The Blockchain and Kudos

A distributed system for educational record, reputation and reward

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Life-changing Learning

The opportunity

To combine

trusted distributed records of educational achievement
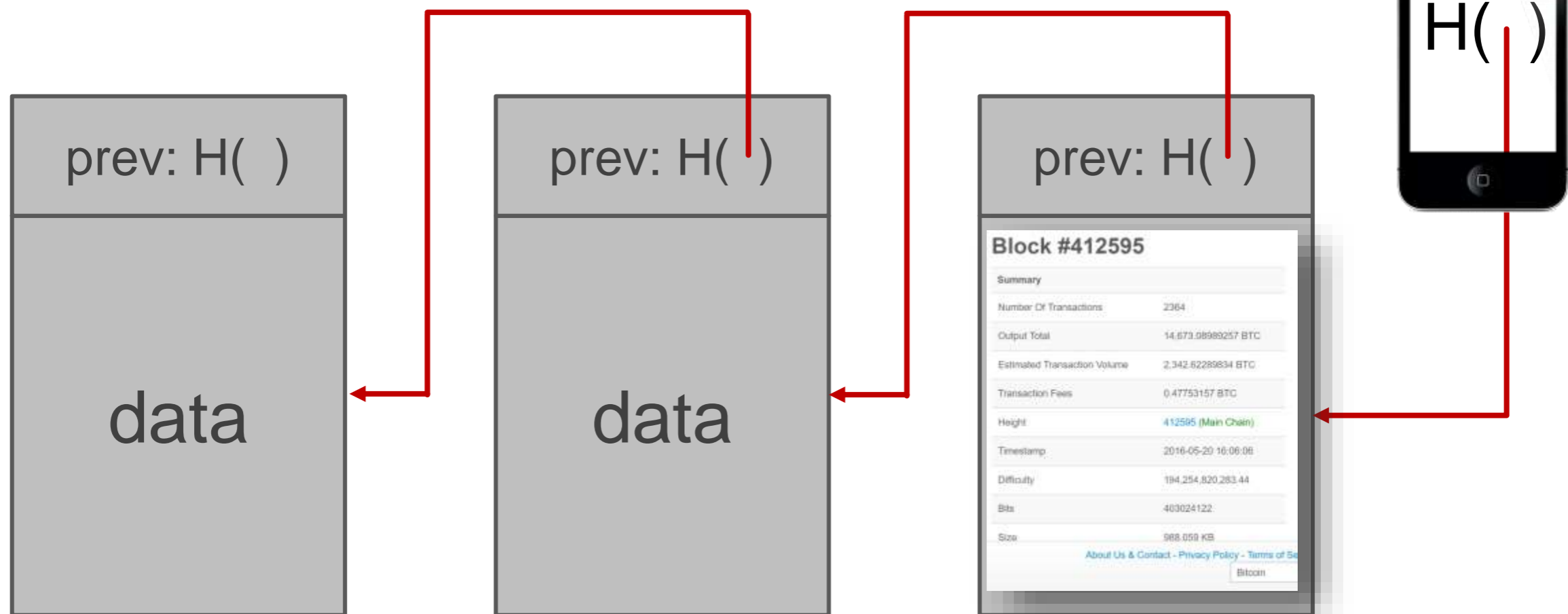
with

a system of tradeable educational reputation to recognise and reward intellectual achievement

