

BLOCKCHAIN FOR DEFENSIVE SOCIAL ENGINEERING

Gregory Falco

GREGORY FALCO

The slide displays a collection of logos for Gregory Falco's affiliations. On the left, the Accenture logo is shown with the tagline "High performance. Delivered." and a red arrow pointing to the MIT logo. Below the MIT logo are the logos for MIT Management Sloan School and CSAIL. In the center, the Harvard Kennedy School Belfer Center logo is shown with the text "HARVARD Kennedy School BELFER CENTER for Science and International Affairs". A red arrow points from the Belfer Center logo to the Neuromesh logo on the right, which includes the tagline "Managed Security & Intelligence". Below the Neuromesh logo is the NASA JPL logo.

SOCIAL ENGINEERING

84%

Percent of hackers that use social engineering as part of every attack

\$3.7M

Amount the average 10,000-employee company spends a year dealing with phishing attacks

<https://www.esecurityplanet.com/hackers/fully-84-percent-of-hackers-leverage-social-engineering-in-attacks.html>
<https://blog.wills.com/2016/01/social-engineering-is-bigger-than-hacking-but-countermeasures-work/>

TYPES OF SOCIAL ENGINEERING

PHISHING 	SPEAR PHISHING 	VISHING 
SMISHING 	MINING SOCIAL MEDIA 	LEARN MORE 
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WHAT IS DEFENSIVE SOCIAL ENGINEERING



SOCIAL CYBERDEFENSE OF URBAN CRITICAL INFRASTRUCTURE

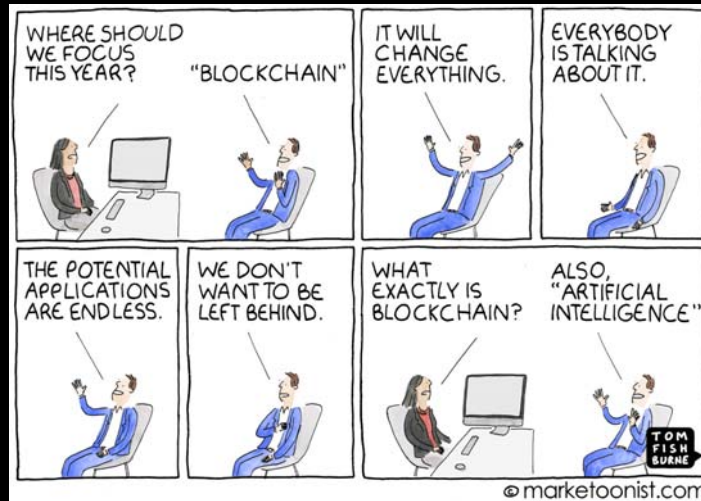
TYPES OF DEFENSIVE SOCIAL ENGINEERING

- Cyber negotiation
- Honeypots and decoy systems
- Obfuscation techniques
- Misinformation campaigns
- Employee education and awareness efforts
- Devaluing assets upon compromise
- Proactive defensive signaling

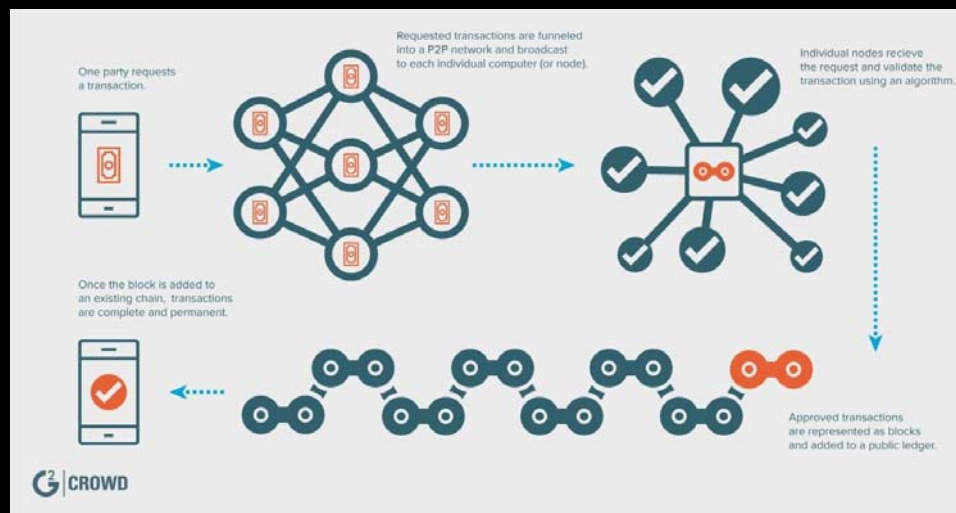
and now...

