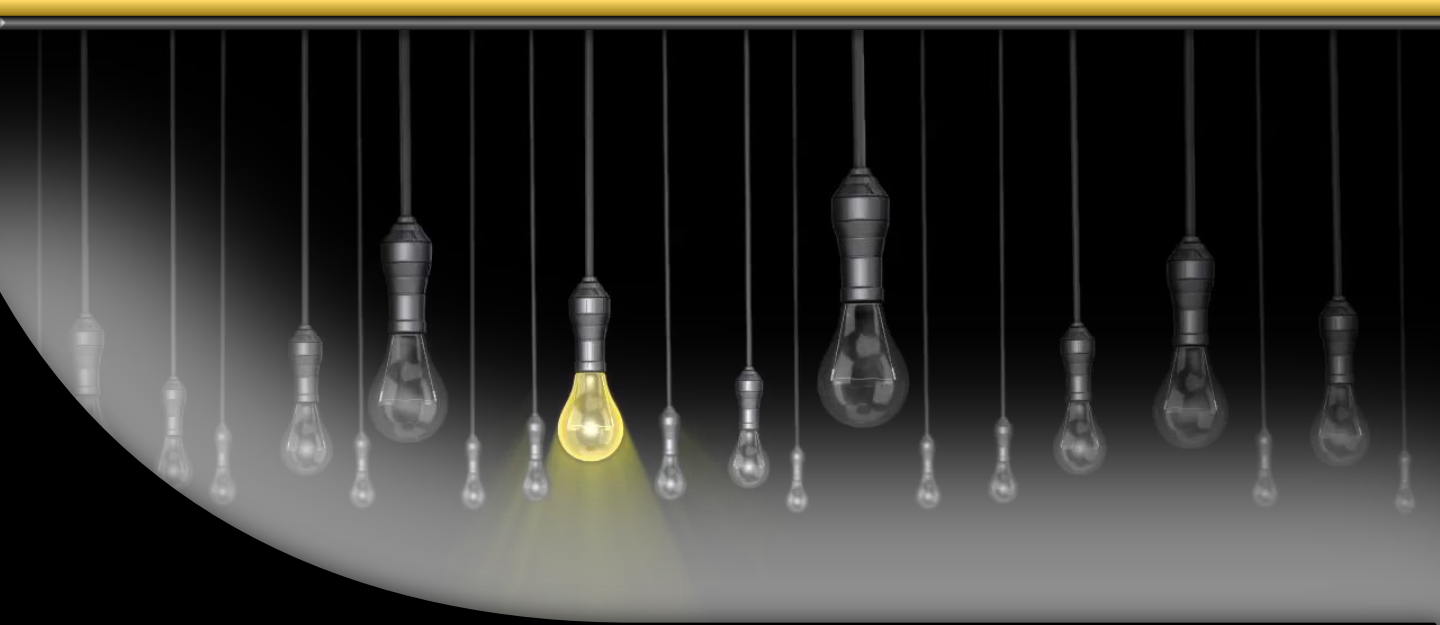
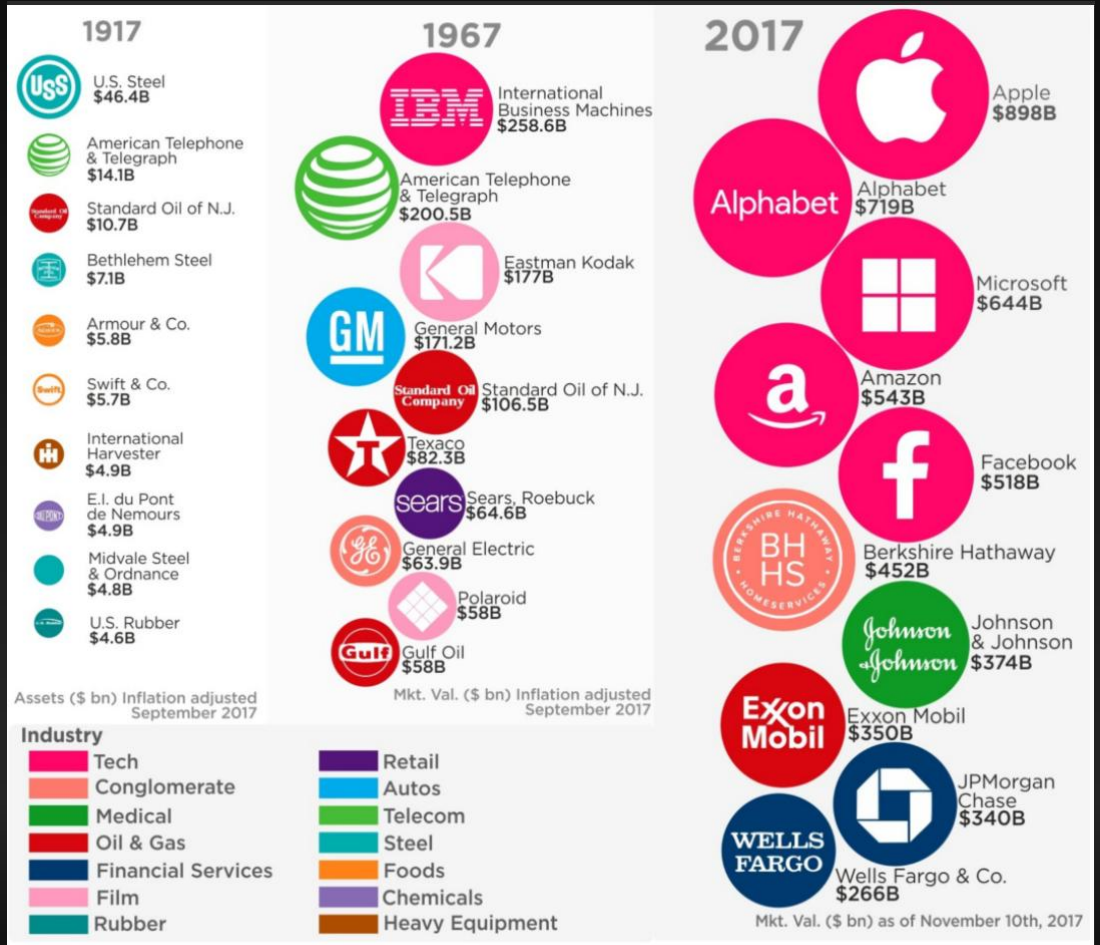