to

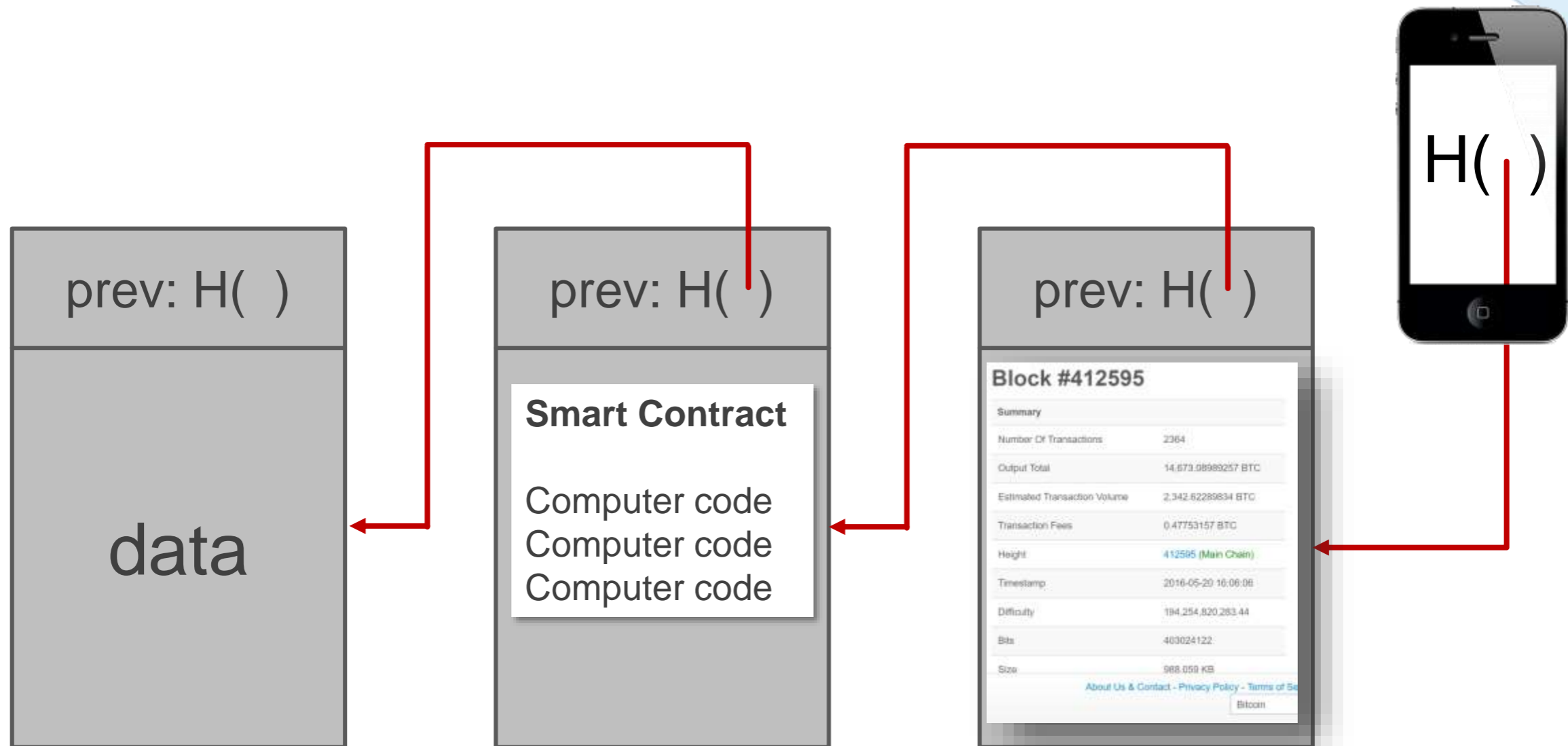open up education, while assuring quality of achievement

The blockchain

A *public distributed* linked list with hash pointers
A user can easily and quickly retrieve information from the list
The hash function verifies that the data hasn't been changed
Core mechanism for Bitcoin transactions, but can be adapted for other uses

The blockchain

prev: H( )

data

prev: H( )

Smart Contract

Computer code
Computer code
Computer code

prev: H( )

Block #412595

Summary	
Number Of Transactions	2364
Output Total	14,673.98989257 BTC
Estimated Transaction Volume	2,342.62289834 BTC
Transaction Fees	0.47753157 BTC
Height	412595 (Main Chain)
Timestamp	2016-05-20 16:06:06
Difficulty	194,254,820,283.44
Bits	403024122
Size	988,059 KB

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Bitcoin

H( )

Blockchain can contain Smart Contracts: computer code to carry out transactions, such as sending an invoice

