

BlockNet Project Multiplier Event

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Vilnius University (online), Dec 3, 2020

Blockchain for Business

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<http://Project-BlockNet.eu>



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Disclaimer

The creation of these resources has been (partially) funded by the ERASMUS+ grant program of the European Union under grant no. 2018-1-LT01-KA203-047044.

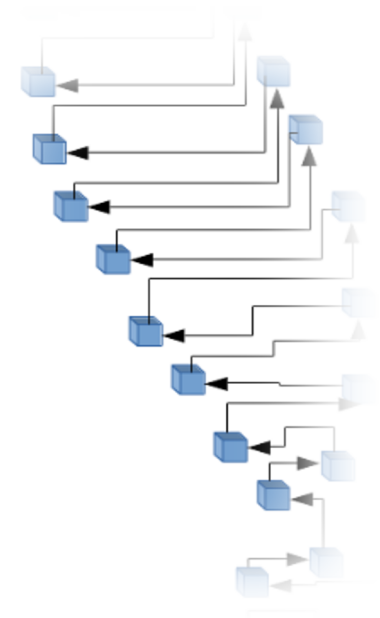


The many promises of blockchain

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Blockchain technology:

- has revealed its potential to innovate business processes;
- is proposed to fundamentally transform the ways in which people transact, trust, collaborate, organize and identify themselves;
- is expected to radically reshape the behavior model of individuals and organizations;
- will have strong influence to the finance, economics, science and technology, and even politics areas.



Blockchain technology (BCT) has been touted as carrying the potential to redefine how computing systems are built and used

Following the initial hype, investments in BCT are ongoing, with the total number of funding dollars invested in blockchain start-ups exceeding \$3.0 billion in 2019

On the other hand, scholars and practitioners alike lack systematic and reliable information on the new technology and the specificities of tasks related to the implementation projects involving blockchain

The lack of information and understanding about the technology is believed to be one of the reasons for the reported failure rate of 92,5 percent for blockchain projects

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At the same time, implementations, educators lack knowledge on how to develop new teaching and training programs and courses on BCT

Specifically, there is a lack of educational programs, incorporating different perspectives of blockchain from across multiple disciplines

This is in stark contrast with the fact that blockchain is a highly interdisciplinary

The promises and the realities

How to teach on nascent technologies?

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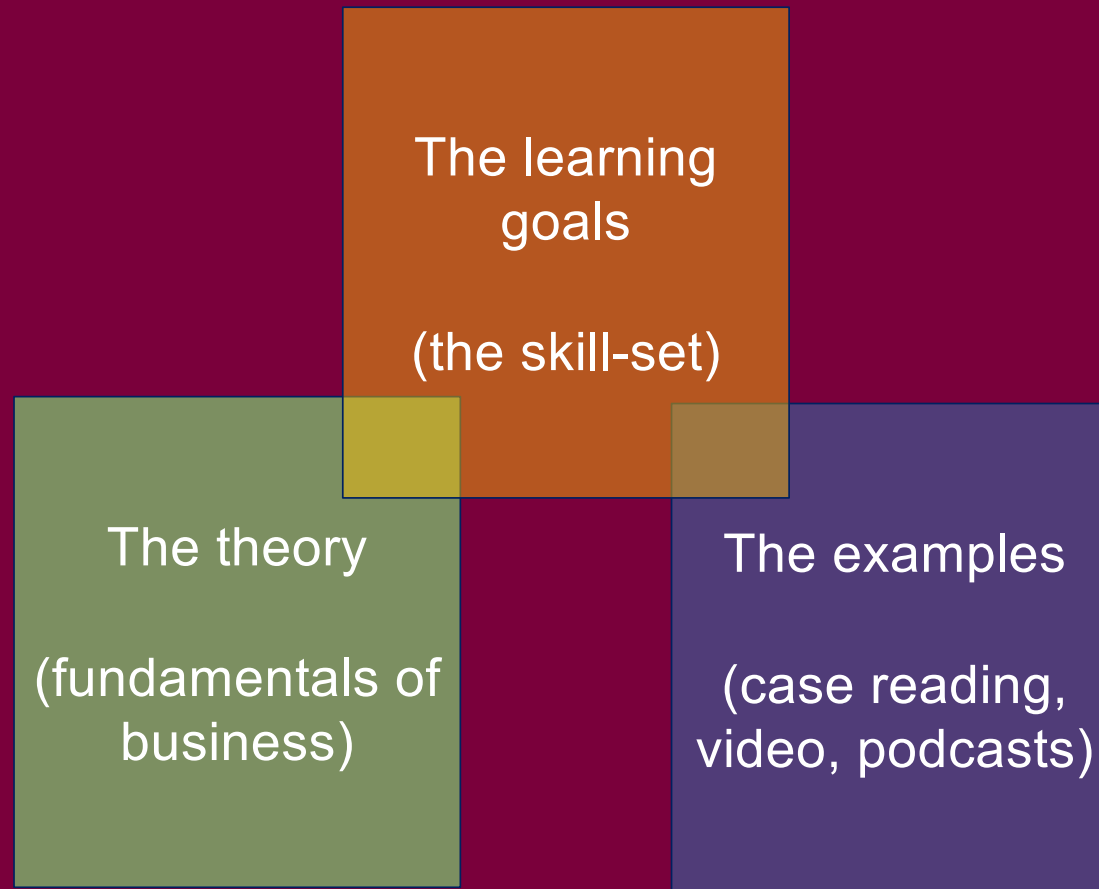
- Students are rarely interested in “big” things, in the “macro” order of the world.
- Phrases like “Blockchain is the next big thing!” make students yawn, at best.



