Information Technology Version 2014-2016

STKI Summit 2014

Dr Jimmy Schwarzkopf

STKI   "IT Knowledge Integrators"

jimmy@stki.info

Inviting you to my office   and to my library.........

Since 1992
22th ~~META Group~~ STKI Summit

Thank you to the great STKI team

Thank you to all these companies (expo outside)

Thank you to all of you
for "being here"
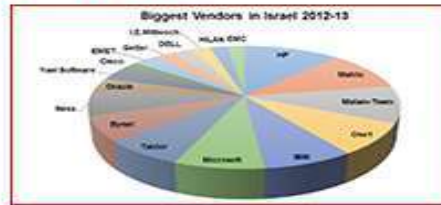

over 1500 registered

What are you getting:

1

IT Tiering

Biggest Vendors in Israel 2012-13

2

» Read More

Product Positioning

3

» Read More

Trends

4

» Read More

Round Tables

Round tables constitute a discussion between about ten – fifteenth organizational users that deal with similar issues. The target of the meeting is to enable an open discussion and an exchange of ideas in the specific round table topic and to also establish best practices, lessons and tips from this meeting to share with other user organizations who are STKI clients.

5

» Read More

Newsletter

STKI Newsletter is a quarterly update on new products and services in the market. Each quarter STKI provides an informative update on these new offerings. The newsletter includes a short overview on new solutions, divided into categories, and combines a relevant analyst's insight and analysis. This service enables our customers to stay informed and up-to-date with the ever increasing market changes and new offerings.

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First day in the
"new" position: Mrs. Israela Israeli

Software House

CIO (VPtech) looks
Inside her "kingdom"

Second Presentation
today

CIO (VPtech) takes a
"seat" on the management table

IT must deliver innovation

While delivering mainstream IT

First Presentation
today

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Line of Business

Innovation

V/P Tech

Enterprise Procurement"

Software House

Open Source Technologies

open source

MySQL

php

Apache

RAILS

Java Technologies

Java

Database Expertise

Microsoft Technologies

Microsoft .net

SQL Server

Microsoft SharePoint Server

Second Presentation today

CIO (VPtech) takes a "seat" on the management table

IT must deliver innovation

While delivering mainstream IT

Software Defined Infrastructure

IT Delivery Services

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agenda

CIO steps for 2014-2015
Medium-term Trends
Long-term Trends

Israel Country Profile
National Relevant Data

Characteristics of IT Market
IT Industry Markets
IT Industry Growth Forecast
IT Product Market
Product Market Segmentation
Product Growth Rates Forecast

Vendor Landscape
Major Hardware Providers
Major Software Providers
Major IT Services Providers

CIO steps for 2014-2015

CUSTOMER EXPERIENCE MANAGEMENT

"SOCIAL BUSINESS STRATEGY"

"MOBILITY STRATEGY"

"DIGITAL STRATEGY"

"CLOUD SERVICES STRATEGY"

INFORMATION REPOSITORY

FILTERS

APIs

"The IT Change: Better? Worse? No... Just Different".

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From:
IT user
To:
IT consumer

"APIs" and "filters"

CHEAP
FAST
GOOD

" *DECISION* is a sharp knife that cuts clean and straight;
INDECISION, a dull one that hacks and tears and
leaves ragged edges behind it. "
Gordon Graham

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Political

Government intrusion :

- data and

Economic (People)

- have less
- spend less

- responsibility
- (green) sustainability

Social

- social networks
- online communities
- consumption

- Regulation

- se
- mobile
- cloud
- byo-everything
- internet of things
- advanced analytics

Business needs are emerging so rapidly that tools don't exist to support them

bottom LINE
click here

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"NEW" technologies

Technology Innovation

Business Innovation
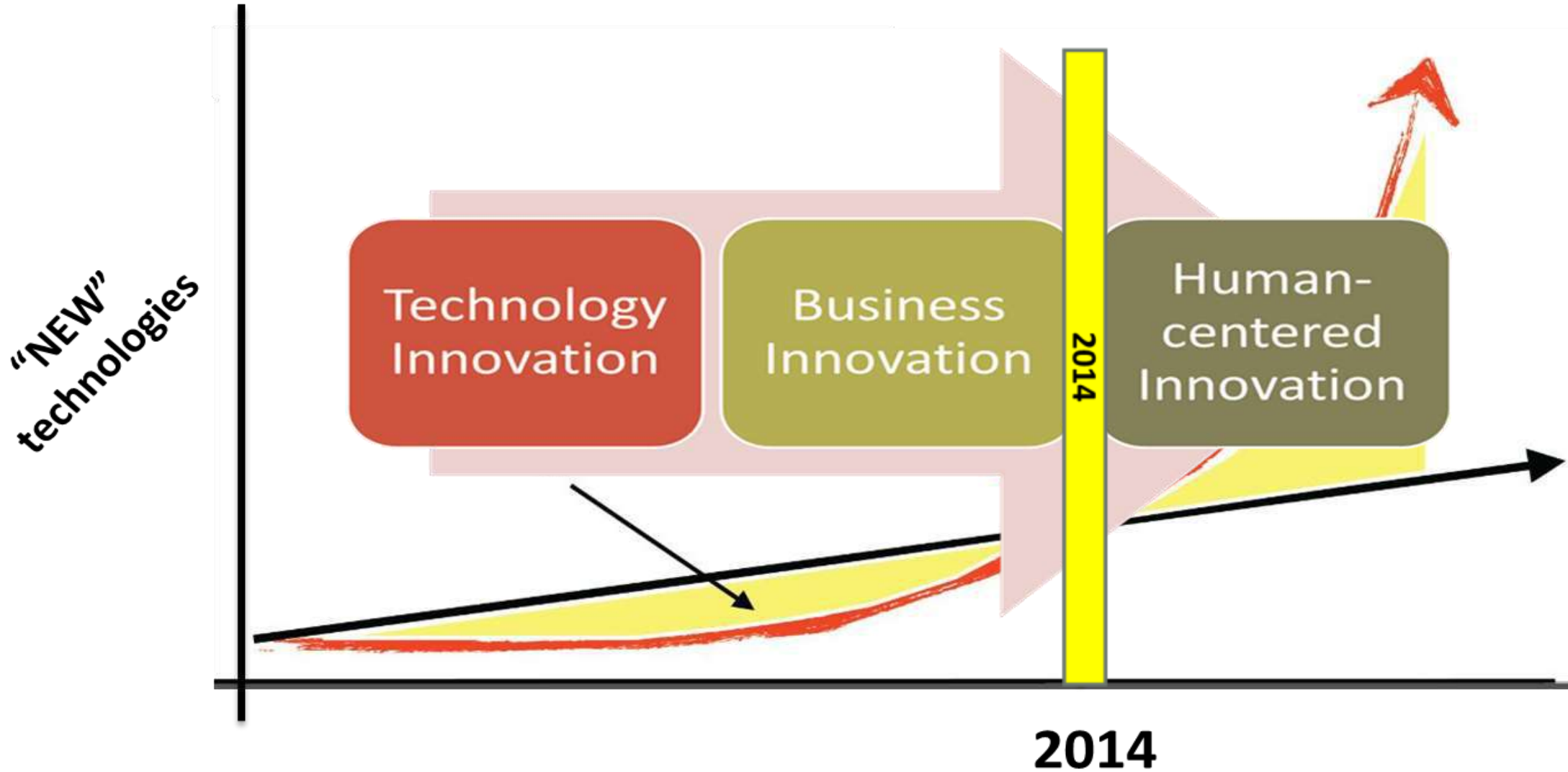
2014

Human-centered Innovation

2014

THE SECOND MACHINE AGE

WORK, PROGRESS, AND PROSPERITY IN A TIME OF BRILLIANT TECHNOLOGIES

ERIK BRYNJOLFSSON
ANDREW McAFEE

SundayReview | OP-ED COLUMNIST

If I Had a Hammer

JAN. 11, 2014

Thomas L. Friedman

MY favorite story in Erik Brynjolfsson and Andrew McAfee's fascinating new book, "The Second Machine Age," is when the Dutch chess grandmaster Jan Hein Donner was asked how he'd prepare for a chess match against a computer, like I.B.M.'s Deep Blue. Donner replied: "I would bring a hammer."

The Economist

World politics   Business & finance   Economics   Science & technology   Culture

The future of jobs

The onrushing wave

Previous technological innovation has always delivered more long-run employment, not less. But things can change
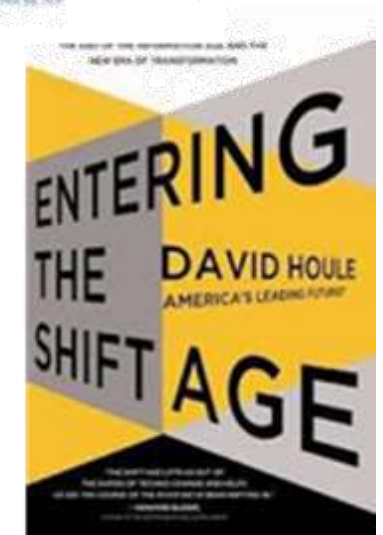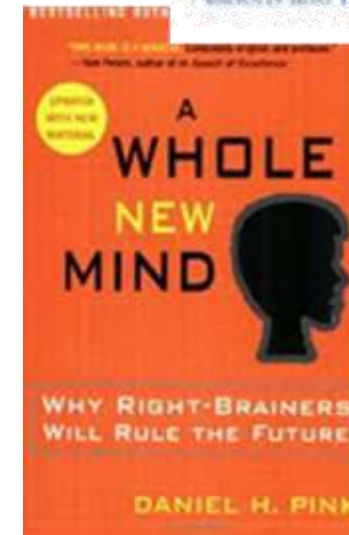
Jan 18th 2014 | From the print edition

IN 1930, when the world was "suffering... from a bad attack of economic pessimism", John Maynard Keynes wrote a broadly optimistic essay, "Economic Possibilities for our Grandchildren". It imagined a middle way between revolution and stagnation that would leave the said grandchildren a great deal richer than their grandparents. But the path was not without dangers.

Eric Schmidt
Executive Chairman, Google
Jared Cohen
Director, Google Ideas

The New Digital Age

Reshaping the Future of People, Nations and Business

A WHOLE NEW MIND

WHY RIGHT-BRAINERS WILL RULE THE FUTURE

DANIEL H. PINK

ENTERING THE SHIFT AGE

DAVID HOULE
AMERICA'S LEADING FUTURIST

First Machine Age (Industrial Revolution; 1700s.)

- This period was all about **power systems to augment human muscle**, and each new invention delivered more and more power. But they all required humans to make decisions about them.
- Inventions of this era actually **made human control and labor more valuable** and important.

Labor and machines were complementary
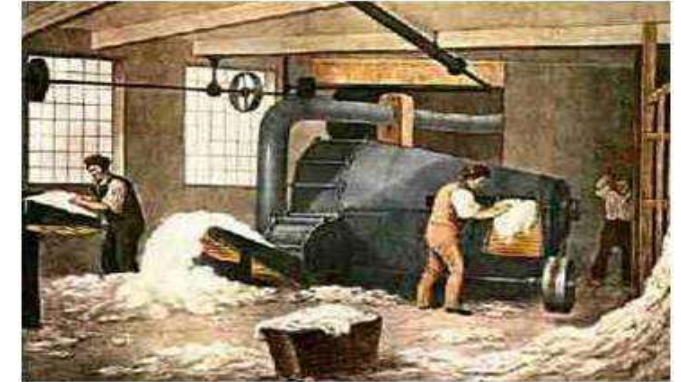
Second Machine Age (starting 2006-8)

- We **automate a lot more cognitive tasks** and machines can make **better decisions than humans**.
- Three advances:
  - **Exponential:** relentless increase of digital inventions
  - **Digital :** the internet, the APP and API economies
  - **Combinatorial:** take Google Maps and combine them with an app like Waze
- Our generation can **rely on fewer people and more technology**.

Humans and software-driven machines may increasingly be substitutes, not complements
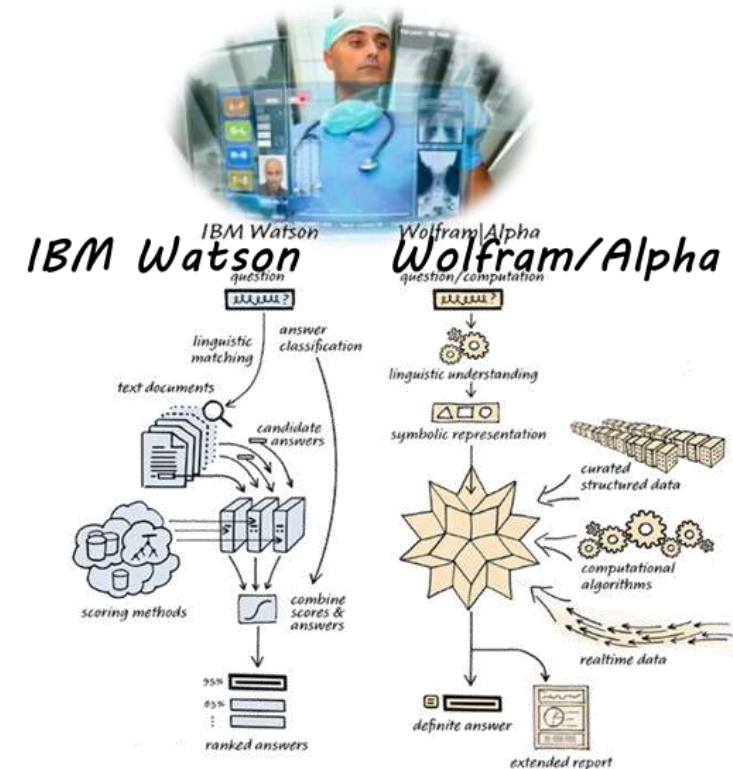
The First Machine Age

Second Machine Age

Degree of complexity

through the introduction of mechanical production facilities with the help of water and power

through the introduction of a division of labor and mass production with the help of electrical energy

through the use of electronic and IT systems that further automate production

through the use of cyber-physical systems

IT as a builder
- Programming
- Infrastructure Management
- Back office automation

IT as a factory
- Solution Integrator
- Service Provider
- Process automation & optimization

IT as digital innovator
- Digital Innovation
- Business Enabler
- Service Provider

First mechanical loom, 1784

First assembly line Cincinnati slaughter houses, 1870

logic controller (PLC), Modicon 084, 1969

First programmable

2014

Time

1800   1900   2000 Today

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Source: 2013@DFKI

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Why??????

Moore's Law.

- Digital stuff gets ***30% to 40% cheaper every year***–at the same performance point.

Andy and Bill's Law. "What Andy giveth, Bill taketh away."

- When Andy Grove (Intel) brought a new chip to market then Bill Gates (Microsoft) would upgrade his software and soak up the new chip's power. ***Moore's Law constantly enables new software***.

Metcalfe's Law.

- ***usefulness*** of a network/application ***improves*** by the ***square of the number of nodes*** *(consumers)* on the network.

Gilder's Law:

- The best business models ***waste the era's cheapest resources in order to conserve the era's most expensive resources.***
- Today the ***cheapest resources are "computer power and bandwidth"*** and the ***most expensive "people"***

Drucker's Law:

- ***drop the word "achievement" and replace it with "contribution,"***
- Contribution puts the focus where it should be–on your customers, employees and shareholders.

Ogilvy's Law.

- If each of us **hires people who are smaller** than we are, we shall become a ***company of dwarfs***. But if each of us ***hires people who are bigger*** than we are, we shall become a ***company of giants***
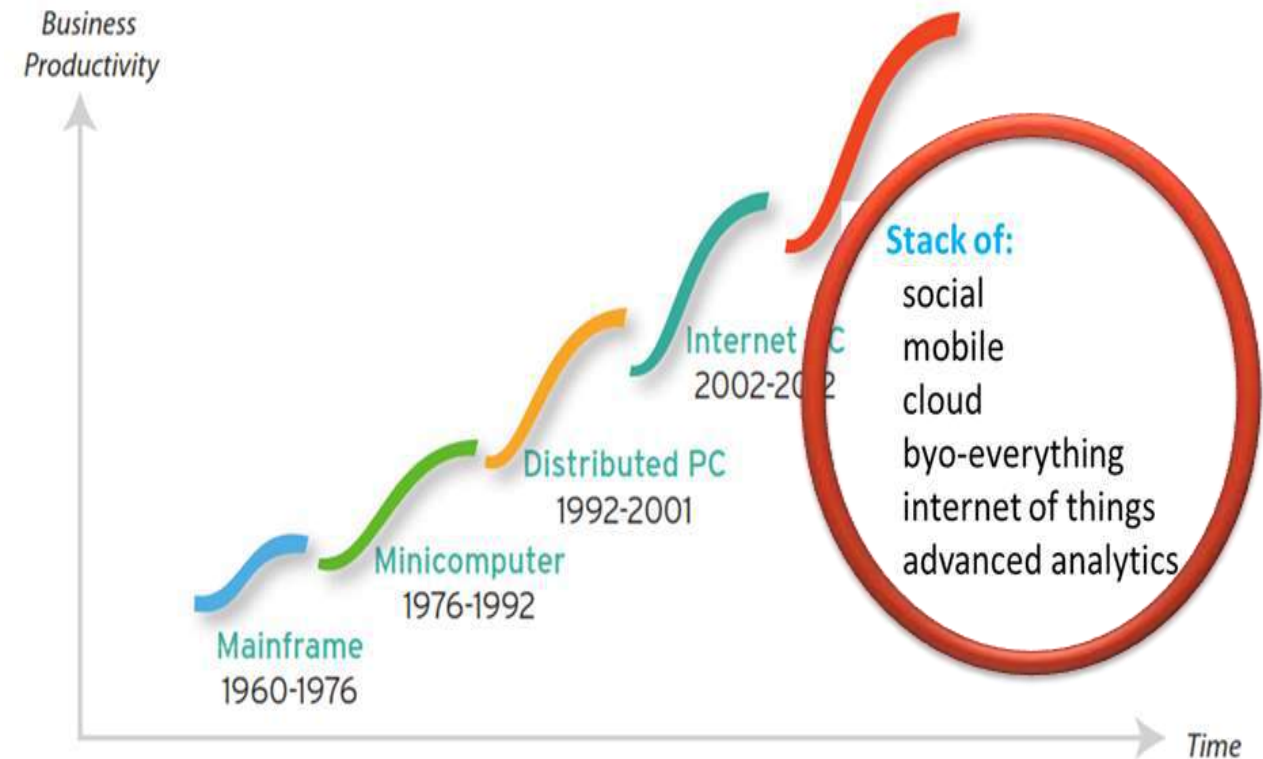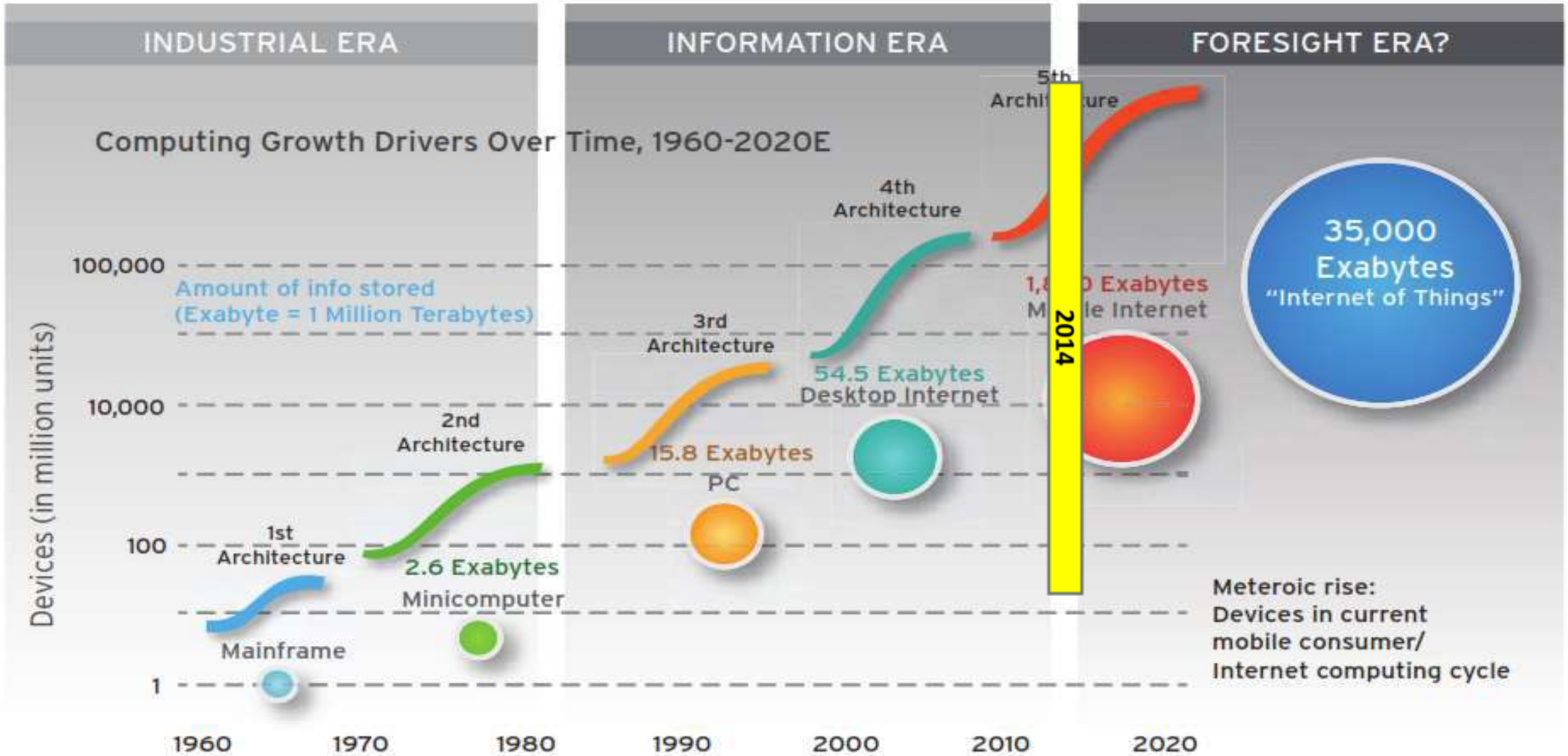
For IT, tech change today is nearly unsustainable

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- **The GOOGLE effect:** separation of humans and information

- **The WHATSAPP effect:** Free communications, death of distance

- **The FACEBOOK effect:** Virtualization of human relationships

- **The LINKEDIN effect:** Virtualization of specialized knowledge

- **The AMAZON effect**: Virtualization of customer experience

- **The WAZE effect:** Virtualization and crowdsourcing of travel

Business Productivity

Stack of:
social
mobile
cloud
byo-everything
internet of things
advanced analytics

Internet PC
2002-2012

Distributed PC
1992-2001

Minicomputer
1976-1992

Mainframe
1960-1976

Time

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2020: When Computers Outnumber Humans 10 to 1

Computing Growth Drivers Over Time, 1960-2020E

INDUSTRIAL ERA | INFORMATION ERA | FORESIGHT ERA?

