

BoLT: Building on Local Trust

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1/7/21

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Community Currencies

- Tenino “Wooden Dollar” in the great depression
 - Can only be spent in Tenino
 - Creates liquidity
 - Helps the needy



Community Currencies

- Tenino “Wooden Dollar” in the great depression
 - Can only be spent in Tenino
 - Creates liquidity
 - Helps the needy
- Recreated during Covid



Happening right nextdoor – Zelenople eCard

- Zelenople issues \$50 eGift card to residents
- Can only be spent at local merchants

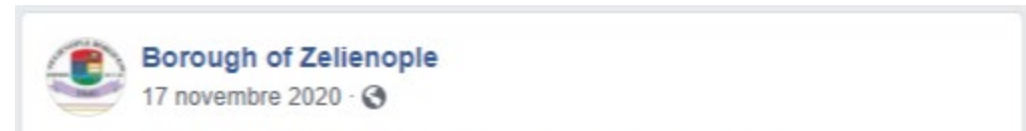


Zelenople eGift Card

For more details and how it works visit: <https://app.yiftee.com/community/zelenople-egift-card-zelenople>

This gift card can be redeemed at the 45 locations listed below:

| Name | Address | Phone |
|-------------------------|---|----------------|
| Advanced Family Eyecare | 214 W New Castle Street, Zelenople, Pennsylvania, 16063 | (724) 452-6675 |
| Auto Accenting | 127 East Beaver Street, Zelenople, Pennsylvania, 16063 | (724) 900-0833 |
| BP | 225 s main street, zelenople, Pennsylvania, 16063 | (724) 452-8899 |
| Baldinger's Candy | 519 Perry Hwy, Zelenople, Pennsylvania, 16063 | (724) 452-9310 |
| Boutique 16063 | 200 S Main St, Zelenople, Pennsylvania, 16063 | (724) 473-2248 |



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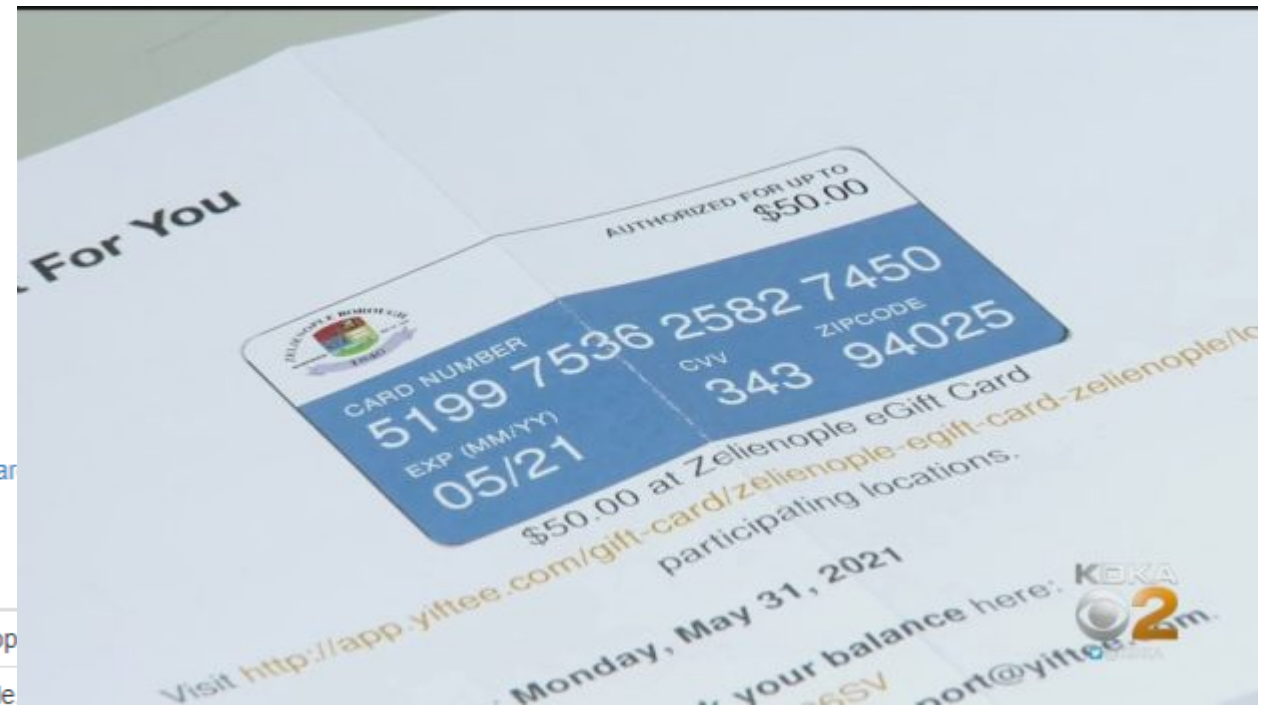


