IBM outthink tour 2016

IBM Enterprise-Fintech Connect

outthink boundaries

#outthinktour2016

Today's FINTECH Presenters

1. CarIQ
2. Findability Sciences
3. KrypC
4. MRET
5. Oro Wealth
6. Primechain Technologies
7. RapidQube
8. Signzy
9. Stelae Technologies

CarIQ

The one app for all your car needs

Sagar Apte (CEO)

Simple Car management **mobile app**

cariQ

- **Track your vehicle in real time**
- **Significant improvement in safer driving**
- **Notifications about speeding and leaving a particular area**
- **Road side assistance integration**
- **Support for your car queries**

- **Fuel Alerts and location of fuel pumps**
- **Digital documents of your license, PUC / MOT, insurance**
- **Detailed reports of your vehicle performance**
- **Personalized tips to improve vehicle mileage and driving**

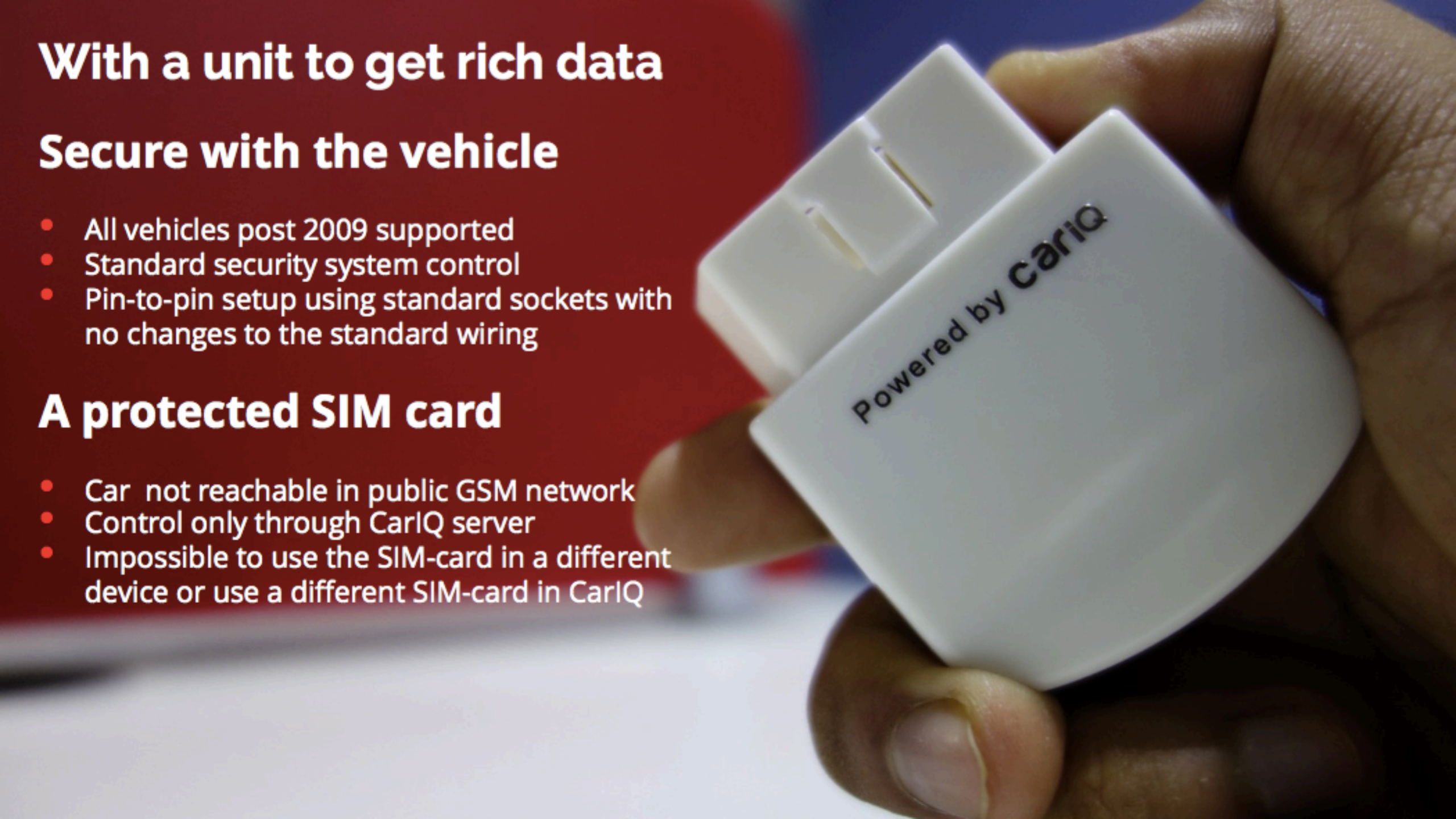
With a unit to get rich data

Secure with the vehicle

- All vehicles post 2009 supported
- Standard security system control
- Pin-to-pin setup using standard sockets with no changes to the standard wiring

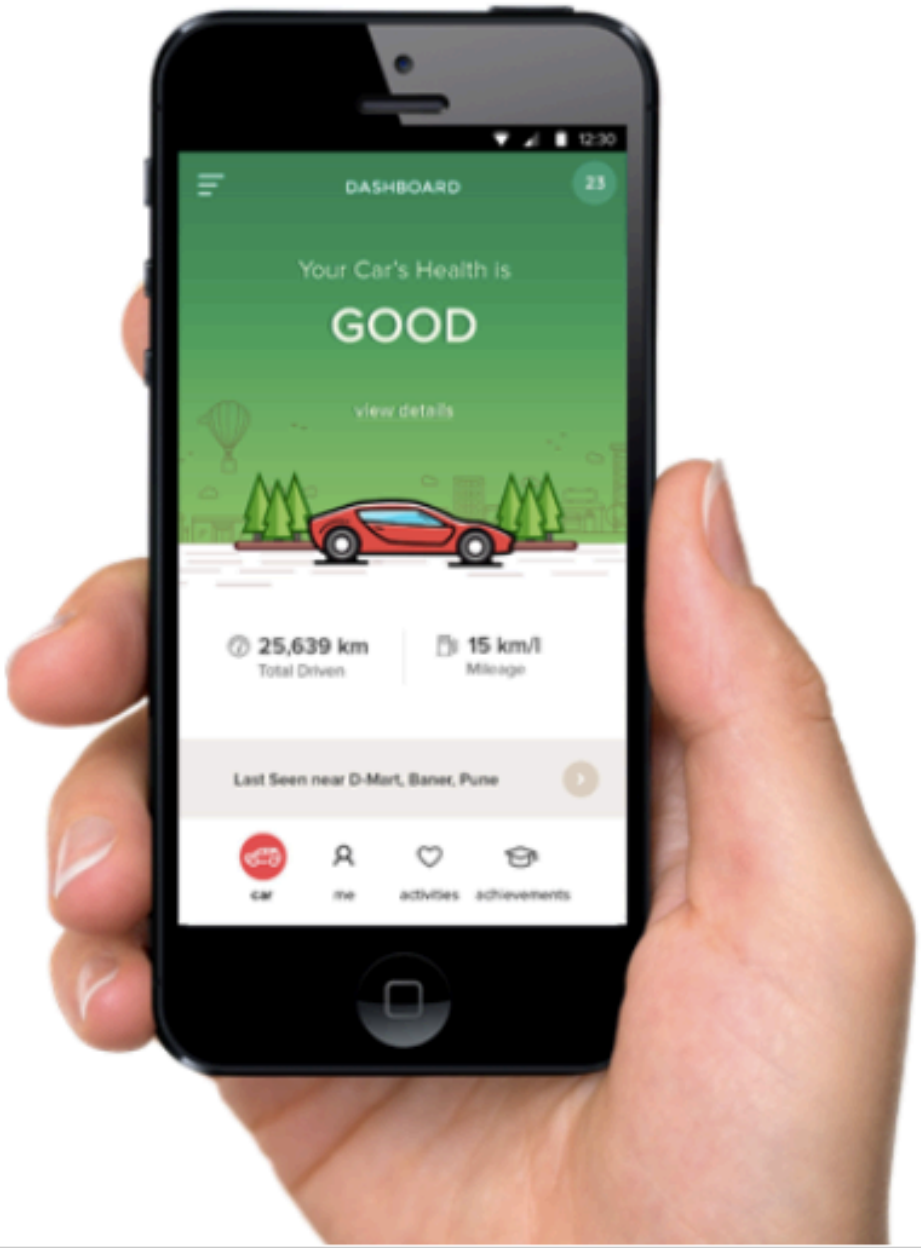
A protected SIM card

- Car not reachable in public GSM network
- Control only through CarIQ server
- Impossible to use the SIM-card in a different device or use a different SIM-card in CarIQ



CarIQ can help drive

- Differential Premium insurances for motor insurance
- Reduce NPA losses in vehicle loans
- Increase loyalty and spend in the online Banking and payment world



Move Beyond traditional plays to a **Smart Insurance**

Information and Data on driving can help insurance companies offer more discounts to car owners who drive better.