- Job ads are silent on what specific skills are expected /required from BlockChain professionals
- University programs must deliver the (traditional) core subjects in select disciplines, yet meaningfully accommodate the novel trends and concepts to make the programs and the courses attractive to students

Finding the right mix...

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Earlier findings of the project

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“Key drivers” of Blockchain adoption in Finance:

- Cost cutting
- Improved risk management
- Regulatory compliance

Not clear:

- How?
- For whom?
- In what cases?

Lithuanian case study reveals there are regulatory barriers there, obstacles to bringing BC-based services to the market.

Based on these findings, BlockNet project's developed course must:

- **Close the knowledge gaps**
- **Abridge the technology and business perspectives**
- **Eliminate misconceptions**

BlockNet:

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BlockChain Network Online Education for interdisciplinary European Competence Transfer

BCT-BASICS

IT-SECURITY

BUSINESS

SCM

COM. SCI.

#	Topic
1	Introduction to distributed ledger technologies and properties (2h), business development (1h), and digital entrepreneurship (30 min)
2	Introduction to cryptography (2h) and information systems for blockchain (2h) and challenges
3	Business processes (2h) and requirement (2h) specification
4	Blockchain-enabled supply chain processes and modeling (4h)
5	Cryptocurrencies (2h) and tokenization (1h) and token-based exchange mechanisms (1h)
6	Introduction to platform and application development (1h), programming models (1h), and smart contract programming (2h)
7	Online case development and project presentations

#	Topic
1	Cryptographical methods (2h) and security design for distributed information systems (2h)
2	Blockchain components and security methods (2h), secure platforms and tools (1h), and enterprise models (1h)

#	Topic
1	Business activities & processes and (2h) and innovation management using information systems (2h)
2	Blockchain components and security methods (2h), business transformation (1h), and blockchain-enabled business processes (1h)

#	Topic
1	Supply chain processes (2h) and information systems (2h)
2	Blockchain components and relevant frameworks (2h), business transformation (1h), and blockchain-enabled supply chain processes (1h)

#	Topic
1	Introduction to cryptography (2h), distributed computing (1h), and information systems (1h)
2	Blockchain components and systems development (1h), platforms (1h), and programming models (2h)



440

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Basics

#	Topic
1	<ul style="list-style-type: none">• Introduction to distributed ledger technologies and properties (2h)• Business development (1h)• Digital entrepreneurship (30 min)
2	<ul style="list-style-type: none">• Business processes (2h)• Requirement specification (2h)
3	Introduction to cryptography (2h) and information systems for blockchain (2h) and challenges
4	Blockchain-enabled supply chain processes and modeling (4h)
5	Cryptocurrencies (2h) and tokenization (1h) and token-based exchange mechanisms (1h)
6	Introduction to platform and application development (1h), programming models (1h), and smart contract programming (2h)
7	Online case development and project presentations

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Advanced

#	Topic
1	<ul style="list-style-type: none">• Business activities & processes and (2h)• Innovation management using information systems (2h)
2	<ul style="list-style-type: none">• Blockchain components and security methods (2h)• Business transformation (1h)• Blockchain-enabled business processes (1h)



<https://project-blocknet.eu>

Finding the right mix...

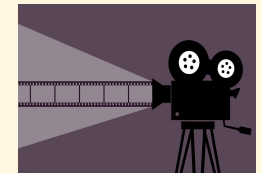
The theory:

- The basics of Information Systems (IS)
- Organizational performance and business process management (BPM)
- Requirements engineering (RE)
- Business Management (Mgmt)
- Innovation
- Entrepreneurship

<u>Skill-set (Technical skills)</u>		
Skill item	Bloom's Level	Link to curriculum
Knowledge of auditing, accounting and taxation processes as blockchain application fields	1	Course 5: Module 1
Knowledge of financial operations, sales, payments, and transactions impacted by blockchain solutions	1	Course 5: Module 2
Knowledge of regulatory standards, rules, laws, regulations, management standards relevant for blockchain implementations	1	Course 5: Module 2
Comprehension of economic efficiency and ways to assess the profitability of BCT	2	
Comprehension of market and customer needs in order to apply blockchain solutions	2	
Ability to apply process designing methods (e.g. CMMN & BPMN)	3	Course 1: Module 3
Comprehension of Risk Management in BCT operations	2	Course 1: Module 2

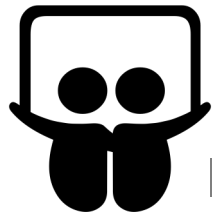
The examples

Watch a video: 07:50



<https://youtu.be/n6FJJ29k8uc>

The Circuit:
Tracking America's
Electronic Waste



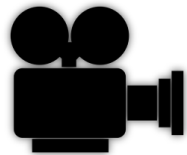
175

lecture slides

33



recommended external
videos for self-studying



112

minutes of voice-over
narration

2 ECTS

52 hours
of studying



440

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Thank you for staying awake!

Vladislav V. Fomin
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Visit us at Project-blocknet.eu



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