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Building on Local Trust

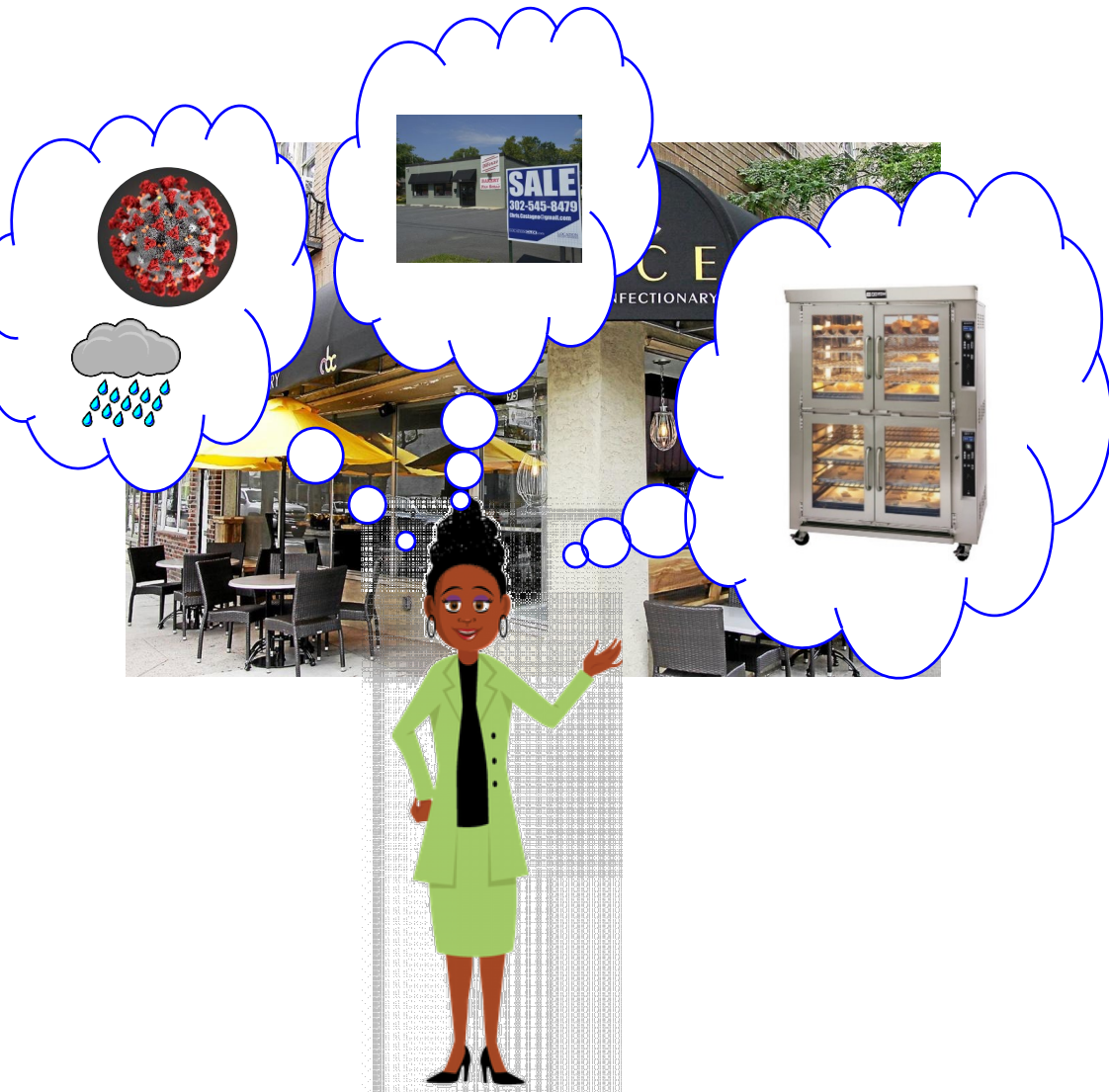
- A unique lending and payment platform
- A digital platform for
 - creating community currencies
 - Turning reputation into capital
 - Gift cards
 - Personal loans
 - Business loans
 - Opening doors to traditional capital markets
- Injects capital and liquidity into a community
- Fights systematic Bias

BoLT: An Introduction



Alice has a loyal following in the community.

