

**University
of Basel**

Center for
Innovative Finance

5th Basel Sustainability Forum

Sustainable Finance

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University of Basel

We Have a Problem

Climate change... anything else?



Sustainable Development Goals

An action plan to change our future.



A Tale of Two Investors

Two extreme personas.



A-Type investors



B-Type investors

How to incentivize B-Type investors?

The Argument of a B-Type Investor

Let's take these guys serious.

«Restricting my investment opportunities to a subset of the investment universe may have certain costs.»

- Diversification?
- Returns?

«Moreover my marginal contribution is negligible.»

- Individual vs. collective rationality → a game theoretical problem.

The Buts and Hows

Measure, secure and incentivize.

Sustainable Development Goals are very powerful, because they create emotions.

However, some challenges remain:

- How to objectively measure across a global supply chain?
- How to secure the integrity of the data?
- How to incentivize?

The Case for Blockchain

Blockchain technology may be crucial to achieve these goals.



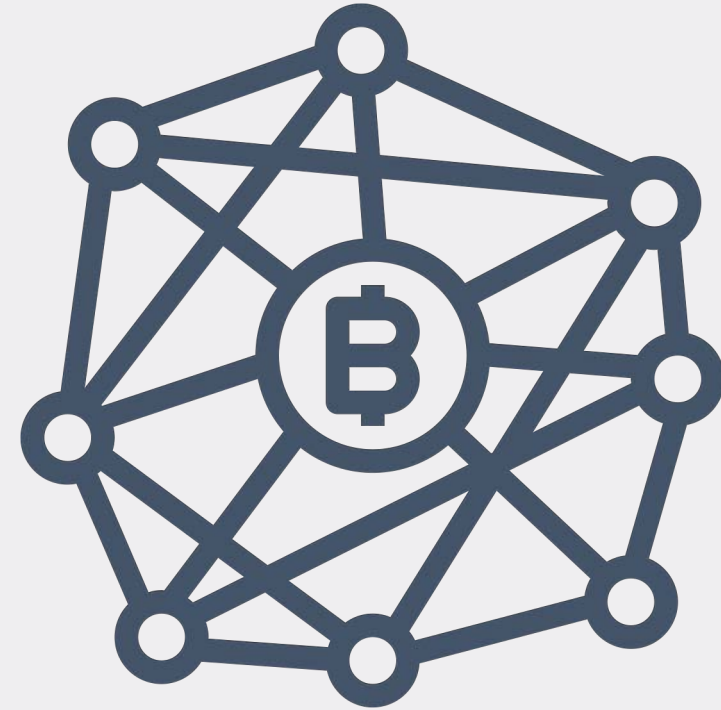
Transparency



Data Integrity



Scarcity



Blockchain Technology

The Sustainable Finance Forum Token

A Proof-of-Concept.



BSF Token Characteristics:

- 100% Unofficial
- 100% Worthless
- 100% Illiquid

Tokenize Sustainability Efforts

ERC20 tokens for SDGs.





1

The Education Case Study

The Education Challenge

Small change, large impact.



How to Create Quality Education?

Content is not a problem.