Educational blockchain

Stores records of achievement
Public evidence of an award

Educational blockchain

Stores records of achievement
Public evidence of an award
Once stored, these cannot be altered, even by the original issuer
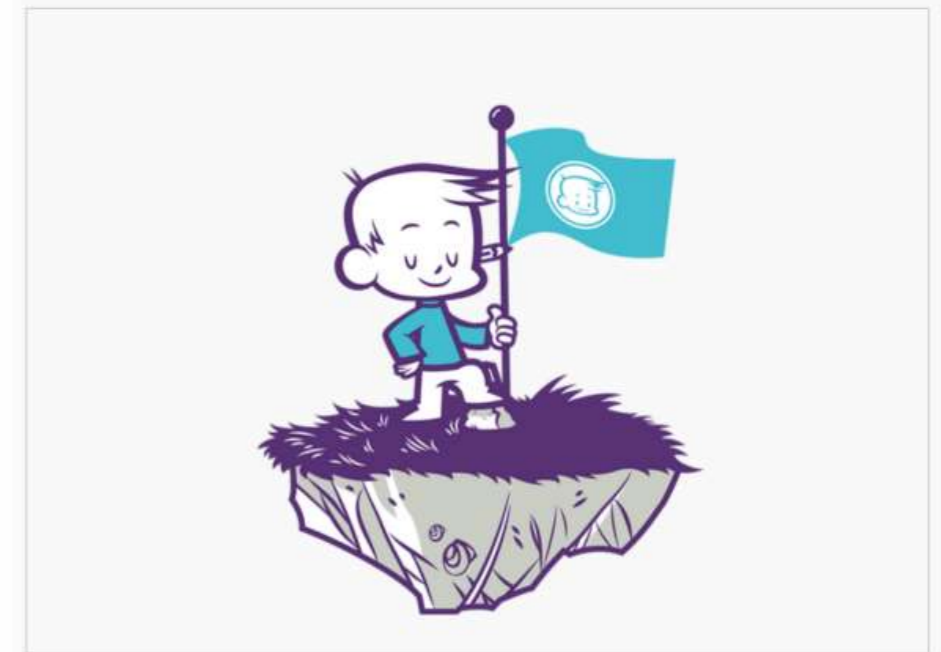
Blockchain as proof of intellectual work

- Public blockchain for education

- Any person can lodge a public record of a 'big idea'

    Such as an invention, academic paper, poem, artwork

- Each big idea is identified with the author(s) and time-stamped

- One or more people could add their digital signatures to the record

- Permanent e-portfolio of intellectual achievement, visible to anyone

- Crowd-sourced method of patenting

Blockai uses the blockchain to help artists protect their intellectual property
Posted Mar 14, 2016 by *Anthony Ha* (@anthonyha)

While most of the discussions around blockchain have focused on its possible uses in finance, startup Blockai is looking at something different — helping artists, photographers and other creators register their work so that they can protect it from potential copyright infringement.

https://techcrunch.com/2016/03/14/blockai-launch/

Blockchain for intellectual currency

- Reputation has a tradeable value (e.g., Uber, AirBnB)

- Reputation is already traded among academics (e.g. H-index of publication impact)

- Now imagine open trading of intellectual reputation

- Each recognized educational institution is given an initial award of an intellectual currency (the Kudos)

  Based on e.g. THE World Ranking, or H-index, or Amazon author rank

- Each institution allocates amounts of Kudos to employees it wishes to recognise

- Each institution and person stores its fund of reputation in a virtual 'wallet' on the educational blockchain

Trading in intellectual currency

- Educational institution awards small amounts of Kudos to students who graduate

- Student may pay a tutor in Bitcoin currency, and receive Kudos in return for passing a test or completing a tutorial

- Any individual can post an item of note on the educational Blockchain

   e.g., idea, presentation, paper, story, poem, artwork

- People can associate Kudos with that item to indicate its value

- Or can transfer small amounts of Kudos to the author to boost author's reputation

- Similar to Kickstarter, but with a currency of reputation

- Amount of Kudos associated with a work or author is an indication of their intellectual value

Reputation on iSpot
http://www.ispotnature.org/

OpenBlockchain

Blockchain-based e-portfolios, feedback and accreditation
blockchain.open.ac.uk

Collaboration with APPII (appii.iio) on trusted open profiles and CVs

Adding OpenLearn badges and course portfolios onto to the OpenBlockchain

What if?

- A single universal record of intellectual works and awards, each associated with reputational credit

- Extends academic practices of reputation and review to anyone

- Conversion rate between reputation and money?

- What is the value of scholarship?

- Do we want education to be (further) commodified?

- Marketplace for knowledge, or opening up education?