BoLT: An Introduction



- Alice wants to raise some money.

Alice creates a new bolt



- Alice wants to raise some money.
- She taps into local community and sells bolts: digital gift-cards

Alice creates a new bolt



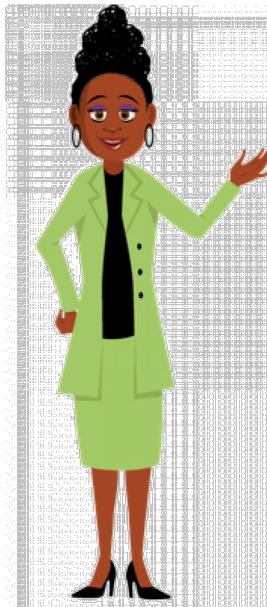
- Alice wants to raise some money.
- She taps into local community and sells bolts: digital gift-cards
- They can pay interest

Alice creates a new bolt



- Alice wants to raise some money.
- She taps into local community and sells bolts: digital gift-cards
- They can pay interest or not

All Transactions Recorded on Public Ledger



- Alice mints ≤ 10
- Alice transfers to Charlie
- ...

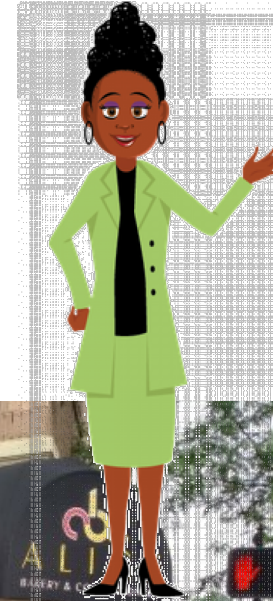
How can Charlie use his ⚡ Alice?

- He can hold onto it.
(Maybe it is accumulating interest)



How can Charlie use his ⚡Alice?

- He can hold onto it
- He can spend it at Alice's



How can Charlie use his ⚡Alice?

- He can hold onto it
- He can spend it at Alice's
- He can (potentially) use it at Bob's Hardware store!



This is key aspect of Bolt. Bolts are tradeable with people other than the issuer.

Why will Bob accept $\not\Leftarrow$ Alice?



Why will Bob accept \leq Alice?

- He believes other people will take them!
- That is all it takes.



Past Experience: Ireland

- Irish Banking Crisis ('60, '70, '76)
 - Banks closed
 - Checks can't clear
 - People used check as money

Bank Name and Logo 40-47-90

Bank Address Date 25th July 2015

Pay *The Relocation Bureau* _____

Eight Thousand Three hundred and Twenty Five _____

Pounds and 50p -----

Cheque No. Branch Sort Code Account No.

100003 **40-47-90** **43219876**

_____ | _____ | _____

AVC | _____ | _____

Payee | _____ | _____

£ 8325-50

Account name

A Signature _____

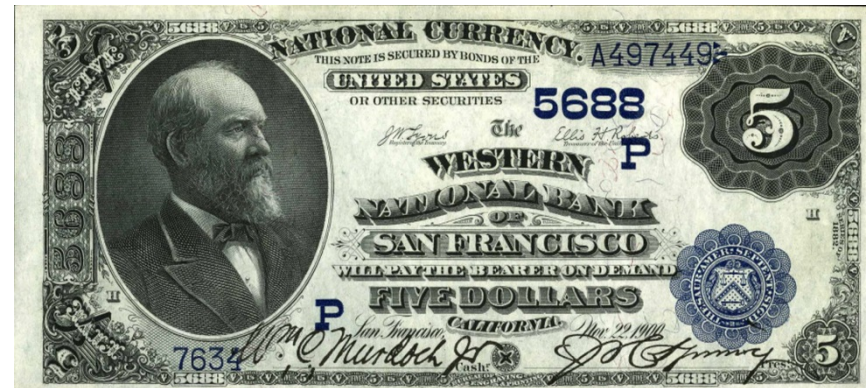
→ Good? →



Reputation Authority

Past Experience: Bank Money

- Irish Banking Crisis ('60, '70, '76)
 - Banks closed
 - Checks can't clear
 - People used check as money
- Banknotes



Past Experience:

- Irish Banking Crisis ('60, '70, '76)
 - Banks closed
 - Checks can't clear
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- Banknotes
- Local Currencies
 - BerkShares
 - Tenino, WA “wooden” currency
 - LETS
 - Zelianople eGift Card
 - ...