CarIQ not only analyses this data for insurance companies but also helps car owners driver better and reduce their insurance premiums

Personalized Driving Score

New revenue streams with **deep analytics**

Big Data allows us to dramatically increase the efficiency of marketing campaigns for:

- ✓ Cross sell customers
- ✓ Find new customers
- ✓ Branding and Loyalty
- ✓ Thought Leadership

FINDABILITY SCIENCES

FINDABILITY SCIENCES

Presenter:
Sumit Agarwal
Vice President

Can data ‘around’ you … ?

- Tell about customer personality and purchase reasons
- Who will not renew a policy?
- Detect frauds as it happens?
- Effect of external factors on services
- Up sale
- Predict diseases and treatment plan

Retail

Education

Agriculture

Insurance

Financial Services

Parking

Non Profit

Legal

Healthcare

Aviation/MRO

Manufacturing

Banking

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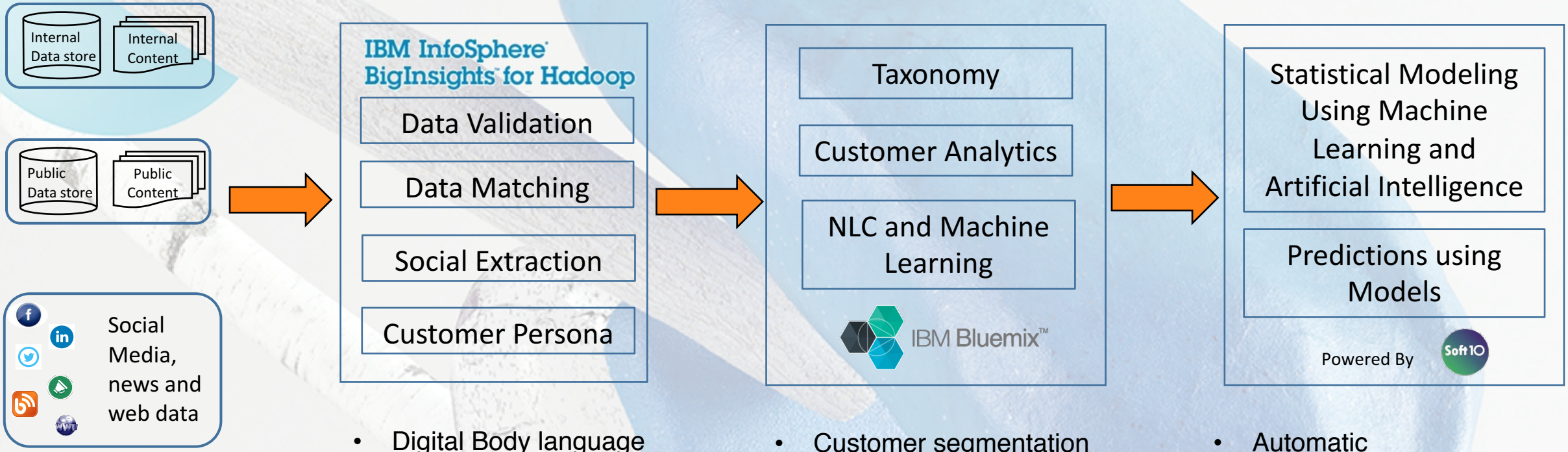
FINDABILITY PLATFORM®

FINDABILITY SCIENCES



- Digital Body language
- Customer Persona
- Unified View

- Customer segmentation
- Insights
- Enterprise Search
- Natural Language query

Powered By IBM Watson

- Automatic
- Multi-Model
- Machine Learning
- No variable limit
- No training limit
- Most accurate

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Case Study #1

Insurance

Credit risk and Fraud detection

Predicting Claim fraud in insurance

Overbilling in insurance amount to 900 million dollar every year. Overbilling can be because of higher diagnosis, procedure, multiple billing, similar procedure, prescriptions, treatment plan etc.

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Case Study #2

Banking

Banking

Improve customer satisfaction

In new age of technology, does your customer still struggle to connect with you? Or better, can you know their pain before they even realize it? Do you run out of cash at ATM machines? Are they struck at ATM and no one to help?

Are you using their 30 second of undivided attention to offer then something unique, what they need today?

Customer is ONE. Serve as Individual.

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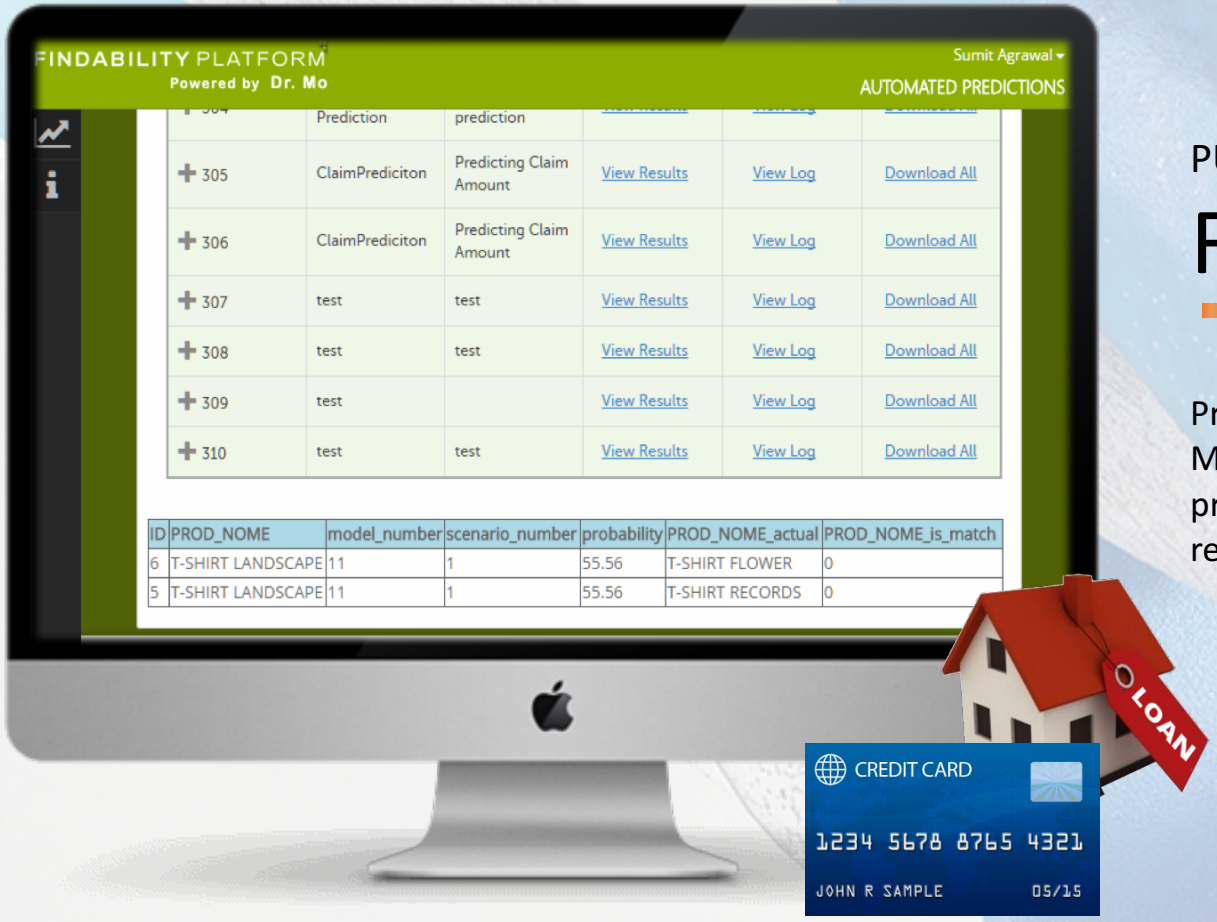
IBM

Case Study #3

Banking

Insurance



PURCHASE MOTIVATION AND PREDICTION

For Marketing and Up Sale

Predict in real time what you customer will purchase next? Powered by Dr. Mo and IBM Watson, longitudinal prediction is most complex level to predict along with time. So we can say that 'John Smith' is most likely to require a personal loan of 1L in next 2 week.

