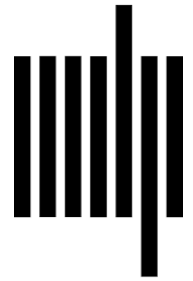


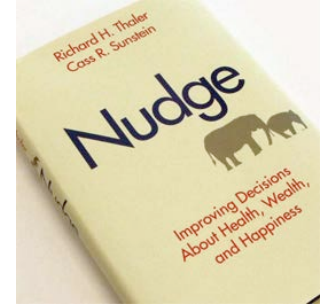
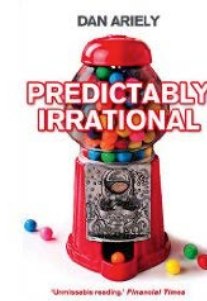
The Next IT: 'Innovation Transformation'

How 'Virtuous Cycles,' Human Capital & KPIs Will Transform Business



The Content of the Audience
is more important than
The Content of the Talk

I explore...



‘Behavioral Economics’ of Enterprise Experimentation, Innovation & Network Effects

Via their Models, Prototypes & Simulations

My 'Big Flip'



From

'How Can People Create More Valuable Innovation'?

To

'How Can Innovation Create More Valuable People'?

A Future Of Kaizen

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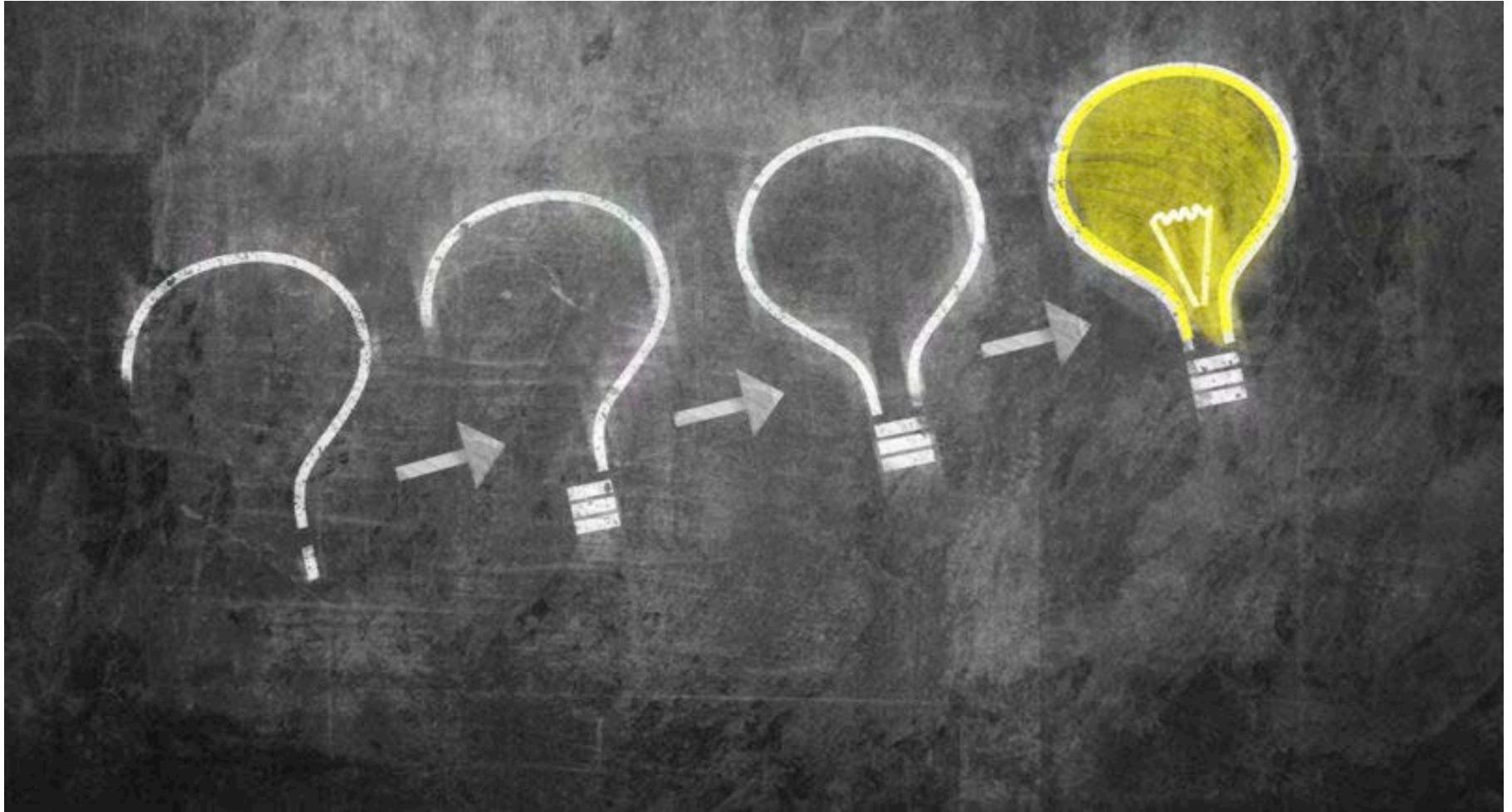
改善



THE
GEMBA

'Transformation' [CAPABILITIES]

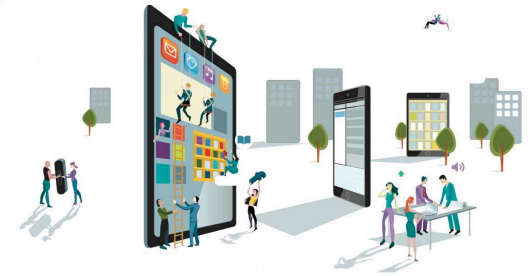
dis
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'Digital Transformation'



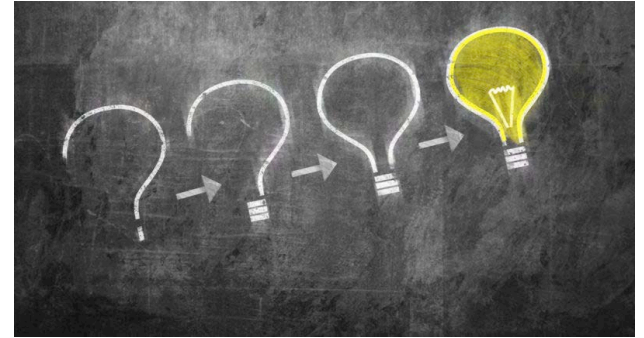
'Digital Transformation' is....



Less About **'Delivering Better IT Services Better'**

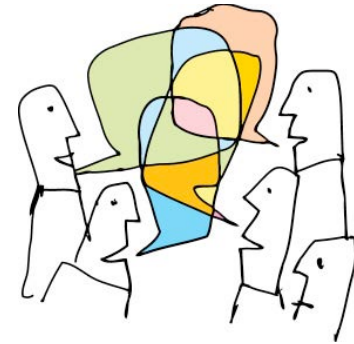
Than **'Co-Creating New Business Capabilities'**

Technology Transforms Capabilities



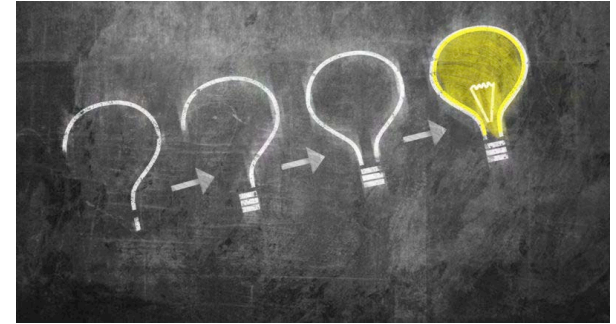
- 'Virtuous Cycles'
- 'Human Capital'
- KPIs

What Is This Brief Talk About



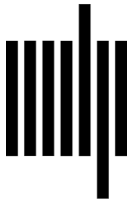
- Embracing/Enabling Data-Driven 'Virtuous Cycles'
- Innovation as a 'Human Capital' Investment'
- 'KPIs' That Automate/Augment Value Creation

