

THE AGE OF CRYPTOCURRENCY

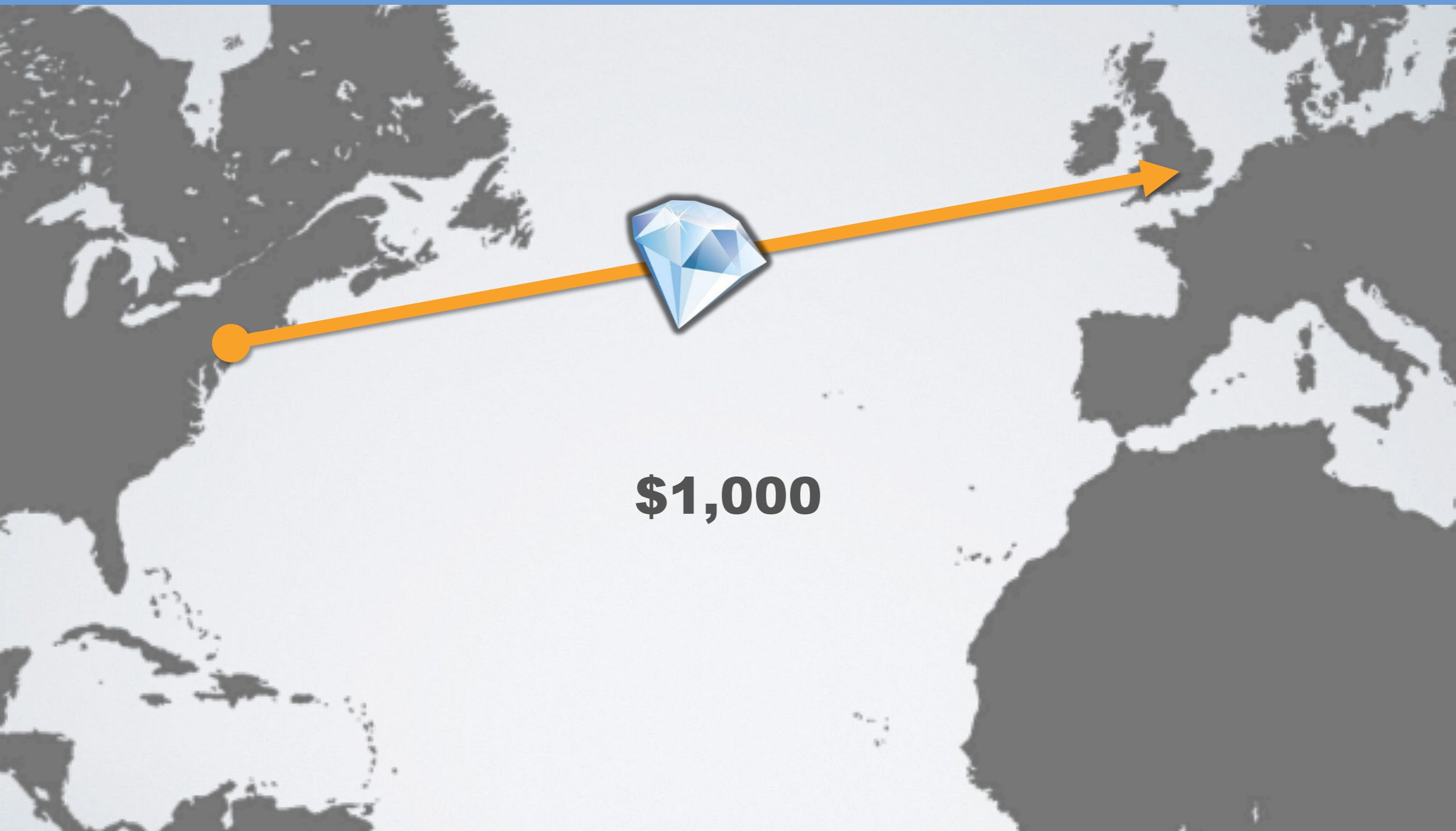
HOW BITCOIN AND THE BLOCKCHAIN
ARE CHALLENGING THE
GLOBAL ECONOMIC ORDER

2016 MIT Consumer Dynamics Conference
MIT Industrial Liaison Program