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IBM

Case Study #4

Banking

Insurance

CUSTOMER SEGMENTATION

For Strategic decision making and growth

Customer segmentation based on their interest, personality, belief, motivation, location, influencer and likes.

KrypC

Help businesses understand, explore and adopt Blockchain

Karthik Balasubramanium (Chief Business Officer)

Problem Statement

Is there a better way to handle micro savings than stuffing it under the mattress?

KrypC
eGold Platform

KrypC's Smart Asset Trading Platform

Other Players

Auditor

- Nodal Officer
- Regulator
- Special Interest Group appointed audit body

Gold Vault Service Provider

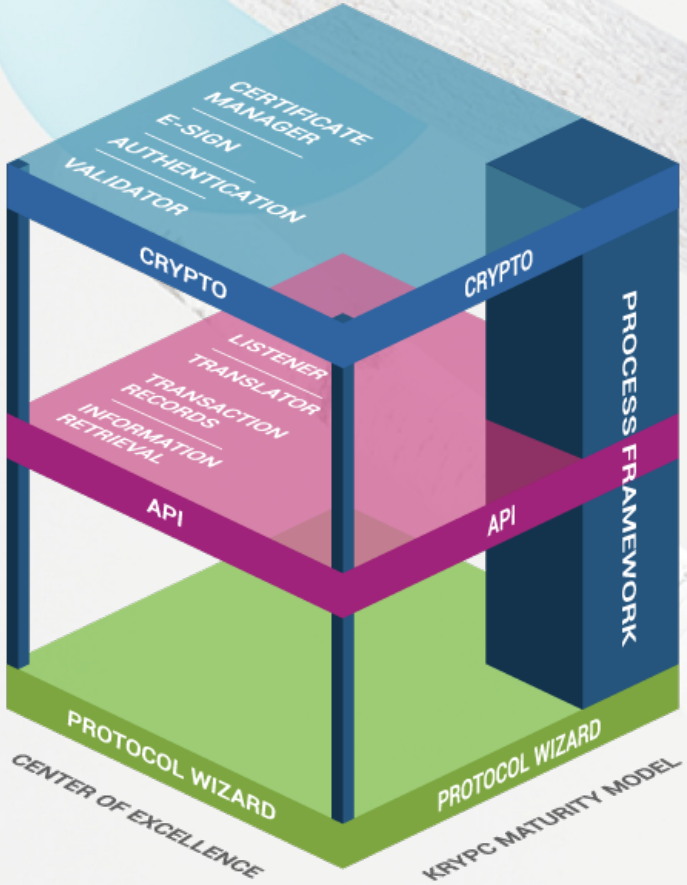
- Exchange eGold for physical Gold and vice versa
- Store physical gold

Benefits

- Low value entry and exit
- Transparency and traceability
- Security (non-repudiation)
- Decentralized data

Ideally suited for consortium innovation to structure Gold as a savings instrument

IBM's HyperLedger + KrypCore



Crypto

Enhances the legal validity of transactions or actions performed in the Block. Module includes Certificate Management, e-Signer Component and Certificate Validator

API

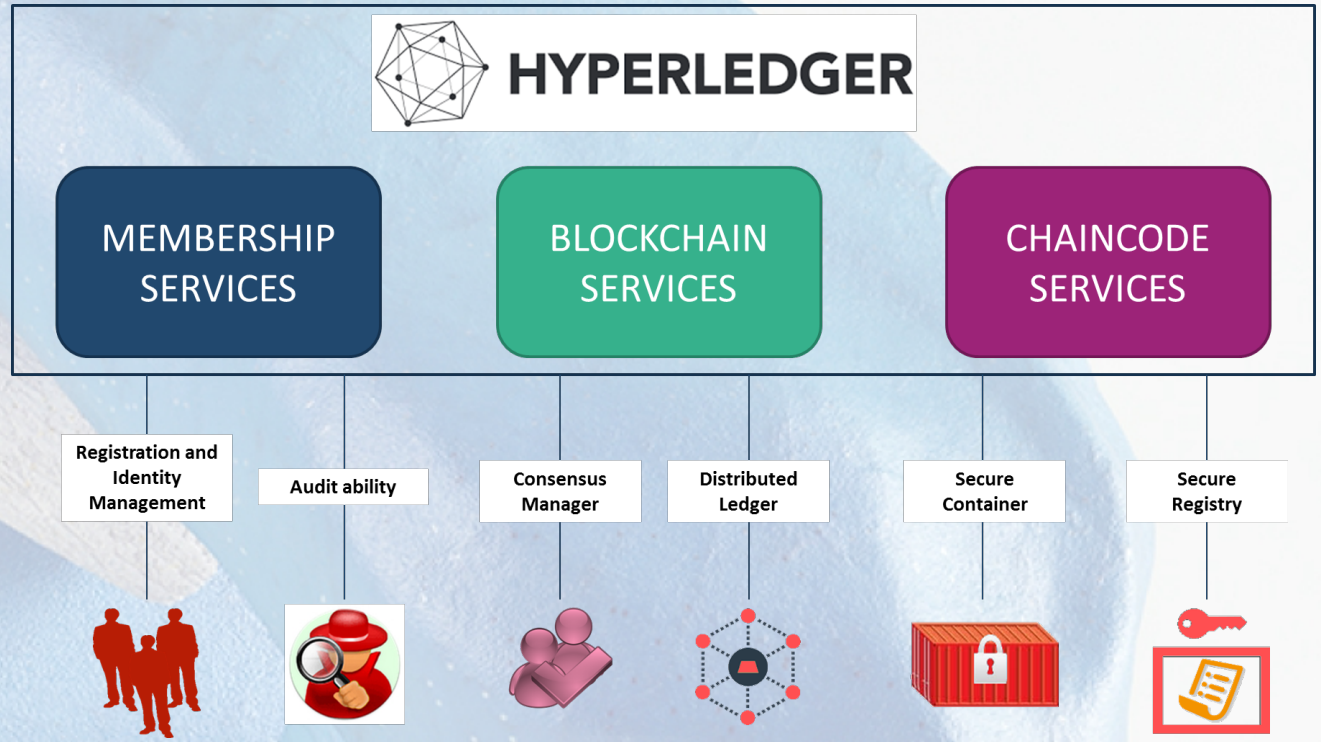
Translates all the messages and actions by various Actors for recording of transactions into Blockchain. Extracts data from Blockchain for reporting and third party API

Protocol Wizard

Enables deployment of Blockchain protocols through user friendly UI driven tool by capturing parameters relating to Nodes, Actors, Block, Assets, Data elements

Process Framework

Enables inclusion of actions, messages, documents relating to transactions in Blockchain by validating access rules, binding rules and business rules defined therein



MRET

Combine collective human and machine intelligence

Rahul Jindal (VP Engineering)

MRET

- Microstructure Research & Eng. Tech. LLC (MRET) is a holding company for various ventures involving collective human and machine intelligence
  - Alpha Modus Research (AMR) is an asset of MRET

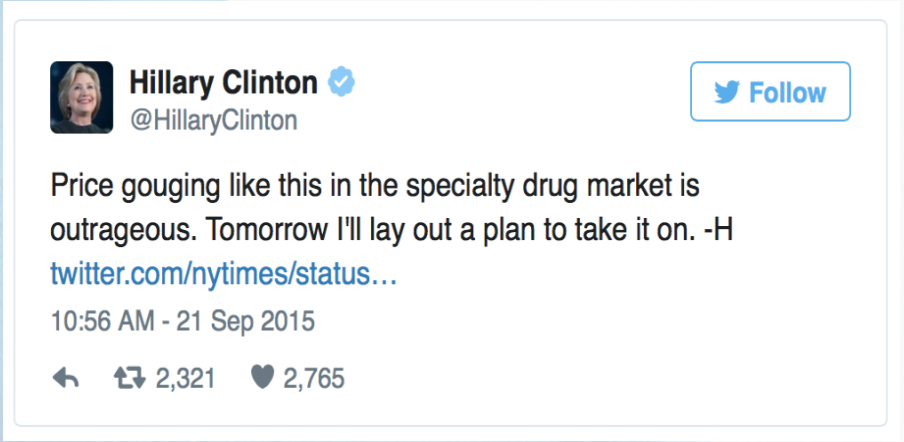
- Nearly 10 years of domain expertise in high frequency finance, the market microstructure

- Prashant Bhuyan and MRET is training Watson to find alpha in unstructured data.