Devices (in million units)

- 100,000
- 10,000
- 100
- 1

Amount of info stored (Exabyte = 1 Million Terabytes)

- 1st Architecture — Mainframe
- 2nd Architecture — 2.6 Exabytes Minicomputer
- 3rd Architecture — 15.8 Exabytes PC
- 4th Architecture — 54.5 Exabytes Desktop Internet
- 5th Architecture — 1,8[ ]0 Exabytes Mobile Internet
- 35,000 Exabytes "Internet of Things"

2014

Meteoric rise: Devices in current mobile consumer/ Internet computing cycle

1960   1970   1980   1990   2000   2010   2020

Source: Cognizant

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Wearables / iBeacons computing **reshape how work gets done, how decisions are made, and how you engage** with employees, customers, and partners.

Wearables / iBeacons **introduce technology to previously prohibitive scenarios**

While **consumer** are in the spotlight today, STKI expects **business to drive acceptance and transformative** products
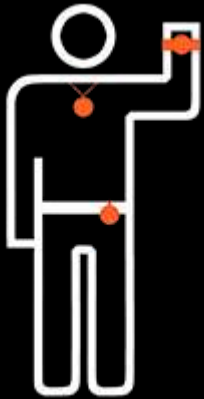
❖ **iBeacon :** iPhones **do not include NFC** (near field communications)

  ❖ phone is able to pick the transmissions **(Bluetooth Low Energy)**

  ❖ work a GPS in indoor locations (high degree of accuracy)

  ❖ triggering (in the phone) more than a simple 'You are here' signal, it can be pretty much anything at all.

❖ **EXAMPLES:**

❖ Get a request for payment in a **wallet APP**, use your fingerprint and/or a PIN to authorize payment on one of your preloaded cards and receive your receipt electronically.

❖ In a iBeacon-equipped underground parking garage, park your car and have an **APP** direct you back to your exact parking space.

❖ Passbook-like **APP** which user loads up with cards for the companies he **wants to hear** from, and **only those** companies can send offers.

  ❖ Walking past a store and receive a discount coupon valid for that day.

  ❖ CeBIT 2014, they're sending out critical messages such as "free coffee."

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MOOV

Personal Analytics: The commercial addiction to analytics will spill over into the personal space as we get more and more **data about how we eat, sleep, travel, work and spend our money** delivered directly to us.

E-commerce 2014

allows companies to provide their shoppers with the **ability to find and buy** the things that inspire them **simply by snapping a photo**

Tablets

Mobiles

Google TV

Android Music

Android in space

Android in US Army powered as military communication device

Education system

Cloud computing

Games

NASA PhoneSat nanosatellite

Samsung SR8855 NaviBot vacuum cleaner

Embedded Systems

Micro Devices Watches

Healthcare devices & Apps

TrackingPoint XS1 precision guided firearm

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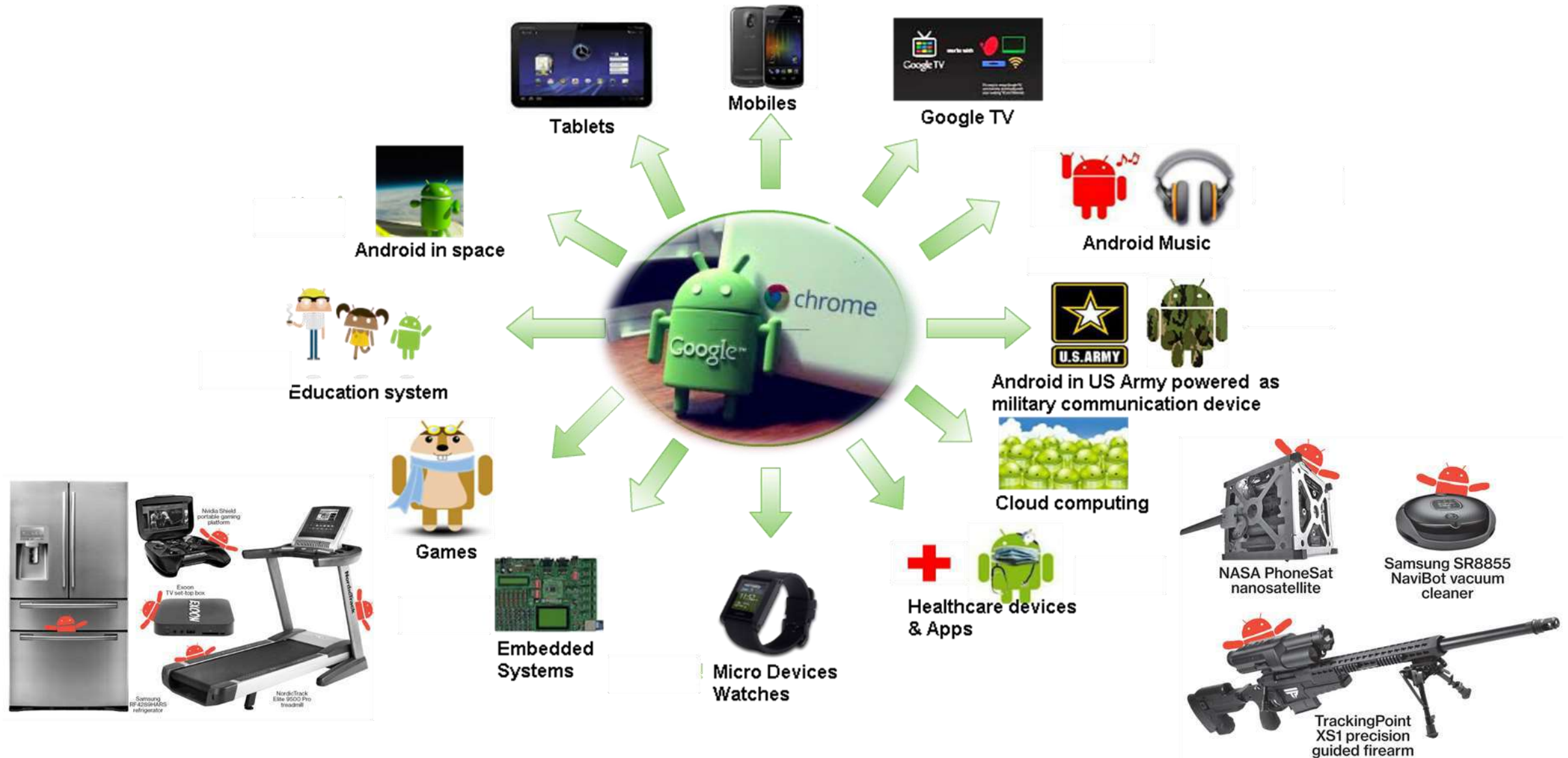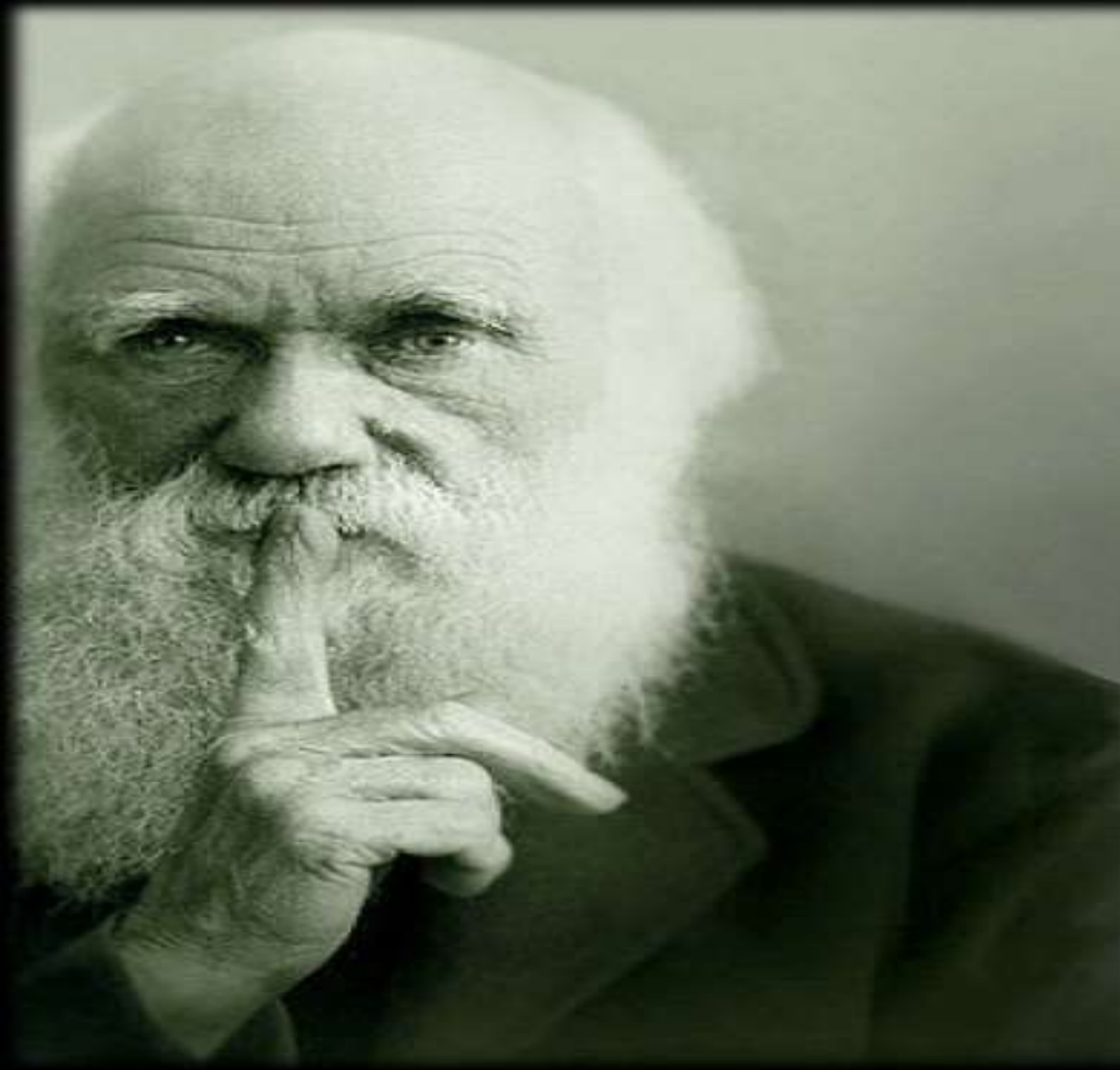
DIGITAL DARWINISM IS THE EVOLUTION OF CONSUMER BEHAVIOR WHEN SOCIETY & TECHNOLOGY EVOLVE FASTER THAN THE ABILITY TO ADAPT

– Brian Solis

__CEO__ Studies 2004–2013

What are the most important external forces that will impact the enterprise over the next 3 to 5 years?

2004	2006	2008	2010	2012	2013	
				1	**1**	**Technology factors**
			2			**Market factors**
	3	**3**				**Macro-economic factors**
						People skills
						Regulatory concerns
6						**Socio-economic factors**
						Globalization
						Environmental issues
						Geopolitical factors
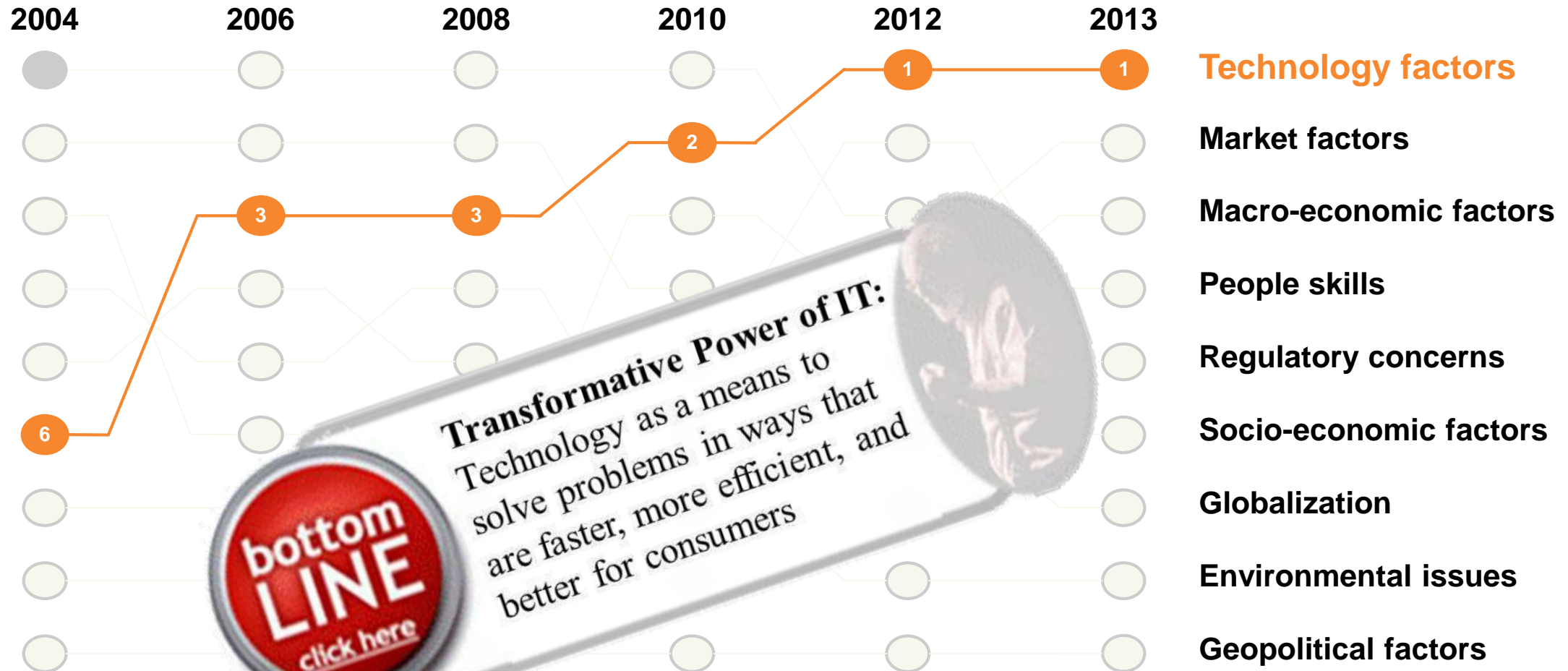
Transformative Power of IT: Technology as a means to solve problems in ways that are faster, more efficient, and better for consumers

bottom LINE *click here*

Source: 2013 IBM global C-suite Study

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Help the company reach a specific revenue

Complete a major enterprise project

Support customer acquisition and retention

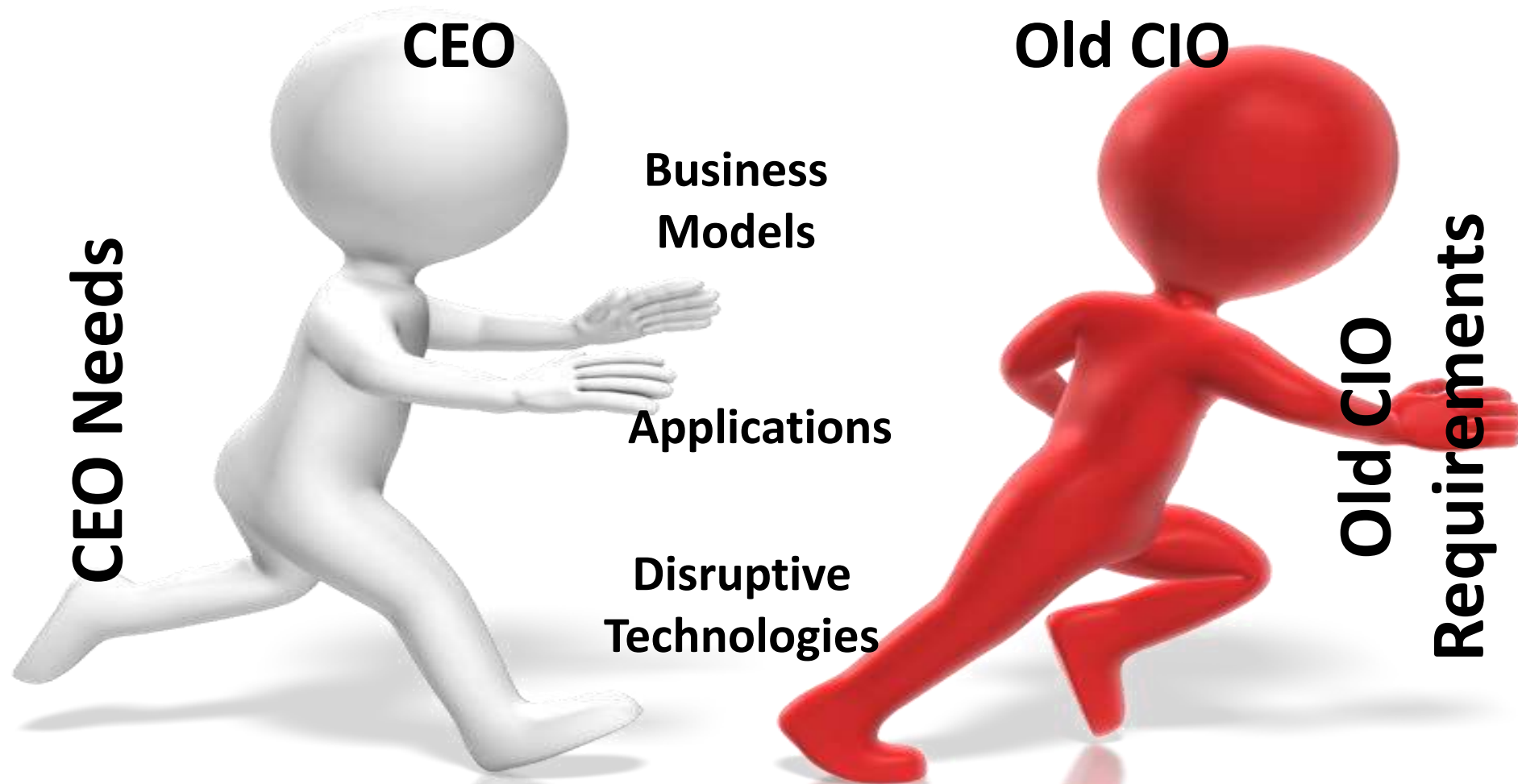Simplify IT   **NEW "CIO" ????**

Lead product innovation effort
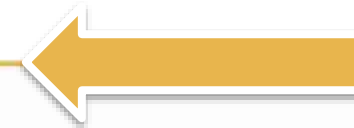
13th annual State of the CIO survey,
http://www.cio.com/