December 7, 2016



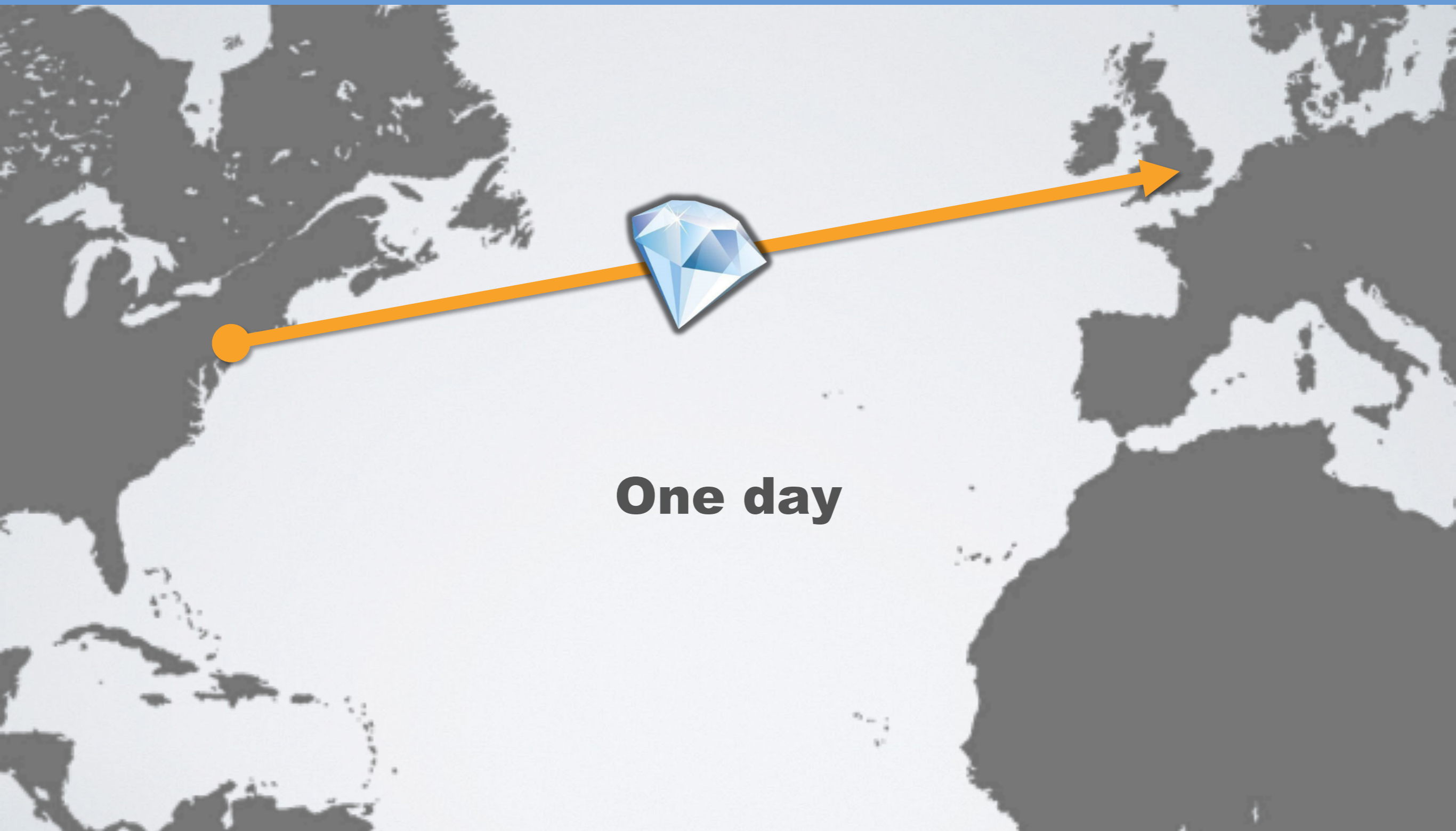
MICHAEL CASEY
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MIT MEDIA LAB

HOW MUCH TO OVERNIGHT AN \$100,000 INSURED DIAMOND TO LONDON?