- Alpha is risk adjusted returns in excess of a benchmark. More alpha = faster growth
  - *Investors should only pay for alpha!*

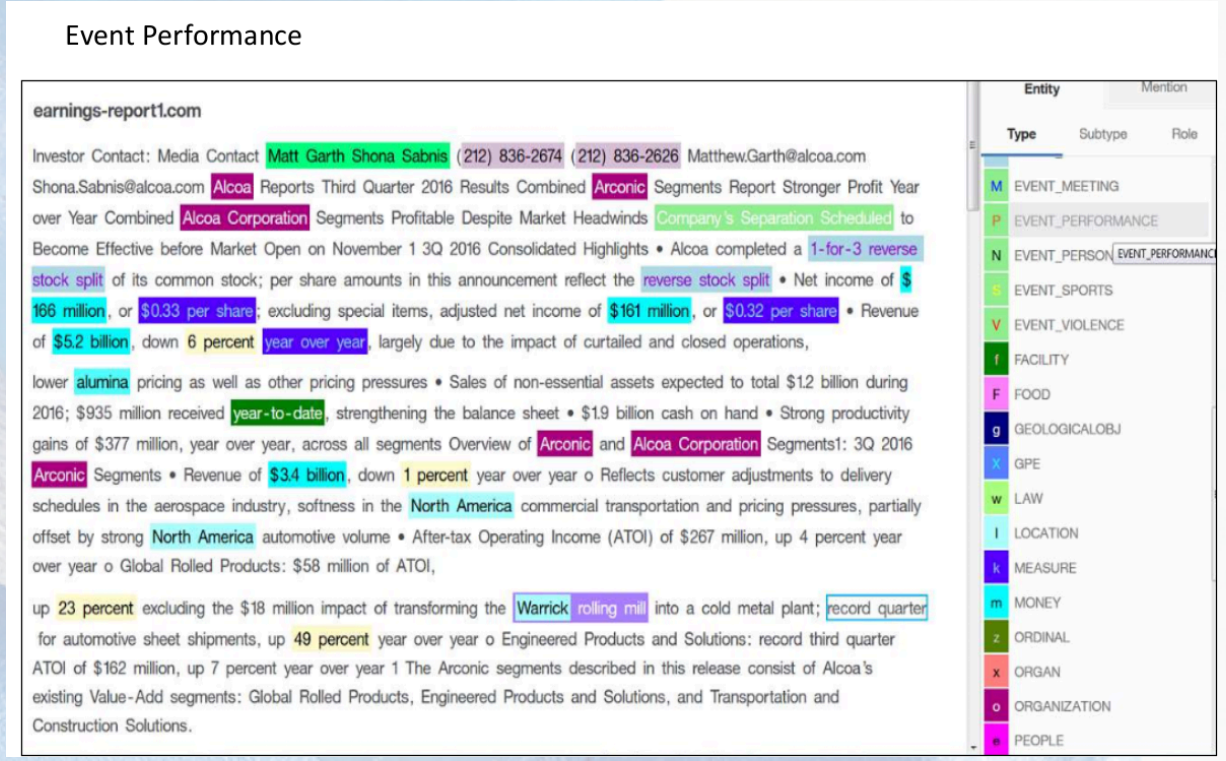
Why is Generating Alpha so difficult?

- Too many factors affecting asset prices for the human mind to process
- Individual cognitive biases can compound into collective manias
- Hillary Clinton can tank the market with a single tweet (e.g. September 21, 2015)
- Volatility is the enemy of compounding returns



Alpha modus research training a Cognitive System on market microstructure to measure volatility in sentiment, by building custom ontologies

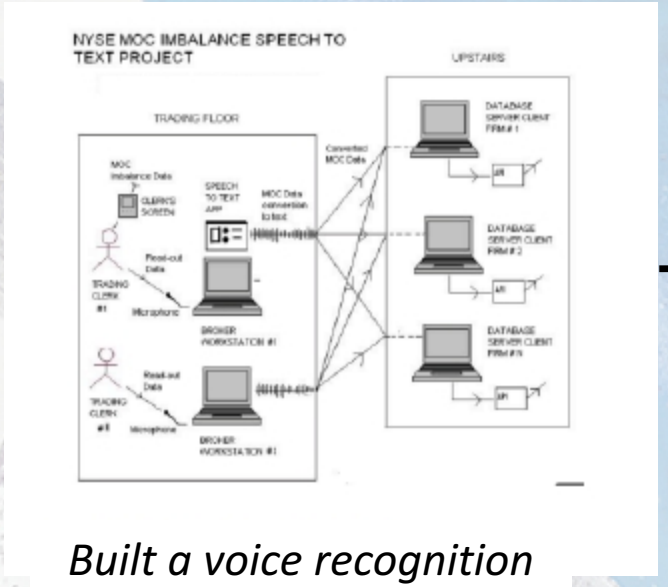
- Create a corpus of training data
- Give raw info an expert perspective by building a custom ontology
- Contextual understanding evolves with over time



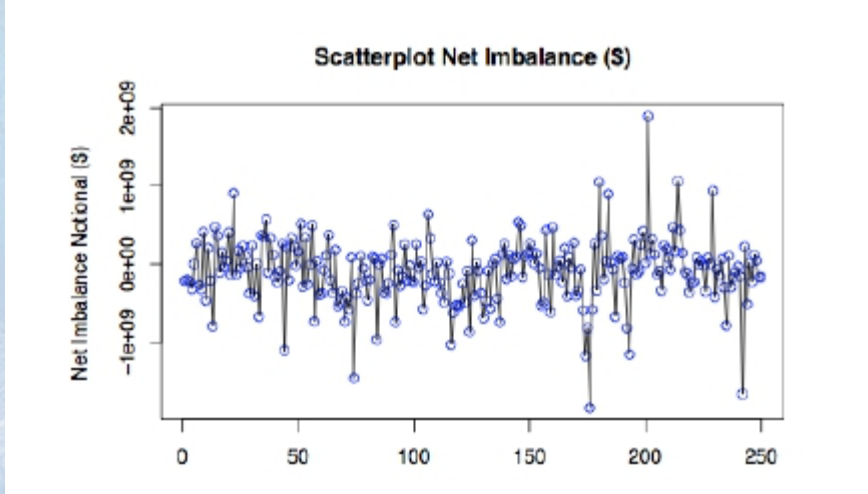
MRET provide APIs - embedded learning systems that asset managers can leverage to better compete in markets

Scaling the Expertise of Floor Brokers with Cognitive Systems

Partnered w/ several floor brokers 5 years ago



Built a voice recognition based data capture system



Collected 2.00pm – 3.45pm EST imbalance indications every day for 5 years

- ***Do imbalance indications predict market direction into the close of trading? (Original question posed ~5 years ago)***

ORO WEALTH

Online Wealth Management Platform

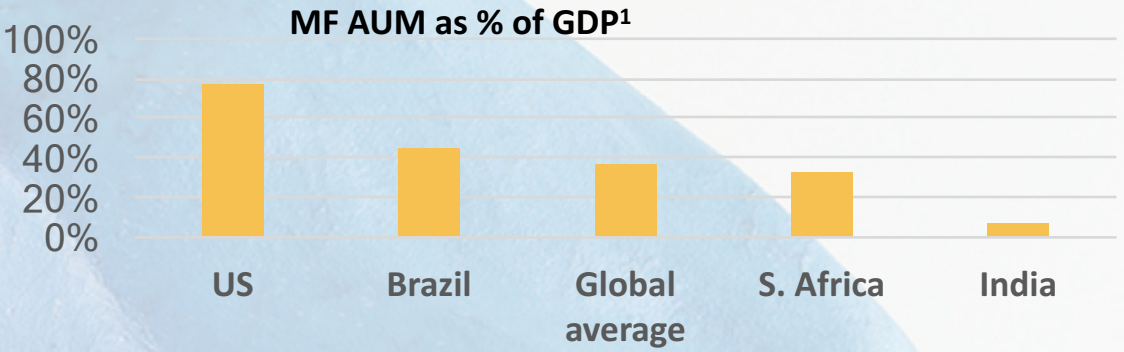
Nitin Agarwal (Co-Founder)

