“Wherever there is Risk, there are opportunities for Actuaries”
South Africa is the only country where Actuaries can specialise in Banking
Banks in the Digital Age

- Digitisation changes traditional market structures and creates new hybrid business models
- Unbundling and democratisation of finance
- New disruptive competitors enter the market
- Banks enable third party apps and become marketplaces for all transactional needs
- Advent of big data & regulatory changes
Actuaries play a key role

- Advanced data analytics and better insights so banks can make quick decisions and take action.
- Anticipation of new business risks.
- Identification of opportunities and new strategic directions.
- As Banks start to look more like technology companies, Actuaries need to become technologists too.
The Digital Disruption has already happened

- World’s largest taxi company owns no taxis (Uber)
- Largest accommodation provider owns no real estate (Airbnb)
- Largest phone companies own no telco infra (Skype & WeChat)
- World’s most valuable retailer has no inventory (Alibaba)
- Most popular media owner creates none of its own content (Facebook)
- World’s largest movie house owns no cinemas (Netflix)
- Largest software vendors don’t write the apps (Apple & Google)
Framework of Exponentials: Diamandis’ 6 Ds

- Digitised
- Deceptive
- Disruptive
- Dematerialise
- Demonetise
- Democratise
The Exponential Growth of Data

5 Exabytes = 5 Billion Gigabytes
From the start of time ~ 2003

In 2010 ~ 2 days

In 2013 ~ 10 minutes

Today ~ 2 minutes
Why digitised information growth is exponential

- Zero friction to move/copy
- Zero marginal cost
- Apply computation
- Data correlations
- Machine learning
- Modeling
- Simulations

100% democratisation of effort/innovation
Several products have been **Dematerialised** into one device (TV, flash light, alarm clock, camera, books, CD’s).

**Demonetised**

**Abundance of products & services available FREE online**
3D printing is in a Deceptive growth phase
Democratisation
When a technology spreads across the world
Predicted there will be a billion handsets in Africa this year
Force: Rising Billion

- Global Population
- Internet Users

- 2000: 6%
- 2010: 23%
- 2020: 6%

3 Billion New Minds
Mobile is the new tech ecosystem

Tech moves forward by going from one ecosystem to the next, and each new ecosystem is a change in scale. Mobile has the scale of everyone on earth.

Andreessen Horowitz
“Right now, a Masai warrior using Google on a smart phone in the middle of Kenya has access to more information than the U.S. president did just 15 years ago”
Artificial Intelligence (AI), Robotics, 3D Printing, Synthetic Biology, Media Tech, Nanotech, Solar, Networks & Sensors
Finance is OK?
Smartphones for under R600
Half a billion Smartphones will be sold in Africa by end 2020
In developing countries more households own a mobile phone than have access to electricity or sanitation.
A bank in 2020 will store, monetise & license a customers’ data
You can deposit data like money. Lend, spend, invest and earn interest from your data

A world where your worth is the contents of your character, not the contents of your wallet
Revolution In Finance

Economy + Social + Technology + Legislation = Unique Time
Prediction: By 2025 virtual currencies will compete with national currencies
Venezuela's Death Of A Currency

93 Percent Drop In Two Years

Source: dolartoday.com
Strict State Control Over Currency Turning Venezuelans to Bitcoin
Forbes Earnings Preview: Apple

Analysts have become increasingly bullish on Apple (AAPL) in the month leading up to the company’s second quarter earnings announcement scheduled for Tuesday, April 24, 2012. The consensus earnings per share estimate has moved up from $9.60 a share to the current expectation of earnings of $9.86 a share.

What to Expect:
Robo-advisors
We're the global leader in solving business challenges through predictive analytics.

Compete as a data scientist for fortune, fame and fun »

FOCUS INDUSTRY The Energy industry uses our expertise in machine learning and big data to drive high-stakes decisions. Find out more
User base: 50,000+ registered data scientists
10 Most Common behavioral Biases

- Confirmation Bias
- Optimism Bias
- Loss Aversion
- Self-Serving Bias
- The Planning Fallacy
- Choice Paralysis
- Herding
- Prefer Stories to Analysis
- Recency Bias
- The Bias Blind-Spot
Benefits of Algo Investing

Cost
Discipline
Repeatability
Academia / Open Source
Dealing Rooms / Hedge Funds
Thank you
@michaeljordaan