Cryptocurrencies, Blockchains, and Applications

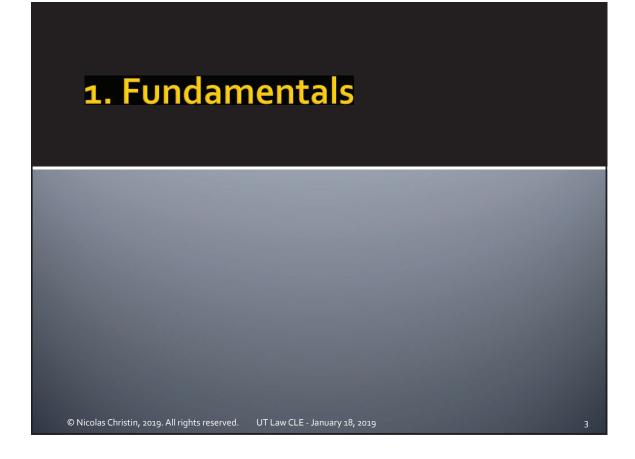
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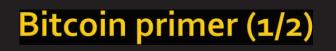
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Agenda

- **1**. Fundamentals: Bitcoin as a case study
- 2. Production and incentives
- Beyond currencies: smart contracts and ICOs
- Beyond currencies: How to select the right (if any) blockchain and case studies

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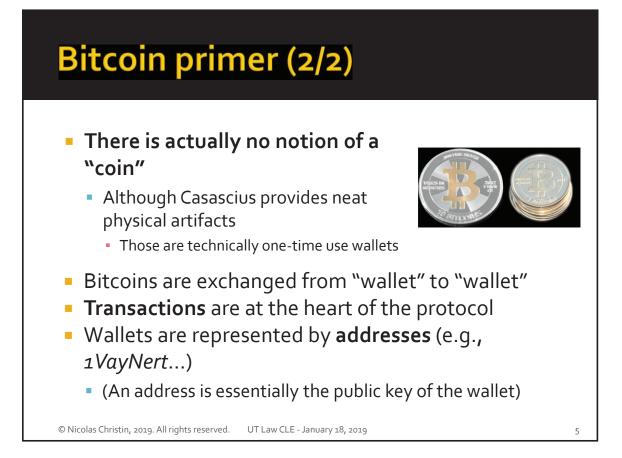
- A peer-to-peer digital payment system
- Completely decentralized digital currency
 - No central mint to produce currency

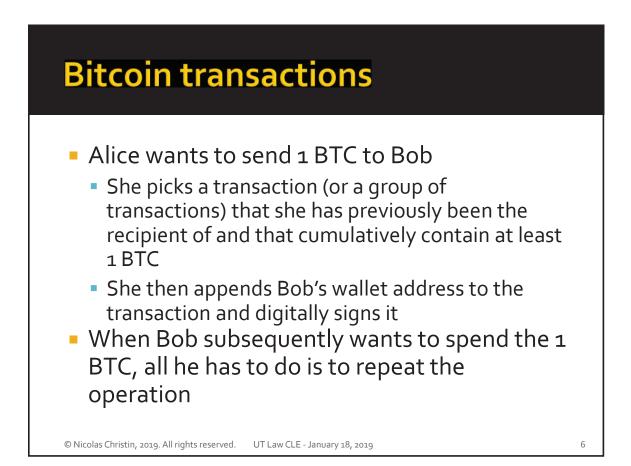
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- No central bank to verify transactions
 - Verification needed for digital currencies, are duplication of coins simply means "copying bits"
 - Without verification double-spending is possible
 - Physical currencies avoid this by using physical security features
- Once confirmed, transactions are irreversible
- Predictable, capped, currency supply
- Key innovation in Bitcoin: coin production and verification is done by **network consensus**

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Also available as part of the eCourse Data Protection and Blockchain for Nonprofits

First appeared as part of the conference materials for the 36th Annual Nonprofit Organizations Institute session "Demystifying Blockchain, Bitcoin, and Cryptocurrencies"