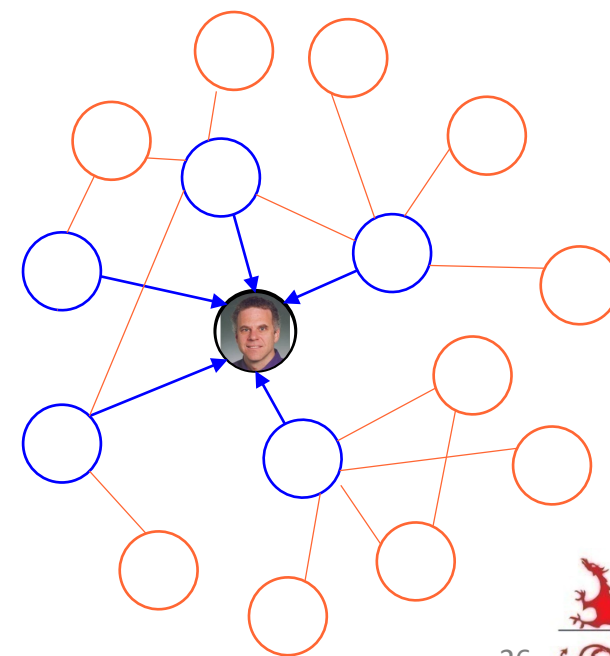
BoLT

- Currency doesn't need to be static token.
 - Nor backed only by the state.
-
- Imagine that everyone can issue their own digital gift-cards backed by their reputation.



Who accepts \neq Seth?

- Certainly, I must.
- Anyone who expects to trade with me.
- People in my communities
- Most anyone who expects to trade with someone I trade with, etc.
- The further the separation the less likely.
- Everyone will decide their risk tolerance.



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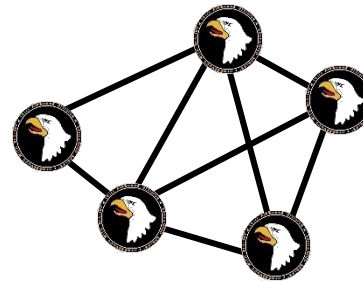
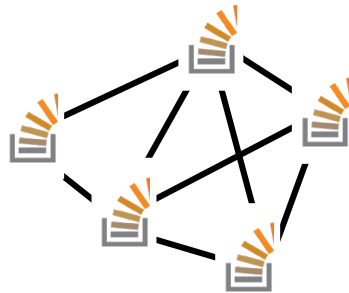
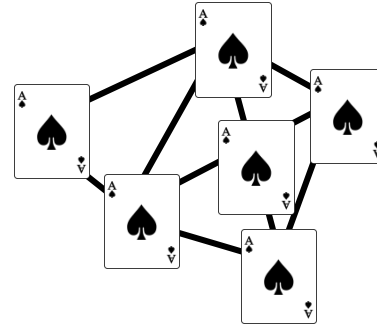
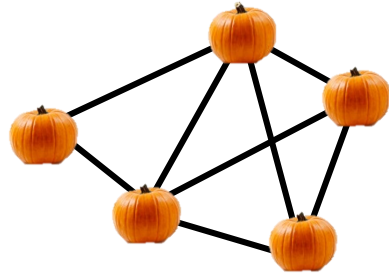
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BoLT is “executable” and has means to reduce risk.