Problem Situation

Low penetration of financial products

Top reasons for low penetration:

- Lack of awareness
- Poor distribution economics



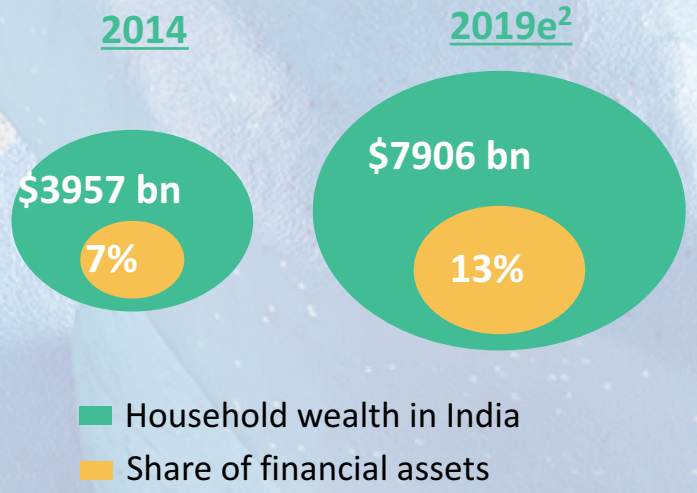
Investing is difficult

Top hurdles faced while investing:

- Lack of financial knowledge
- Poor investment support

But a massive opportunity

- Increase in wealth
- Financialization of assets



1. KPMG report on Indian mutual fund industry (2013); 2. Based on Karvy Wealth Report December 2014; USD/INR rate:65

Opportunity Beckons!

Financial advisors should benefit from this situation but they are plagued with problems

Insufficient reach

- Advisors are predominantly offline with lengthy paperwork
- As a result product awareness has remained low

Poor-quality advice

- AMCs rely on 3rd party agents due to poor distribution economics
- Ensuring quality is a challenge especially outside Tier 1 cities

Mis-selling

- For retail, product distributors double up as “advisors”
- Commissions - based compensation leads to mis-selling

Lack of technology

- Wealth will increasingly be with youth who are tech-savvy
- Traditional intermediaries lack consumer-facing technology

Our Solution

“ORO is an online wealth management platform which enables retail investors and offline intermediaries to access high quality advice and investment services”

ORO building blocks

Direct to Consumer Platform
Offers 0-commission products and various financial tools for tracking, analysis and advice

Channel Partnerships
Offers digital financial tools to traditional financial institutions and intermediaries with existing client base

Technology platform
For transactions, advisory and value added services in financial products such as MFs, Stocks, Bonds, Insurance etc.

Market Adoption

Current Status

- Direct to consumer platform was launched in January-2016

3000+ registrations

1200+ transactions

10+ cr worth investments

- Channel Partnerships with 2 large financial institutions with an upfront **revenue of Rs 20L +** AUM-linked fee

Top 3 Broker in India

AMC with $2bn Aum

- **NDA signed with a Large Private Bank** to evaluate channel partnership
- **Potential to go global** – in talks to partner with a remittance company in Middle East
- Exclusive tie up with **a top 10 IT company** to serve their employees
- Selected among the **top 10 early stage fintech start ups** by IBM SmartCamp in August 2016
- **Winner, Dell Start-up Challenge** in August 2016

PRIMECHAIN TECHNOLOGIES

Building blockchains for a better world

Rohas Nagpal (Chief Blockchain Architect)

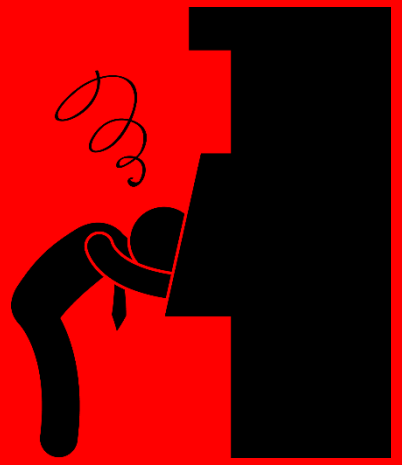
z3

A highly secure blockchain for financial communication.

PBSS-1

Security standards for private blockchains.

The problem



- Money moves slowly
- Moving money is costly
- High risks of hacking

The solution - *z3*

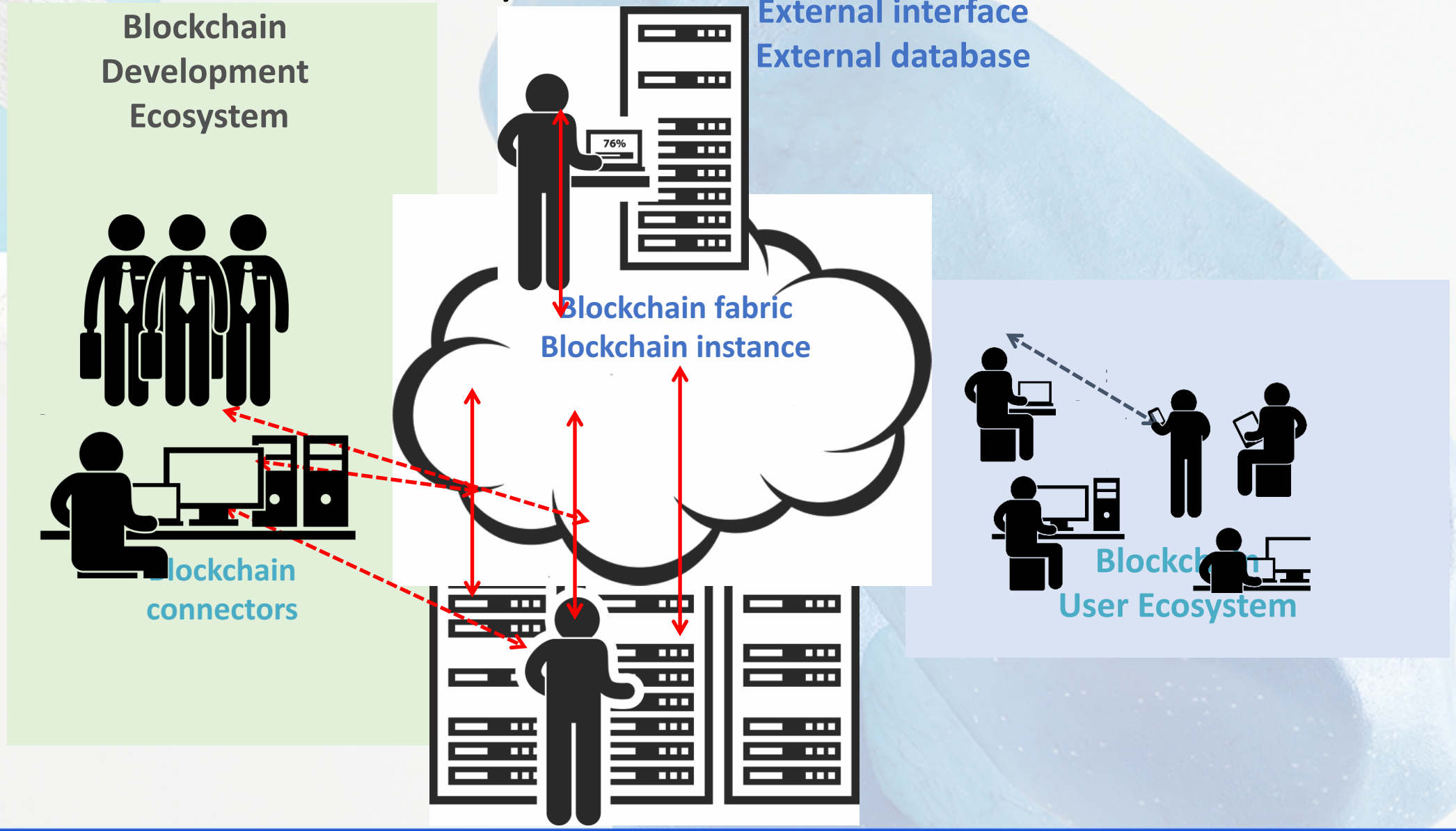
Highly secure blockchain:

1. Payments
2. Securities
3. Trade Services
4. Cards
5. Foreign Exchange
6. Virtual Currencies

Industry Problem

1.	There are various security controls and for the technology and payment ecosystem.
2.	There are **NO** security standards / frameworks / controls or blockchain implementations.
3.	Lack of security controls is the #1 obstacle for widespread blockchain implementation in the BFSI sector.
4.	Primechain Technologies – Blockchain Security Controls (PT-BSC) prescribes security controls and minimum standards.