Our Innovation Theme/Argument Today



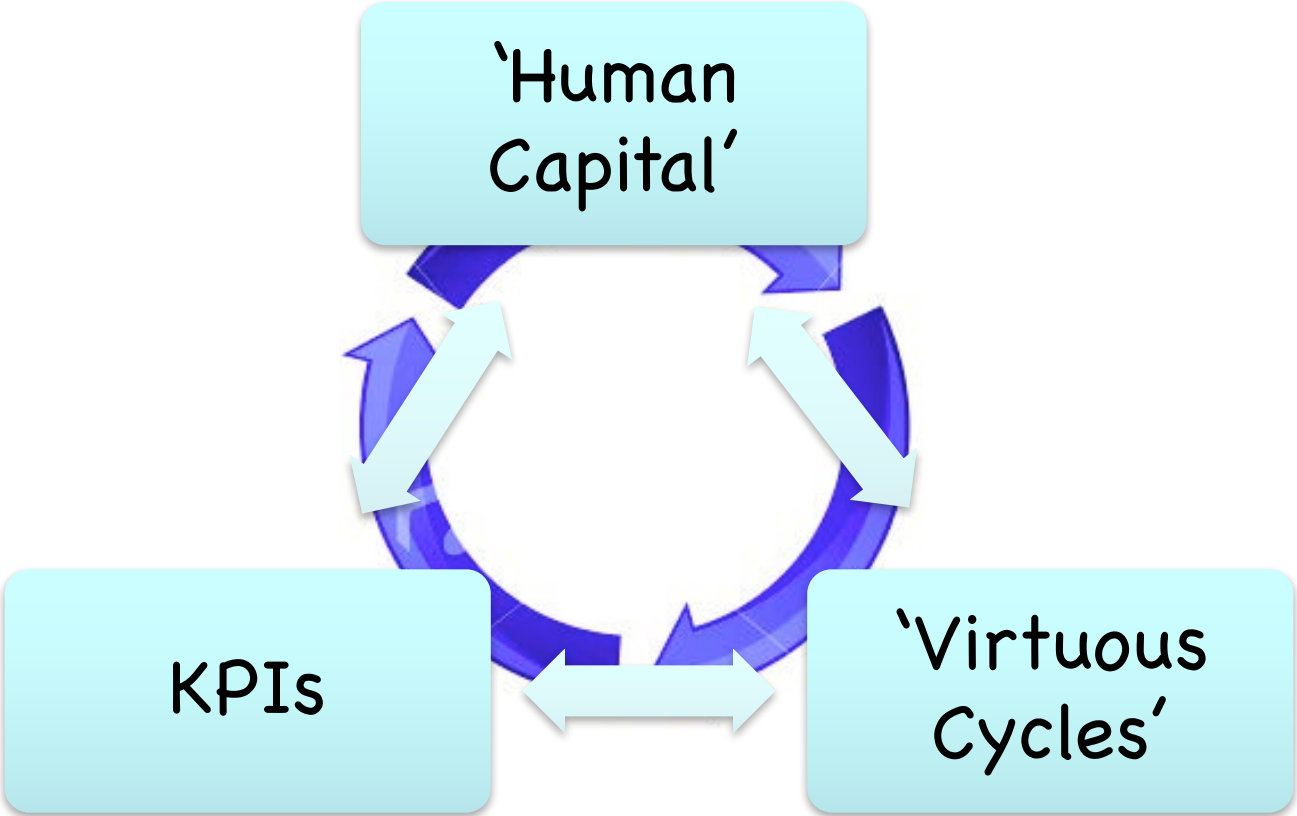
Measurably Transform User Capabilities Through
Data-Driven Virtuous Cycles

My Innovation Purpose/Call To Action

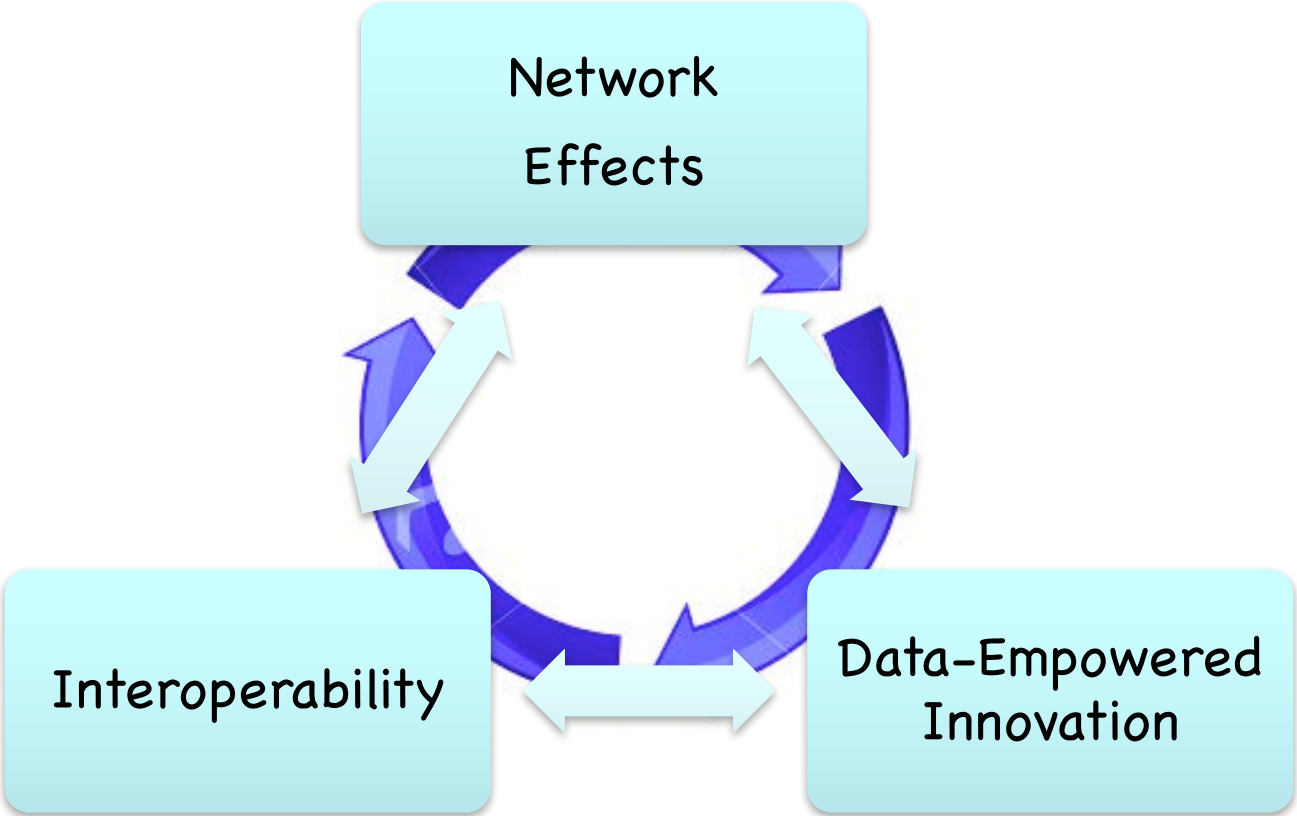


Make Your Customers/Users More Valuable

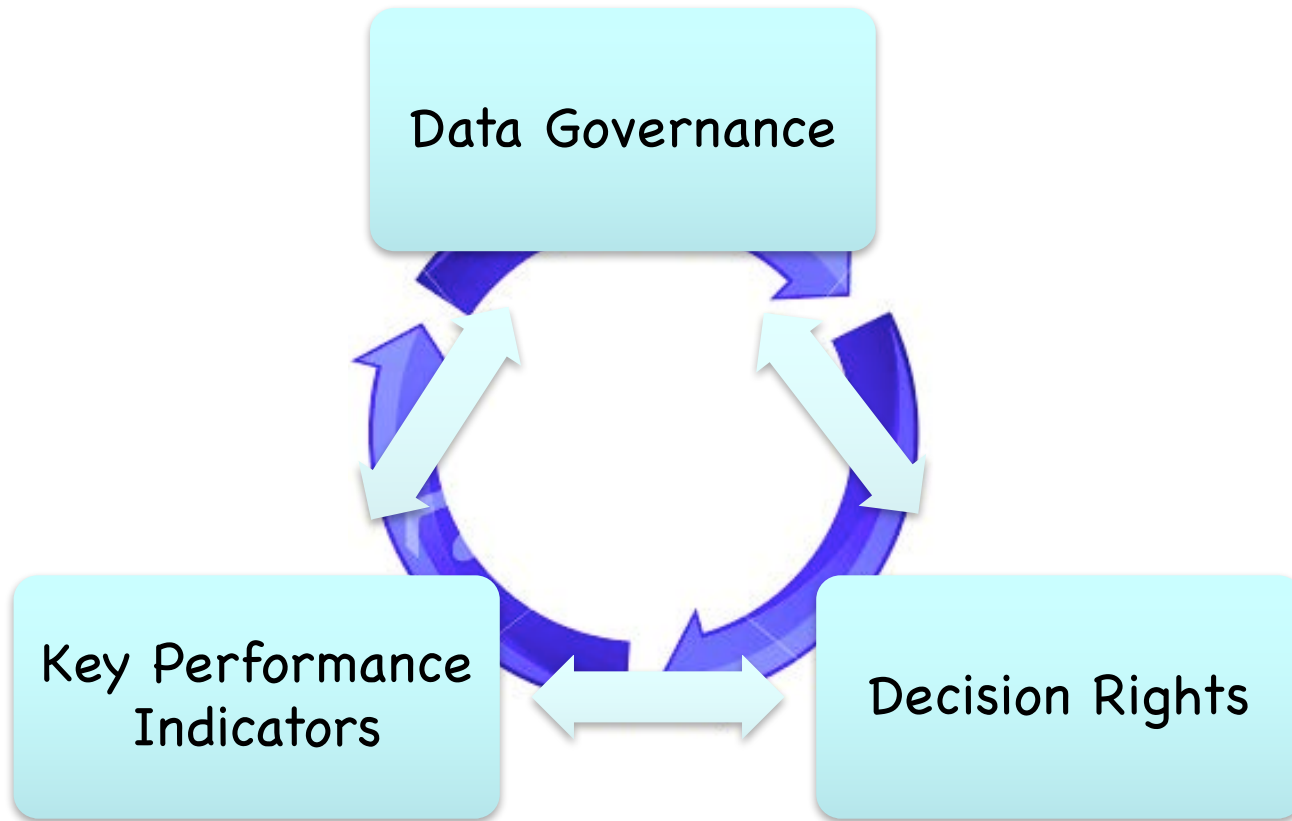
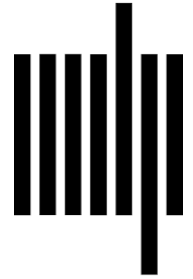
Managing Their CoEvolution