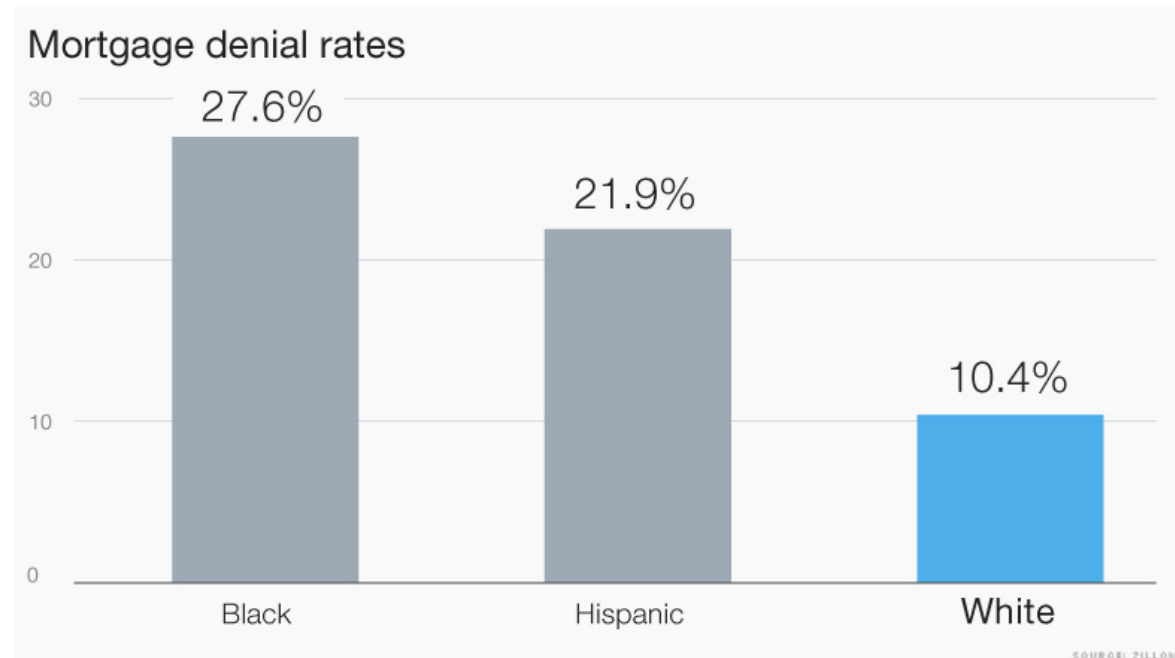
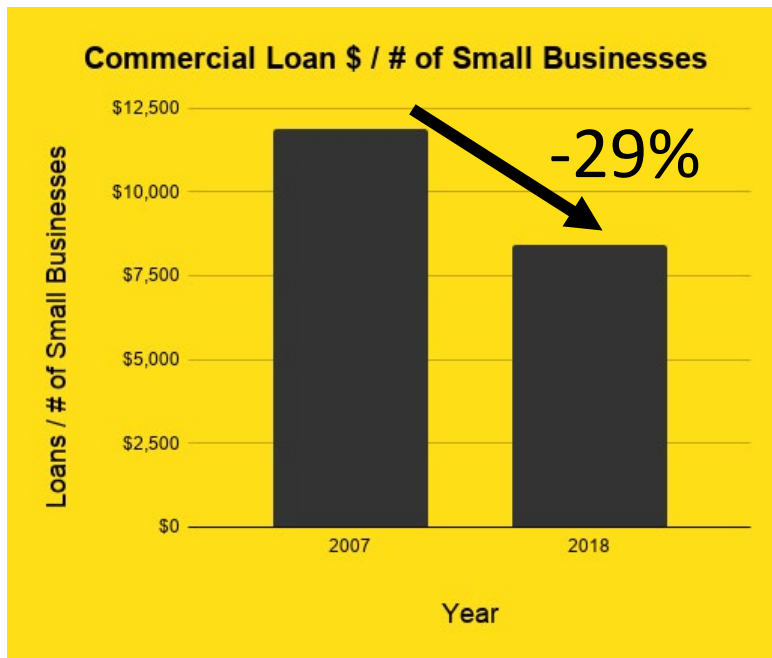
We Are All Members of Multiple Communities



Public Ledger & Machine Learning replaces
Publican as distributed reputation authority.

BoLT Motivation

- Failure of mainstream banking system
- Covid-19 makes all this worse
- Predatory Lenders are filling the gap (APRs > 90%!)



Details

BoLT Motivation

- Failure of mainstream banking system
 - Asymmetric information
 - Imperfect competition
 - Systemic racial bias
 - Small-business bias
- Predatory Lenders are filling the gap
 - payday lenders: APR can be 700%
 - online: Lenio, Kabbage, Ondeck, Fundbox, ...: APR can be 94%
- Covid-19 makes all this worse
 - Bankruptcy Filings up 36%
 - Just march-july over 80K businesses permanently closed

Solution: Use local reputation to source funds locally (but, export trust globally)

Why Not Traditional Gift Cards?

- Gift cards trade at an extreme discount (often 10-60%)
- Tremendous friction
 - fees
 - only accepted at one store/chain
 - Hard to subdivide
 - Hard to transfer
- Subject to forgery
- Lack of transparency
- Cannot be used to build trust/reputation