Blockchain Powering Transparency

Efficiency and Speed in Distribution of Foreign Aid

Data Companies are the most Valuable in the World



Source and Article:
https://howmuch.net/articles/100-years-of-americas-top-10-companies
https://forbes.com

howmuch.net

100 SOCIAL NETWORKING STATISTICS & FACTS FOR 2012

There are more devices connected to the Internet than there are people on Earth

40% socialize more online than they do face-to-face

Every minute of the day:

- **100,000** tweets are sent
- **2 Million** queries are searched on google
- **48 hrs** of video are uploaded to YouTube
- **684,478** pieces of content are shared on Facebook
- **3,600** photos are shared on Instagram

Some statistics

facebook | twitter | google + | linkedin | pinterest | instagram

For the first time in human history

We have the technological tools that will enable us to connect the bottom billion unbanked to the global economy to provide digital identity to stateless people and to direct benefits to the poor and vulnerable.

Blockchain Quantum Impact

Transparency and efficiency in donor fund flows

- $177.6 billion is provided by donors to developing countries annually.
- Remittances US$574 billion in 2016.
- Estimates vary that this may be as much as $15 billion USD in lost funding.
- UN estimates is a 30 percent loss due to fraud and corruption.
- Cost of remittances varies from 10-30%, even taking the lower estimate, that equates to over US$ 5 billion annually, that is taken by intermediaries.

Humanitarian Cash Transfers

In 2004 cash transfers were 1% of humanitarian aid. This figure rose to 40% by the end of 2017.

In the ‘Building Blocks’ program, the World Food Program found using blockchains reduced their transaction fees by 98%

Remittances & Cash Transfers

- US $ 390 billion donation to charity annually in the USA for poverty alleviation (education, human services, health, environment, etc.) but impact unknown
- $440 billion annual remittances to developing countries
- Foreign aid - $150 billion annually
- World Bank estimate cost of remittance transactions is 7.32% - **$32.2 billion lost in transactions**

Smart Contracts Facilitate Targetted Payments

- Pre-programmed agreements with the ability to self-execute and self-enforce.
- Eg. When an IoT sensor detects that the target area has reached contractual emission reduction targets, this automatically activates the transfer of funds to the company.
- Donors can use smart contracts to ensure that donor funds reach intended recipients without middlemen and leakage along the way.
- Also track aid delivery by showing the location in the supply chain and ultimate delivery.

