Dignity Through Identity™

April 2017 – ID4Africa Presentation
Agenda

• Defining the problem
• Solution
• Distributed Ledger Technology (DLT) aka Blockchain
• Market Validation
• Economic Identity on Blockchain (DLT)
• Current State vs. Future State
• Sample Pilots
Problem Trifecta

Extreme Poverty – A Design Flaw in the Global Economic Ecosystem
Refugee Crisis / Migration – A Design Flaw in the Migrant Population Assistance and Diaspora Remittance
Emerging Markets Failed Promise – A Design Flaw in the Supply Chain of Products and Services Delivery

Over 2.7 Billion people lack an Economic Identity

Over 65 Million refugees lack a portable, trust-verified, diaspora-connected Economic Identity

Conservatively, over $2 Billion is lost or misused, annually, in the developing world due to lack of a verifiable “first-mile” Economic Identity

Definition: economic identity
- Digital or electronic credentials defining a person, persons, or organization and their history of transactions: financial, education, life events, and/or other interactions in the world economy
- Collection of individual assets and/or other collateral to gain access to finance and economic empowerment
- Supply chain elements (medicine, food aid, education etc.) that intersect with daily life identity events
Solution: Linking directly with the UN SDGs

Reinvent - Global Financial, Supply Chain, and Identity Systems
Enable – Demand-driven Data, Information, and Insight for the UN SDG 2030 Agenda
Leverage – Distributed Ledger Solution in Coordination with Existing Systems and Orgs

A blockchain-based Economic Identity that is owned, secured, and managed by the individual and connected via a trust-network of supply and demand

Leveraging centuries-old practices when trade was based on social and trust relationships (shared village knowledge, village funerals, village commerce)

Trust-Network Enablement Information:
- Family and trusted relationships
- Diaspora relationships
- INGOs, UN, Government relationships

Information Baseline:
- Demographic
- Property and assets
- Credit and transactional history
- Health records
- Education records
- Energy consumption
What is DLT and blockchain technology?

The blockchain is a database or ledger that maintains a continuously growing list of records or transactions. **But... blockchains have special qualities that make them better than traditional databases**

**DISTRIBUTED**
A group of servers, or nodes, maintain the entries (known as blocks) so no central authority is required to approve transactions.

**PERMISSIONED**
In a permissioned blockchain, only appointed nodes are given the authority to validate blocks of transactions and only participants in the network can create smart contracts or transact on the network.

**SECURE**
The database is an immutable and irreversible record. Posts to the ledger cannot be revised or tampered with — not even by the operators of the database.

**TRUSTED**
Distributed nature of the network requires computer servers to reach a consensus, which allows for transactions to occur between unknown parties.

**AUTOMATED**
The software is written so that conflicting or double transactions do not become written in the data set and transactions occur automatically.

Though initially intended for financial transactions, blockchain technology can be used to record, track, and verify trades of virtually any asset. From land titles to commodities to voting, companies and governments across the globe are exploring ways to use the blockchain.
How a blockchain works

1. A wants to send money to B
2. The transaction is represented online as a ‘block’
3. The block is broadcast to every party in the network
4. Those in the network approve the transaction is valid
5. The block then can be added to the chain, which provides an indelible and transparent record of transactions
6. The money moves from A to B
The evolution of Distributed Ledger Technology (blockchain) is the power of the relationship network and supporting applications to symbiotically facilitate humanitarian and capitalist objectives.

**Macroeconomic Environment**
- Individual economic hardship is increasing the poverty populations
- Enterprise economics require efficiencies to continue serving constituents

**Legislative Environment**
- Banking reform
- Refugee populations

**Prerequisites Fulfilled**
- Enabling technologies (distributed ledger technology, mobile device proliferation, internet access)
BanQu – Dignity Through Identity™

• We unlock access to capital and open new economic opportunities for the poorest

• Harnessing the benefits of a distributed ledger (permissioned Ethereum blockchain) across a trust network for the BanQu platform augments identity with critical life events and transactions

- Land Rights
- Property Records
- Harvest History
- Crop Insurance
- Asset Tracking

- Micro Finance
- Diaspora Remittances
- Collateral Assets
- Daily Purchases

- Birth Registration
- Immunization History
- Health History
- Education
- Job Skills
BanQu: An Economic Identity Solution for Know Your Customer

A unique, blockchain based Economic ID solution linked to financial transactions, liens, government and banking records, property, and other important assets

- IDs are a visual selfie, (could include biometric verification) portable, immutable and secured through a private, permissioned distributed ledger.