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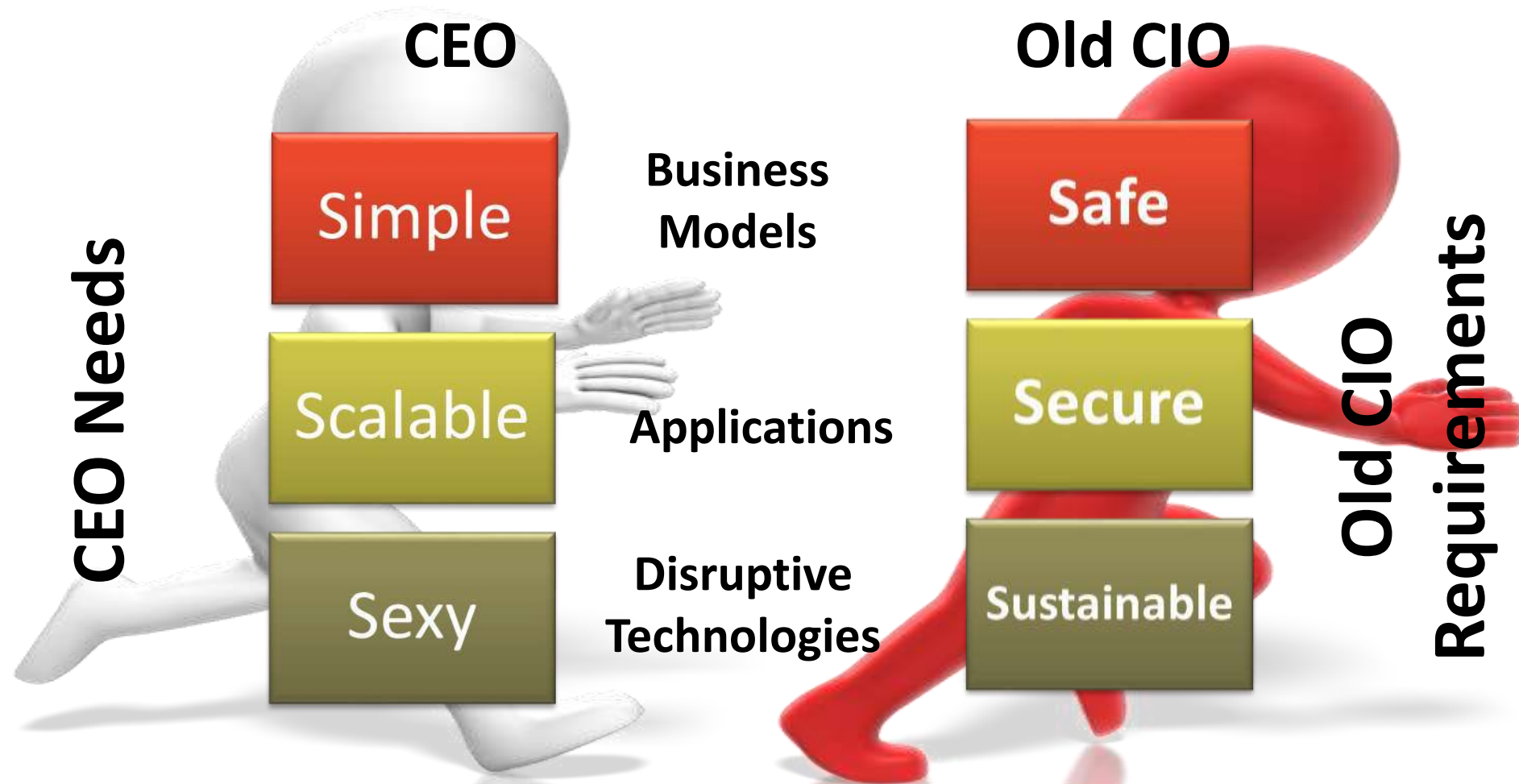from any slide, graph or portion of graph

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CEO

Old CIO

CEO Needs

Business Models

Applications

Disruptive Technologies

Old CIO Requirements

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CEO

Old CIO

CEO Needs

Simple — Business Models

Scalable — Applications

Sexy — Disruptive Technologies

Old CIO Requirements

Safe

Secure

Sustainable

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The new CIO

External Focused

Chief **Integration** Officer	Chief **Innovation** Officer
Chief **Infrastructure** Officer	Chief **Intelligence** Officer

The New C "I" O

Technology Savvy

Business Savvy

Internal Focused

Burdens of legacy technology

IT is expected to give competitive advantage

The difficulty lies not so much in *developing new ideas* as in *escaping from old ones*
John Maynard Keynes
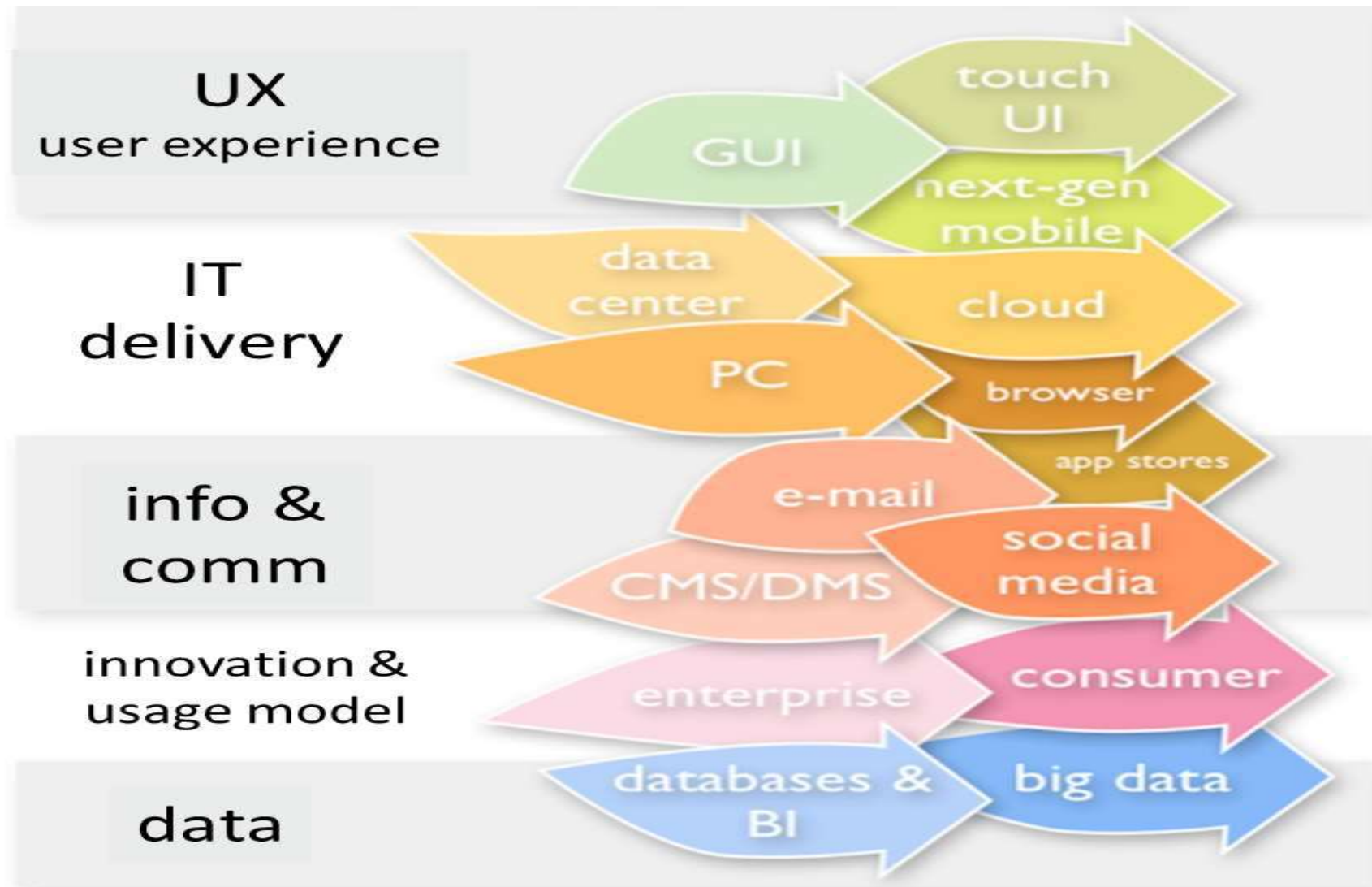
IT is expected to design "Next Gen Business Models"

Technology advancements outpace ability to adopt change

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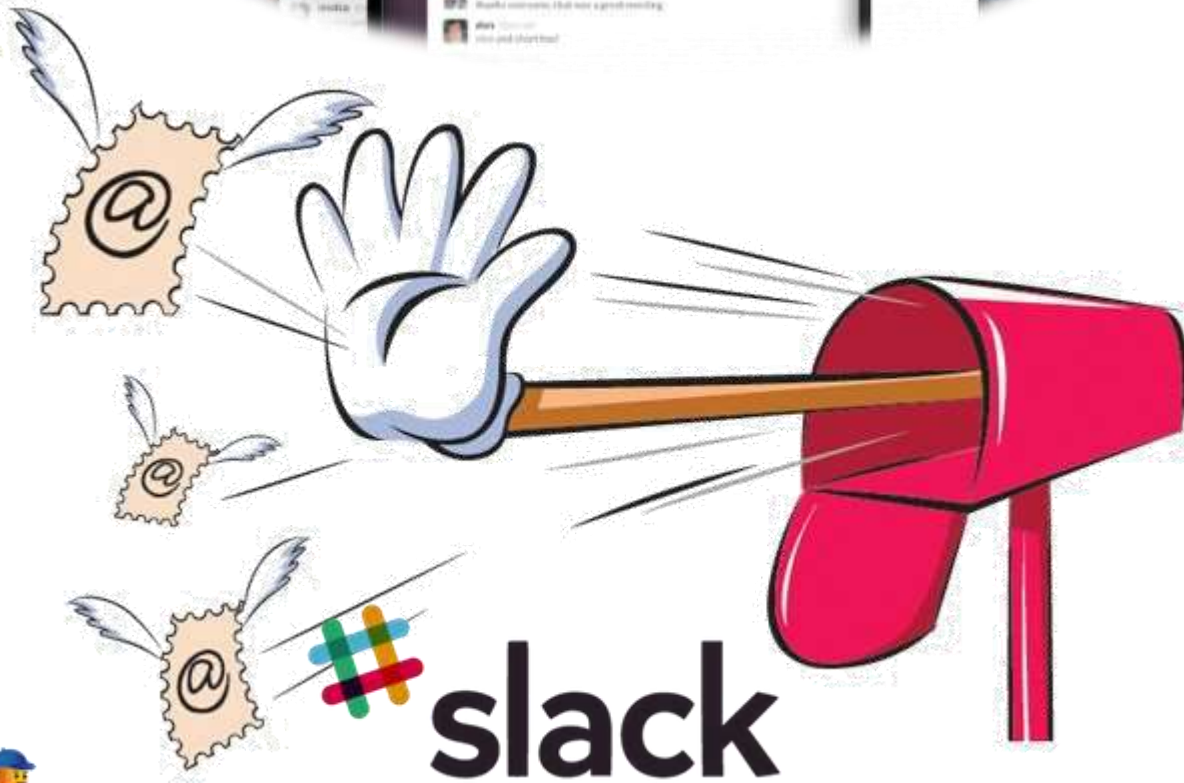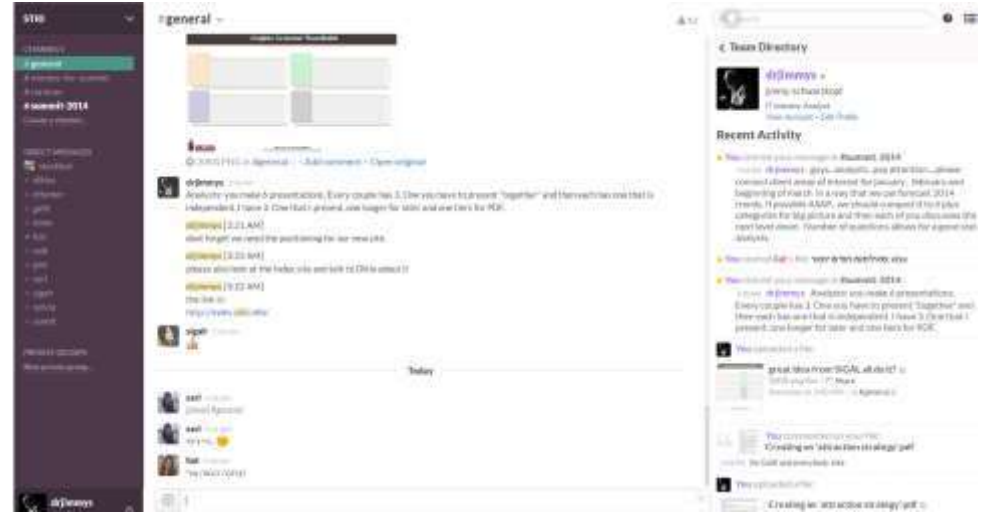
Slack brings:

- All communication, messages and files together in one place (real-time messaging, archiving and search)
- Content integrated from twitter, DROPBOX, google docs and others services.
- Build for team work.

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External forces impacting the enterprise (3–5 Years)

Question What are the most important external forces that will impact the enterprise over the next 3 to 5 years?

	CEO	CFO	CHRO	CIO	CMO	CSCO
Technology factors	1	●	○	●	●	●
Market factors	●	●	●	2	2	2
Macro-economic factors	●	3	3	○	○	○
People skills	○	○	●	●	●	●
Regulatory concerns	○	○	○	○	○	○
Socio-economic factors	○	○	○	○	○	○
Globalization	○	○	○	○	○	○
Environmental issues	○	○	○	○	○	○
Geopolitical factors	○	○	○	○	○	○
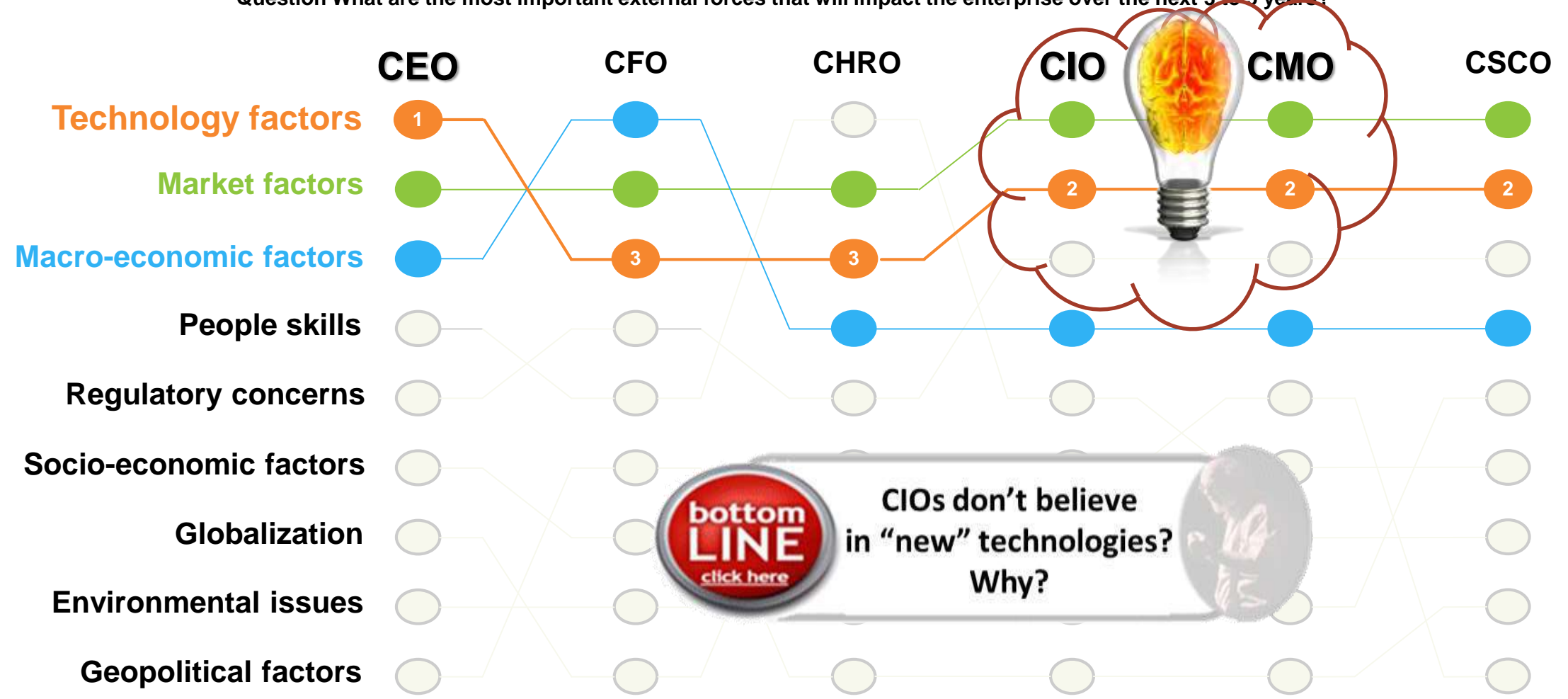
bottom LINE
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CIOs don't believe in "new" technologies? Why?

Source: 2013 IBM global C-suite Study

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Rethinking tech adoption

- Ignoring technology change isn't the answer
- Maintaining backlogs isn't the answer
- Giving up isn't the answer
- Proceeding in the same direction isn't the answer
- Letting everyone do whatever they want isn't the answer

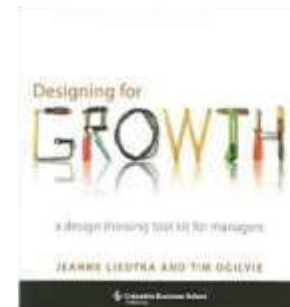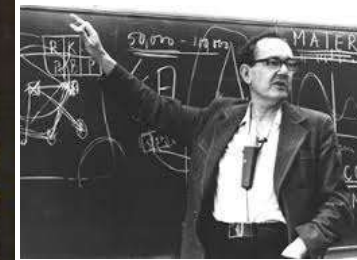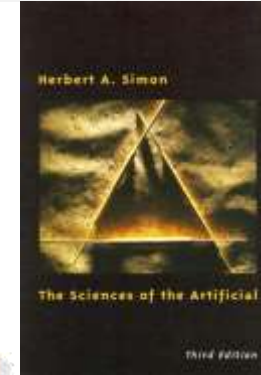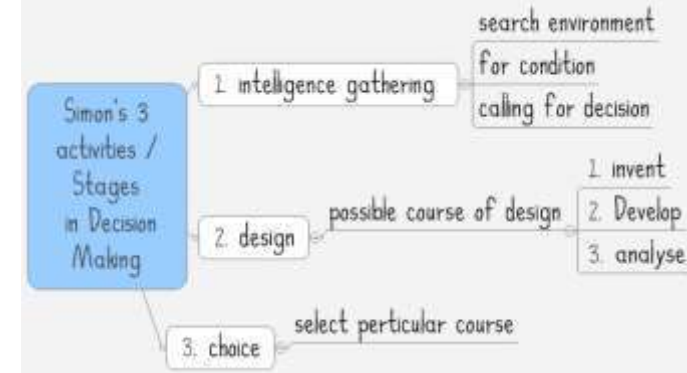- **Should we look at new models for IT?**
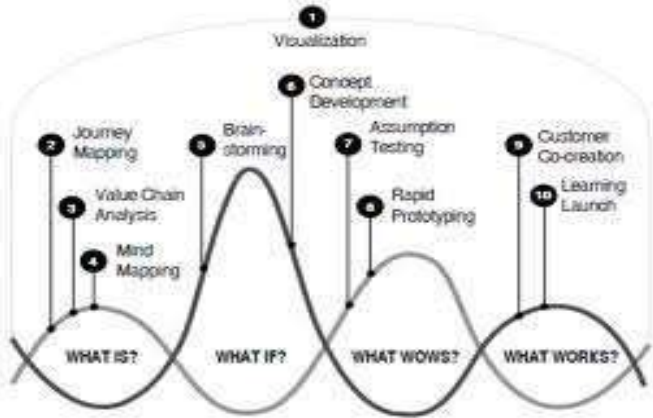
- Provide "everyone" with simple rules and tools for *social, mobile, big data and cloud*

- Establish foundation and tools for managing and governing 10x-100x more IT and data

- Throw out "traditional" IT playbook and go *"emergent" technologies*

- Become a *"change" agent* and an *IT "revolutionary"*

- IT & Business must become "DESIGN THINKERS"