Blockchain
Business Process

WHAT IS BLOCKCHAIN

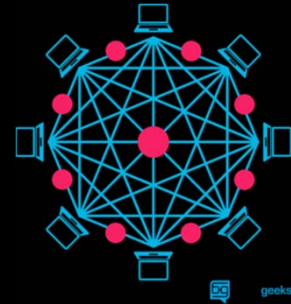


HOW DOES IT WORK?



BLOCKCHAIN NODES

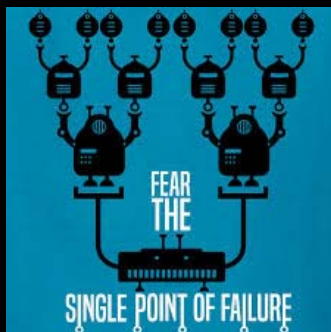
- Computer that joins the blockchain
- Downloads the entire blockchain
- Consistently updates blockchain by adding new blocks to the node in defined intervals
- Communicates with other blockchain nodes
- Validates and relays transactions



<https://blockgeeks.com/guides/what-is-blockchain-technology/>

BLOCKCHAIN BENEFITS

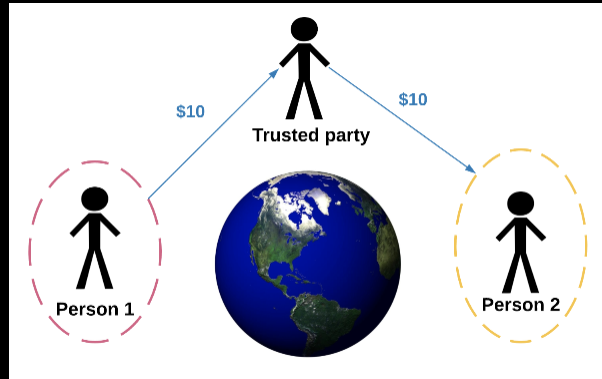
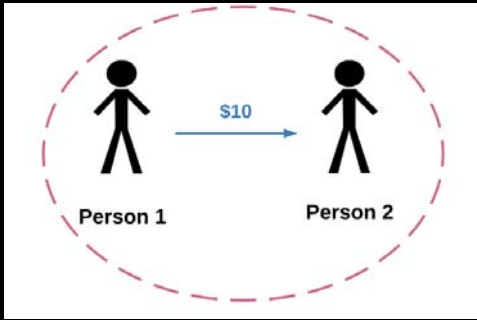
- No central control
- No single point of failure
- Transparent
- Immutable



Trustless

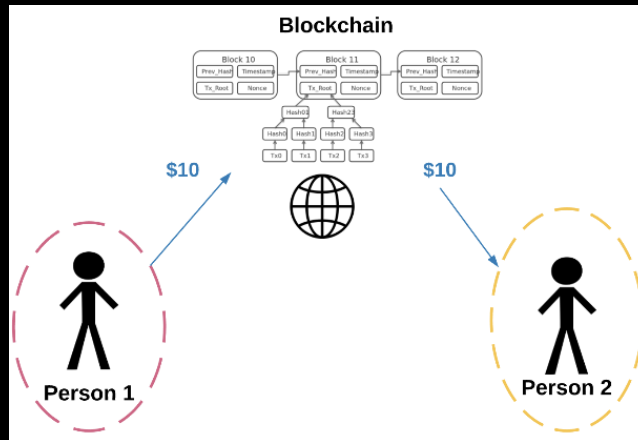


TO TRUST OR NOT?



<https://medium.com/@preethikasireddy/eli5-what-do-we-mean-by-blockchains-are-trustless-aa420635d5f6>

TRUSTLESS



<https://medium.com/@preethikasireddy/eli5-what-do-we-mean-by-blockchains-are-trustless-aa420635d5f6>

DO WE NEED BLOCKCHAIN FOR THIS?

- What use cases of business processes would benefit from trustless interactions and protect against social engineering?
- Is blockchain needed to facilitate radical transparency and accountability? What else can be used?
- What is realistic to build or do in your organization?

TECH CHARRETTE

PHISHING 	SPEAR PHISHING 	VISHING 
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RECAP

- Social Engineering is an issue for your organization
- We need to figure out better ways to defend ourselves
- Current training and processes are expensive
- Rethinking how we trust each other and our devices can reduce risk exposure
- Blockchain-like thinking could help get us to a trustless model that can defend against hackers

QUESTIONS?