Primechain Blockchain Security Standard



RAPIDQUBE
THE BLOCKCHAIN TECHNOLOGY....!

RAPIDQUBE

Digital implementation of Smart Contract

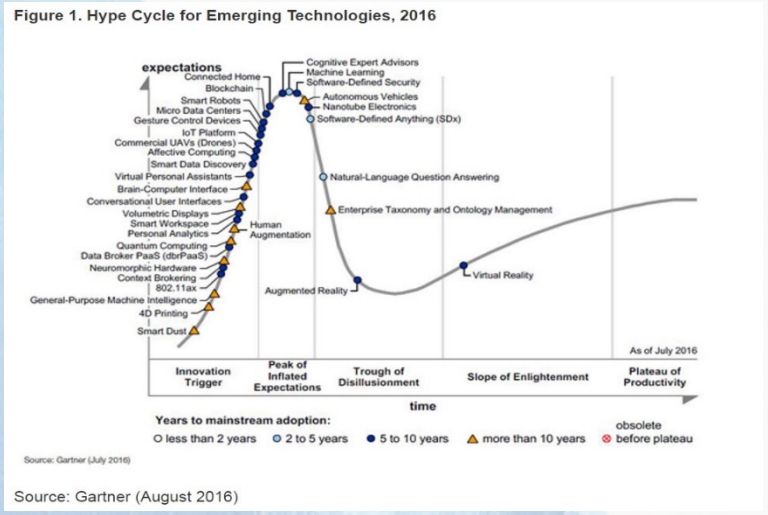
Lokesh Reddi (Co-Founder)

RapidQube with YBL

- We @Rapidqube are aimed at
  - exploring futuristic and radical innovations
  - solve some of the most difficult problems in technology today.

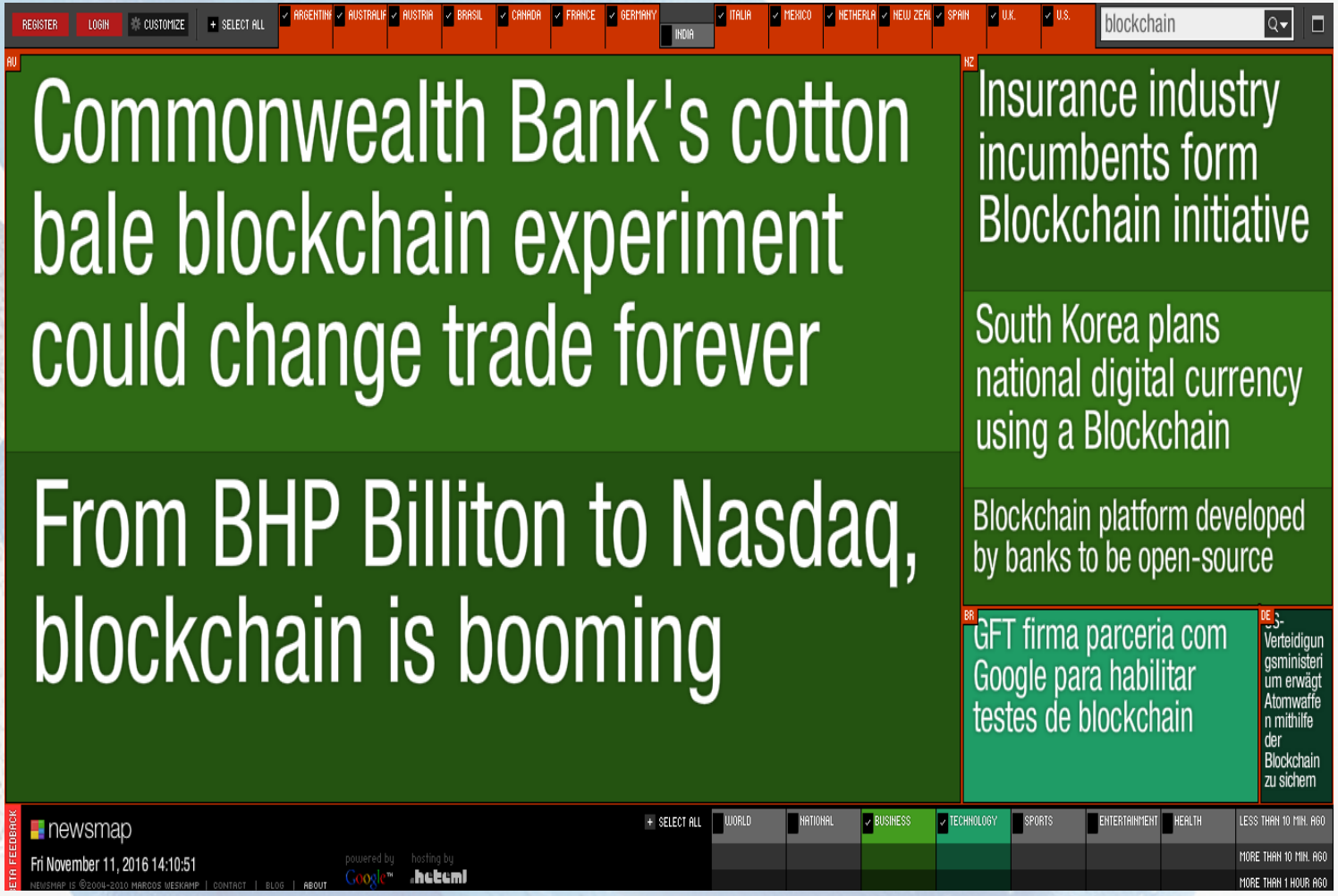
- With Block chain, we have developed a vision
  - on the evolution of modern commercial transactions
  - and the change in fundamentals

- Partnered with IBM and YBL have
  - designed and built a settlement and clearing system
  - enabling YBL to transact through permissioned distributed ledgers



Source: Gartner (August 2016)