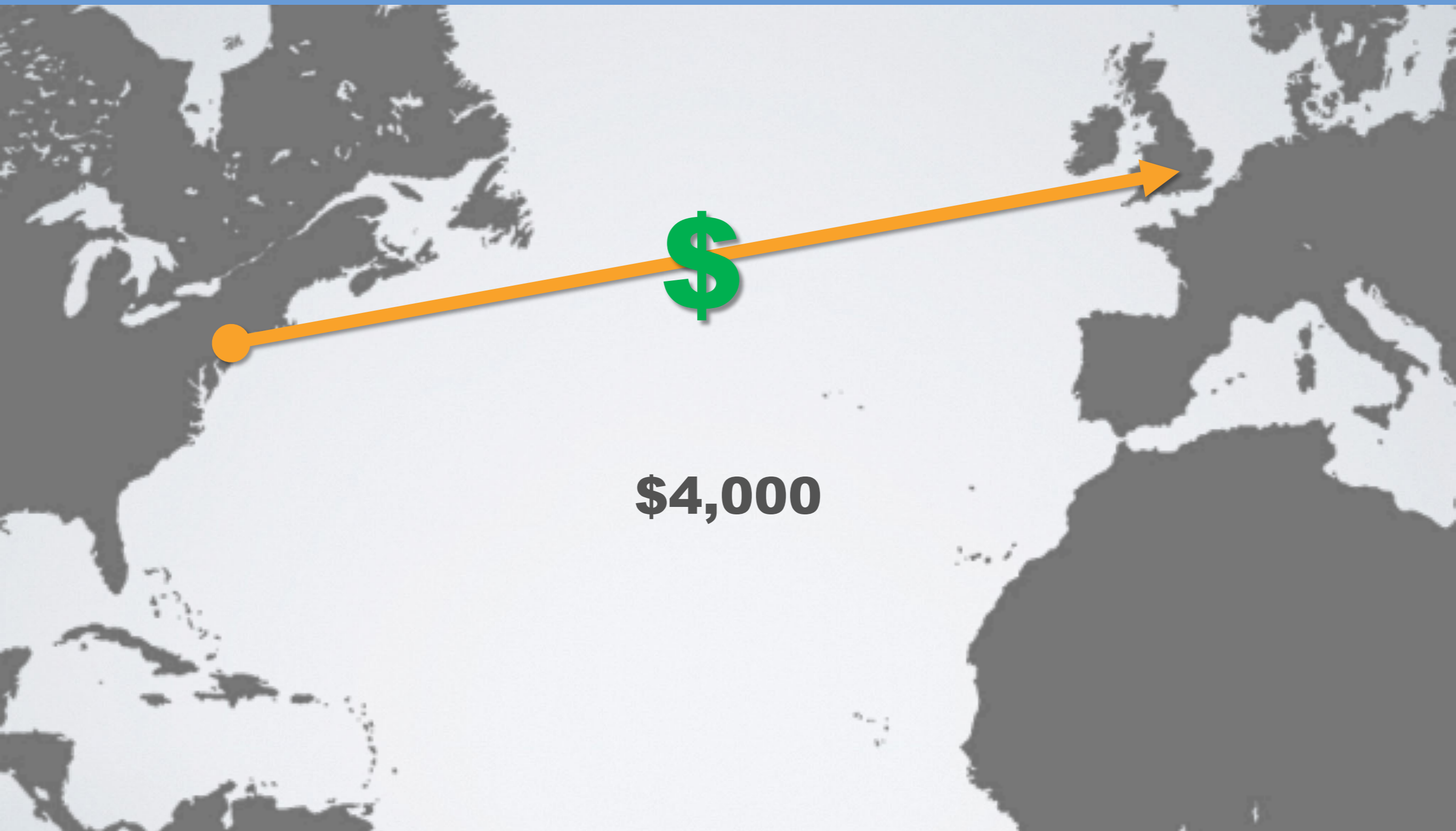
\$1,000

HOW **LONG** DOES IT TAKE?



One day

WHAT'S THE **REAL COST** OF SENDING
\$100,000 TO LONDON?



HOW **LONG** DOES IT TAKE?