1. Make course material accessible.



coursera

You Tube

Udemy

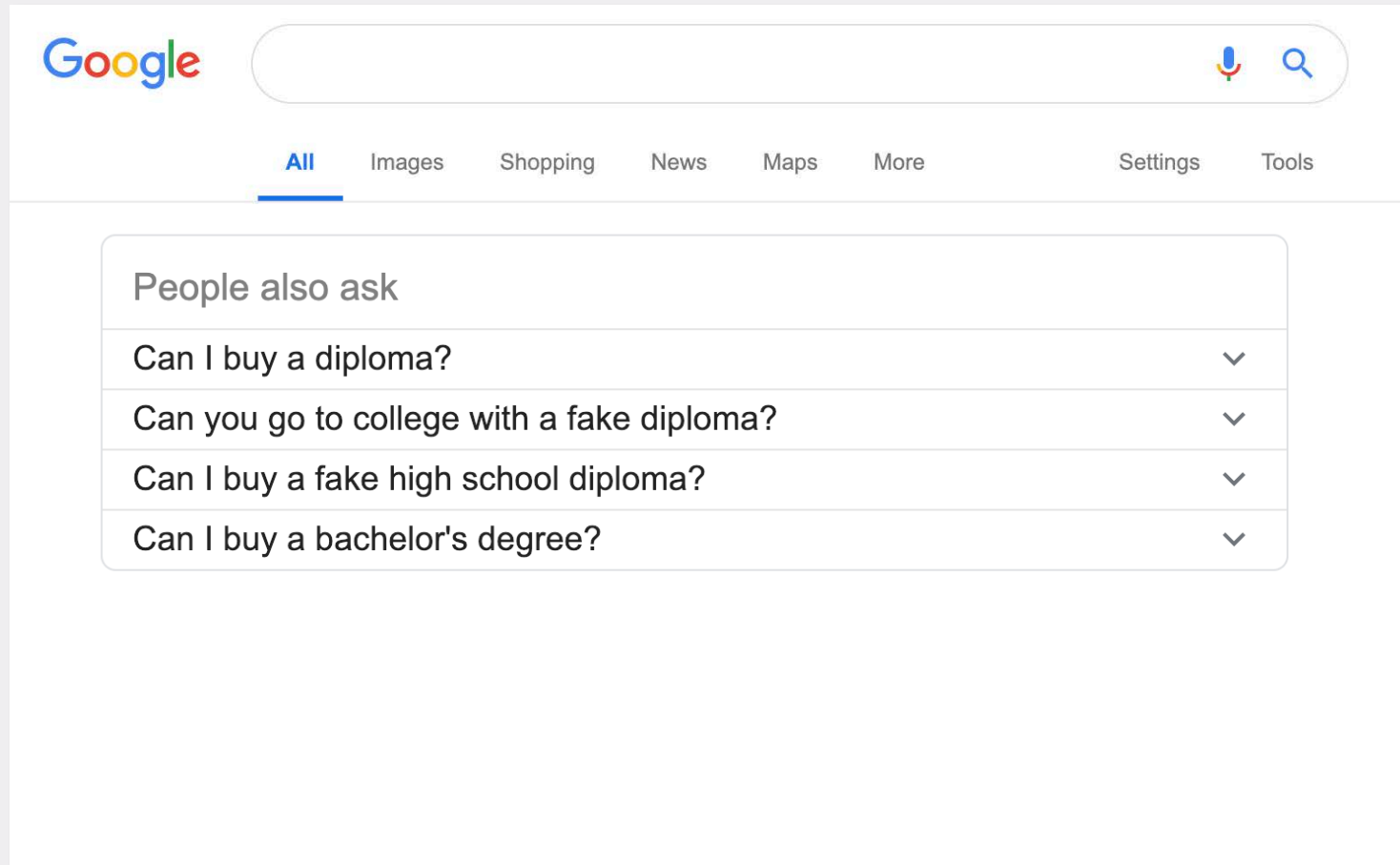
edX

2. Incentivize them (micro exams and payments).

3. Provide reliable diplomas.

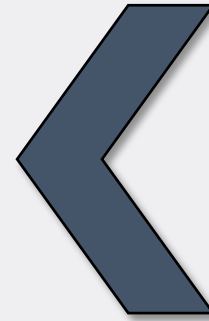
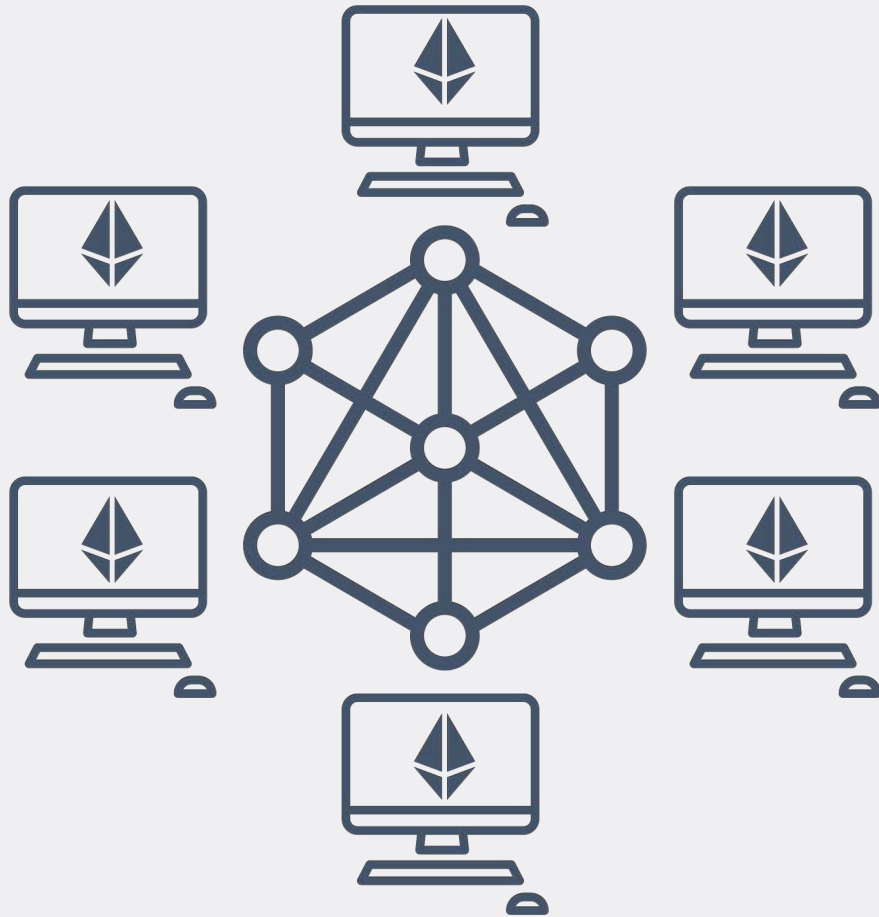
Fake Diplomas

Yes, this is an actual problem.



Diplomas On a Public Blockchain

Public chains can be used as a notary service.



Information can be secured on a public Blockchain.