- Ability to do third party verification through integration with existing systems.

- For individual consumers, SMEs and financial services providers a digital ID solution linked to financial and non-financial transaction history.

Trust-Network Enablement Information:
- family and trusted relationships
- business, govt., diaspora relationships

Personal Information Baseline:
- demographic
- property and assets
- credit and transactional history
- health records
Current State vs. Future State

Many banks have multiple, non-interoperable systems

Compliance Costs and Challenges

Potential for Fraud, Inefficiency

Restart with new INGO every time

Path to stronger KYC/AML Compliance

BanQu Economic ID

Ed | Job | Loan
Rent | Credit | Auto

BanQu Dignity Through Identity™
Economic Identity Platform Solution / Value Propositions

Dignity Through Identity™
Capturing meaningful life events the poor can leverage to thrive in local and global economies

**Individuals**
- Identity Portability, Transparency and Ownership
- Immutable Historical Transactions and Life Events
- Network Effect
- Lower Cost Access to Finance

**Organizations**
- Lower cost of customer acquisition (bottom of pyramid)
- Greater Data and Transaction Transparency
- Operational Efficiencies
  - Decreased resources, centralized infrastructure
  - Data security
  - Real-time data, reporting
  - “Know Your Customer”
Sample Pilots

• **Supply Chain Transparency** for small plot farmers in South East Asia for global cocoa / coffee buyer

• **Banking The Unbanked** via Level 1 & 2 KYC in West Africa

• **Moveable Asset Registry** and related to Access to Finance in East Africa & Middle East

• **Shared KYC** for mobile money and micro-finance in Latin America

• **Life-Saving Medications Supply Chain Optimization** for multi-billion dollar global corporation

• **Economic Identity for Refugees** in Middle East and East Africa

• **Vehicle Registration** to enable lower cost financing for low-income groups in North America
Real World Use Case – Problem – Unbanked Farmers, No KYC

Fragmented and supply driven supply chain with little to no focus on the demand side -> The Farmer! (Last Mile)

Unbanked = no or little access to credit / finance

Locked in silos

- Farmer doesn’t own his / her data on land, harvest or credit.
- Often times co-ops, MFIs, INGOs have all the farmer data and are able to control the value chain hence also control the price points on seed inputs, harvest and cost of capital.
- Land rights are either absent or paper-trail filled with bureaucracy.
- All data collected by various stakeholders is fragmented and in silos.
- Multiple levels of “middlemen” will add costs that are ultimately passed on to the farmer in the form of high cost of finance / capital.
- No meaningful access to crop insurance.
- UNBANKED!!
- NOT PORTABLE!!
- DISCONNECTED FROM DIASPORA!!
Real World Solution (Shared KYC, Cross-border, Last-mile Banking)

End-user owned economic identity that puts him / her in the driver’s seat to establish a long-term economic path

- Distributed Ledger
- Biometrically Secured
- Trust-based
- Consensus Driven
- Portable
- Diaspora Connect
- KYC and AML Compliant
- SMS / Smartphone Enabled

Farmer’s or Micro-Enterprise or SME
ECONOMIC IDENTITY (Secured / Shared KYC)

- CRM
- Buyer Engagement
- Mobile Payment
- Loans / Finance / Insurance
- Harvest Pricing
- Cooperatives
- Knowledge and Document Management (Training, Contracts, Videos, Policy, Manuals etc.)
- Financial Management (COA, GL, AP, AR, P & L etc.)
- Supply Chain Management (Supplier, Vendor, Logistics, etc.)
- External Applications Interface

Distributed Ledger
Biometrically Secured
Trust-based
Consensus Driven
Portable
Diaspora Connect
KYC and AML Compliant
SMS / Smartphone Enabled

Government
Partners
Buyers
Financial Institutions
Vendors
Real World Use Case – Problem – Lack of Transparency in Supply Chains

Leakage in life-saving drugs supply chain for large corporations and aid organizations
High degree of inefficiency
No sustainable or responsible sourcing mechanisms (ex: conflict minerals, fake medications etc.)
Real World Solution (Supply Chain Transparency, Chain of Custody etc.)

- End to end visibility and proof of delivery
- Asset / purchase-order financing to reduce overall cost
- Increase in customer acquisition and linking the unbanked to the global supply chain