Three days

THE **CORE** OF THE PROBLEM: TRUST

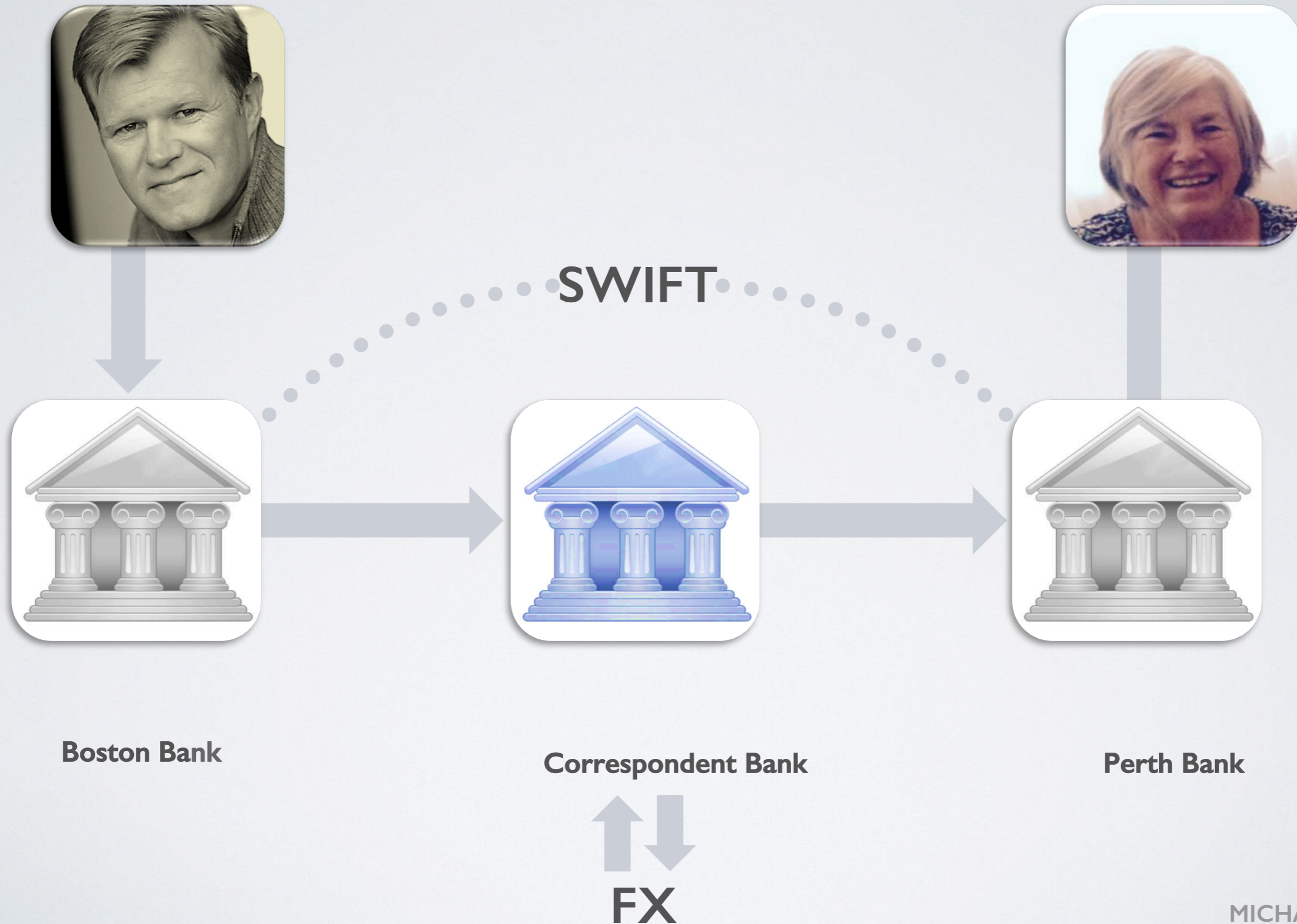


HE WHO **CONTROLS** THE LEDGER...