Process to Issue and Verify Diplomas

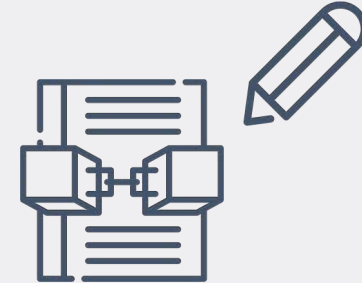
Anyone in possession of the document can verify its validity.



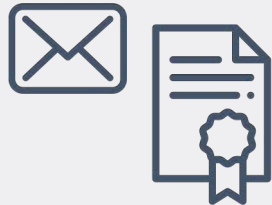
University issues pdf diploma.



University computes hash value of the diploma.



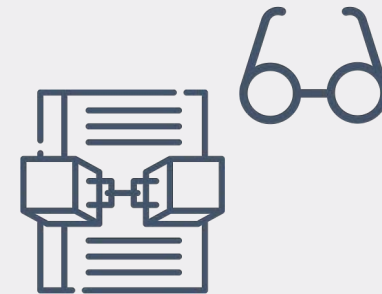
University writes hash value on blockchain.



Potential employer receives diploma.



Potential employer computes hash value.

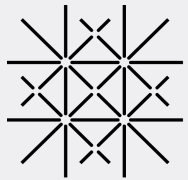


Potential employer checks if hash value is on blockchain.

Blockchain Certification

A Great Use-Case for Public Chains.

Project Initiators:



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 **BLOCKFACTORY**

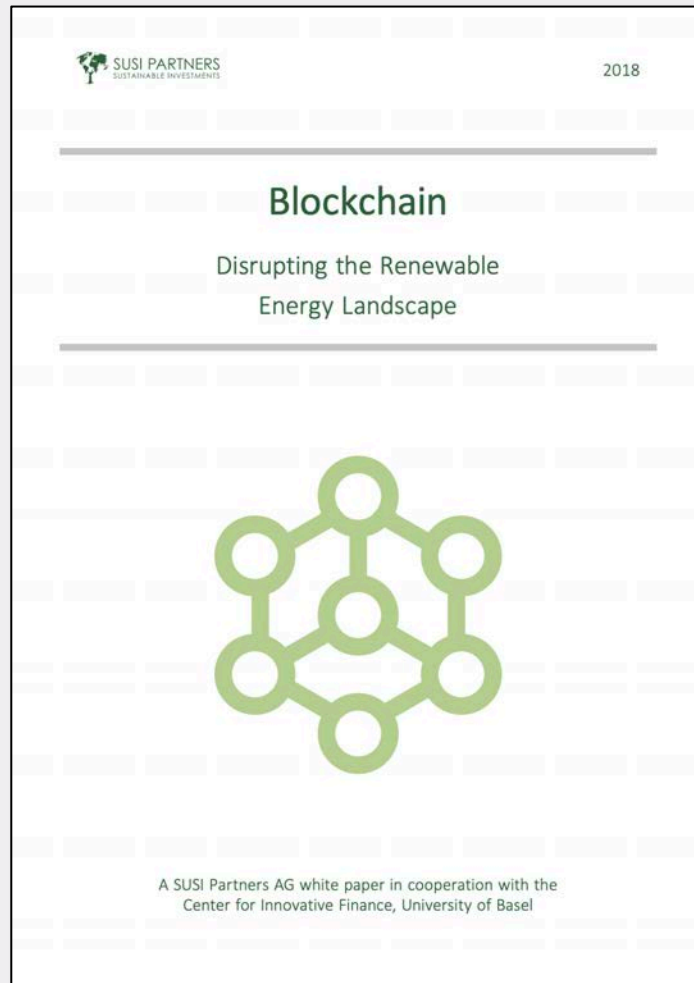
Currently used by:



and many more...

A Recent Study

Blockchain: Disrupting the Renewable Energy Landscape.



POTENTIAL APPLICATIONS					
Asset Transparency	Asset Management & Operations	Energy Trading	Grid Operations	Certificate Trading	Others
Asset history	Standardization & automation	Retail & settlement	Monitoring & measurement	Emission certificates	Client Services
Supply chain management	Insurance & hedging	Peer-to-peer	Ancillary services	Certified renewable energies	Incentive for energy efficiency
	Contract management	EV charging	Virtual power plants		
	Tokenization				



Read the full 60-page research report.
→ <https://cif.unibas.ch/>

Enjoy the Conference

My contact information.



Prof. Dr. Fabian Schär

Fabian Schär is Credit Suisse Asset Management (Schweiz) Professor for Distributed Ledger Technology (Blockchain) and FinTech and Managing Director of the Center for Innovative Finance at the University of Basel. His research focus is on smart contracts, asset tokenization and potential applications of Blockchain. He has a PhD in cryptoassets and blockchain technology and is co-author of several publications, including the bestselling book «Bitcoin, Blockchain und Kryptoassets». Moreover, he is a member of several advisory boards, a board member of the Swiss Blockchain Federation, and an invited speaker at numerous renowned conferences, including the G20 Global Financial Stability conference.



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