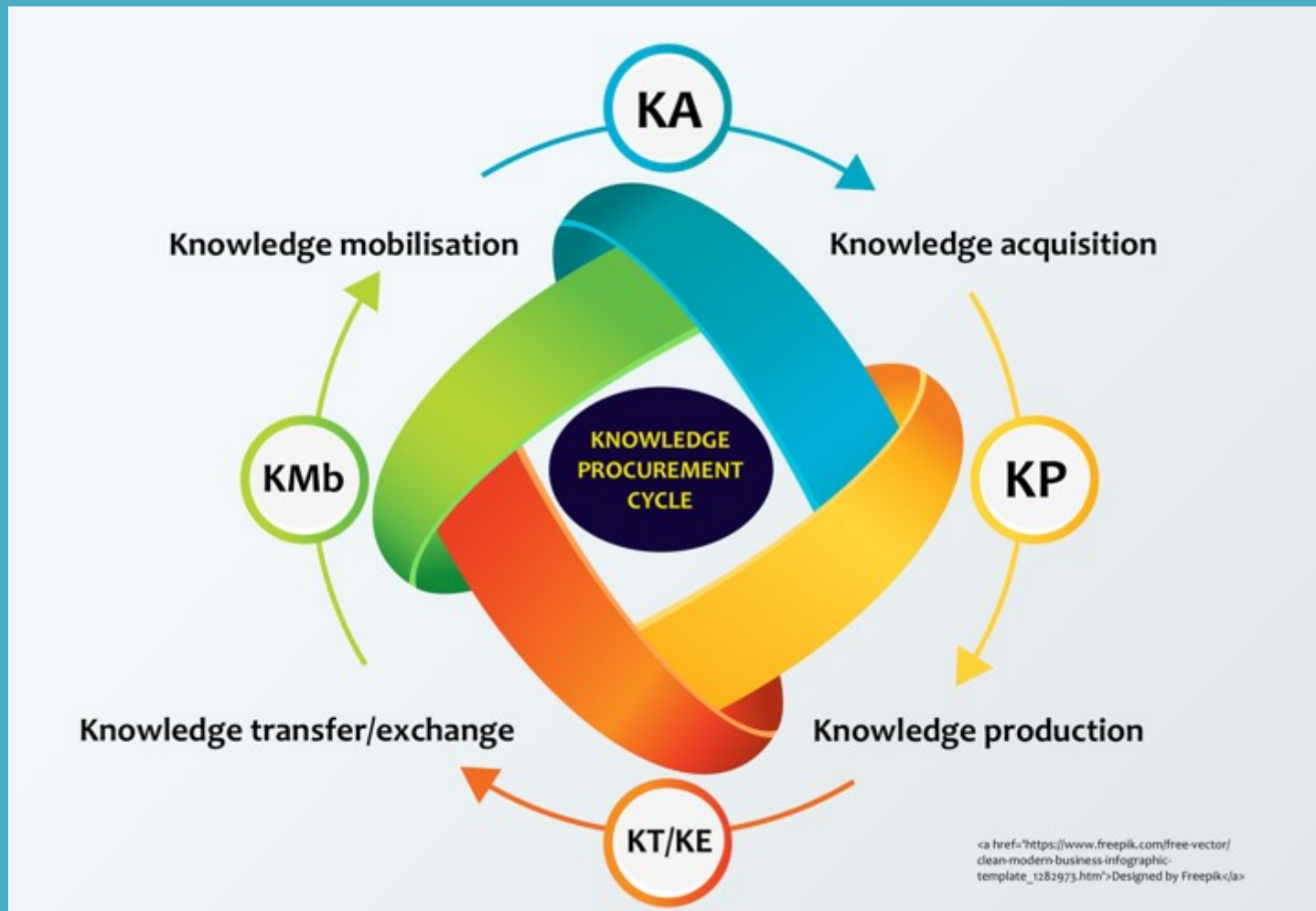


# How do we currently account for personal and institutional worth?



- How do we combine the worth?
- Who owns the worth and data?
- How do we track the change overtime?
- How can we demonstrate personal and institutional value?

# A knowledge procurement circular economy of value



# BLOCKCHAIN EDUCATIONAL PASSPORT

## WALLET OF LEARNING ACHIEVEMENTS

01

### FORMAL CERTIFICATIONS

Certificates and diplomas given by public or private schools validated by the Lebanese government.

02

### INFORMAL EDUCATION

Certificates, awards, and other proofs of learning following participation in informal education, such as that provided by NGOs

03

### NON-FORMAL ACHIEVEMENTS

Recognition of skills, competences and other merits gained through employment or volunteering and validated by employers or others working with the child

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ABSTRACT BACKGROUND

# #BlockchainEducationalPassport: A Distributed Learning Ledger



A traditional ledger accounting for transactions reflecting the exchange of objects of value and their final balance.

Key currency is money or gold although other currencies can be agreed by contracting partners.

A shared ledger accounting for transactions reflecting the exchange of objects of value and their final balance.

Key currency are cryptocurrencies although other currencies can be agreed by contracting partners.



# Blockchain as the ‘Ledger of everything’

*‘Algorithms that enable the creation of distributed ledgers are powerful, disruptive innovations that could transform the delivery of public and private services and enhance productivity through a wide range of applications.’*

(Government Office for Science, 2016: 5, emphasis in the original)

‘We should think about blockchain as another class of things like the Internet - a comprehensive information technology with tiered technical levels and multiple classes of applications for any form of asset registry, inventory, and exchange, including every area of finance, economics, and money; hard assets (physical property, homes, cars); and intangible assets (votes, ideas, reputation, health, data, information, etc.). But the blockchain concept is even more; **it is a new organizing paradigm for the discovery, valuation and transfer of all quanta (discrete units) of anything, and potentially for the coordination of all human activity at a much larger scale that has been possible before**’ [Swan, 2015, Preface, p. vii, emphasis added]

# References

Devecchi, C., Hadawi, A., Turner, S., Armellini, A., Brooks, I., Mellish, B., Petford, N. and Taeed, O. (2017) *Blockchain Educational Passport: Decentralised Learning Ledger*. Seratio Whitepaper 5.0 [<https://cpb-eu-w2.wpmucdn.com/mypad.northampton.ac.uk/dist/7/7932/files/2017/03/SERATIO-WHITEPAPER-Educational-Passport-Distributed-Learning-Ledger-30-April-2017-v-5.03-2gyqndf.pdf>]

Devecchi, C. and Petford, N. (2015) Universities in transition: Managing knowledge and developing people through the use of intellectual capital, ECER Conference, 7-11 September 2015

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