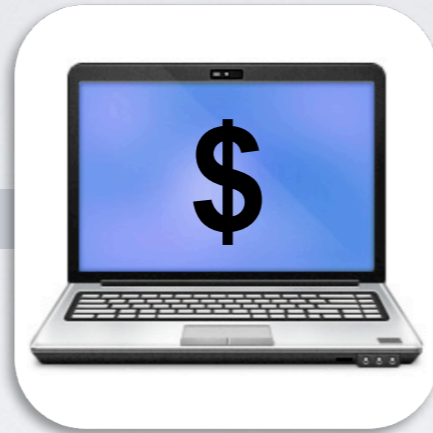


House of Medici

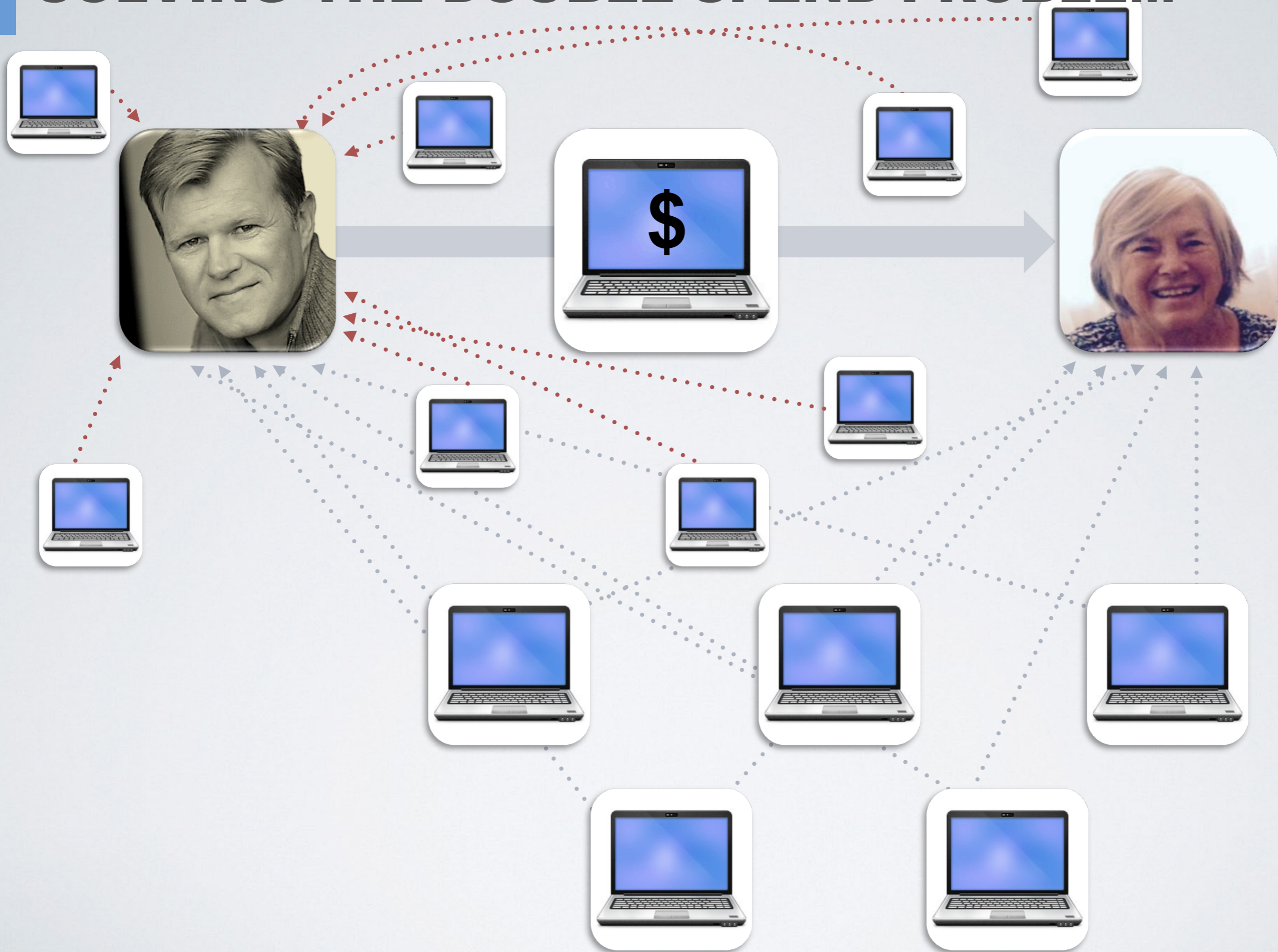
SOLVING THE DOUBLE-SPEND PROBLEM



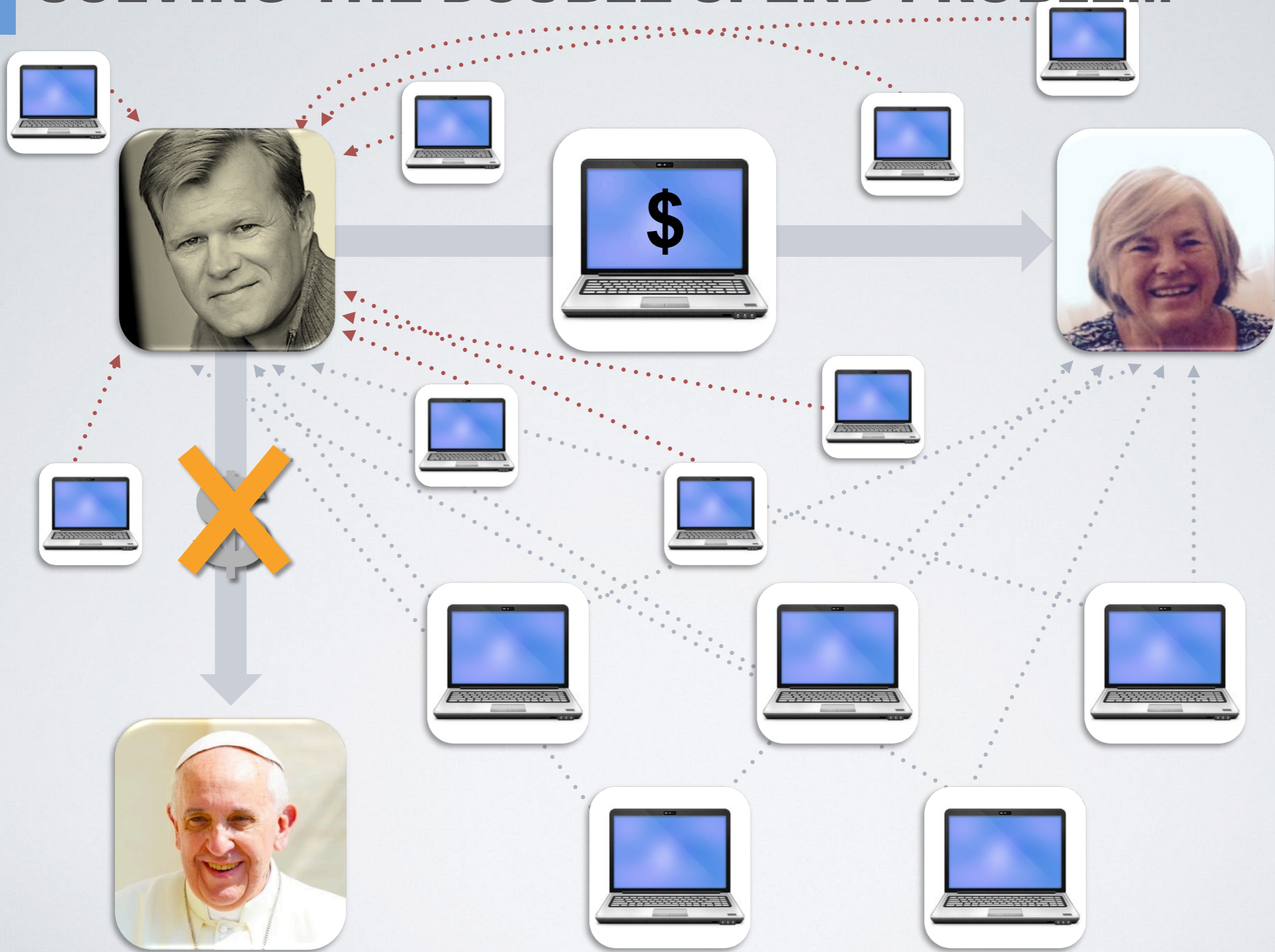
SOLVING THE DOUBLE-SPEND PROBLEM



SOLVING THE DOUBLE-SPEND PROBLEM



SOLVING THE DOUBLE-SPEND PROBLEM



BLOCKCHAIN: A DEFINITION



A CRYPTOGRAPHICALLY SECURED PUBLIC LEDGER, SHARED AMONG A DISTRIBUTED NETWORK OF VALIDATING COMPUTERS, EACH RUNNING COMMON SOFTWARE THAT GUIDES THEM TO A CONSENSUS ON THE LEGITIMACY OF NEW ENTRIES AND PREVENTS ANYONE FROM UNILATERALLY REWRITING THAT AGREED RECORD.