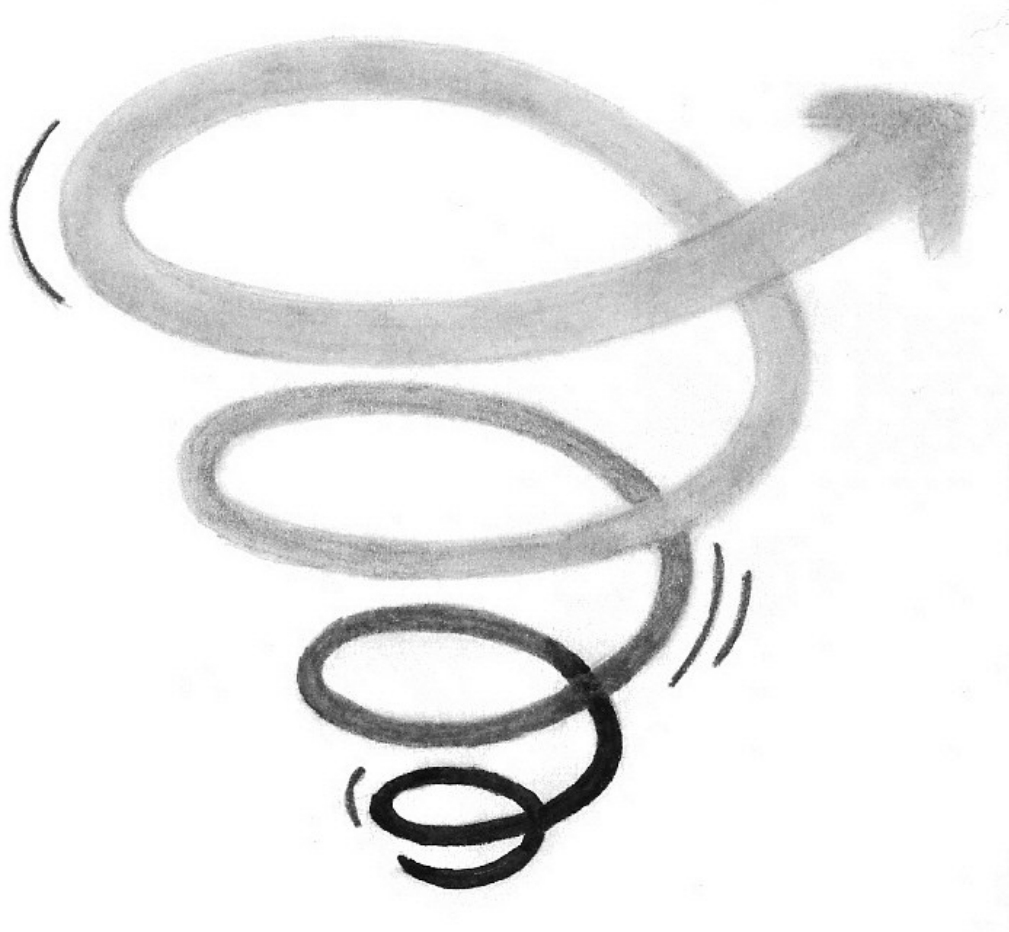
[What] Digital Architectures Must Enable



Performance Accountability Architecture



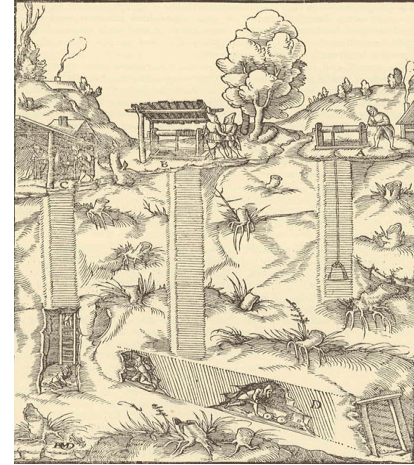
Not Just 'Process Optimization' BUT 'Virtuous Cycles/Spirals/Gyres'



KPI, Virtuous Cycles and Human Capital Alignment



Obligatory Profound Quote



The Most Important Product of
the Mines...

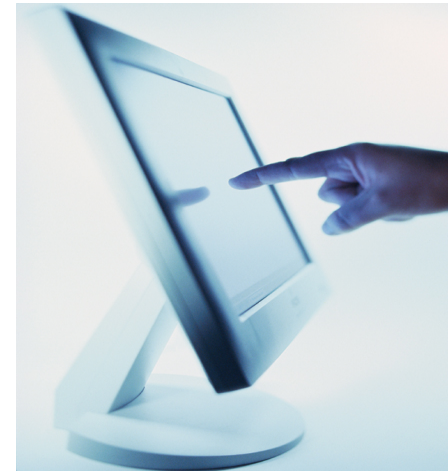
---Frederick Le Play
(1806 - 1882)



...is *the Miner.*

---Frederick Le Play
(1806 - 1882)

My 21st Century Update & Upgrade of LePlay



The Most Important Product of
the Network is the ***Networker***.

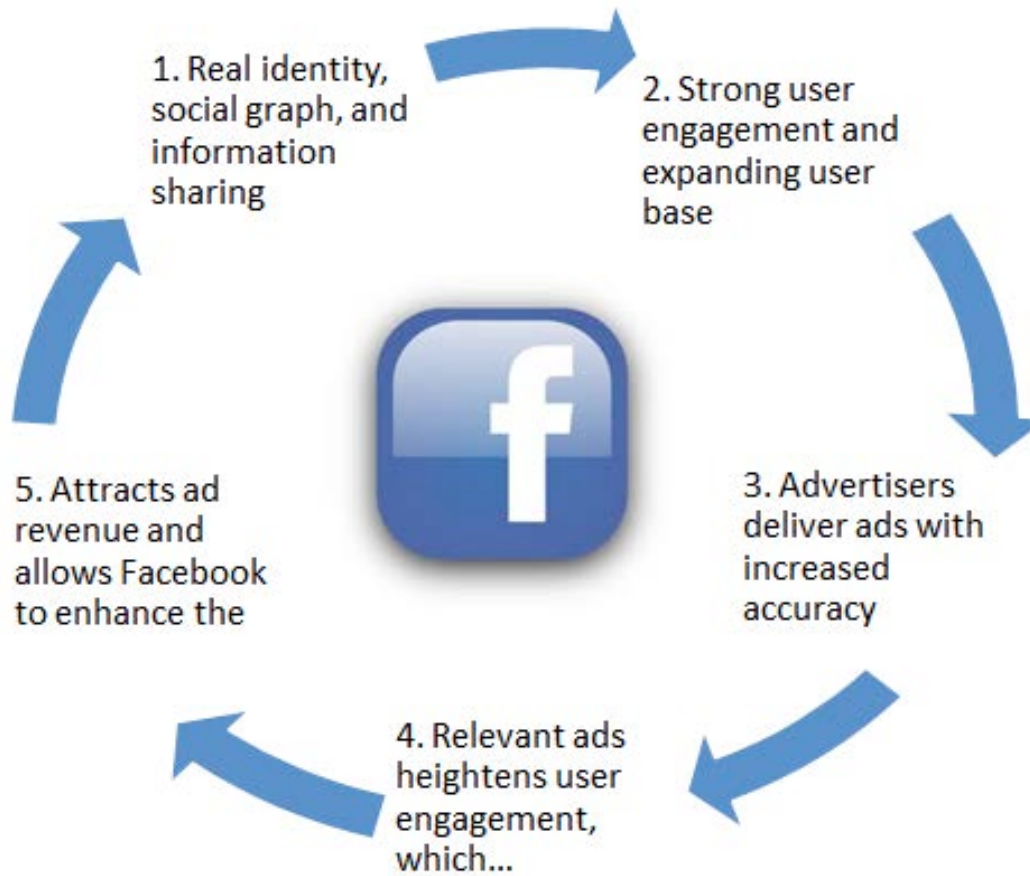
---Michael Schrage

AI *Artefact Influence*



We Shape Our Innovations And Afterwards
Our Innovations Shape Us

Paradigmatic 'Virtuous Cycle'