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Customer Experience Management

Almost every CEO (95%) obsesses on customer intimacy

Customer-Intimacy: Key CEO Focus

Top focus areas in next five year

Focus area	
Getting closer to customer	88%
People skills	8
Insight and intelligence	76%
Enterprise model changes	57%
Risk management	55%
Industry model changes	54%
Revenue model changes	51%

14% more

Others **83%**
Standouts **95%**
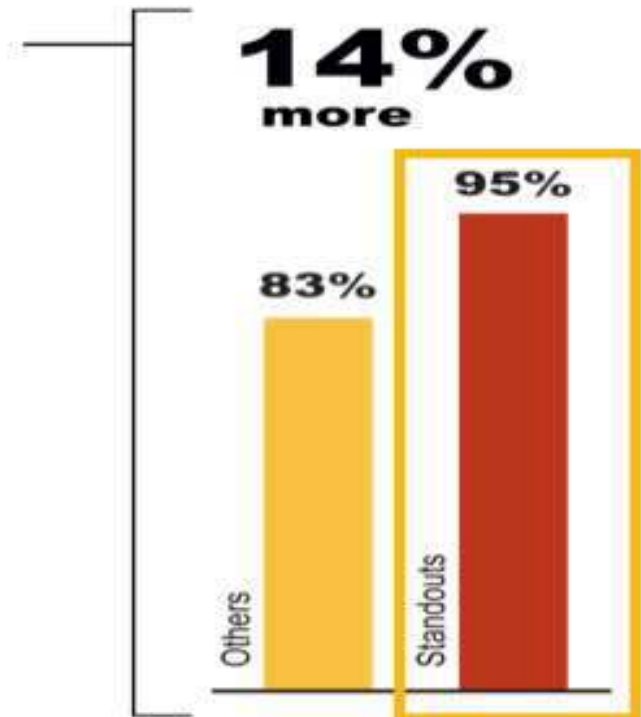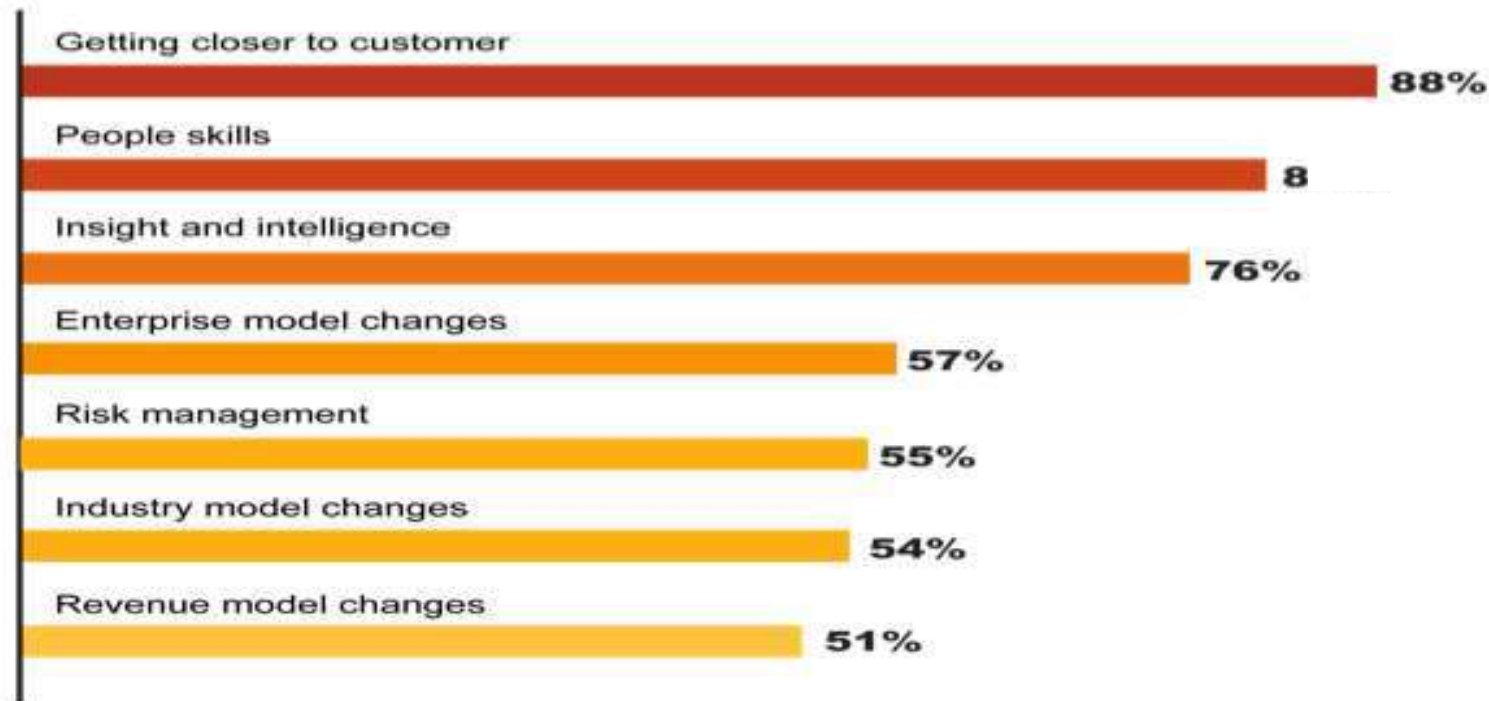
Source: 2010 IBM Global CEO Study: Capitalizing on Complexity

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CEOs want to share control with customers

Areas of the business where CEOs want to include customers

Area	Today	3–5 Years
New product and service definition	82%	90%
Product/service testing	71%	75%
Customer policies and procedures development	59%	72%
Business strategy development	43%	60%
Pricing structure development	48%	56%
Environmental and social policies development	33%	50%
Product/service sourcing	36%	45%
Privacy and security policy validation	33%	44%

● Today   ▬ 3–5 Years

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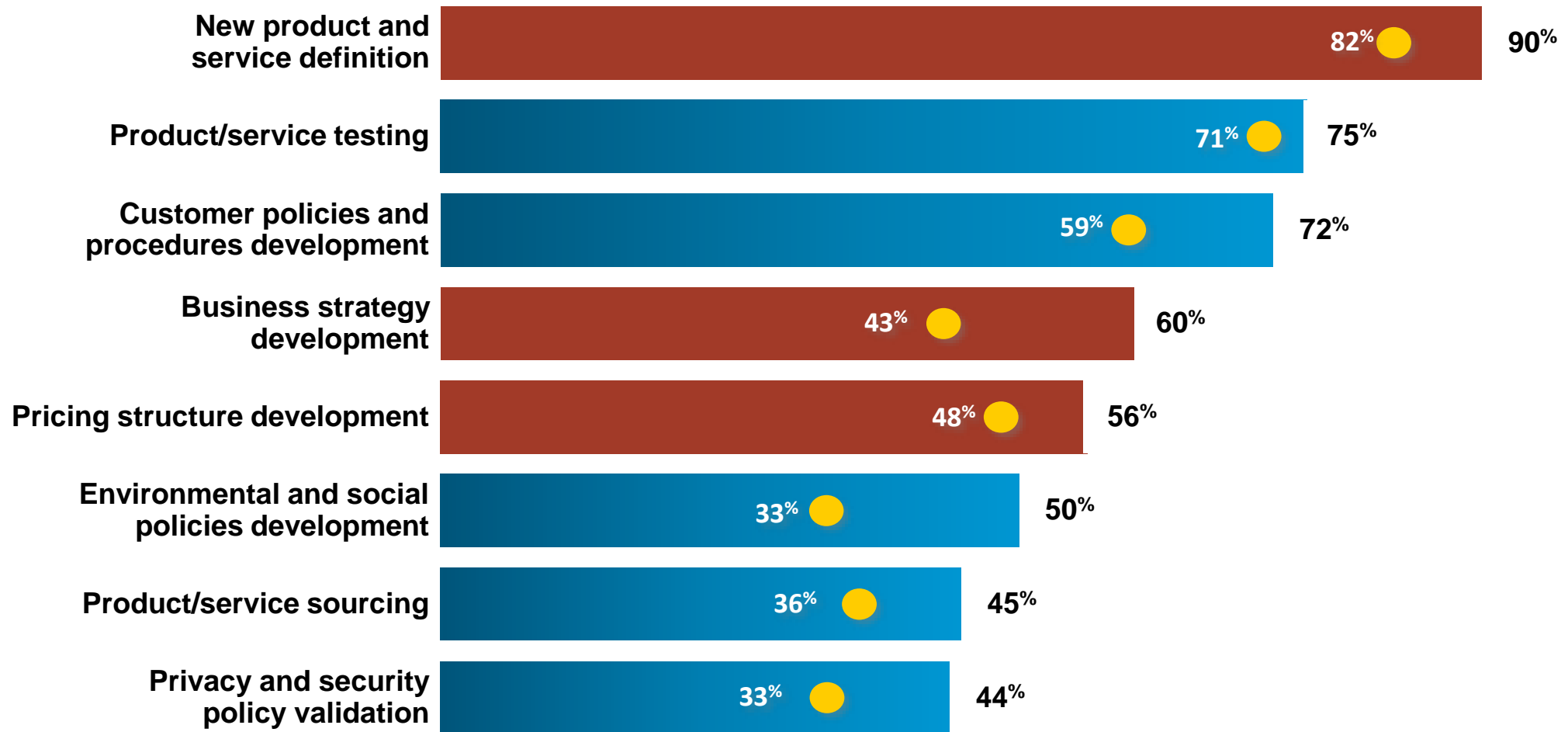
CEOs say customers come second only to the C-suite

Voice in the board: key influencers on business strategy
Who has the most influence on your strategic vision and business strategy?
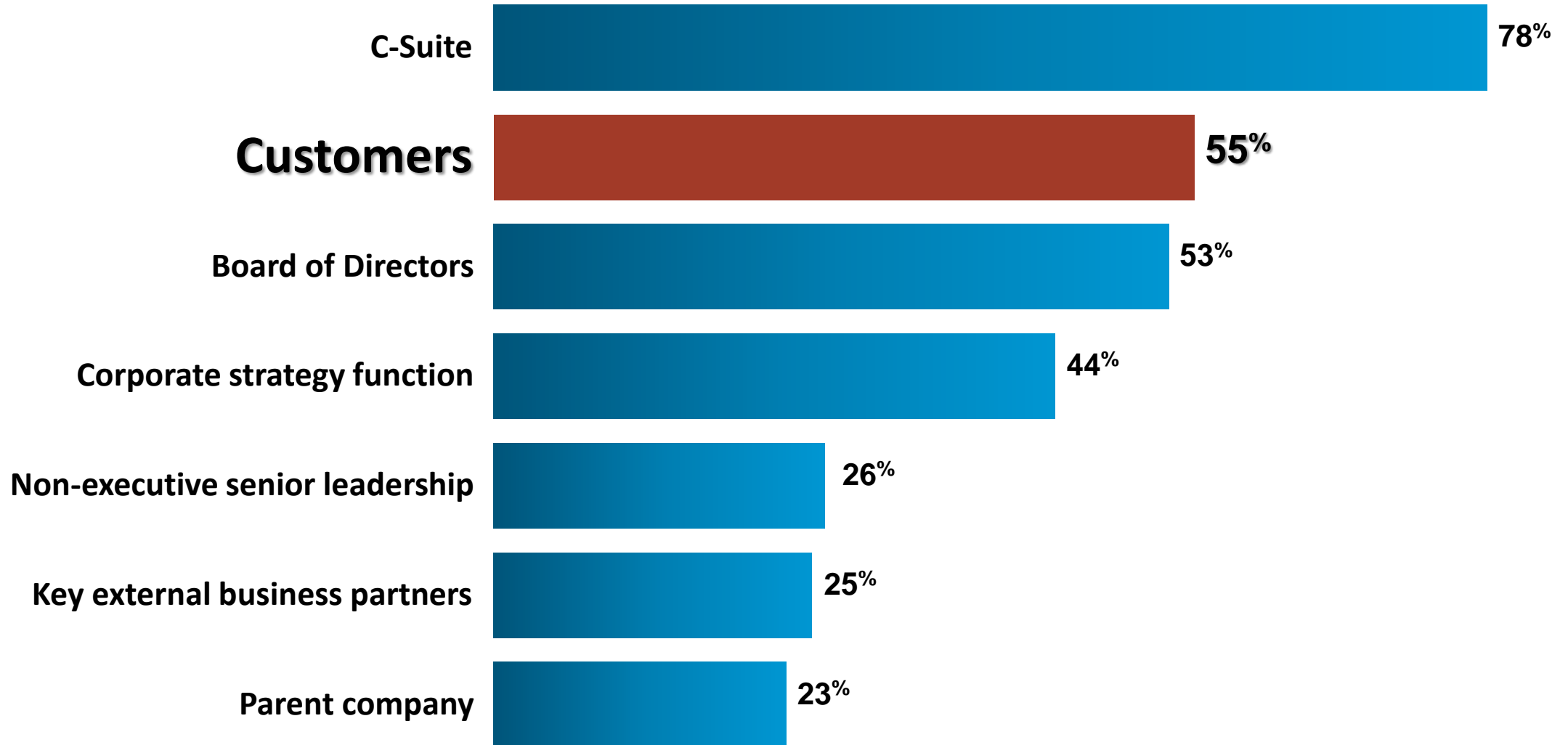
Category	Percentage
C-Suite	78%
Customers	55%
Board of Directors	53%
Corporate strategy function	44%
Non-executive senior leadership	26%
Key external business partners	25%
Parent company	23%

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It is the **customer**:

- who is **put on stage**

- he is the **main actor**

- the production, services, even bureocracy takes place with his **active participation**

- all in order to create **memorable experiences.**
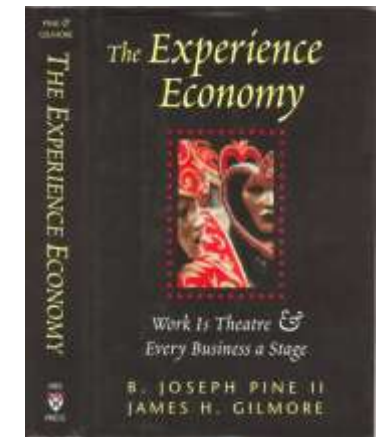
Chief Customer Officer :
must be the voice of the customer
in the organization, taking views
and messages from the market
and spreading them internally.

The Experience Economy

THE EXPERIENCE ECONOMY

Work Is Theatre &
Every Business a Stage

B. JOSEPH PINE II
JAMES H. GILMORE

bottom LINE
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Products '80s

Information Platform 2014

- We **can't commoditize** ***the experience*** – that's the differentiating part – **it's personal**
- It is an ***emotional connection*** between the person, the interaction, and the brand
- Technology can only ***provide the framework*** (as a commodity) to ***enable*** the experience to happen

-"You've gotta start with the customer experience and *work backwards* to the technology"-
Steve Jobs

-"We need to become part of people's lives and digital allows us to do that"-
Simon Pestridge, Nike

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"...the world is changing, it is **not about us doing something and customers agreeing**, it is about the **customer expecting us to do things differently and us delivering**..."

CCO (client spokesman)
not always
CMO (company spokesman)

bottom LINE
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Prof. Peter Drucker

Prof. Peter Drucker wrote that a company has only two key functions:
marketing and innovation

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company-centric where ***CIOs & CMOs*** rule
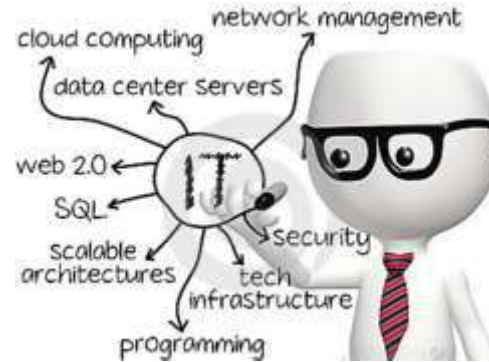
to **customer-centric** where ***CCOs*** rule

Chief Customer Officer

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everything and everyone will be connected and publish status, alerts and other data (people, devices, creatures and even inanimate objects)

"Personal" Cloud
Infrastructure supporting wide-ranging consumer services

"Business" Cloud
Solutions infrastructure offering new styles of business

Network Cloud
Infrastructure providing added value through sophisticated information and communication processing via networks

"shared critiques"

Nearly "perfect" information about "pricing"

human decision

macro (AUTOMATED)

micro (HUMAN)

Ability to buy anything, anytime, anywhere, from anyone

Allowed to change his mind (even after purchase)

M2M · New businesses · Environment/ecology · Aggregation/platform · Mobile business · Safety/security · Finance/payment · Media/content · Commerce · Medical/healthcare

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55

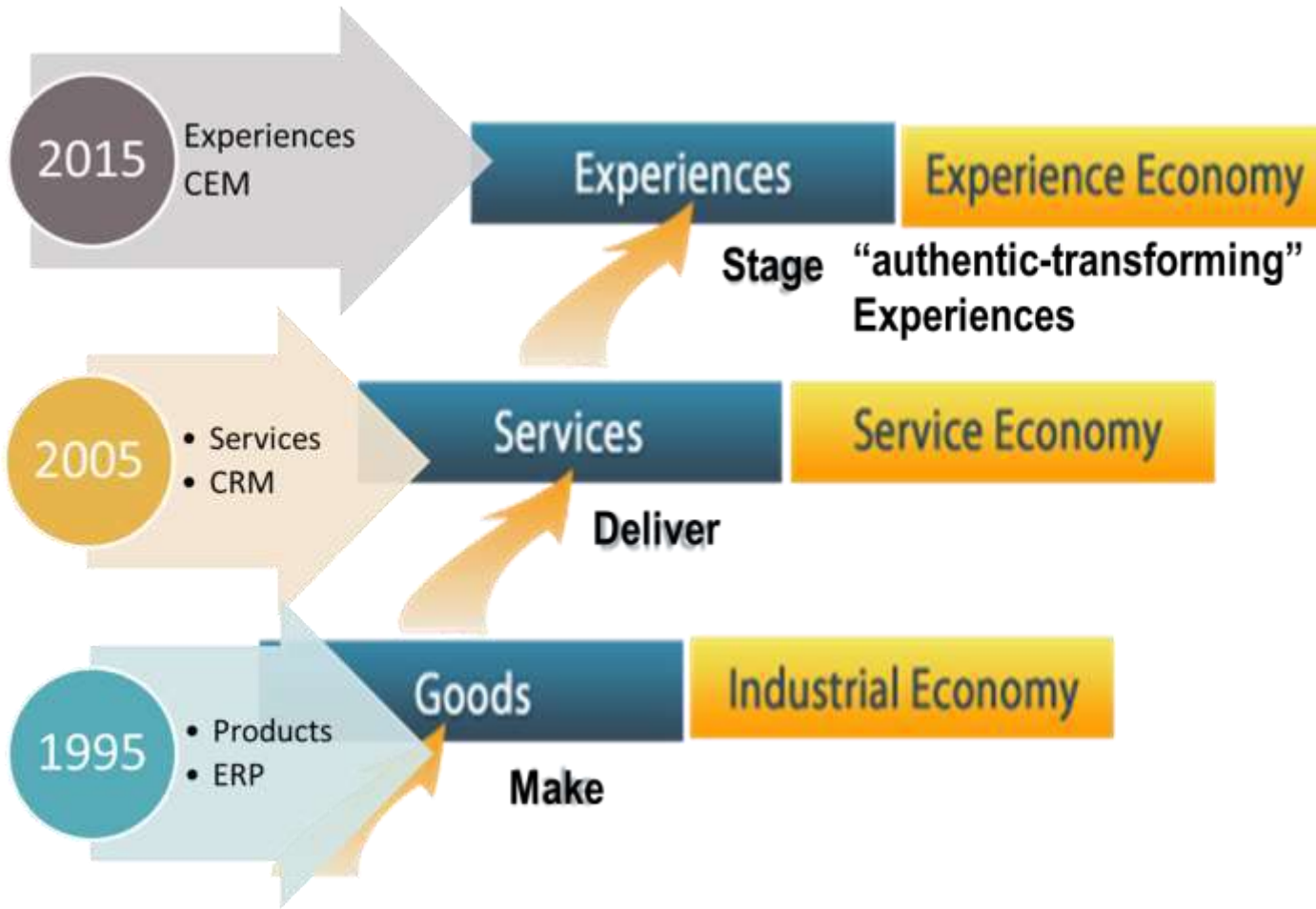traditional funnel

Discover
↓
Consider
↓
Evaluate
↓
Purchase
↓
Use

Nonstop-Customer Experience Model

Discover
Purchase
Evaluate
Consider
Use

accenture

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This **shift** has **profound** <u>implications</u>:

- ❖how **customers** will **interact** with the <u>marketplace</u> at large?
- ❖how **customers** will **interact** with <u>specific organizations</u>**?**
- ❖how **employees** will **deliver** *goods and services*?
- ❖how <u>IT</u> will **support** <u>both</u> of these groups?