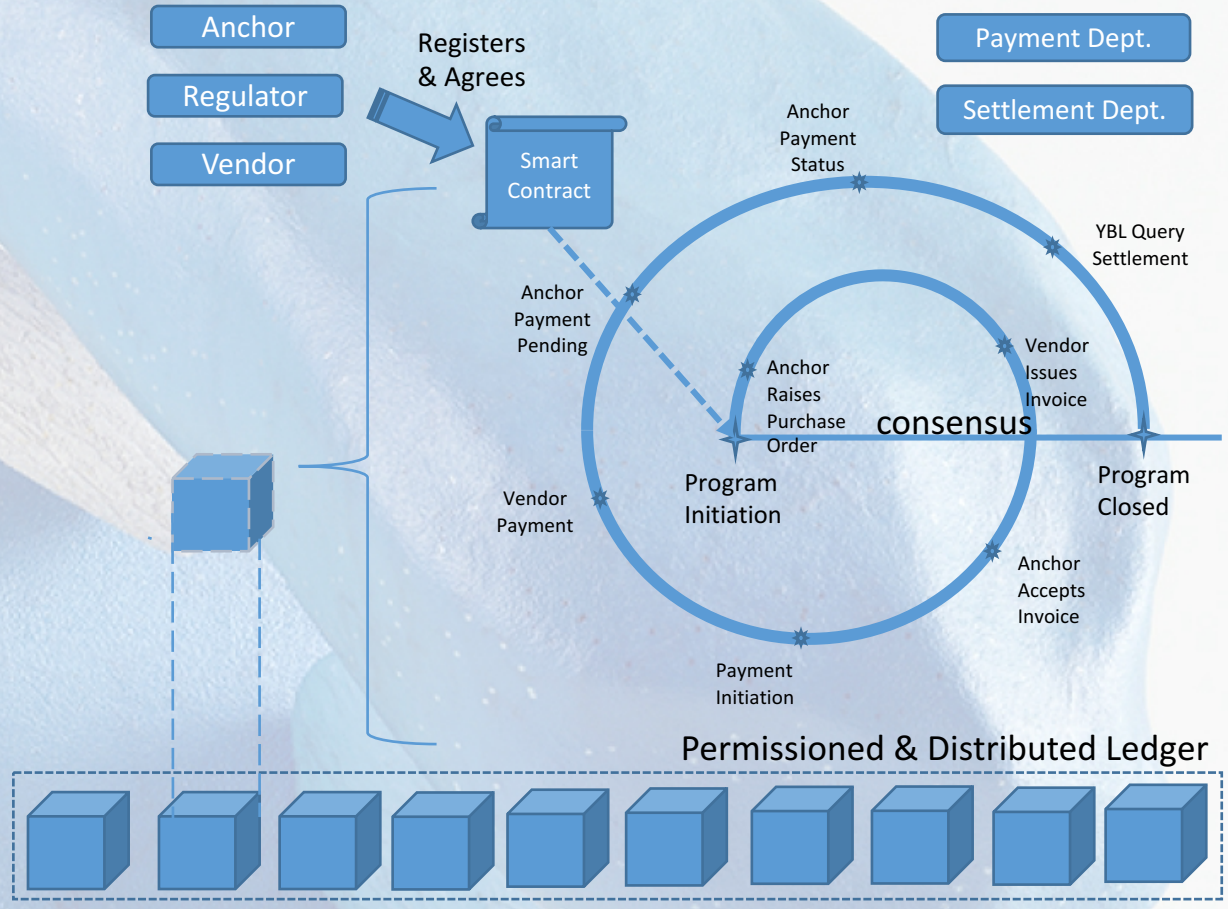
Blockchain – the Future



Blockchain – YBL Solution

- Validated among separate nodes creates a platform which promises to remedy existing pain points such as:
  - Supplant major middle and back-office functions
  - Introduce unprecedented cohesion to the internal bookkeeping processes
  - Show a record of consensus with a cryptographic audit trail of transactions
  - Create near real-time settlement
  - Strengthen risk management through stronger auditability and counterparty ties

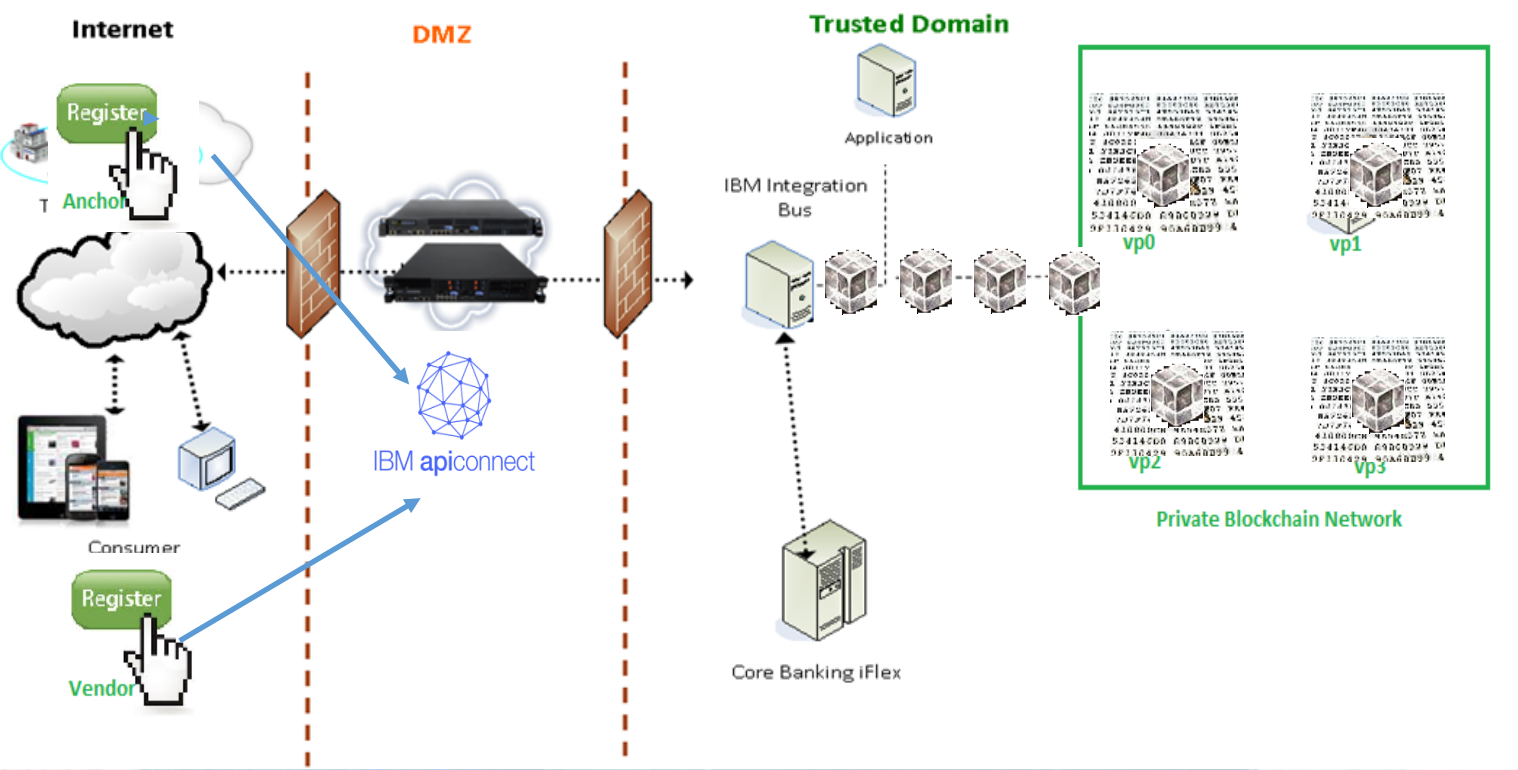
Our Solution entails creation of a vendor financing solution using smart contracts and building a shared transaction ledger between Anchor, Vendor and YBL to validate transactions



Solution Architecture

Leverages IBM Hyperledger fabric 0.7.0 version connection in supply chain network -

- IIB for middleware integration
- APIM for the APIs
- IBM Datapower



SIGNZY

Digital KYC and Contracting made easy

Arpit Ratan (Co-Founder)

Trust 1.0 – Offline
Paper based verification is time consuming, costly and frustrating

Trust 2.0 Economy

Signzy's APIs deliver digital trust ,
wherever identity & background verification is at the core of the transaction.

Winner of RBI's payments systems
Innovation Contest 2016

Signzy APIs simplify digital trust

Improving lending decision using digital data

- Confirmation of **employment** from verified datasets
- **Financial history** from bank account and other sources
- **Social media APIs** to authenticate education, employment etc.
- Social media APIs help create pshycological profile and customized scores using public posts

Eliminating fraud in digital regulatory compliance

- **ID/Document Verification** for PoI and PoA requirements of KYC
- **Background due diligence** for satisfactorily meeting AML/CFT guidelines
- **Secure digital contracts** using Aadhar and biometric evidence
- **Company verification** from government records

Overview of technology

Artificial Intelligence

- Visual Recognition of ID
- Face biometrics
- Data extraction from documents

Cryptography

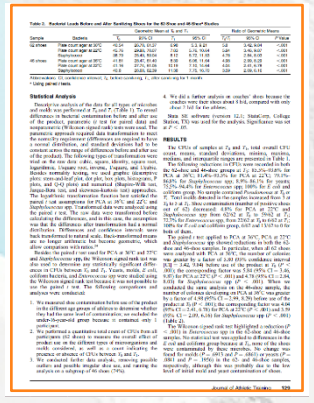
- Storage of sensitive documents
- Executed transactions audit trail
- Secure sharing