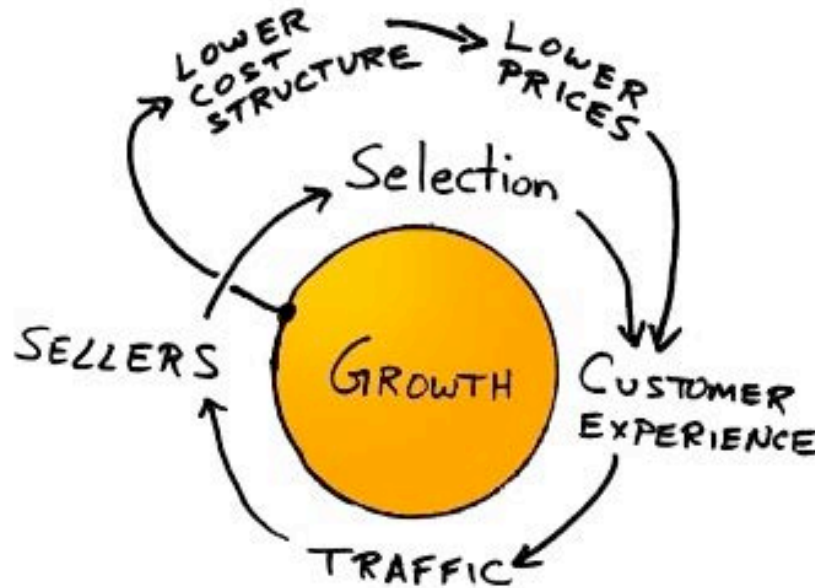


Source: Jiang Zhang

Amazonian/Bezosian 'VCy' [2001]



Our Virtuous Cycle of VALUE, SELECTION & CONVENIENCE



Amazon Confidential

amazon
we pioneer

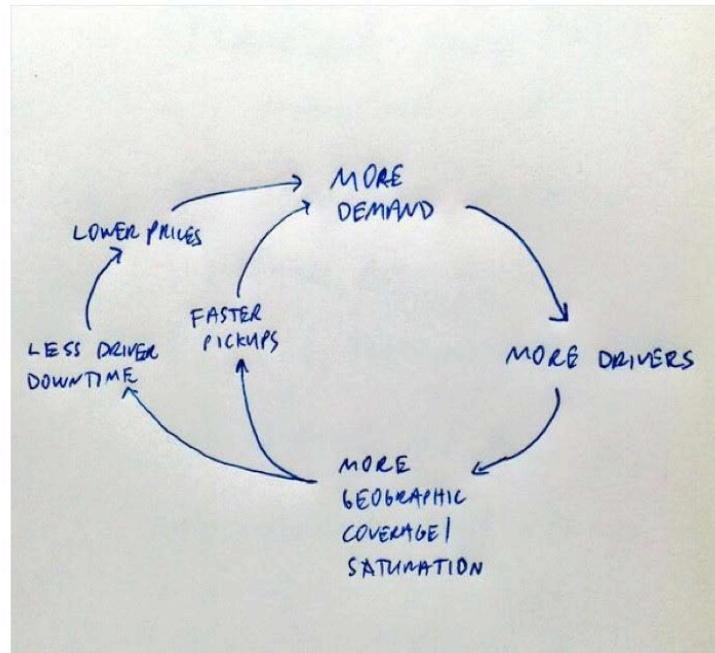
Yet Another Virtuous Cycle



David Sacks
@DavidSacks



Uber's virtuous cycle. Geographic density is the new network effect.



Even in bed....

Who am I?



- Philip Fisher-Ogden
- Director of Engineering @ Netflix
 - Playback Services (making “click play” work)
 - 6 years @ Netflix, from 10 servers to 10,000s

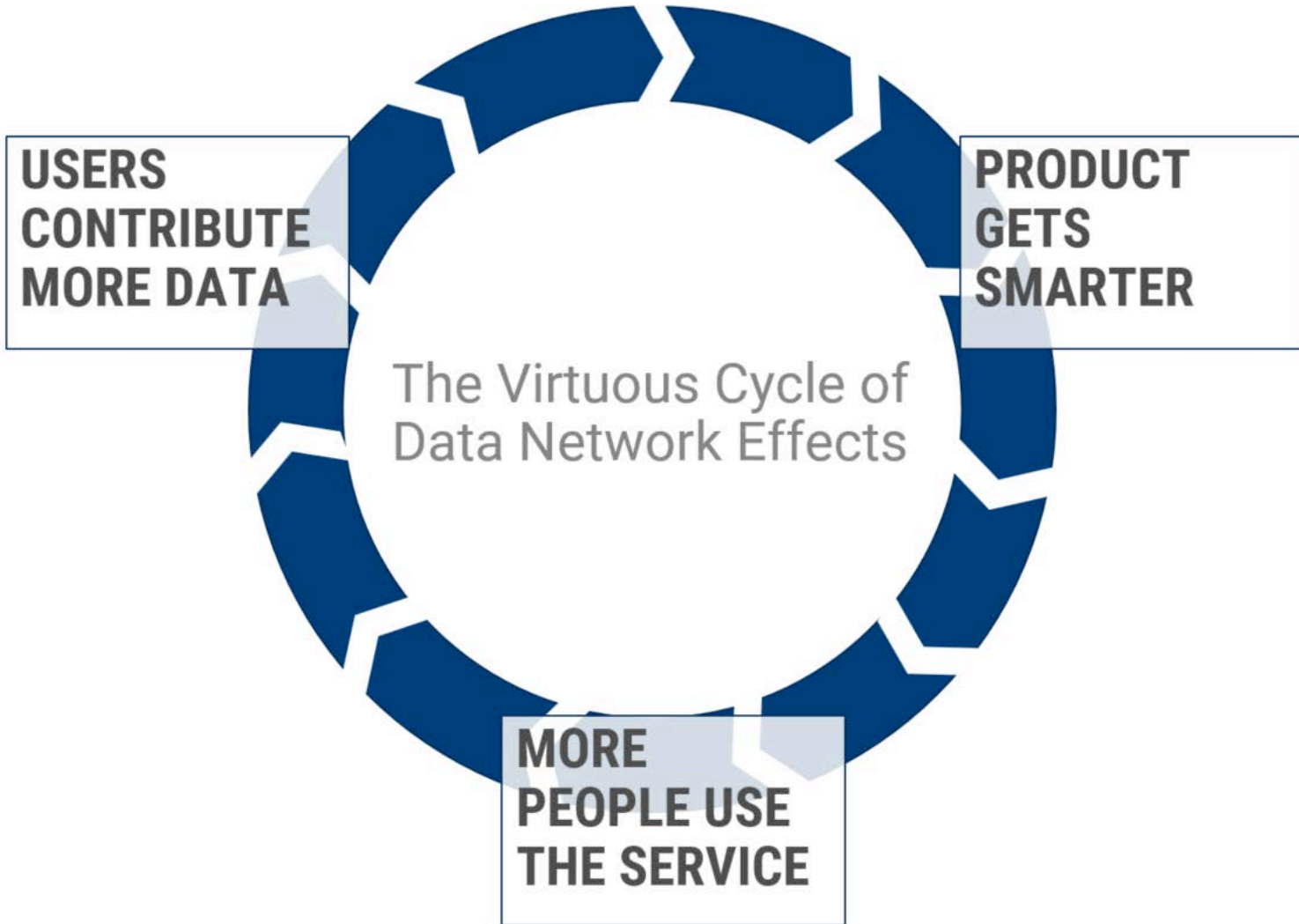
NETFLIX

Virtuous Cycle

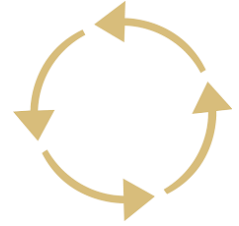


NETFLIX

'Informatization Transformation'



We Must Go Beyond 'Process'....