"DIGITAL STRATEGY"

"To build the next generation of product experiences, you must *digitally disrupt your own business*."

James McQuivey, Ph.D.

DIGITAL DISRUPTION

UNLEASHING THE NEXT WAVE OF INNOVATION

JAMES McQUIVEY

FORRESTER RESEARCH

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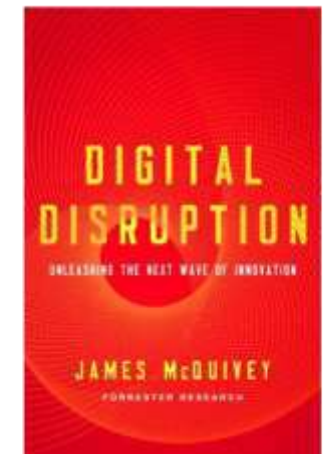
Digital Strategy
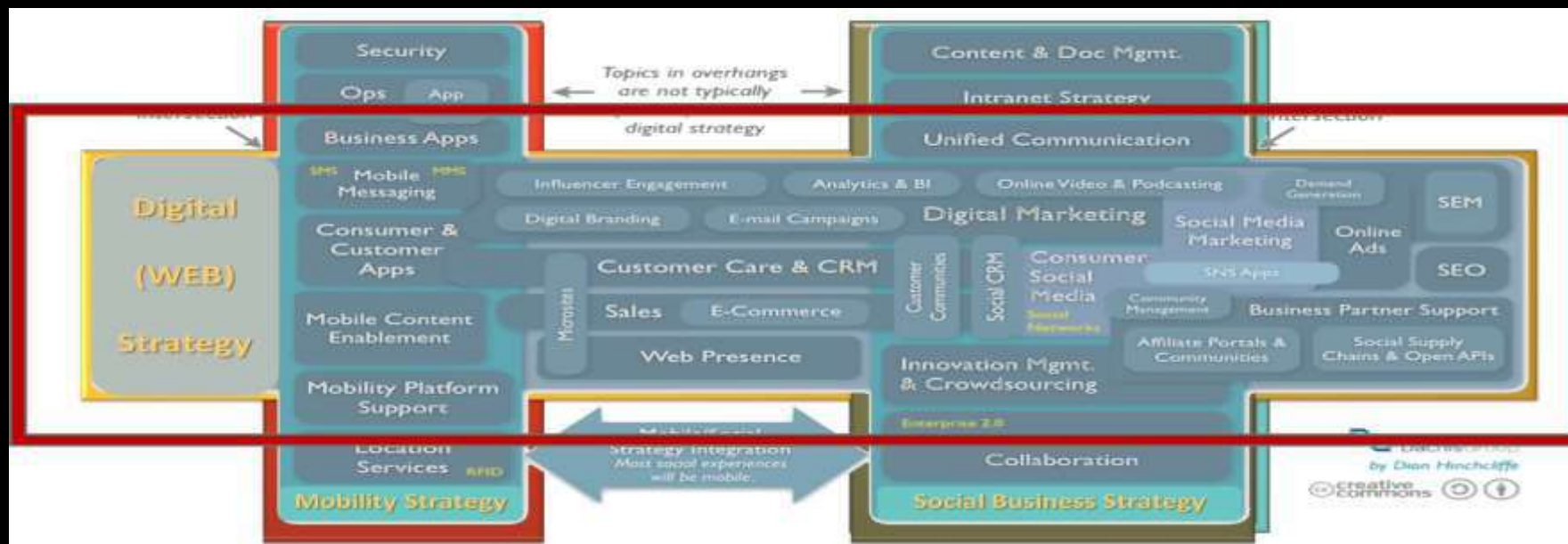
	2013	2020
Lifespan of S&P 500 Company	~15 years	~9 years
Portion of Digital Natives in Workforce	35%	75%
Speed at which data in world doubles	~2 years	3 months
Core Focus of IT	Systems of record	Systems of engagement
Percentage of IT under CIO control	66%	10%

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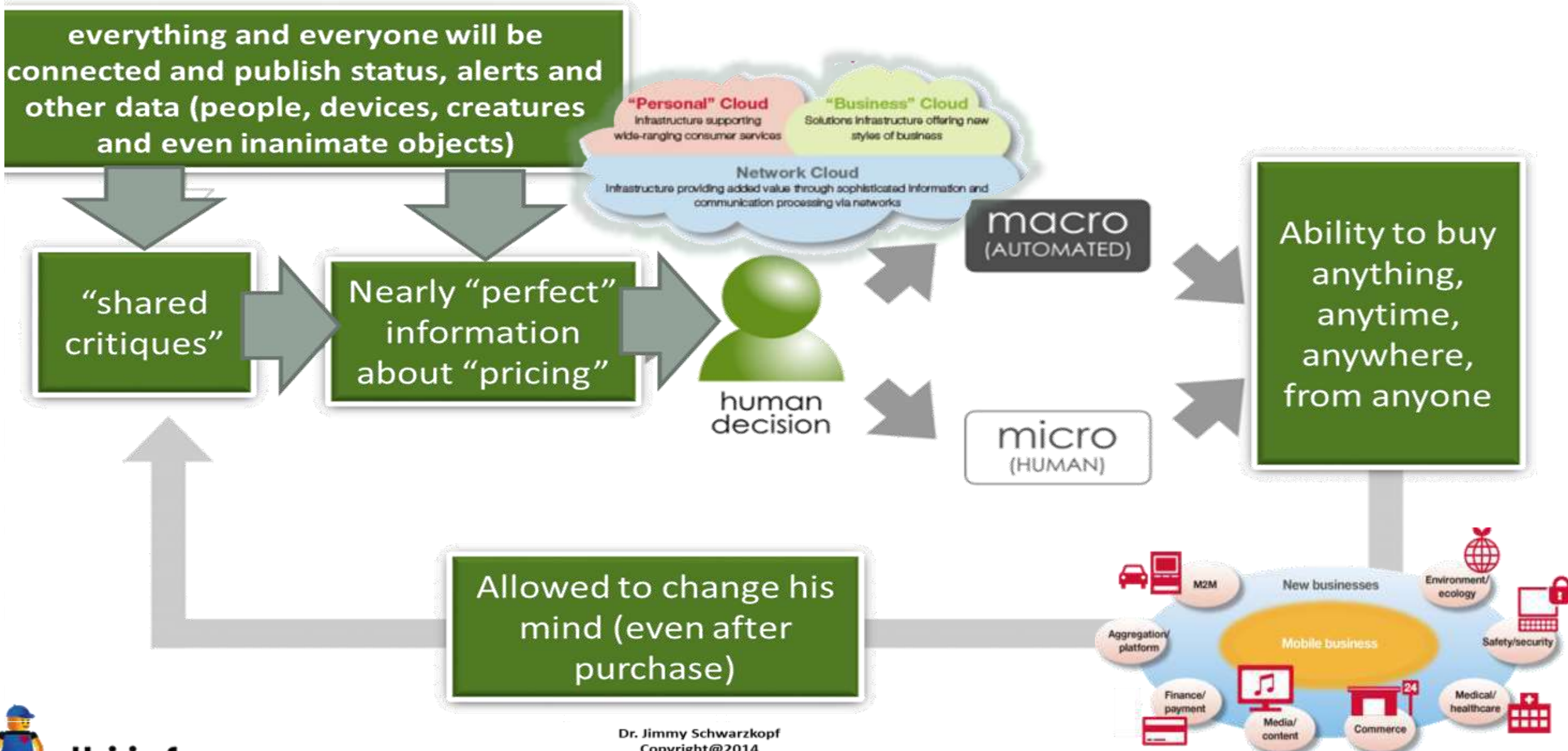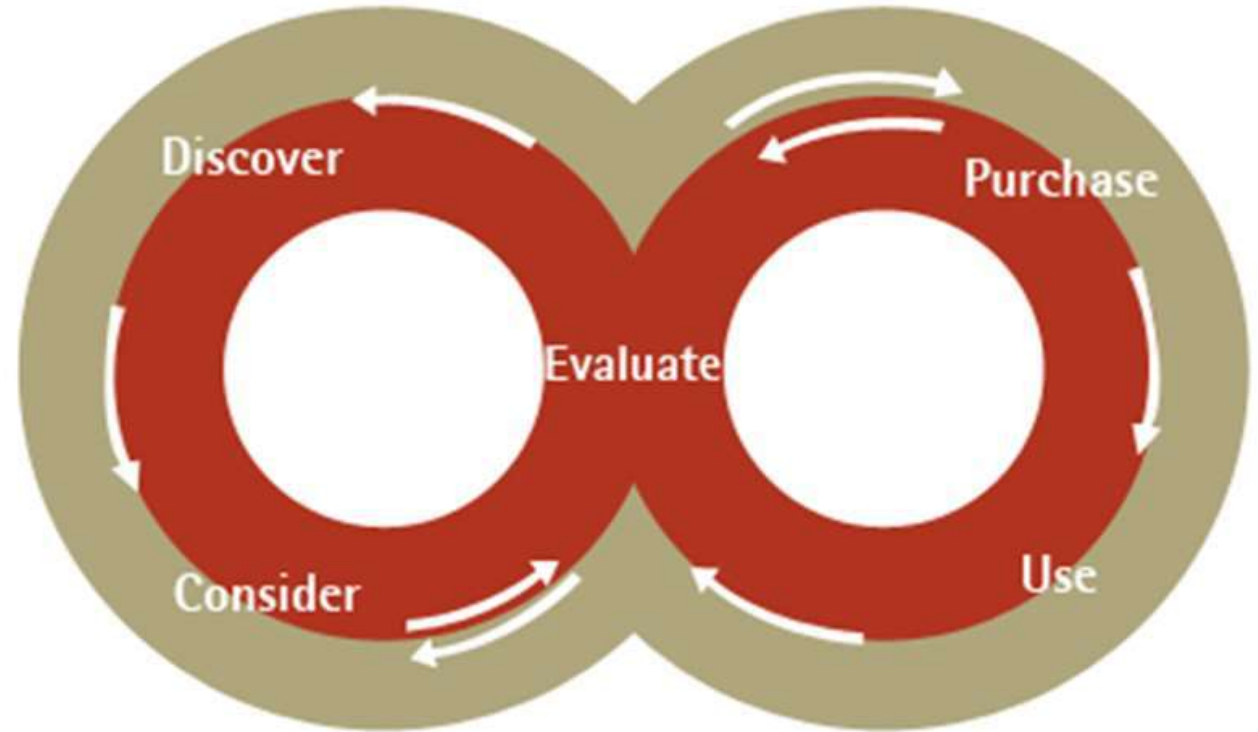from any slide, graph or portion of graph

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Shift of 2006-2008
Second Machine Age

CRM ERP HRM ECM

Systems of Records
ORACLE SAP Microsoft Dynamics HRM

Designed
Complexity

Peer Production
"cloud Sourcing"

Decentralized
Control

Systems of Engagement
spring python

Systems of Records
(host processes)
- Targets employees
- Records transactions
- Maintains state, status and history
- Long development and deployment cycles

Systems of Engagement
(Touch People)
- Serves customers, partners & employees
- Enabled by smartphones, tablets and smart products
- Focused on in-the-moment tasks and decisions
- Delivers personalized context
- Provides analytics-driven experiences
- Leverages social and cloud technologies
- Short, rapid, iterative release cycles

INFORMATION
REPOSITORY
INFORMATION MANAGEMENT

Centralized
Control

Industrial
Production

Emergent
Complexity

bottom LINE
click here

Customer Experience
Served by
Systems of Engagement

Traditional IT

Consumerization of IT

Disruptive Innovations

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peer sharing startup

online service

The Social Economy : The Old Economy

traditional business

provide products & services

use products & services

provide products & services

provide products & services

consumers

use products & services

existing online services (e-commerce, social media, open APIs)

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peer sharing startup

The Social Economy : The Old Economy

traditional business

online service

provide products & services

provide products & services

everything and everyone will be connected and publish status, alerts and other data (people, devices, creatures and even inanimate objects)

bottom LINE click here

You Tube f API in t

consumers

use products & services

existing online services (e-commerce, social media, open APIs)

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PURCHASE

RECOMMEND

competitive advantage

operational advantage

SELECT — 3

BUY
Market & Sell

1

OWN
Support & Serve

7 → MAINTAIN

4

8

5

2

6

RESEARCH   NEED   RECEIVE   USE

Systems of Engagement

Systems of Records

ORACLE Applications   SAP   Microsoft Dynamics   IBM Mainframe

Source :McKinsey
http://www.slideshare.net/McK_CMSOForum/big-data-and-big-profits

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operational advantage

competitive advantage

System of Records (transactions)

Today's Data Center

Systems of Records

ORACLE Applications | SAP | Microsoft Dynamics | IBM Mainframe

System of Engagement

Software-Defined Data Center

Systems of Engagement

node JS | JBoss | spring | python | Ruby

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Today's Data Center

Systems of Records

ORACLE Applications | SAP | Microsoft Dynamics | IBM Mainframe

System of Records (transactions)

80-85% of Budget
20-30% of CIO time

Productivity Optimization Processes Long Life Cycles

Long development and deployment cycles

Reduce Operating Expenses

operational advantage

APIs & FILTERS

competitive advantage

Software-Defined Data Center

Systems of Engagement

nodejs | RAILS | spring | python | hadoop

System of Engagement

15-20% of Budget
70-80% of CIO time

Touch people
In-moment decisions
Personalized & in-context
Social and analytics driven

short & rapid releases

Invest in new systems

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IT Knowledge Integrators

Web · Mobile · Social · In Store · Contact Center · Field Service · Direct Sales · Channel Sales

Systems of Engagement (Touch People)

- Serves customers, partners & employees
- Enabled by smartphones, tablets and smart products
- Focused on in-the-moment tasks and decisions
- Delivers personalized context
- Provides analytics-driven experiences
- Leverages social and cloud technologies
- Short, rapid, iterative release cycles

Syndication · Email · Printed collateral · Social media

Future media · **Systems of Engagement** · Microsites

Television · Responsive Websites · Mobile & Apps

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Why APIs and Filters ???

Applications Back-end

Operational CRM Suites	Ecommerce Suites	Social Listening Platforms	BPM + BPA
Sales, Marketing, Service	Payment, Order, Fulfillment, Catalogue, Pricing, PIM	Sentiment Analysis	Process definition & Execution

APIs & Filters

Alerts & Events	Persona lization	Analytic filters, NBA	Cross & Up-sell	Aggregation frameworks	Digital Analytics

Channels

Web	Mobile	Social	Face-to-Face	Contact Center	Doc. Output (coupons etc.)

Customer experience analytics

UX & the customer journey

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Goals of the "engagement systems"

competitive advantage

- Deliver "best of class" **customer experience**
- Focus on **personalization "push"** mode
- Design for **people to people interaction** models
- Drive relevancy with **context not content**
- Deliver value for customers (**time is the constraint** for customers)
- Move mobile strategies **from campaign to e-commerce**
- Address **big and small data** (from BI through streaming analytics)

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"If you don't have a competitive advantage, don't compete."

JACK WELCH
legendary CEO

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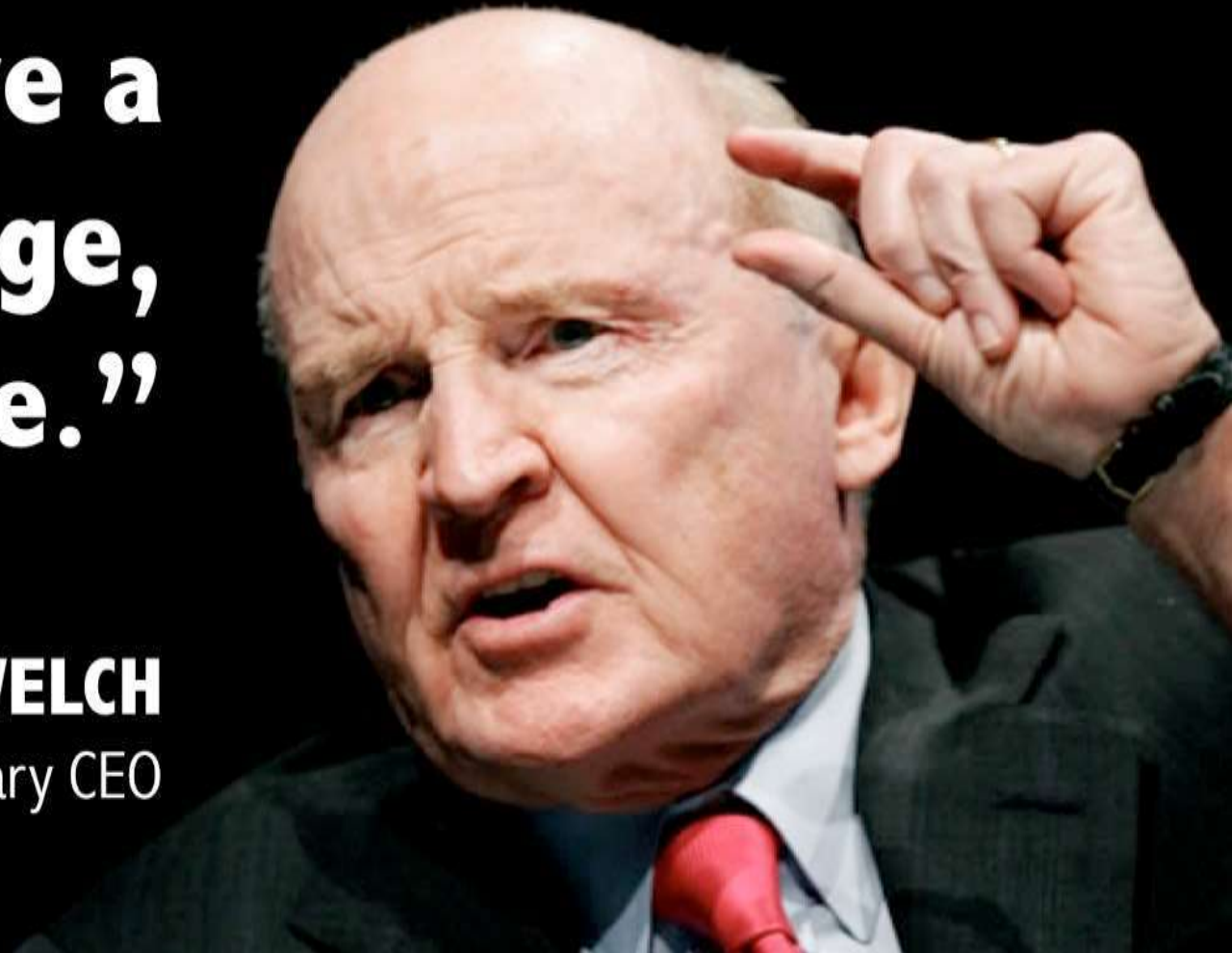
competitive advantage

IT department up to 2014

IT department after 2014

| Innovation layer |
| Differentiation layer |
| Transaction layer |

Systems of Records

ORACLE *Applications* · SAP · Microsoft Dynamics · IBM Mainframe

| Innovation layer |
| Differentiation layer |
| Transaction layer |

Systems of Engagement

node JS · RAILS · spring · python
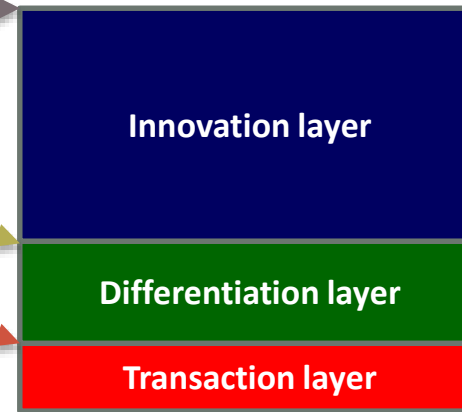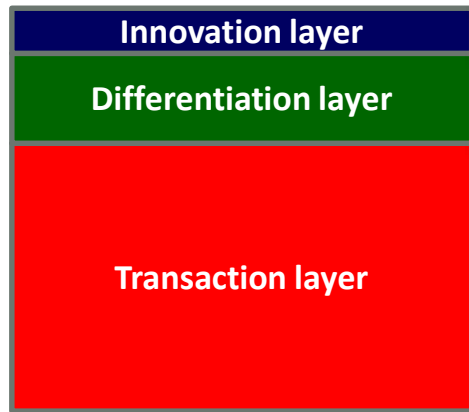
operational advantage

IT as productivity tool

IT helps the enterprise "brand with software"

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Mobility

Why CIOs think that MOBILITY is not important?