THE **FIRST** USE CASE: PEER-TO-PEER PAYMENTS



NON-CURRENCY **USE-CASES**

- Capital markets: Real-Time Securities settlement.
- Trade Finance: reliable collateral.
- Supply Chains: Provenance of goods.
- Identity: Know Your Customer (KYC)
- Property Title: Immutable Registries
- Internet of Things: Know your Machine (KYM)
- Digital Assets
 - Copyrighted content (music, images)
 - Loyalty points/crowdfunding tokens



PROVING POSSESSION, PROVENANCE

A NEW ERA OF KYC

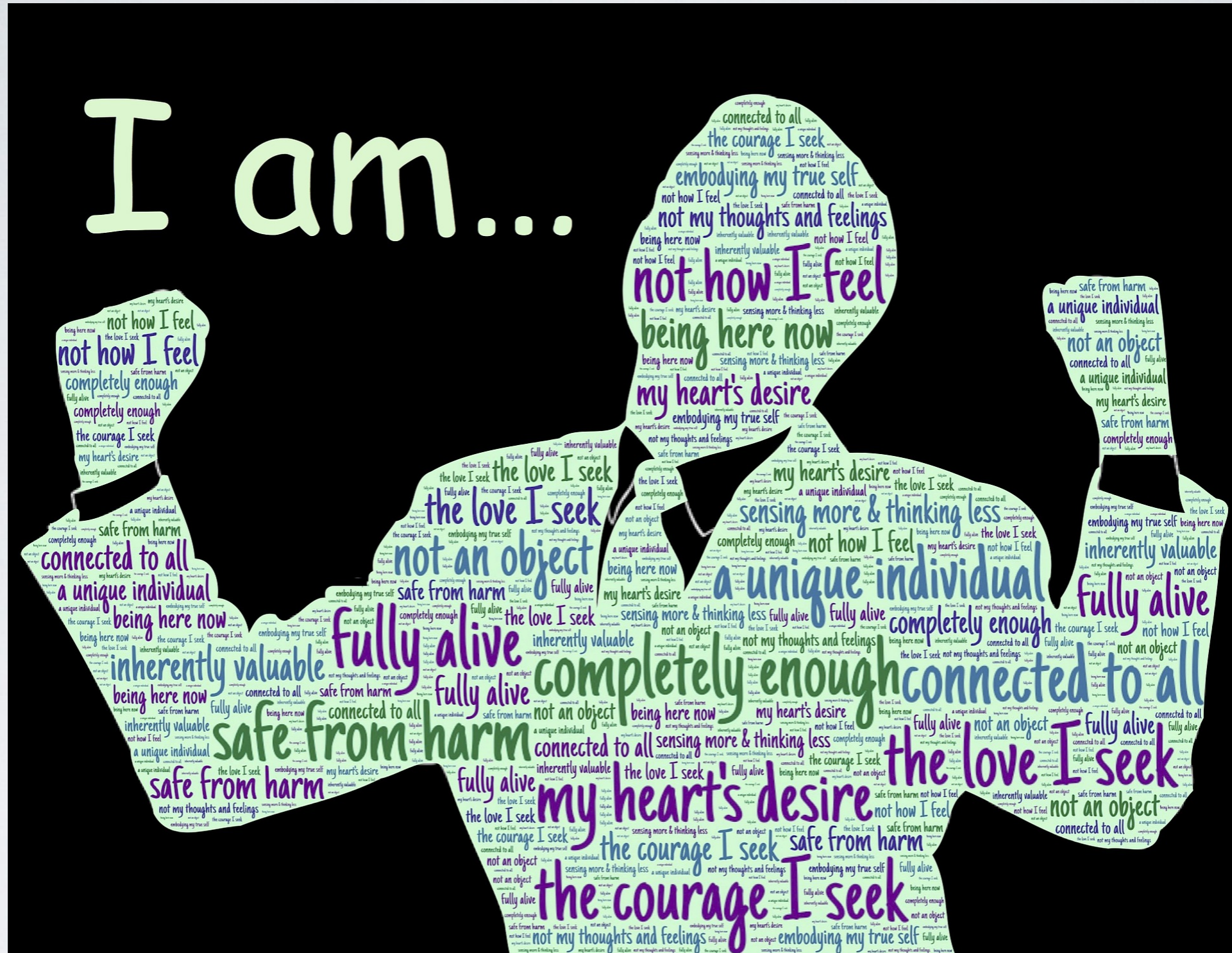


Image by John Hain, Pixabay:



SOLVING FOR DOUBLE-SPENT IDENTITY

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UNHINGED LOYALTY: **CURRENCY AS BRAND**



HISTORY BEING MADE ... AND KEPT



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