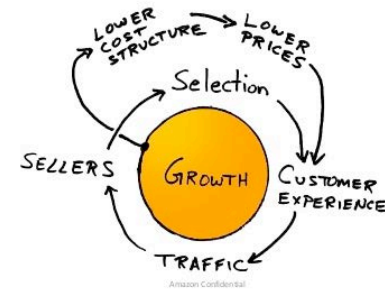


Agile 'Virtuous Cycles'



What's Your

Our Virtuous Cycle of
VALUE, SELECTION & CONVENIENCE

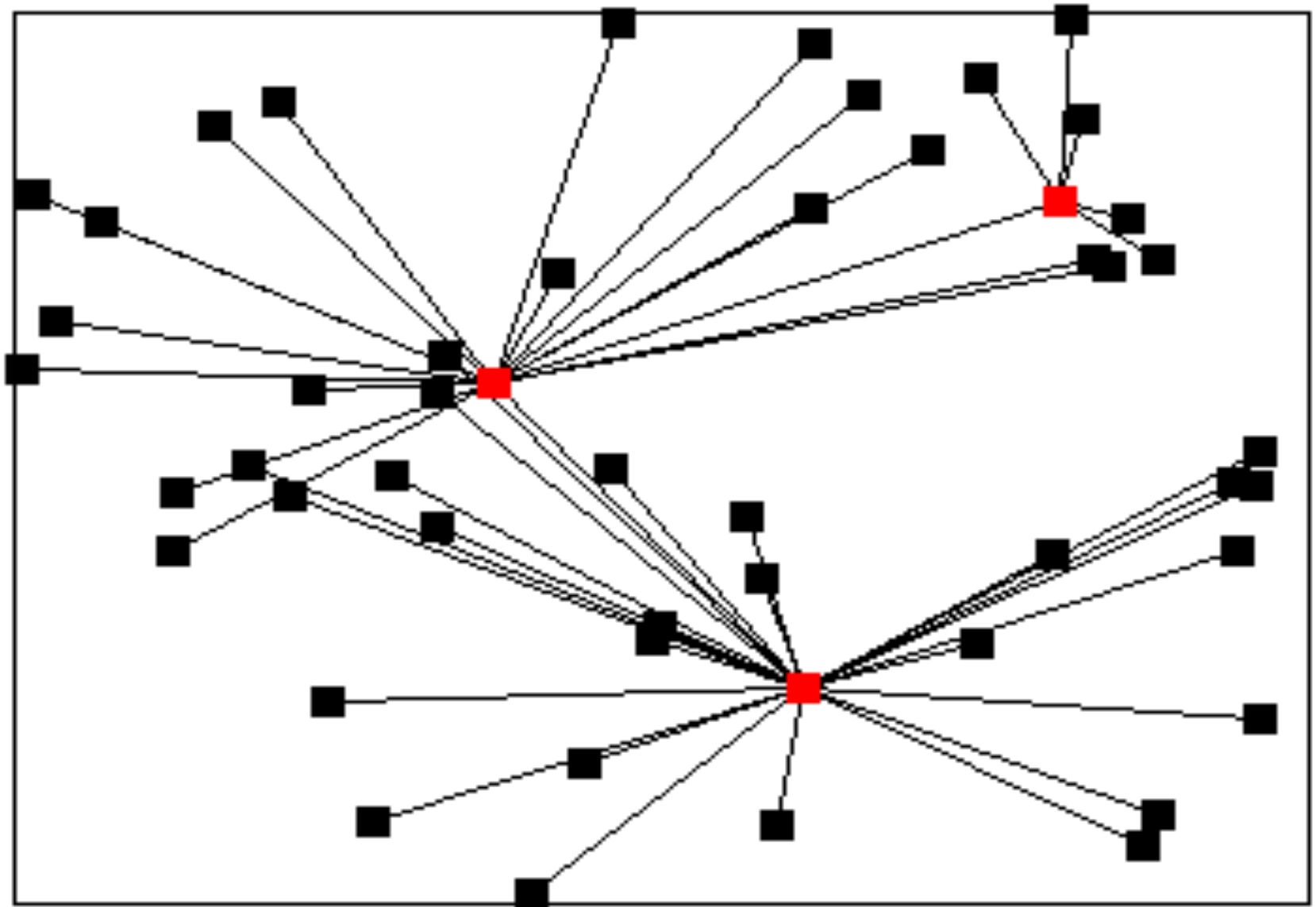


amazon
we pioneer

ROVC

(KPI)

The Purpose of Platforms: Enable 'Virtuous Cycles' aka 'Network Effects'



'Network Effects' mean....



Marshall van Alstyne

**'Users Creating Value
For Other Users'**

The 'Schrage NFX/Human Capital Extension'....



*'Users Creating More Valuable Users
For Other Users'*

Jack Ma Alibaba

June 2016



Six years ago we told the staff in a meeting that we were not a GMV company but a data company.

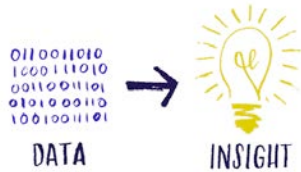
People have been asking me how I make money with data. Even today we still don't know the answer. However, we know people can't live without data in the near future. Walmart amasses data from its sales, and we do e-commerce and logistics for data.

*People keep asking me about GMV. But I am telling you now GMV is not our goal. **We sell stuff to collect data, which is different from Walmart....***



Data As An 'Asset'

(KPIs are Data)



- **What Are Our Most Valuable Datasets?**

[Why?]

- **What One Thing Would Make Our Data More Valuable?**

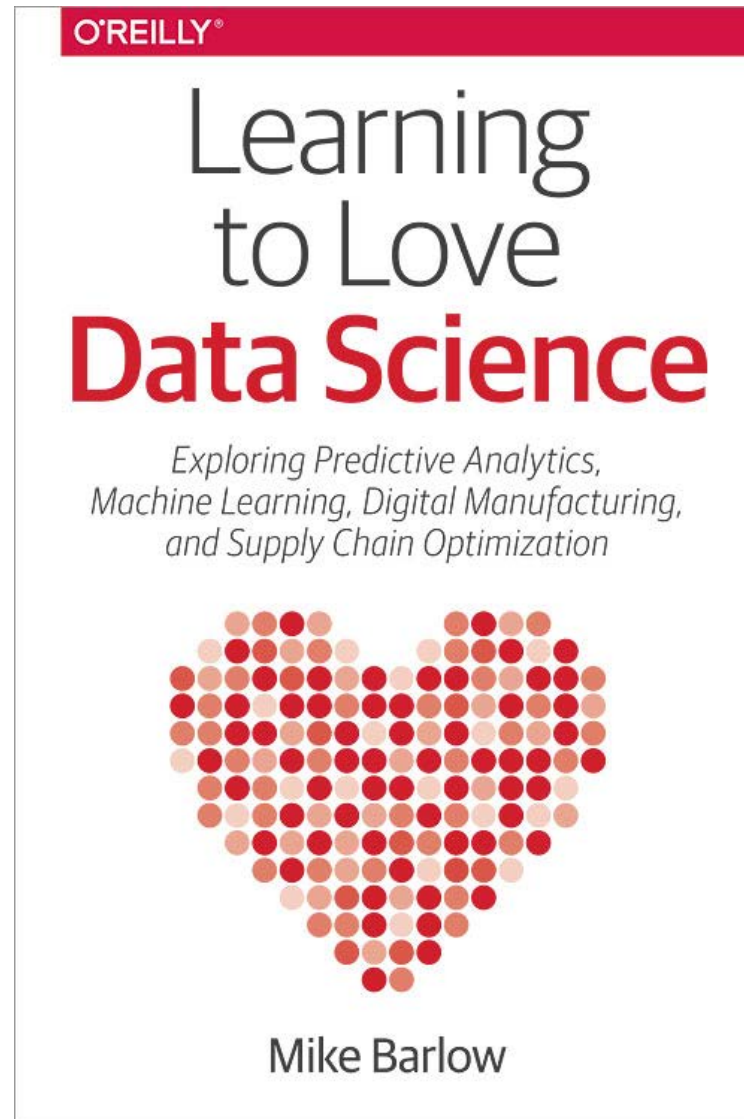
[How Do You Know?]

- **What One Thing Would Make Our Data 'Safer'?**

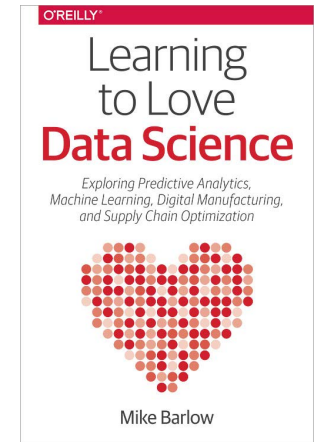
[Would Our Auditors Agree?]