If Mobility is The future of Service Delivery ?

Smart mobile out-shipped PCs in 2011.
Tablets alone will outsell PCs this year.

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Why CIOs think that MOBILITY is not important?

If
Mobility is
The future of
Service
Delivery ?

Smart mobile out-shipped PCs in 2011.
Tablets alone will outsell PCs this year.

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customers always have an experience
(good, bad, or indifferent)

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Graceful Degradation
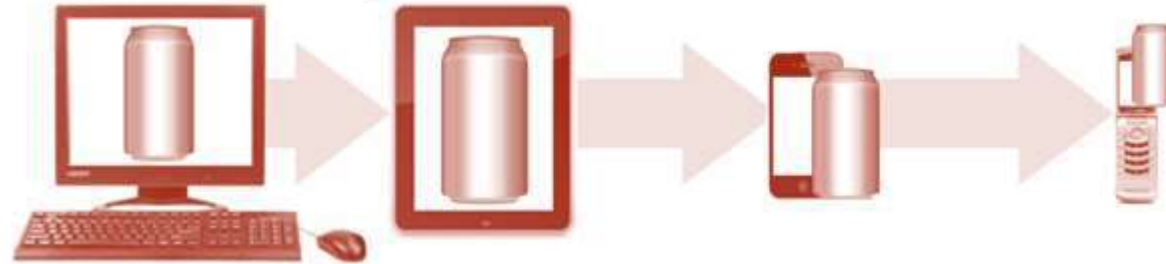
In **_GRACEFUL DEGRADATION_** we start with:
1. Desktop site that takes advantage of every possible technology
2. We start finding workarounds and alternatives for scaling down for mobile APPs.

Progressive Enhacement

In **_PROGRESSIVE ENHANCEMENT_** we start with:
1. minimal design for "mobile-phones"
2. make really impressive smartphone APPs
3. add technologies and platforms on an as-needed basis until we build a "full feature" desktop site

Customer Reactions: General | Personal | Other-Oriented

FUNCTIONAL → INTIMATE → EVANGELIST

Time to Develop Relationship
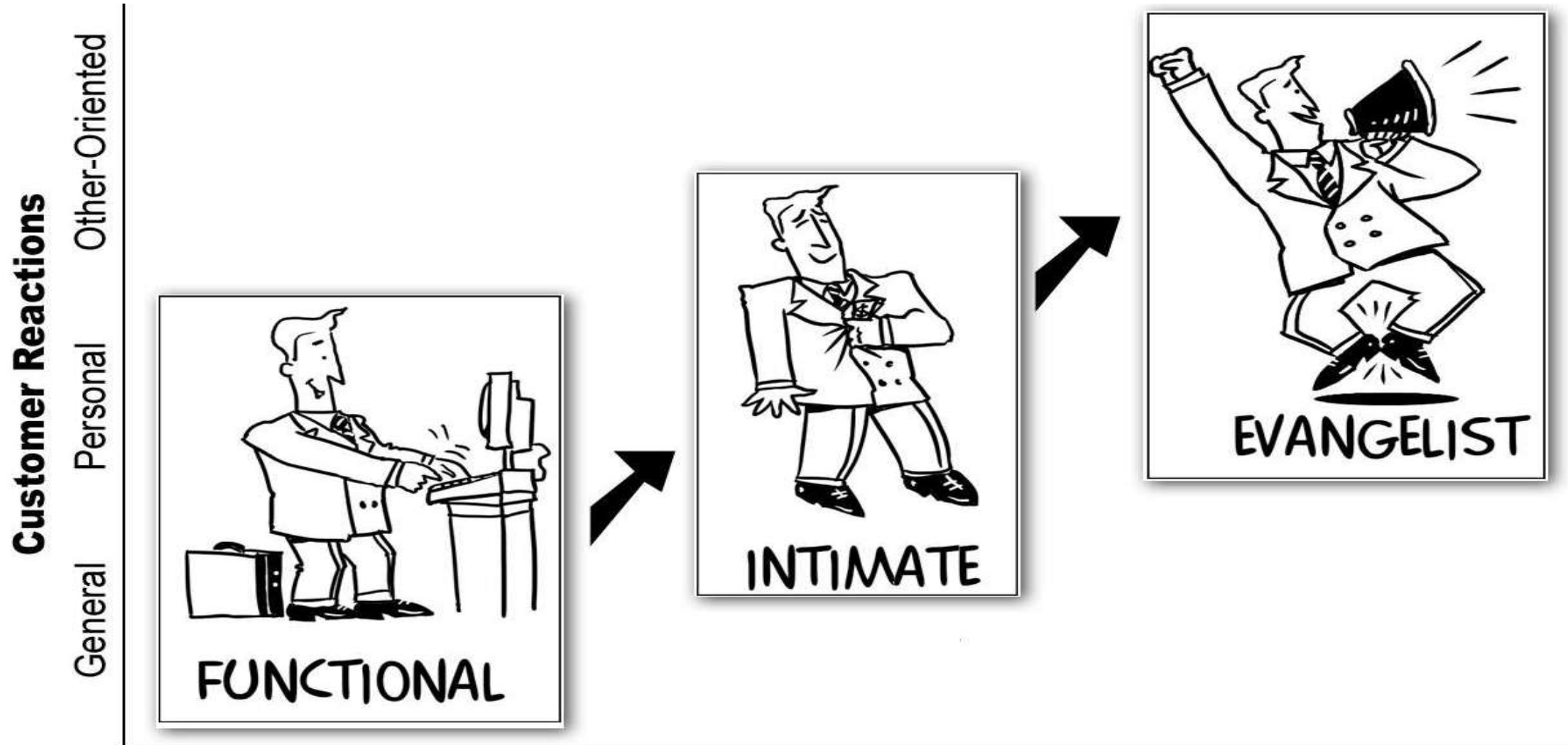
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Customer experience is the **perception** that customers have of their interactions with an organization.

Customer Experience (pleasure score)

High

Low

bottom LINE click here

inter transaction

Customer Effort Score (CES)

QUESTION:

How much effort did you personally have to put forth to handle your request?

1 ———— 5
Very low effort   Very high effort

High   Customer Effort Score (CES)   Low

Sell

Service

Innovate

Collaborate

Market

Work
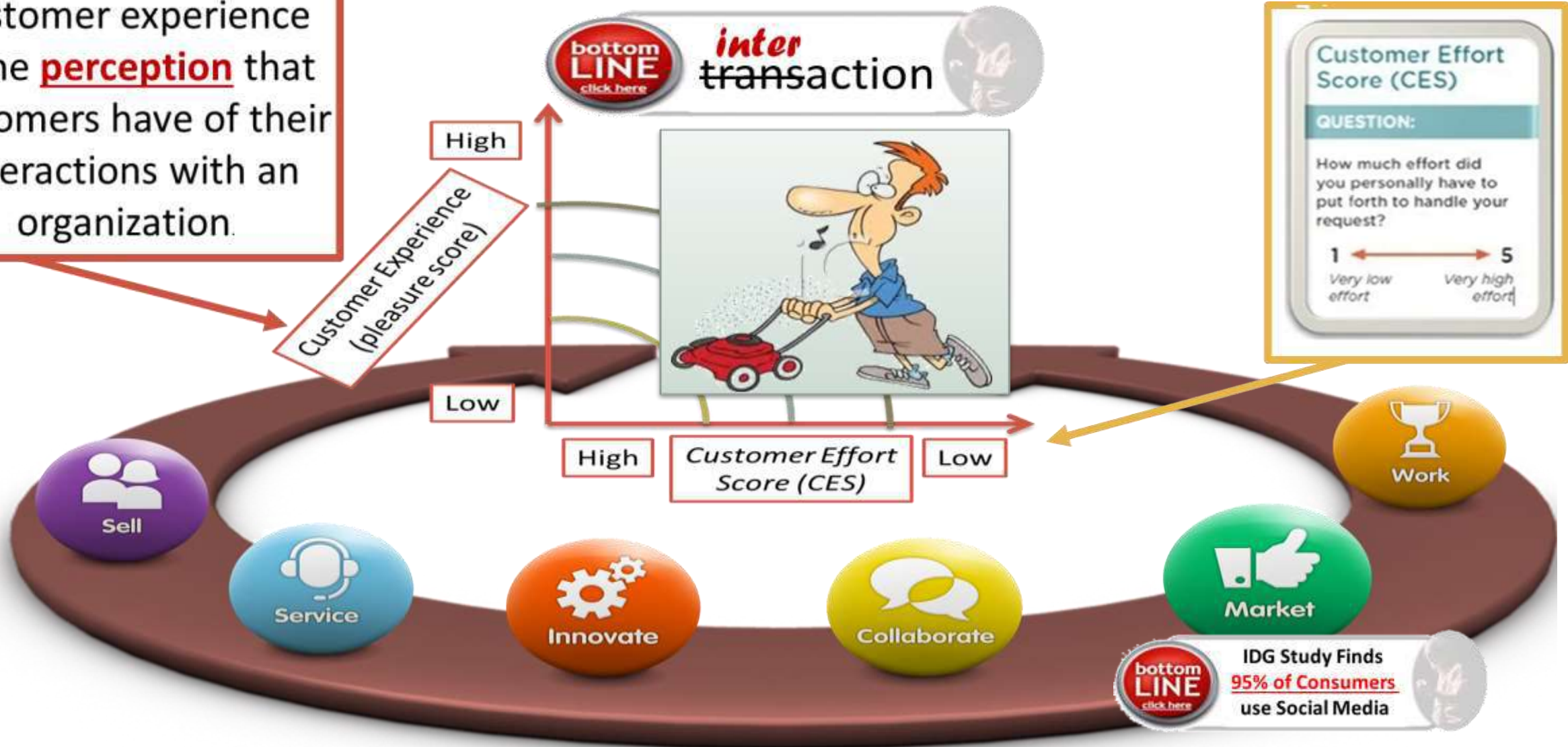
bottom LINE click here

IDG Study Finds **95% of Consumers** use Social Media

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Social Business

Email vs. Social Media
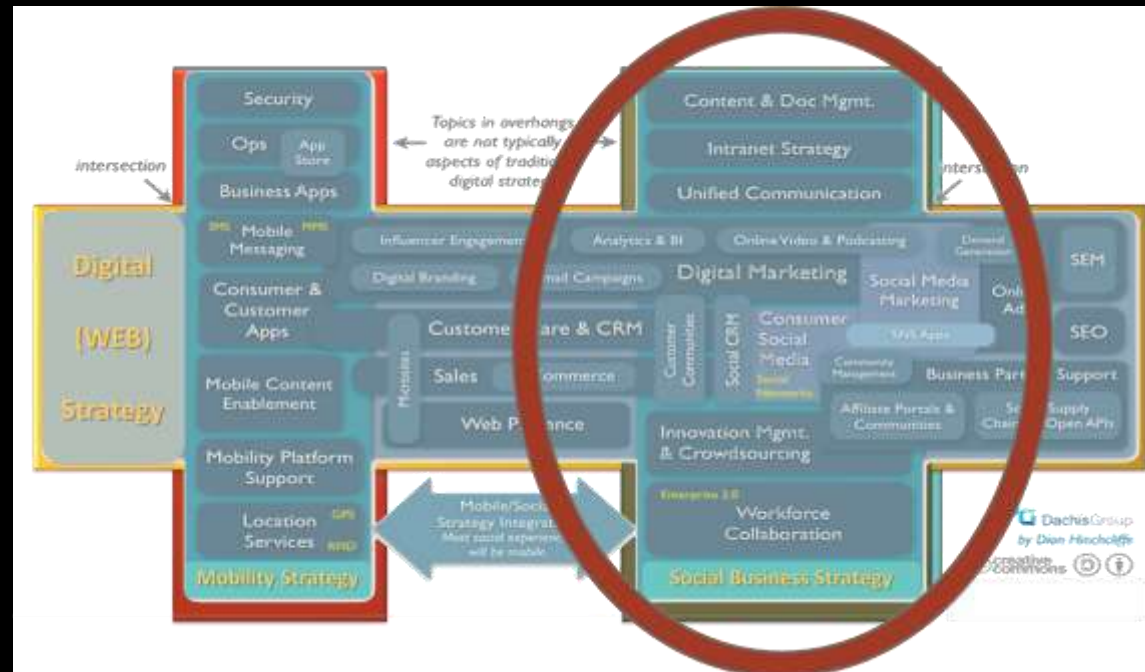
"SOCIAL" is the **dominant** form of **"internet communication"**
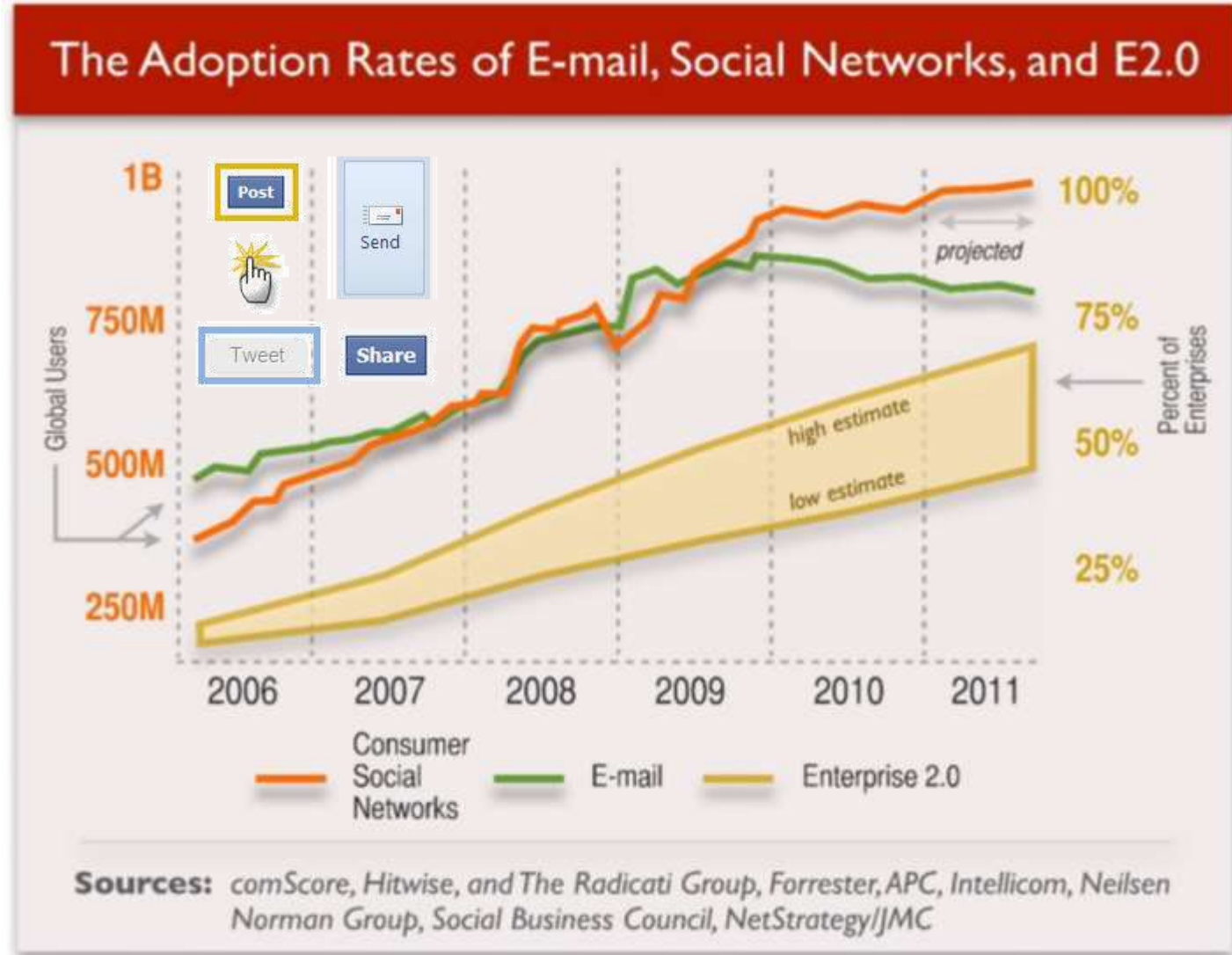
twitter Google+

YouTube

facebook digg

flickr Linked in

LIKE

The Adoption Rates of E-mail, Social Networks, and E2.0

Global Users

1B — 100%

750M — 75%

500M — 50%

250M — 25%

Percent of Enterprises

Post Send Tweet Share

high estimate

low estimate

projected

2006 2007 2008 2009 2010 2011

Consumer Social Networks — E-mail — Enterprise 2.0

Sources: comScore, Hitwise, and The Radicati Group, Forrester, APC, Intellicom, Neilsen Norman Group, Social Business Council, NetStrategy/JMC

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The application of Open Source principles to fields outside of software

CREATE

DESTROY

(act of taking a job traditionally performed by a designated agent and outsourcing it to an undefined, generally large group of people in the form of an open call)

something that has or can have both favorable and unfavorable consequences
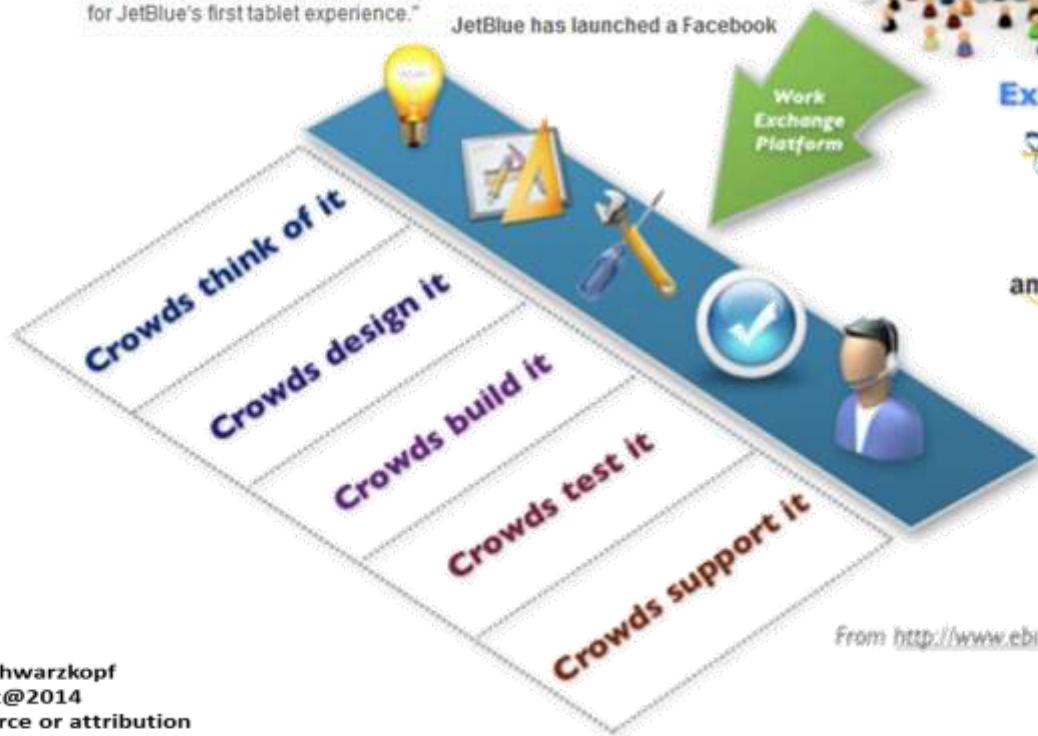
for enterprises

Personal "consumer"

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Secret – Speak Freely

By Secret, Inc.

Open iTunes to buy and download apps.

Share with friends anonymously.

I'm not sure if I just went on a date or hung out with a new friend.

Be yourself.

...ret is a space to openly share what you're
...king and feeling with your friends. Speak
freely, share anything.
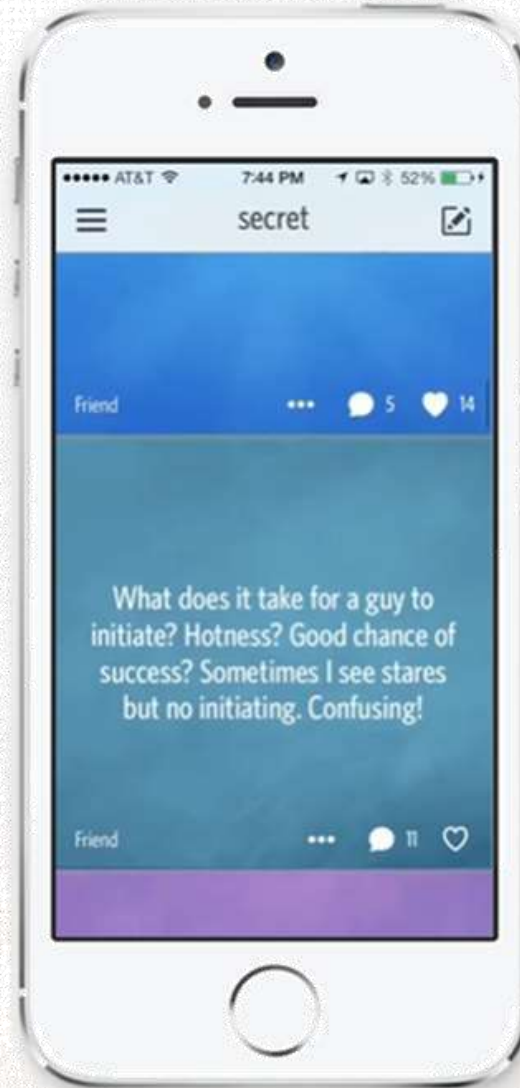
Write beautifully.