Procurement

- US government demonstrated that a blockchain solution reduced the time to complete a procurement from 100 days to 10 days.
- Estimate savings in verification and networking costs at 10 percent - an **additional $15 billion that donors can spend on services.**
- Blockchain can mean more money more quickly to vulnerable populations that need it.

Before :

$100,000,000 —6%→ $94,000,000 —6%→ $88,360,000 —6%→ $83,058,400

Assumptions:
- Each entity takes a 6% cut
- Time for end-to-end transaction: 30 days
- No corruption

$$\frac{6\%}{30} = 0.2\%$$

83% of funds reach recipient

UKaid from the British people

Department for International Development

Government Contractor

Organization

After :

$100,000,000 —0.2%→ $99,800,000 —0.2%→ $99,600,400 —0.2%→ $99,401,200

Blockchain operates in real time
- Time for end-to-end transaction: 1 day
- Saving time is saving money

99.4% of funds reach recipient

Case Study – M-Pesa Kenya

Now used by over 17 million Kenyans with 25% of GNP flowing through it.

- Boosted economic development by enabling relatively poor farmers to send and receive payments reliably and affordably, fostering economic growth by lowering transaction costs.
- Research by the Bill & Melinda Gates Foundation has found that mobile money services such as these have lifted 194,000 Kenyans out of poverty
- Now in Tanzania, Afghanistan, South Africa, India and in 2014 to Romania and in 2015 to Albania.
- M-Pesa allows users to deposit, withdraw, transfer money and pay for goods and services (Lipa na M-Pesa) easily with a mobile device.[2]

Phone-based banking in the national currency, abandoning traditional banking methods to create a mobile banking revolution.

Case Study – Humanitarian & Disasters

Crisis mapping and remote monitoring
Mobile connectivity
Supply chain
Digital identity
Human trafficking
Financial flows
Education
Social support networks
Healthy child development

The World Food Program Building Blocks program reduced transaction fees by 98%

In 2004 direct cash transfers was 1% of humanitarian aid, by 2017 it was 40%

Case Study – IBISA – Poor farmer insurance

Through satellite technology, IBISA is able to build a risk model from the wealth of data and assess incidents before a file is claimed. This real-time data-first approach leads to faster payouts and a more attractive compensation model for farmers who contributed to the scheme via regular micropayments.

Peer-to-peer architecture supported by Blockchain and Earth Observation technology.

Risk-sharing service; an alternative to micro-insurance, targeting small farmers worldwide

What Else is Going On?

- **Code Lagos** in Nigeria is an initiative of the Lagos State Ministry of Education aimed at educating Lagos State residents for the future of work – by teaching people how to write code and creatively solve problems. Their ambitious agenda is to train 1 million coders over the next five years, half of them women and 100,000 Blockchain developers (Code Lagos, 2019).

What Else is Going On?

- **AliPay** is suporting low-cost private schools in Kenya, Uganda, Nigeria, and India to receive school fees and pay teacher salaries digitally.

- In India, **IBM-led AI and Blockchain projects** are helping improve crop yield - use cases including pest and disease prediction, improving yield, and yield prediction on India-specific crops such as potato and sugarcane.

- **SmartCrop**, leveraging smart contracts and intelligent weather prediction to help farmers hedge against crop volatility. Using weather APIs, SmartCrop provides farmers with the option to initiate crop insurance payouts before natural disasters strike.

What Else is Going On?

The World Bank, UN & Red Cross, Microsoft, Google and Amazon —"Famine Action Mechanism," an algorithm that will **use analytics to identify areas that are most likely to experience extreme food shortages.**

token.crowdforce.io African-based start-up using Ethereum to incentivise trusted local and trusted community retailers to act as banks and offer financial services, like utility payments, cash in/out accounts, buying and selling cryptocurrency, and making crypto-fiat exchanges on a PayForceMobileApp.

Impact?

Reach the billions of people worldwide with no formal ID or connection to the economy

More than 30% reduction in cost for back office administrative tasks

Facilitate the $580 billion sent as remittances to developing countries annually

Disrupt the billion dollar counterfeit industries through transparent provenance

Reduce leakage and corruption of funds by eliminating middlemen and tracking the money flow

Way forward?

- Build economic case by commissioning an analysis of UKAID financial flows flows and procurement and identify where blockchain and AI could yield efficiencies and savings

- Partner with industry and academia (BBFTA, Fintech Worldwide, UCL, Oxford) to host a Tech4Social Impact event in November - inviting technologists and academics to present use cases and their work and invite debate

3. Choose an indicator country open to innovation and test and evaluate impact.