- *[How] Could We Make 'Sharing' Our Data Faster, Easier, Simpler, Cheaper & Safer/More Secure?*

Data-Driven Destiny



What's Your



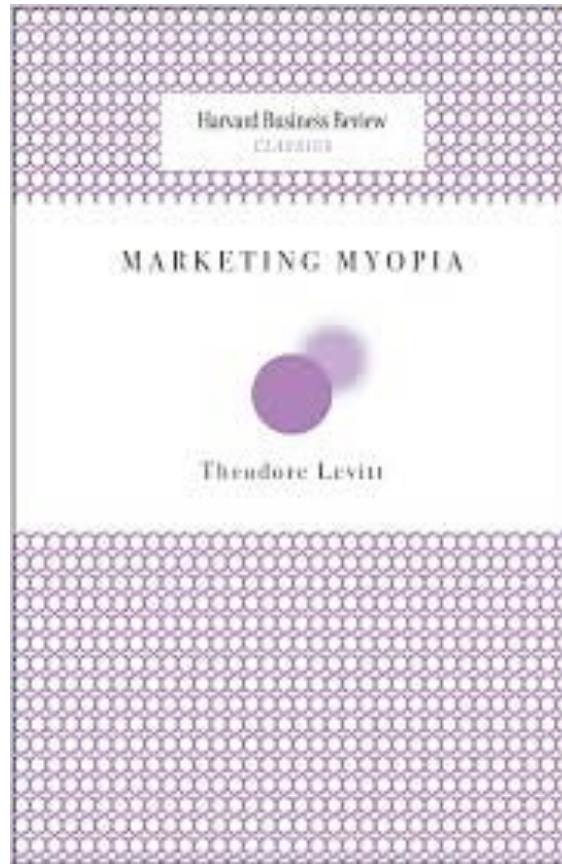
RODa

(KPI)

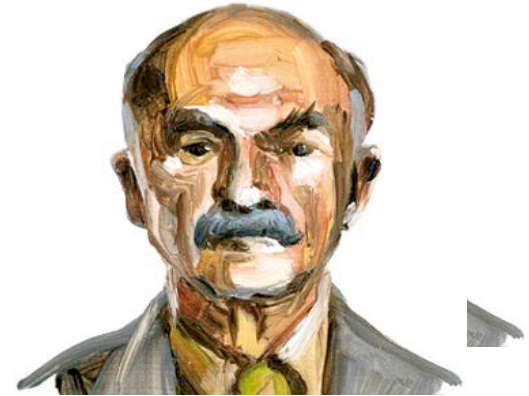
What Is The Purpose Of Agile Data-Driven Virtuous Cycles?



A Genuine Classic: The Most Popular HBR Reprint EVER!

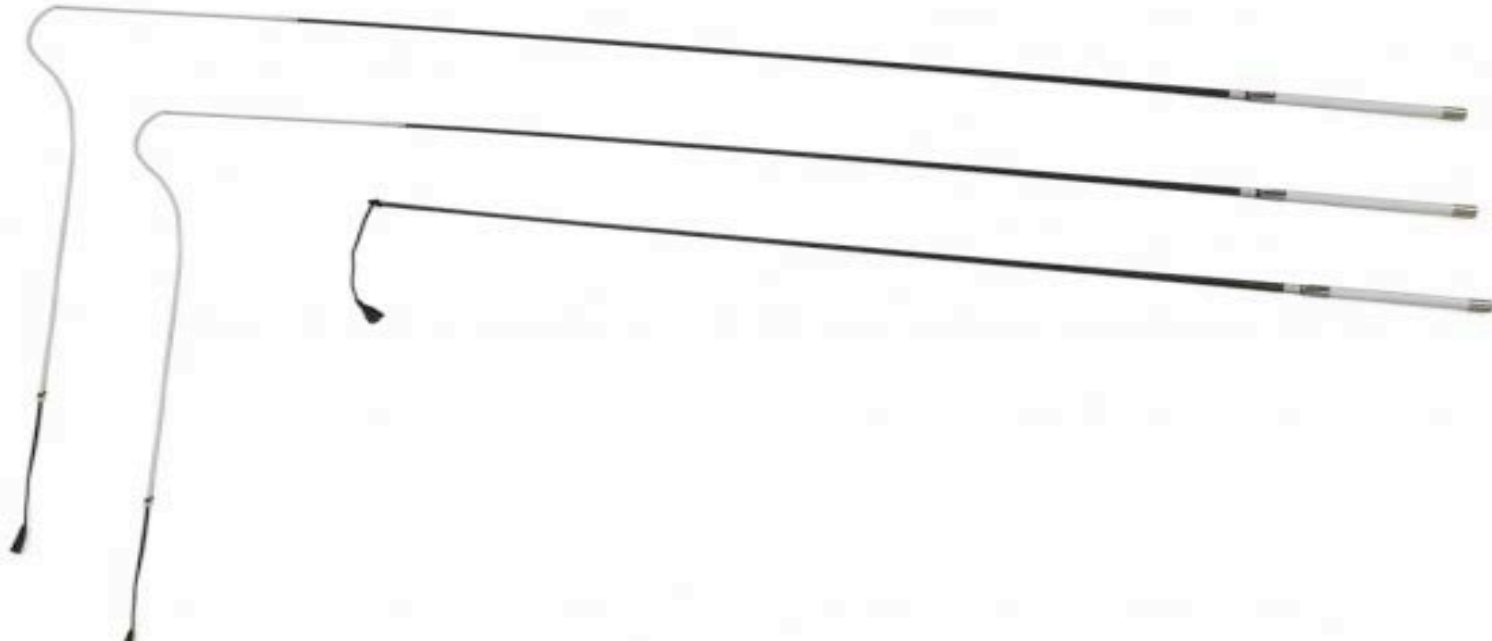


Levitt's Essential Marketing/Strategic Question



“What Business Are We In?”

What Business are 'Buggywhip Manufacturers' In?



How Can [Digital] Innovation Help Us Better Define and Support 'The Business We're In'?



FOCUS
FOCUS
FOCUS
FOCUS
FOCUS

What was Henry Ford's 'Real' Innovation?