Make your words stand out by adding a photo or
color backdrop. Swipe to adjust until it feels right.
Every post is unique.

What does it take for a guy to initiate? Hotness? Good chance of success? Sometimes I see stares but no initiating. Confusing!

No names or profiles.

It's not about who you are — it's about what you
say. It's not about bragging — it's about sharing,
free of judgment.

I love the beach but I don't know how to swim.
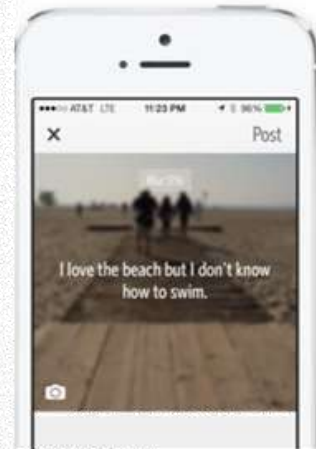
Great ideas spread.

The more people love your posts, the further they
spread. Your thoughts can travel worldwide.

-**"social enterprises"** show **higher (20%++) revenues and profit**"

- *McKinsey and Frost & Sullivan*

Israeli Enterprises are
2-4 years behind
the rest of the world

ENERGY
ENVIRONMENT
EUROPEAN UNION
FEDERAL GOVERNMENT
FINANCIAL
FOREIGN AFFAIRS

SEARCH

INFORMATION REPOSITORY

"datapath": "us.gov.whitehouse
"info": {
"rows_limit": 500,
"current_page": 1,
"total_pages": 6061,
"total_results": 3030410

R

bottom LINE click here **FILTERS**

bottom LINE click here **APIs**
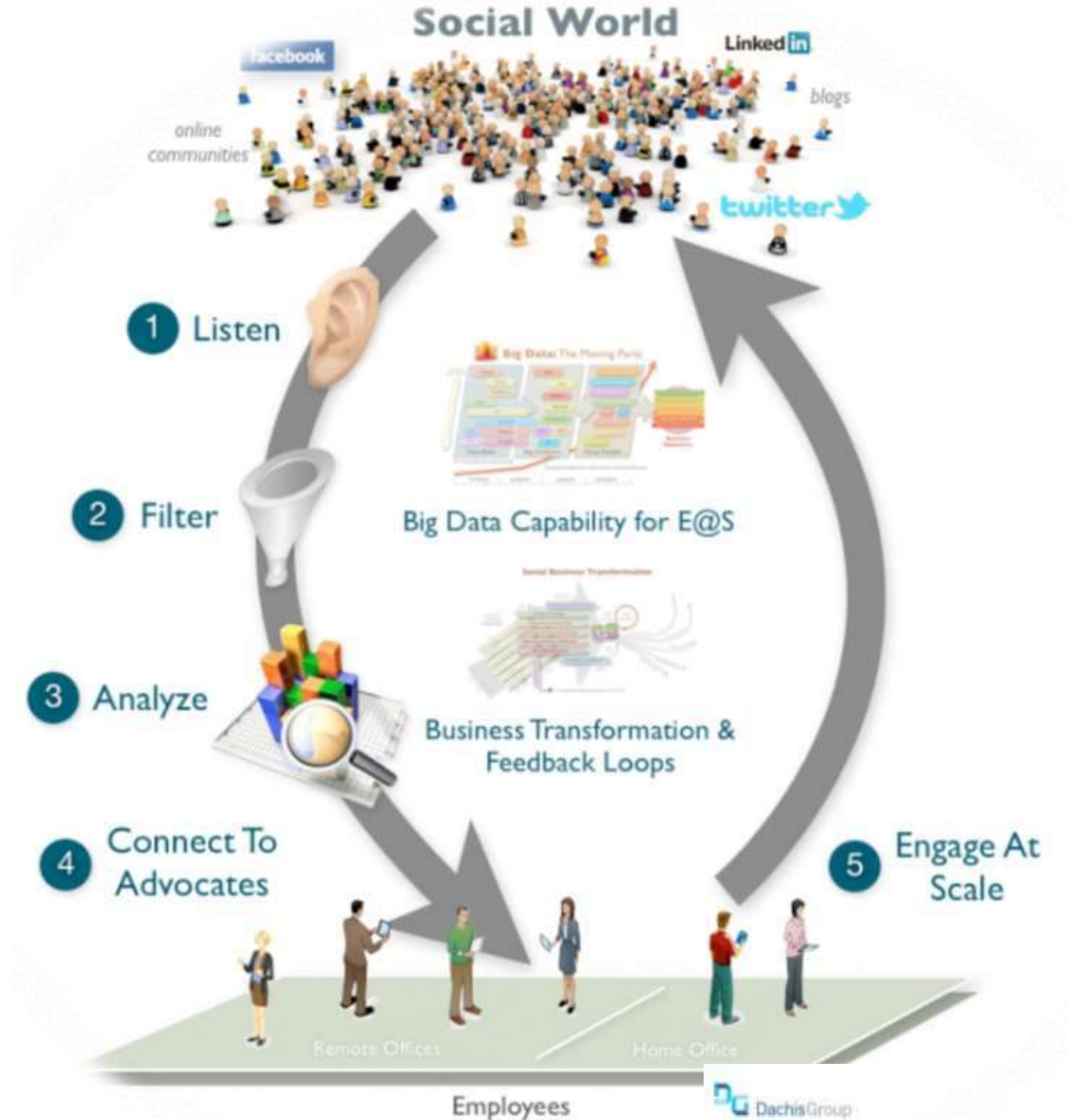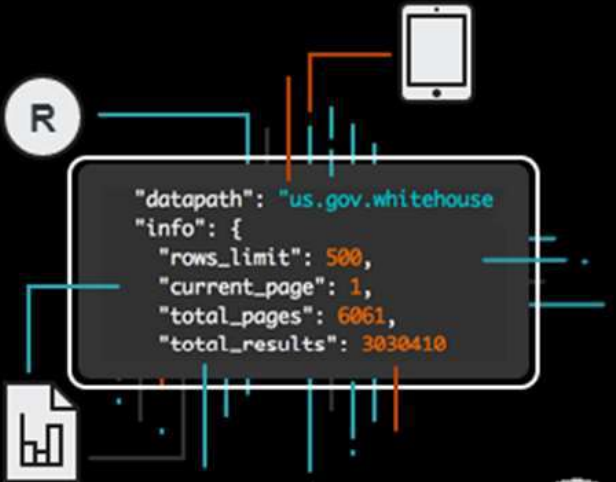
bottom LINE click here **INFORMATION REPOSITORY**

stki.info   stki Summit 2014
"The IT Change:
Better? Worse? No... *Just Different"*.

84

"When something **online is free**, you're not the customer, **you're the product**."

As they say, if something online is free, you're not the customer – you're the product.

Jonathan Zittrain

Prof. Jonathan Zittrain

The Future of the Internet And How to Stop It — Jonathan Zittrain

*(**advertisers are the clients**, and the users enjoying free content are what's being sold)*

Online free services usually **make money by extracting lots of data** from users — and then **selling that data, or using it** for targeted availability of those users for advertising, to advertisers.

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Navigate the world
of public data

largest collection of public data produced by governments, universities, companies, and organizations..

Enigma.io

Data that provides new insights into economies, companies, places and individuals
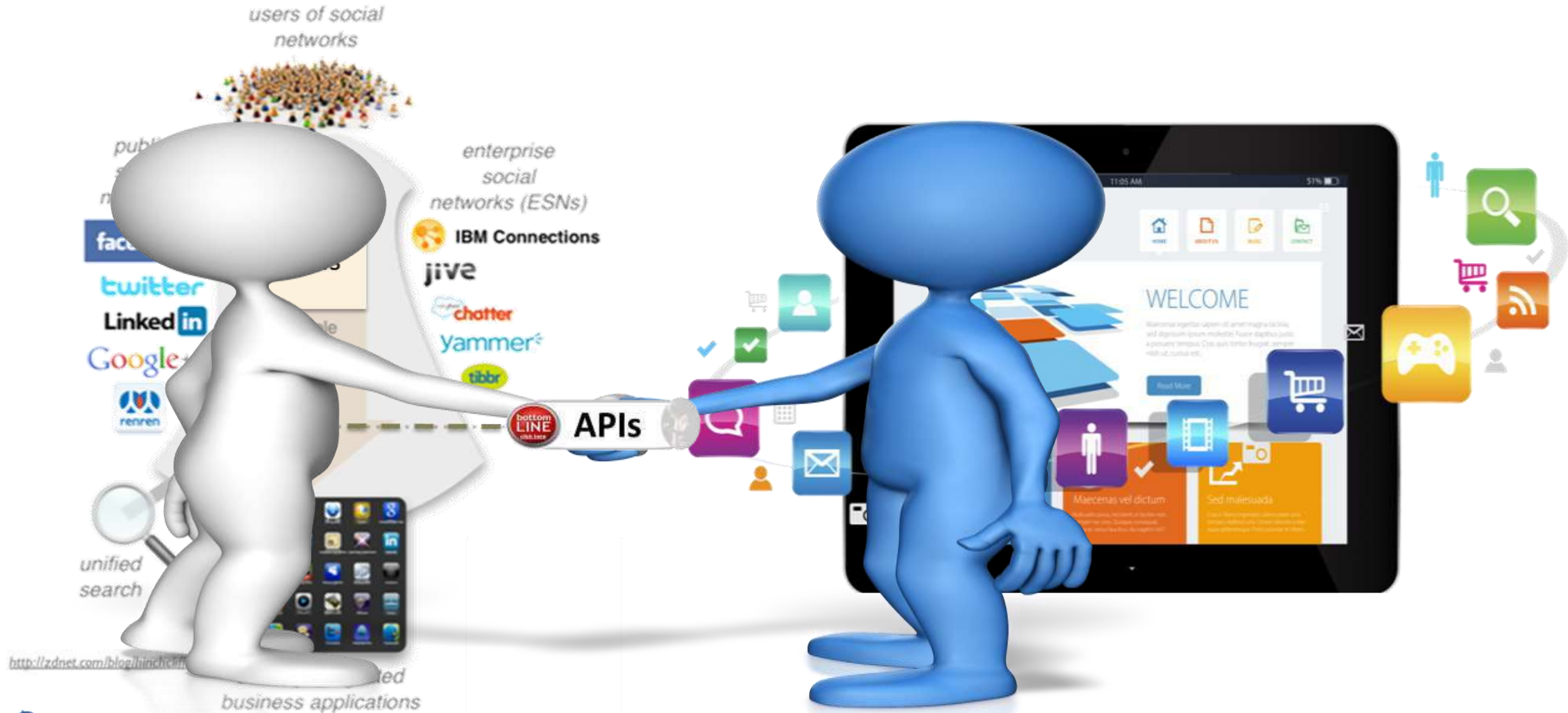
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A ***monetization strategy*** looks at the ability to leverage the information repository developed or owned by an enterprise, and builds solutions around information for interested internal and external parties.

APIs & FILTERS

EXTERNAL MONETIZATION strategy leverages the information repository to create new revenue streams though APIs (API Economy)

INTERNAL MONETIZATION strategy focuses on using the information repository through APIs and FILTERS to:
- enhance customer experience
- cross-selling and loyalty
- improve performance
- drive down working capital costs
- etc.

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ALL organizations create information assets

Take data from being siloed and unmanaged
to become an

Information Repository managed end-to-end through a **Data Supply Chain**

DATA is a **premier IT asset**
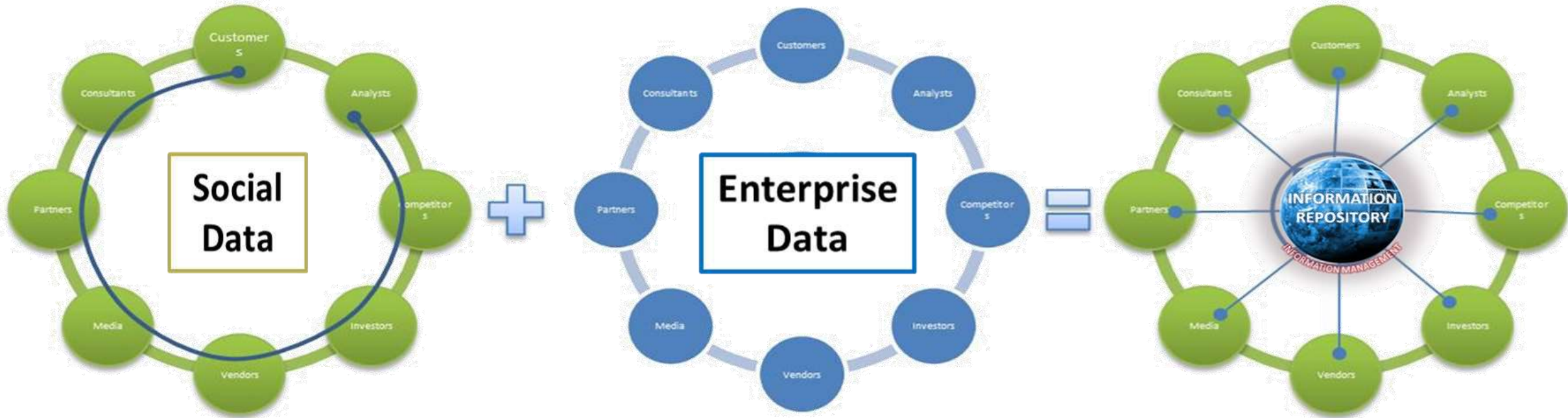
INFORMATION is a premier *business asset*

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"**What's the difference between information and data?**

It's like the difference between knowing Julia Roberts' phone number
and
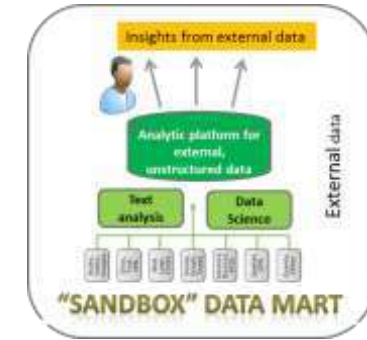**Knowing Julia Roberts"**

- Woody Allen

Unstructured content including Text, Audio, Video, Images on the Web, Social Media and other public channels

+

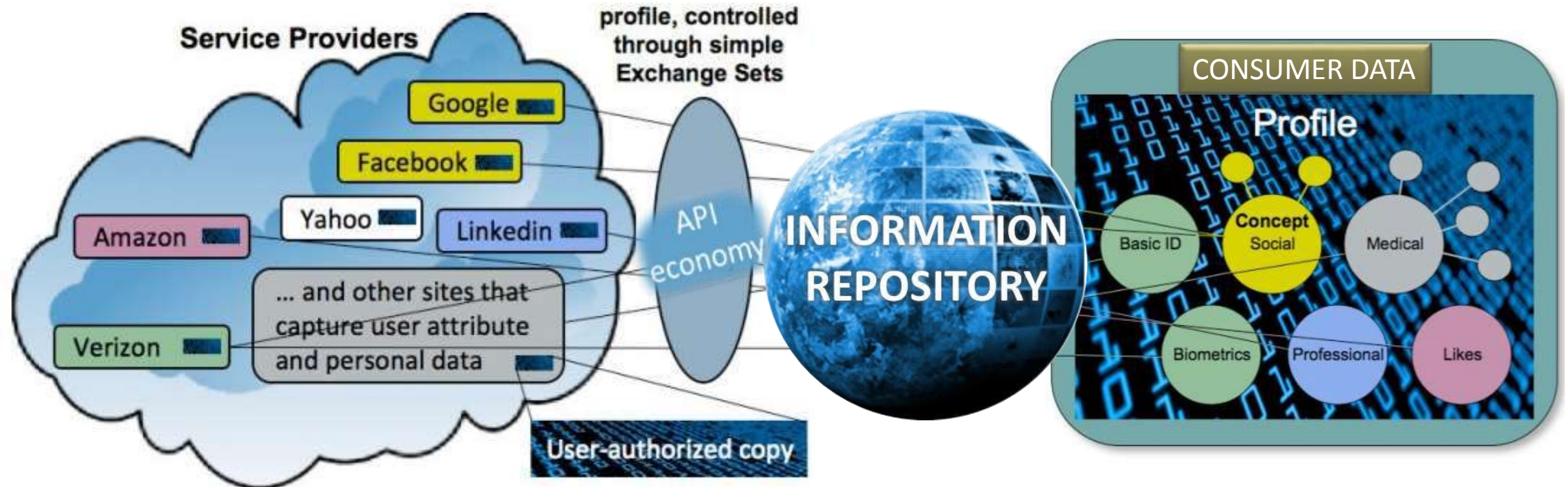**Structured** within the Enterprise that helps run business today e.g. Client, Product, Trade or Transaction

=

Tying together your Enterprise Data Models with the value that lies in the Unstructured Data around your firm
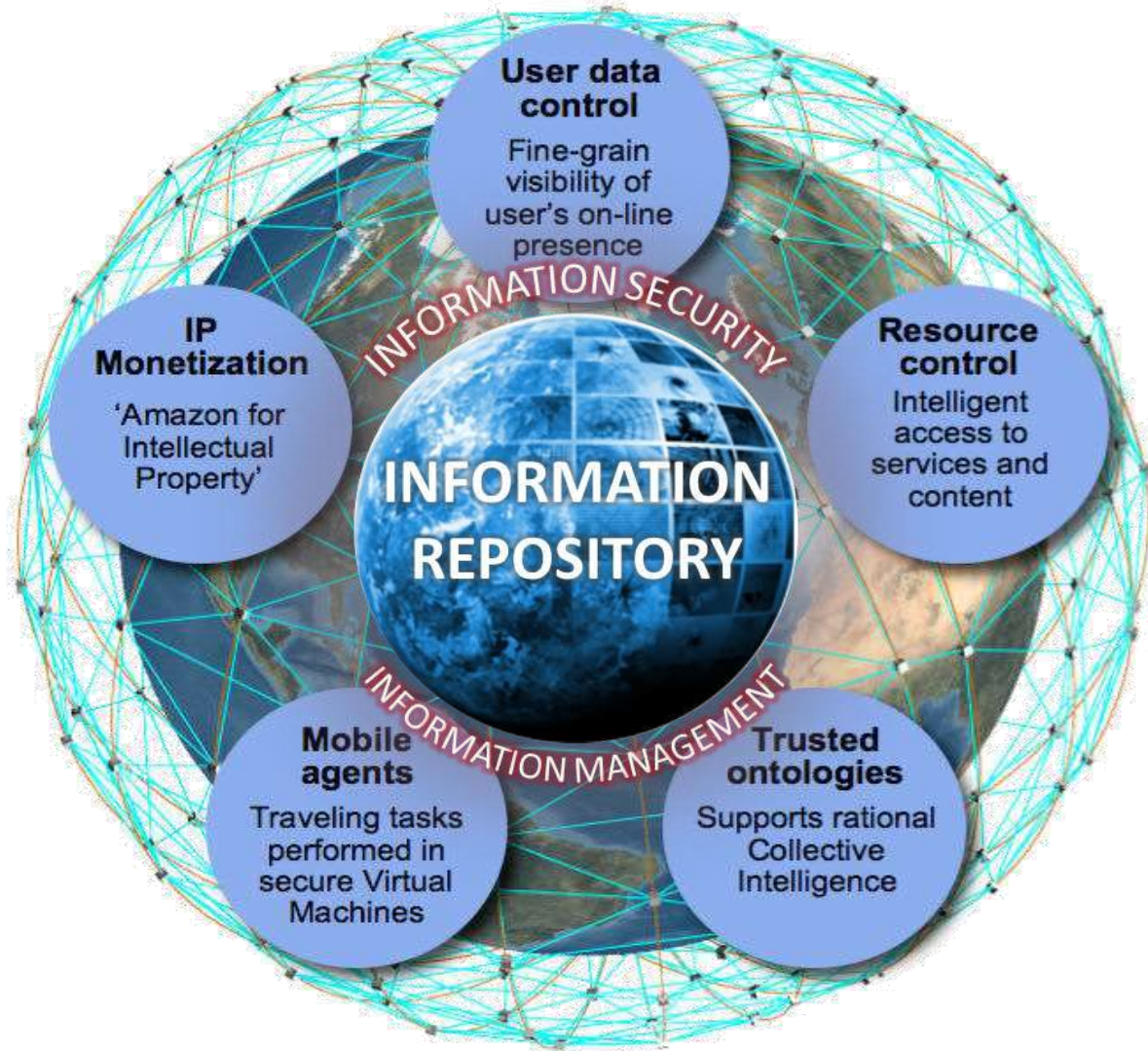
APIs & FILTERS