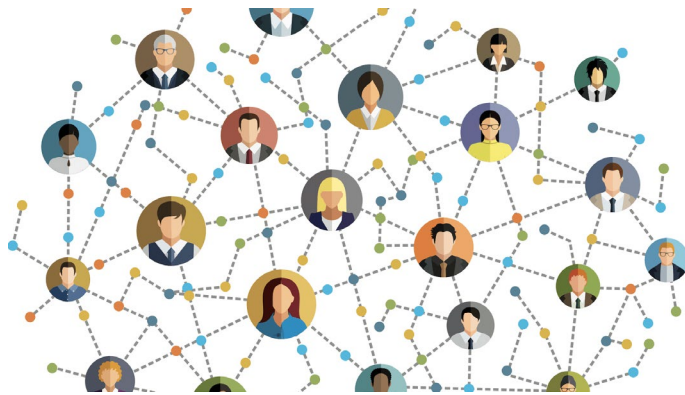
BoLT is a lending & Payment platform

- BoLT: “Go Local” for capital
 - Businesses can raise money in the community
 - Customers use bolts to purchase goods & services from anyone on the system
 - Bolts flow around the community creating liquidity



BoLT is a lending & Payment platform

- BoLT: “Go Local” for capital
 - Businesses can raise money in the community
 - Customers can use bolts to purchase goods and services from anyone on the system
 - Bolts flow around the community creating liquidity
- BoLT: gateway to global capital markets
 - Ledger data can be used to create global opportunities for investment

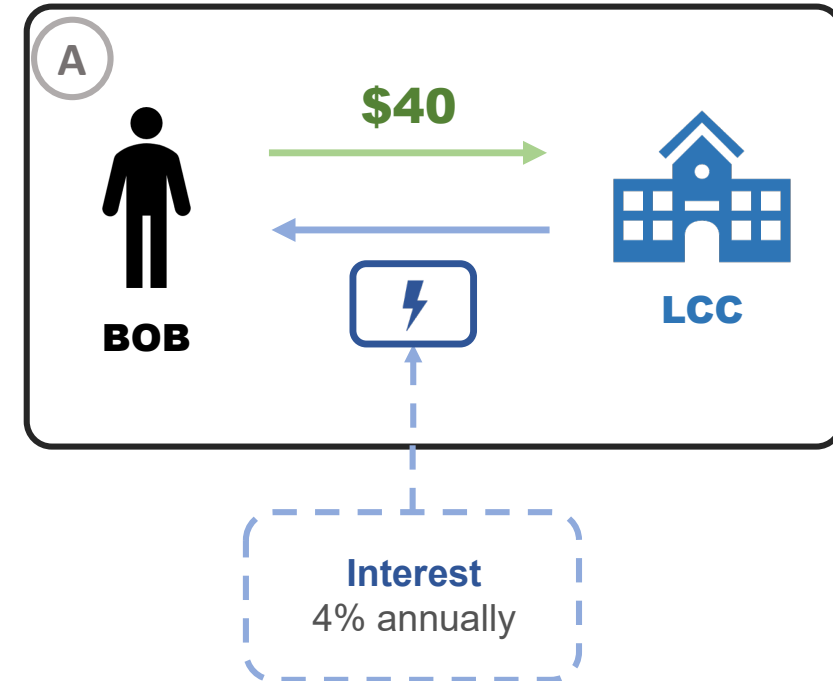


BoLT Use Cases

- B2C Digital Gift Cards
- Community-Based Gift Cards
- Philanthropic Leverage
- Community College Cash