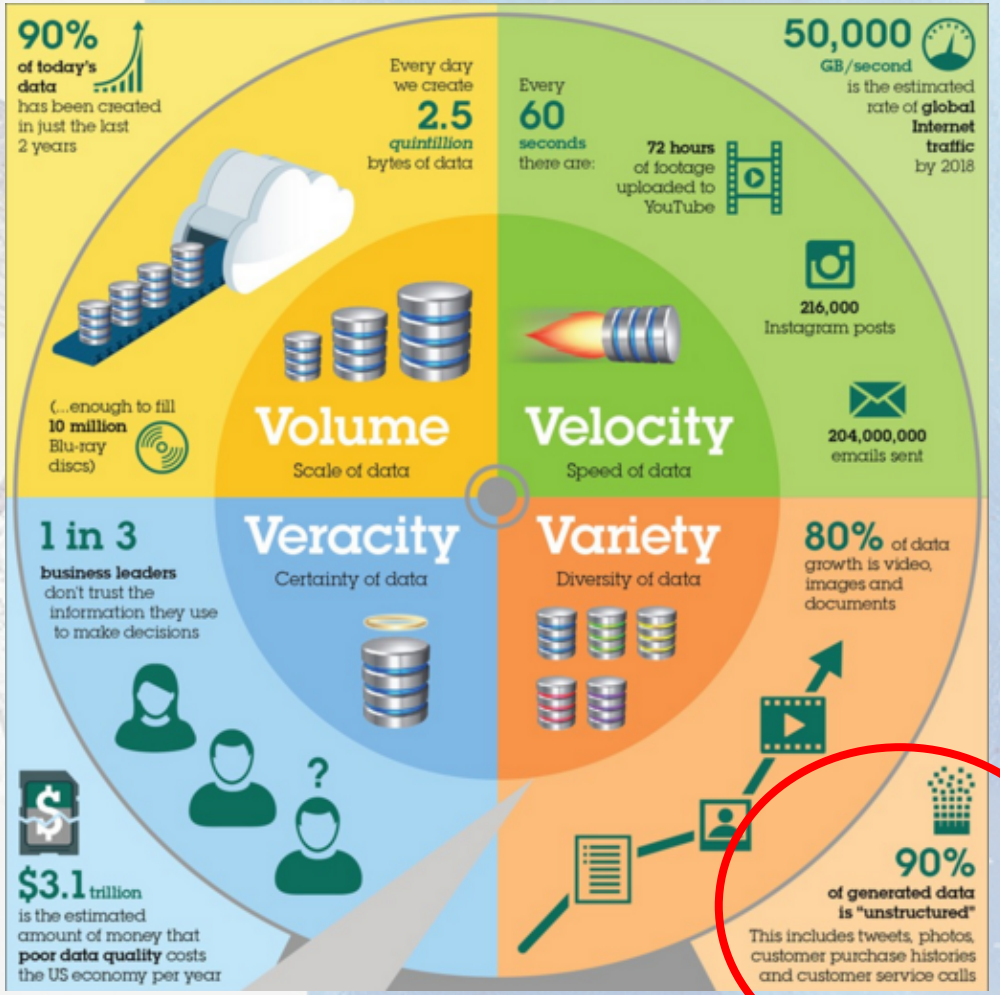
Stelae Technologies

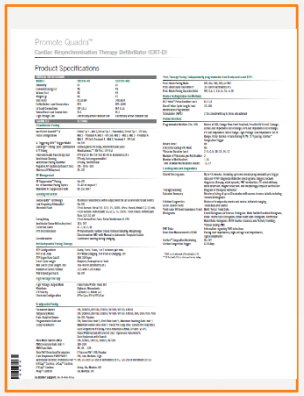
Transform your Content using Artificial Intelligence!

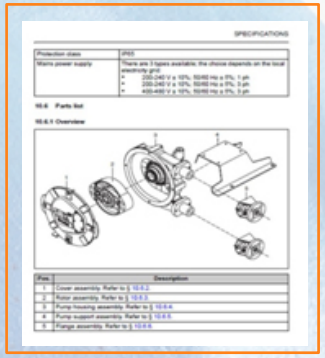
Aruna Schwarz (CEO)

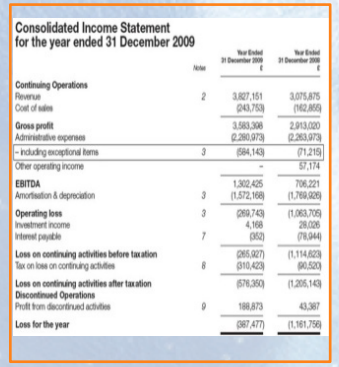
Unstructured Content – the biggest problem in a Data value chain







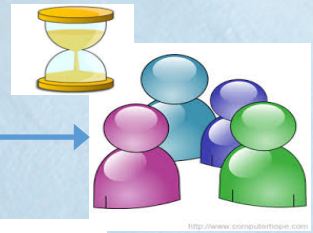




Company Accounts – Inputs for Loan Assessments, Analytics, Statutory Filings

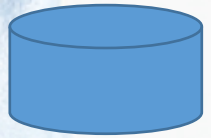
Inputs:
Multi Format/ layout & Multi type (xls, pdf, doc…)

Read: Rules to Interpret Terms



Queries, Clarifications

Finally the document arrives



Repository/Data Base

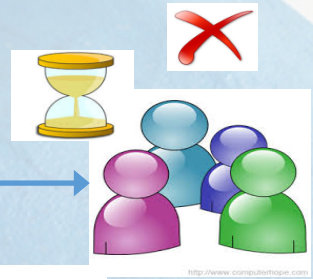
Attrition and New Hires

Time = Money = Cost

An end to end automated work-flow with Khemeia™

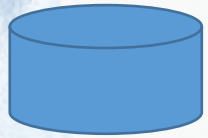
Inputs:
Multi Format/ layout & Multi type (xls, pdf, doc…)

Read: Rules to Interpret Terms



Queries, Clarifications

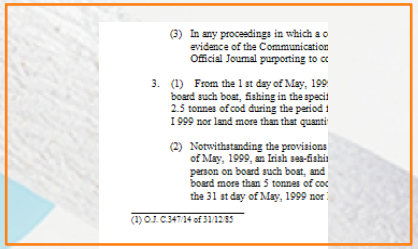
Finally the document arrives

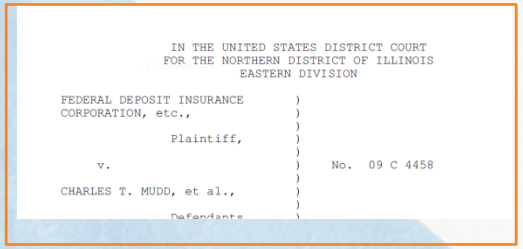


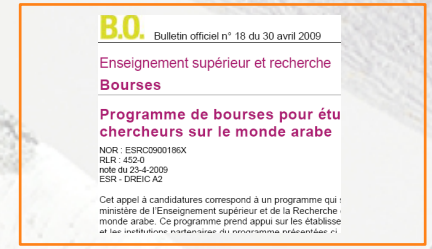
Repository/Data Bases

Attrition and New Hires

The Technology
70+ Pattern Recognition & Content Analysis Algorithms





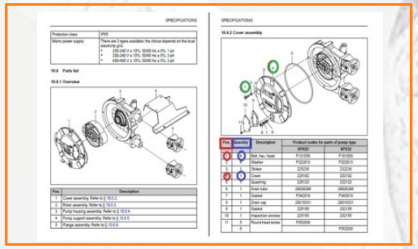


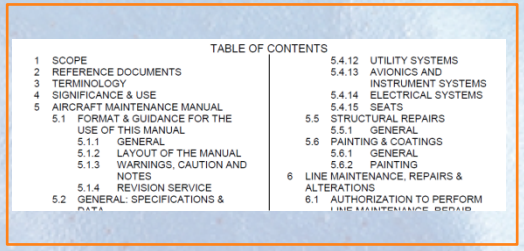
Tables, Paragraph, List Variants

Geometric Positioning

Visual Analysis Fonts, Colour, Size

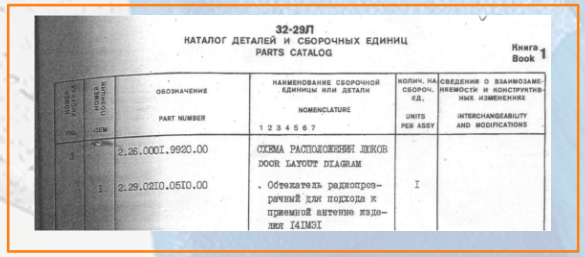
Double Column Text

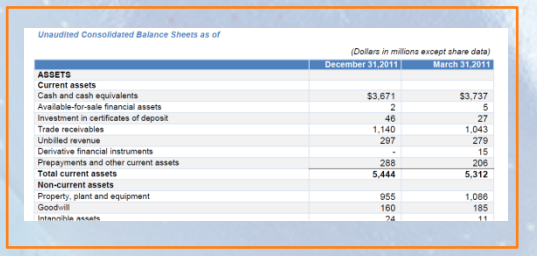




Linking Images to Captions, Text

Special Characters – indices, symbols, and languages (Cyrillic)





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