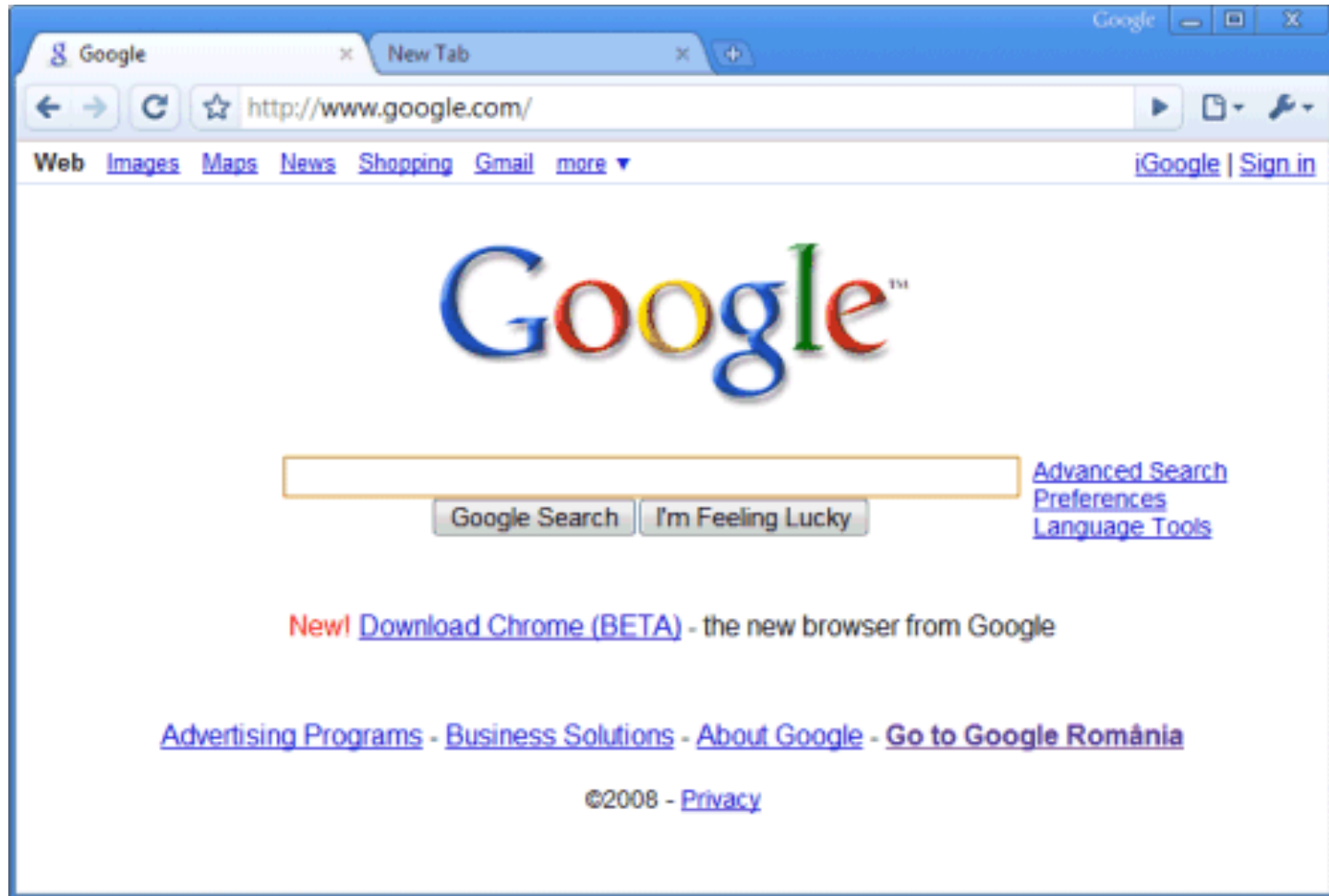


The Driver



Haneda Driverless Bus





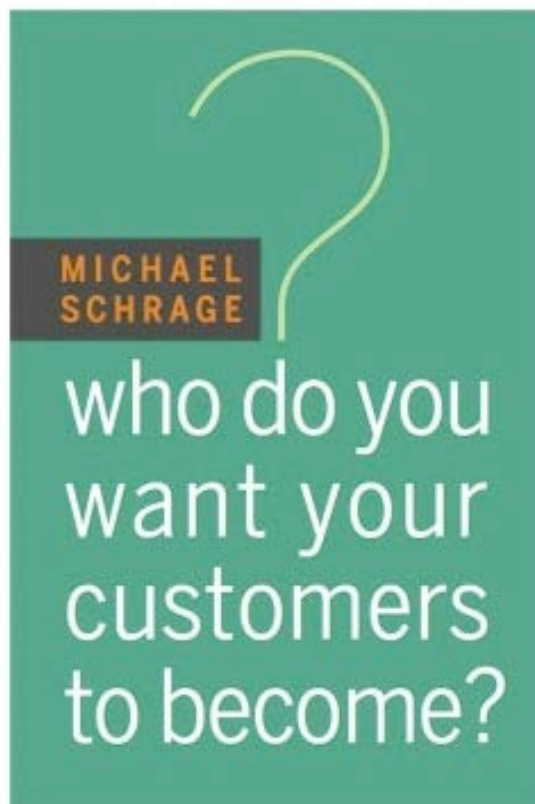
Google Created 'Page-Ranked' Searchers



*Not 'What Business is Schneider Electric Really In?' But
'Who Does It Want Its Customers To Become?'*



What Are Your Answers?



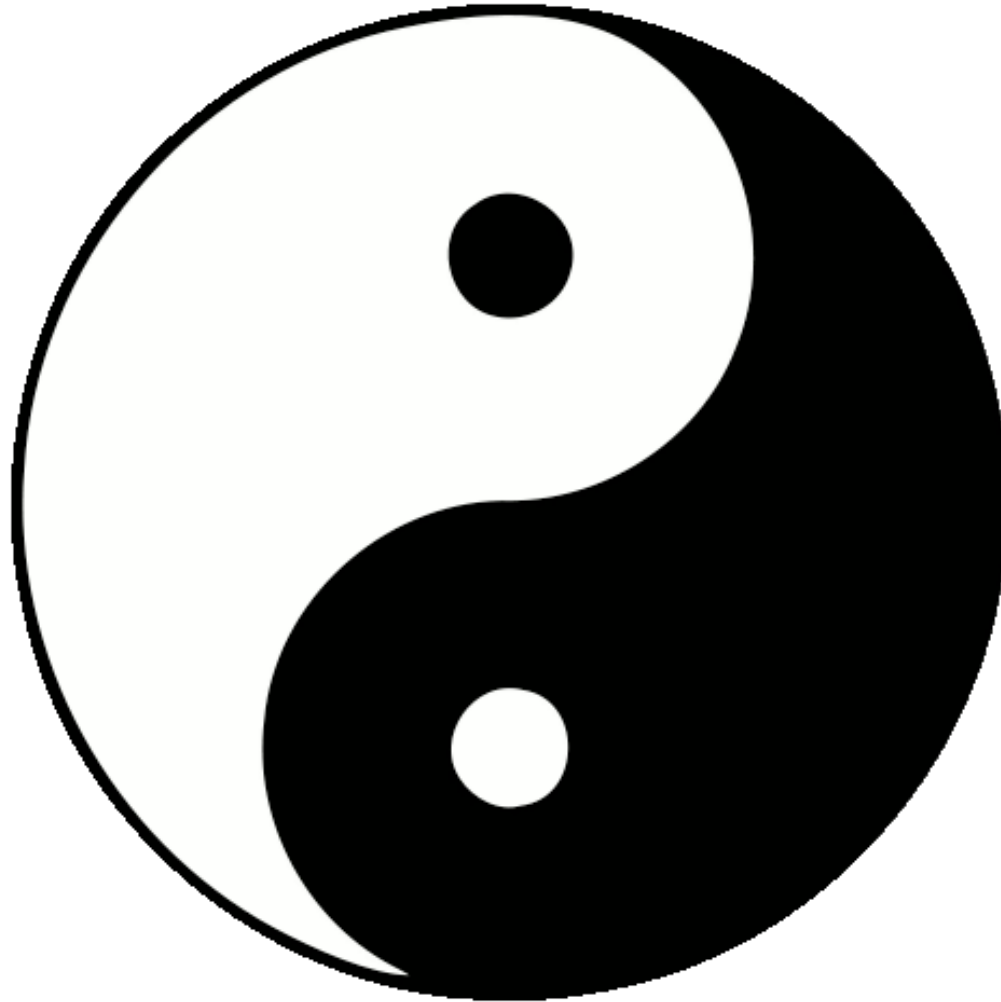
What Business Are They In?



Who Did They Want Their Customers to Become?



WBAWI?/WDYWYCTB?: Aligning The Answers



Digital Tools, Techniques, Technologies....



Enabling 'Alignment'

'New' Technologies Create New Opportunities to Invest in Customer Futures

(...and Future Customers)



Not Just 'Faster, Better, Cheaper' Products & Services

'Innovations' are Investments
in the Human Capital, Capabilities,
Creativity and Competences of
Customers and Clients

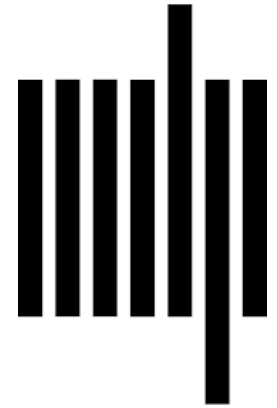


YOUR DOMINANT 'HUMAN CAPITAL' Challenge:

How Does/Should Our 'Innovation' Support/Shape Who We Want Our Customers/Users to Become?



Our Enabling Innovation Transformation Heuristic



Making Customers Better
Makes Better Customers

The 'Virtuous Cycle' Ethos:

Understanding 'Network Effects'



“Google gets smarter every time someone makes a link on the web.

Google gets smarter every time someone makes a search. It gets smarter every time someone clicks on an ad. And it immediately acts on that information to improve the experience for everyone else.

It’s for this reason I argue that the real heart of Web 2.0 is harnessing collective intelligence.”