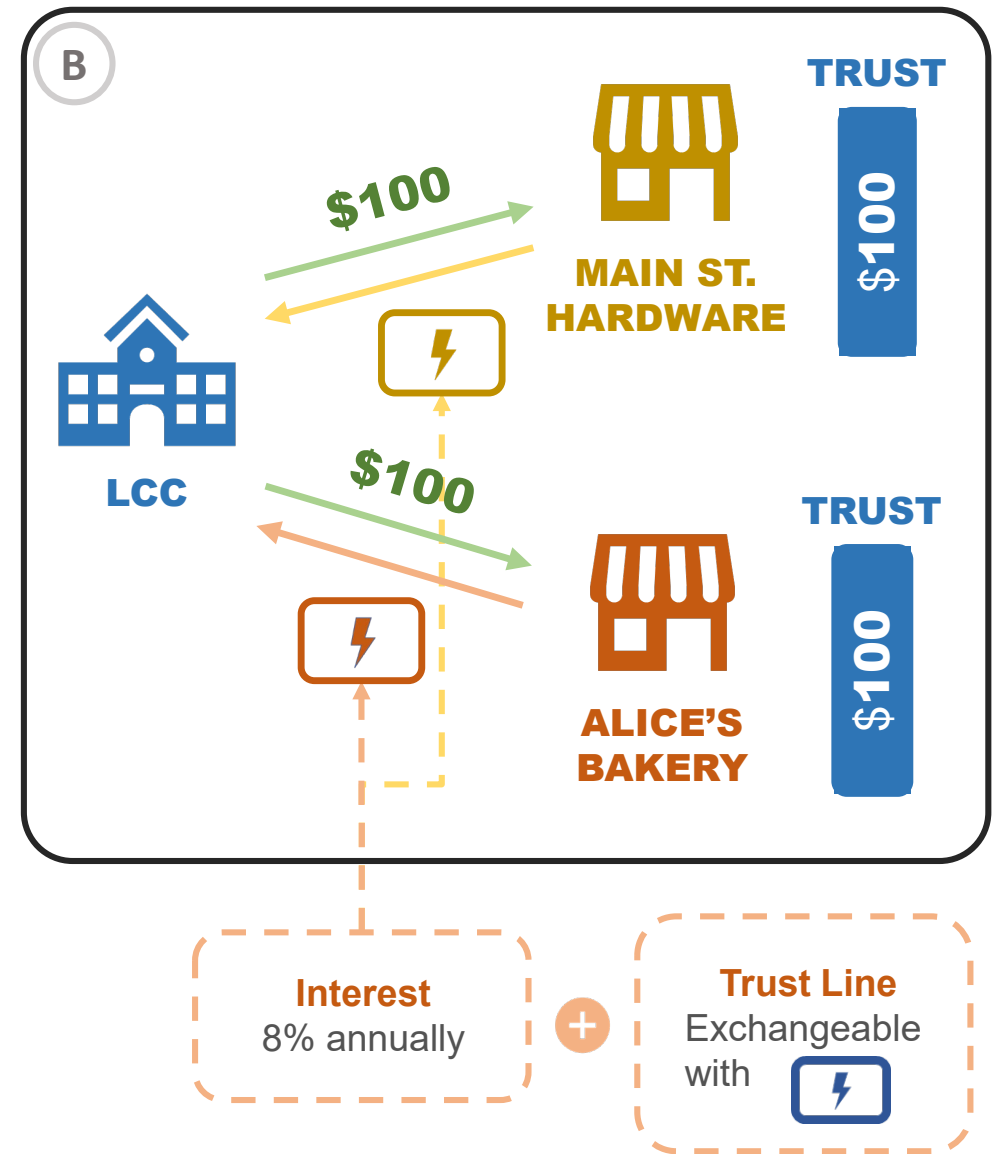
BoLT and Community

- A Local Community Center sells bolts to members of the community
- It might have an interest rate to encourage adoption