Core Web 2.0 Design Principle



The service 'automatically' gets better
the more people use it



Recommendation Engines: *Where Are Yours?*

facebook

You Tube

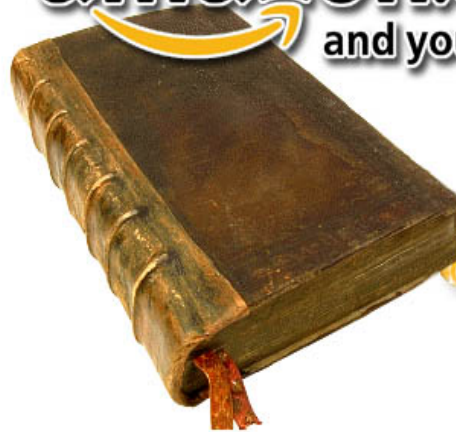
NickWebVideo.com



ebay

amazon.com

and you're done.™



flickr



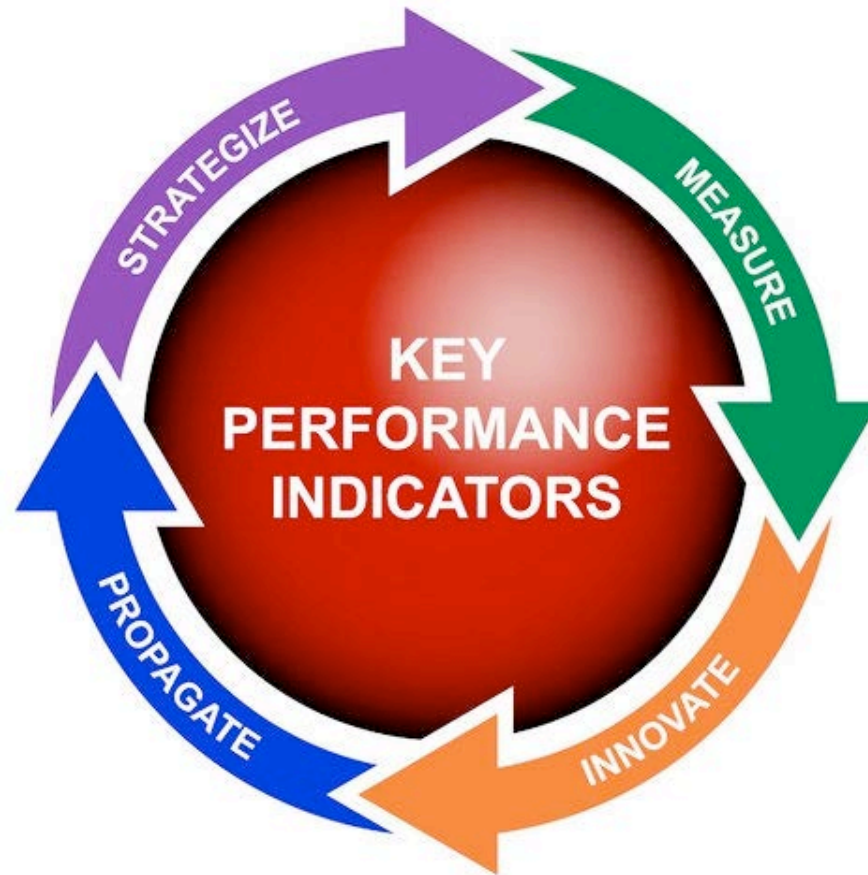
REMEMBER OUR VIRTUOUS CYCLE?



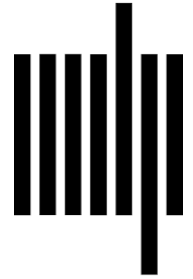
PARADIGM SHIFT

- *How do you make it easier for customers/clients/users to **participate & create 'connections'** they see as valuable?*
- *How does your company make it **easier for itself** to identify **value from user participation, contributions and links**?*
- *How do we (re)organize ourselves to best **harvest** the value of this **'collective intelligence'** to boost our brands, profits and market share?*

What Are Our KPIs For That...?



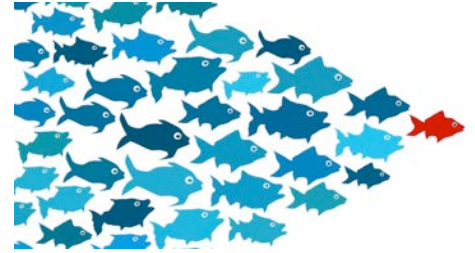
June 2018...[Largest Known Survey]



'New MIT Sloan Management Review study finds that only 26% of senior managers strongly agree that their key performance indicators are aligned with their organization's strategic objectives'

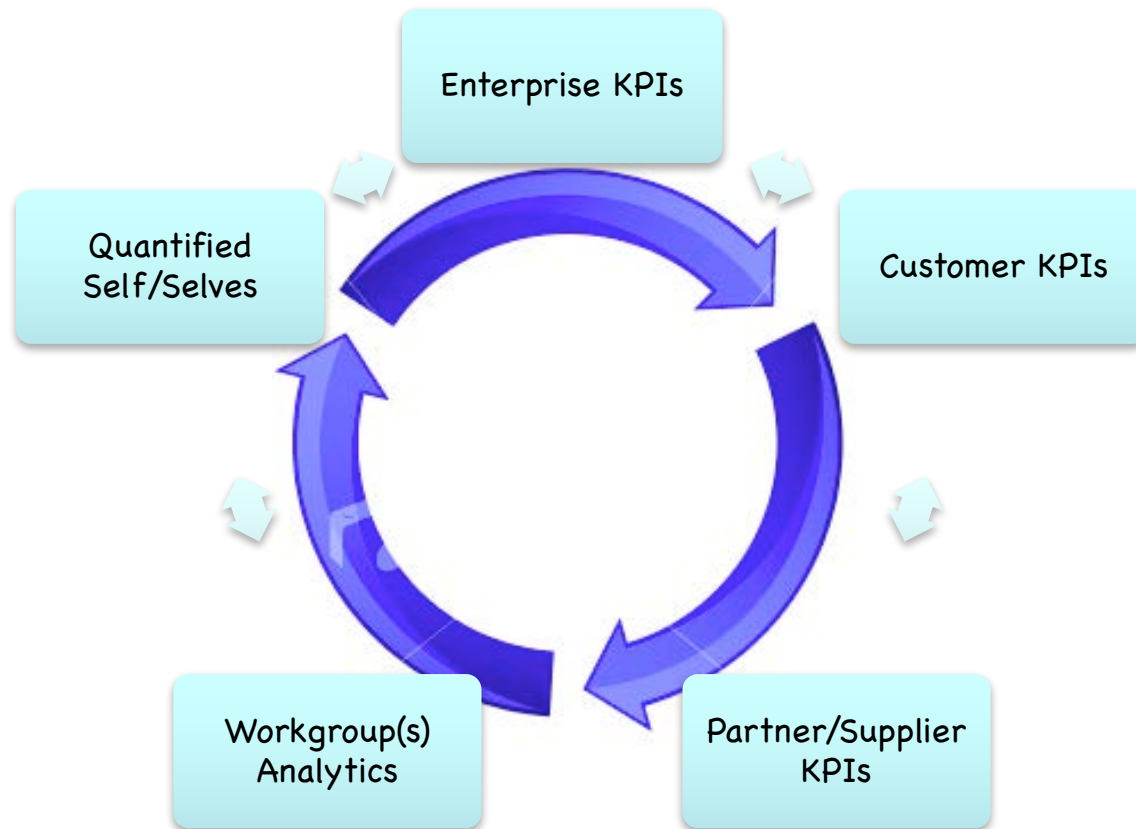


THE MOST IMPORTANT THING



KPIs Are As Much About Leadership
As Management

Mining 'KPI Ensembles' for Insights



CUSTOMER/CLIENT FOCUS



[How] Do Changes In 'Their' KPIs
Encourage/Require Changes In 'Our' KPIs?

The Big Flip

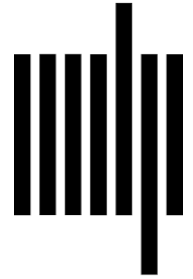


Flipping a Virtuous Cycle



In a ML age, ***everything flips***: Instead of KPIs being outputs for humans, they're being used as inputs for machines.... We advise businesses to see KPIs as data sets for machine learning.

The Value Question



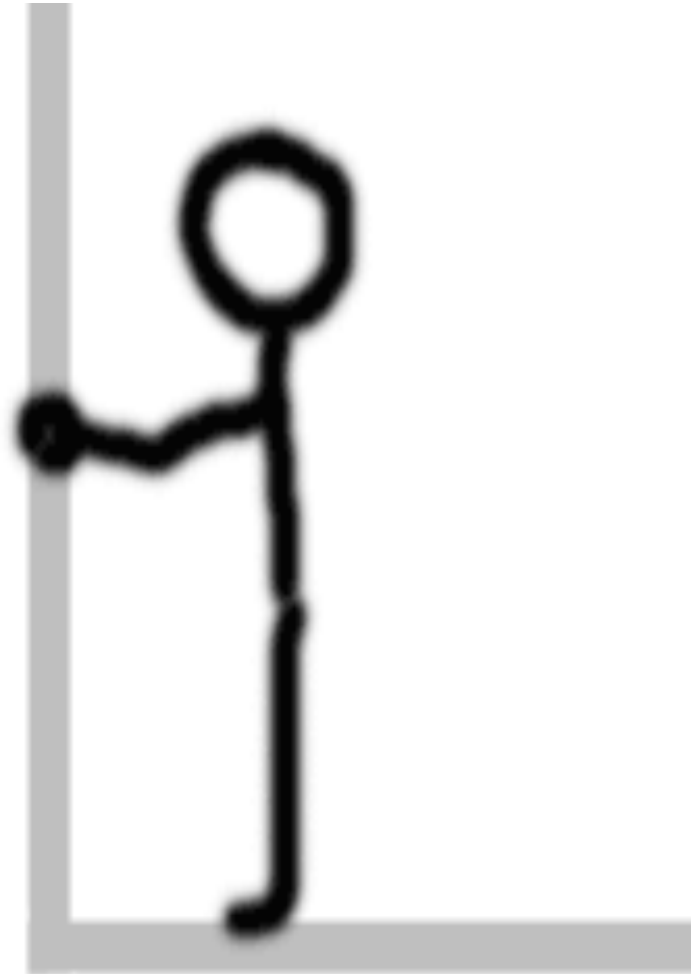
'ROKPI'

How Do We Want To Hold Ourselves Accountable?





The Greatest Innovation Frustrations Now Are Organizational & Cultural NOT Technical or Financial



Please Align To This Innovation KPI



Enhancing 'Customer Lifetime Value' [CLV]
Requires Investing In Customer Capability

'Making Customers Better Makes Better Customers'



My Thanks....



schrage@mit.edu