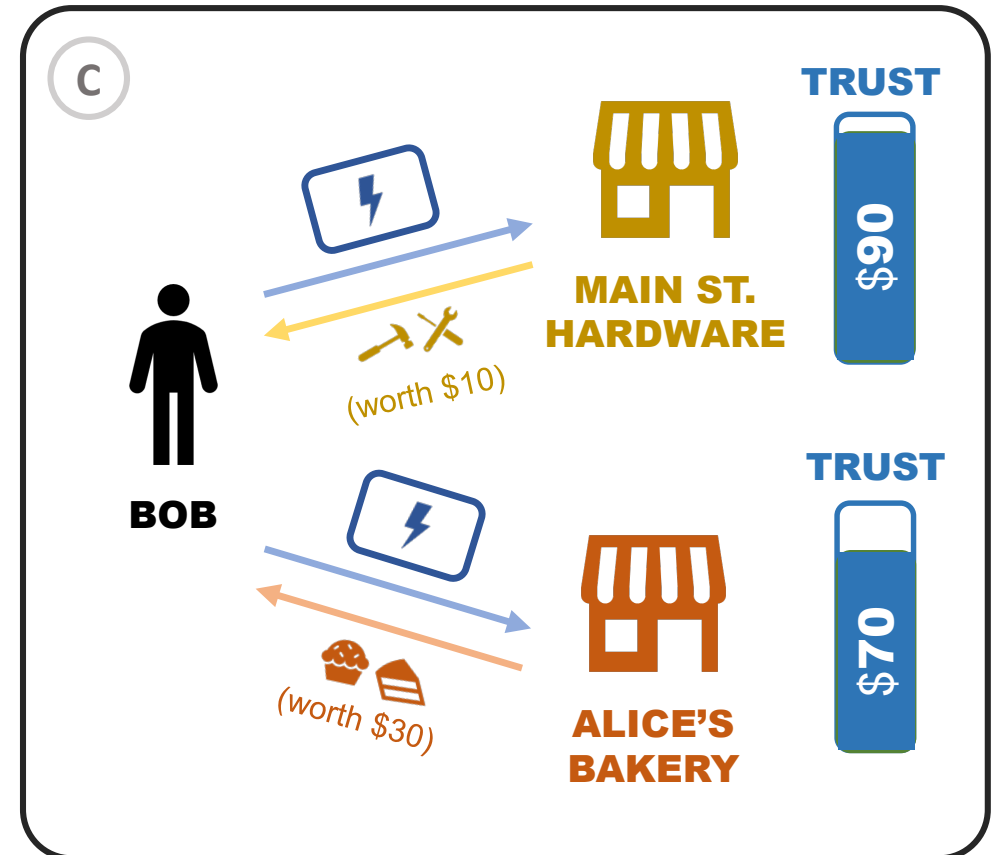
BoLT and Community

- LCC buys bolts from local merchants
- Local merchants “Trust” the LCC
- The TrustLine is on the ledger, so everyone can see where they are guaranteed to be able to spend their bolts



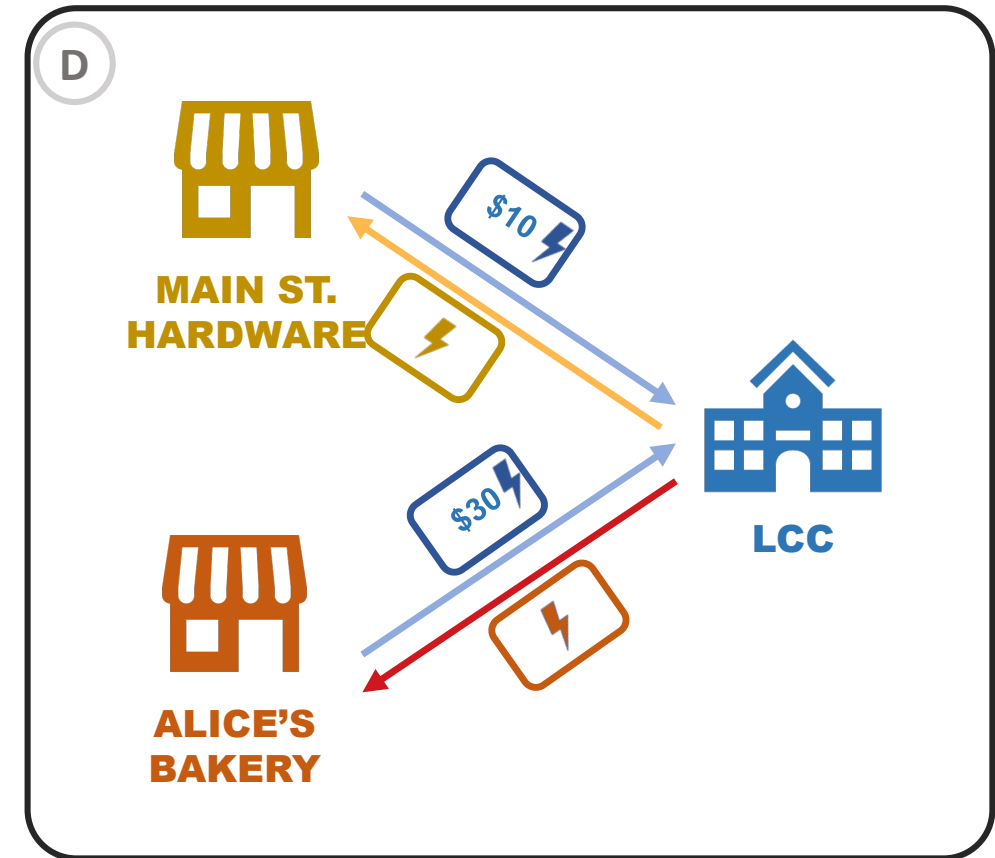
BoLT and Community

- Bob can spend his LCC bolts in the community
- (This adjusts trustline)



BoLT and Community

- Bob can spend his LCC bolts in the community
- (This adjusts trustline)
- And, allows merchants to reduce debt to LCC
- (Helps build “credit rating”)



The Community Organization Model

- Supports local businesses
- Reduces risk to consumers
- Self-sustaining
- Keeps money in the community

TrustLine

- Used to build trust on the ledger
- Most important for
 - Early adoption of BoLT
 - New entrants to the BoLT system
- Can also be used for anonymity

BoLT: Building on Local Trust

- A public ledger based digital gift-card issuing and trading platform
- Addresses failures of mainstream banking
- Supports “go local” for raising capital
- Creates community by encouraging local trading/shopping
- Basic primitives support useful financial instruments
- Has the potential to export trust and bring in outside capital

More info at: www.cs.cmu.edu/~seth/bolt

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