TRADITIONAL DW

Today's Data Center
Systems of Records
ORACLE SAP Microsoft Dynamics IBM

System of Records (transactions)

80-85% of Budget
20-30% of CIO time

Productivity Optimization
Processes
Long Life Cycles

Software-Defined Data Center
Systems of Engagement
spring python

System of Engagement

15-20% of Budget
70-80% of CIO time

Touch people
In-moment decisions
Personalized & in-context
Social and analytics driven

Insights from external data
Analytic platform for external, unstructured data
Text analysis | Data Science
External data
"SANDBOX" DATA MART

INFORMATION SECURITY

INFORMATION REPOSITORY

INFORMATION MANAGEMENT

Social Media
facebook
twitter

INTERNET OF THINGS

INTERNET OF PEOPLE PLACES & COMPANIES

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Bring Your Own ID (BYOID)
will bring consumerization into enterprise security

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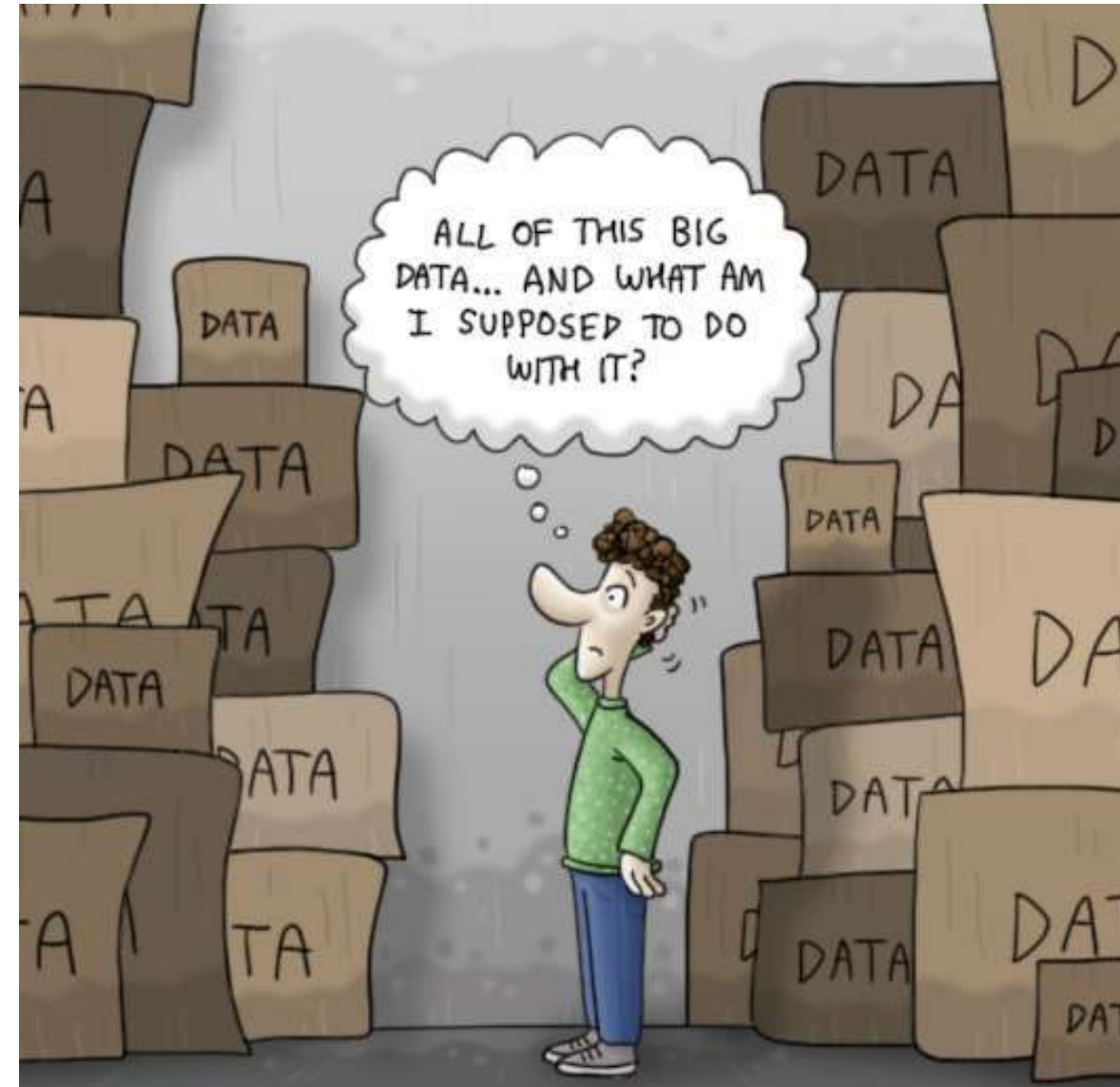
"Consumer data will be the biggest differentiator in the next two to three years. Whoever unlocks the reams of data and uses it strategically will win."

Angela Ahrendts, CEO of Burberry

"Information overload is not the problem. It's filter failure." - Clay Shirky

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"To attain knowledge, **add** things everyday. To attain wisdom, **remove** things every day."

Lao Tzu
Laozi
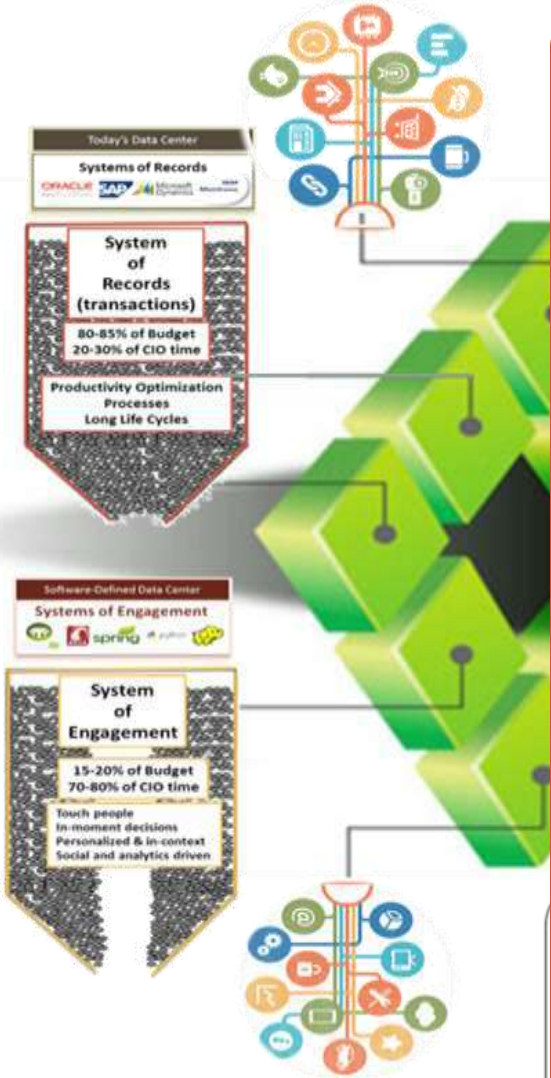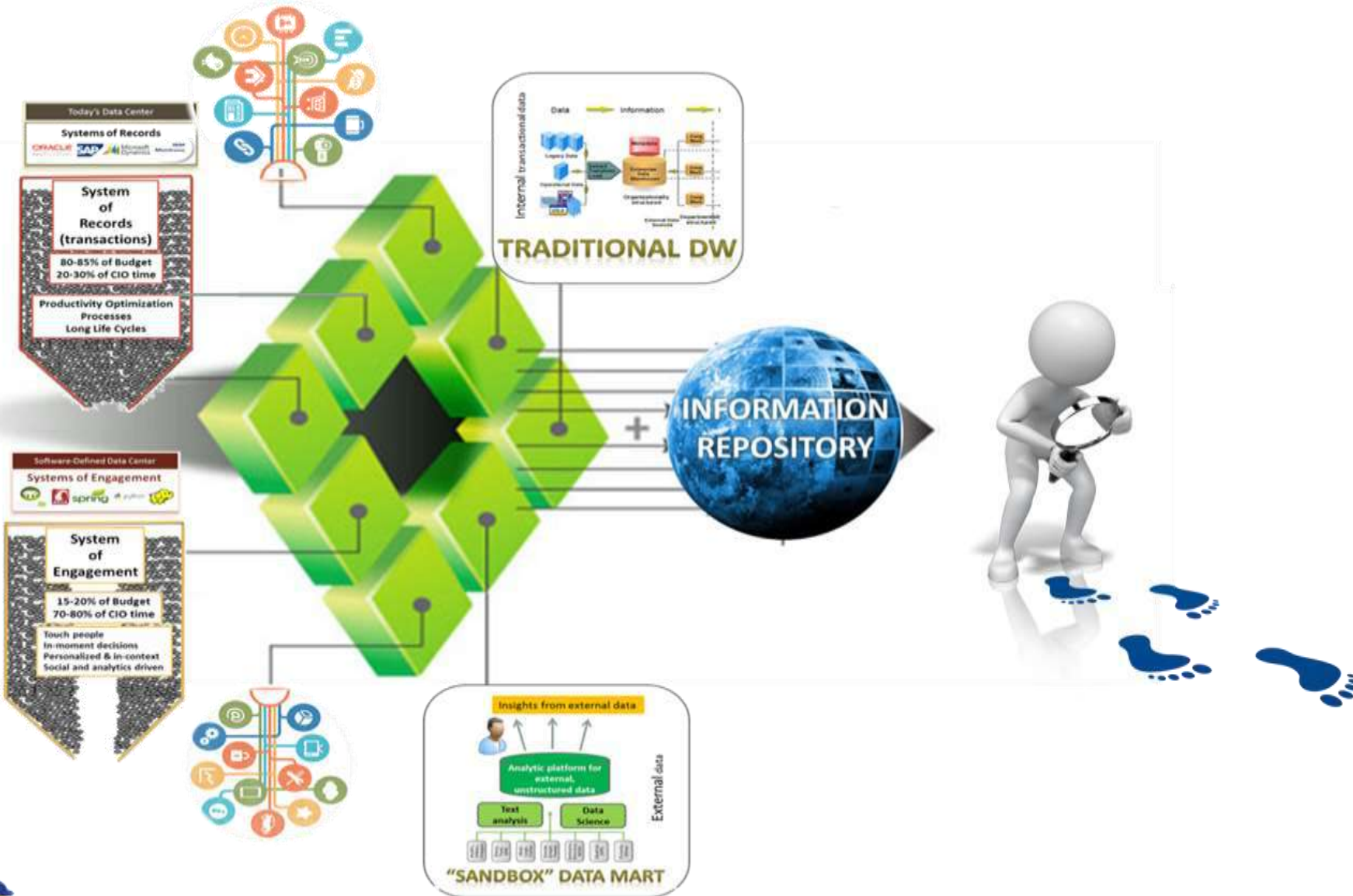
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Today's Data Center
Systems of Records
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TRADITIONAL DW

INFORMATION REPOSITORY

Insights from external data
Analytic platform for external, unstructured data
Text analysis
Data Science
External data
"SANDBOX" DATA MART

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Tools
- Publishing
- Search
- Fulfillment
- conversation

Engagement Systems
- Portals
- Mobile
- Web
- others

Analytical Systems
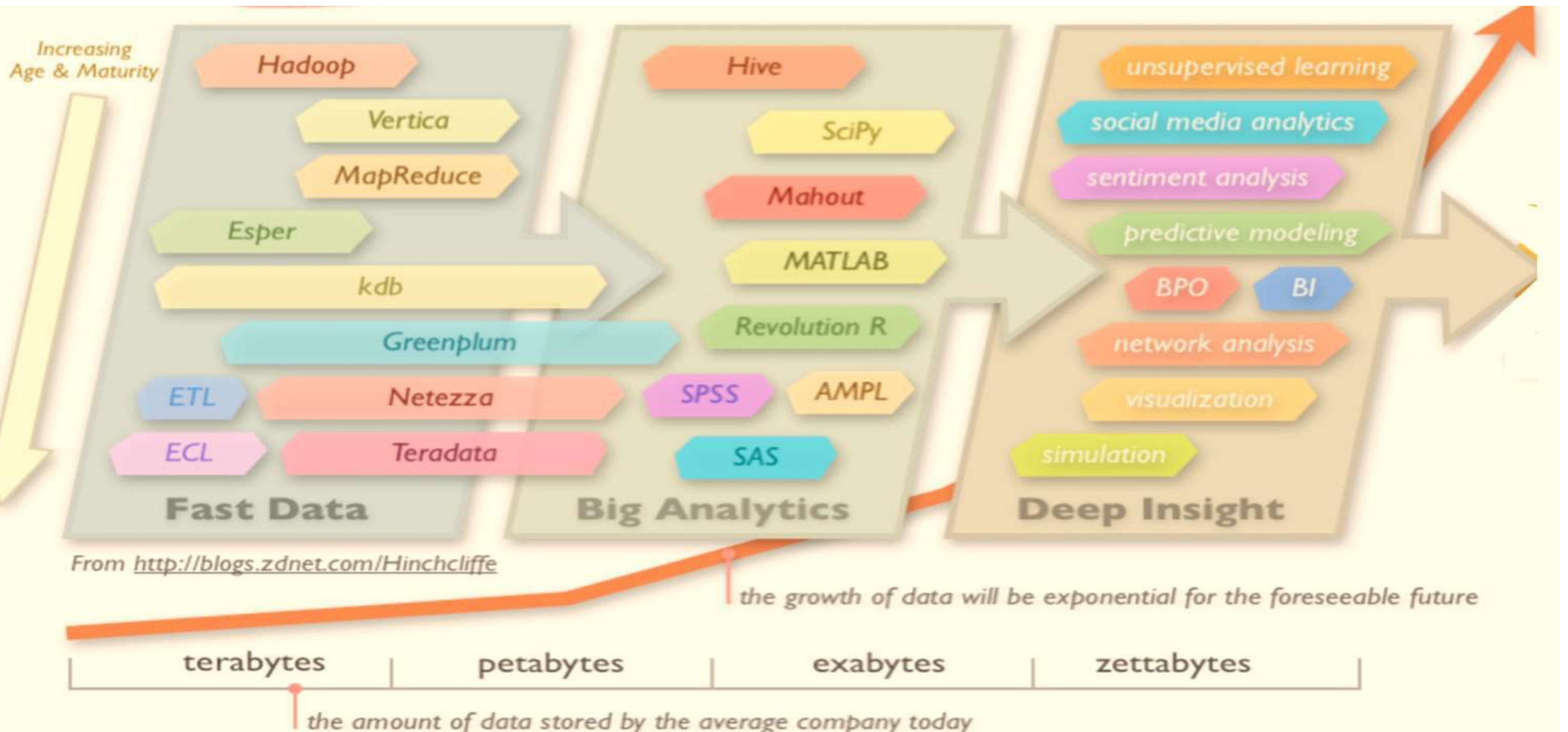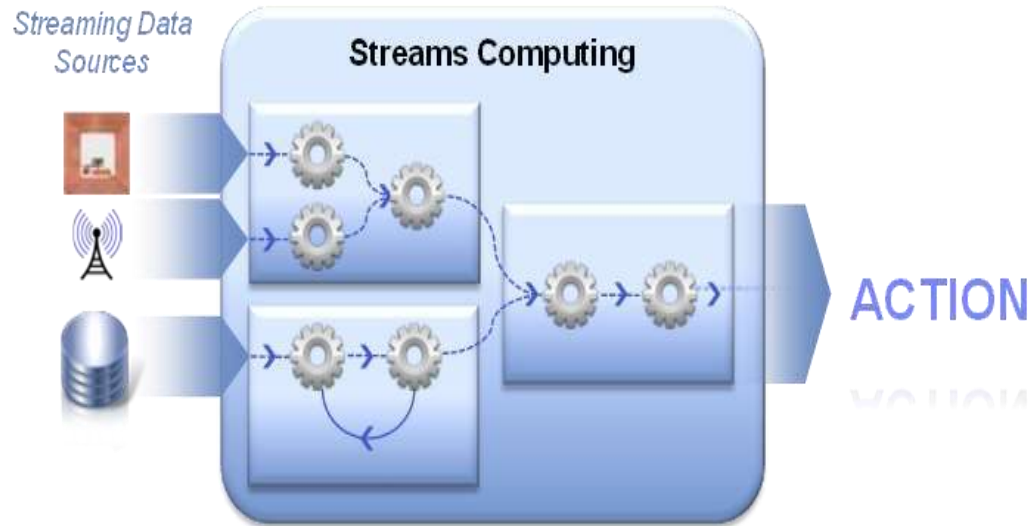- BI
- Data Mining
- others

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From http://blogs.zdnet.com/Hinchcliffe

the growth of data will be exponential for the foreseeable future

| terabytes | petabytes | exabytes | zettabytes |

the amount of data stored by the average company today

**Streaming analytics tools
harness the natural
resource of streaming data
and turn it into actionable
insight.**

Many sources of *streaming data*, but *unable* to take full advantage of them:
- ❖ simply *too much data to collect and store* before analyzing it
- ❖ *timing* – by the time they store data on disk, analyze it, and respond – it's *too late*.

The *benefits* of streaming analytics are :
- ❖ *cost savings* by analyzing all the data and only storing what is necessary
- ❖ ability to detect and make *real-time decisions*

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CLOUD

Client/Cloud

- ❖ User <u>most</u> of the time **connected**
- ❖ **APP server** is on the **cloud**
- ❖ **APP** used by **multiple clients devices**
- ❖ **APP client installed on all devices**
- ❖ **Some** work **off line**
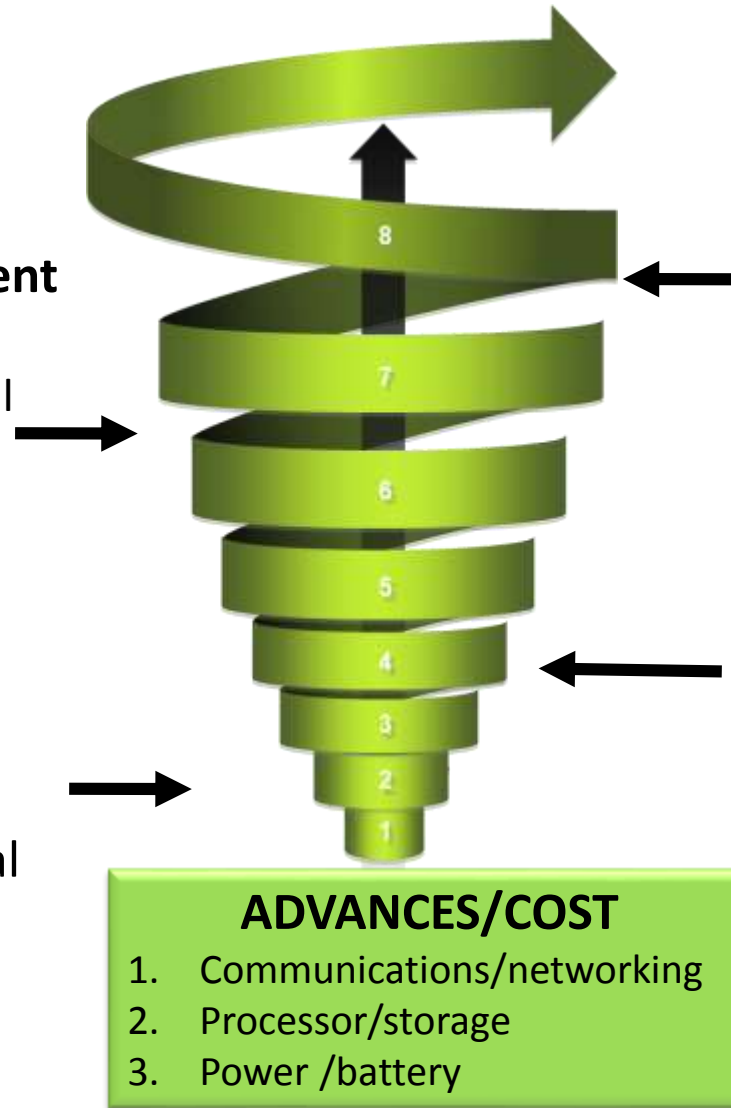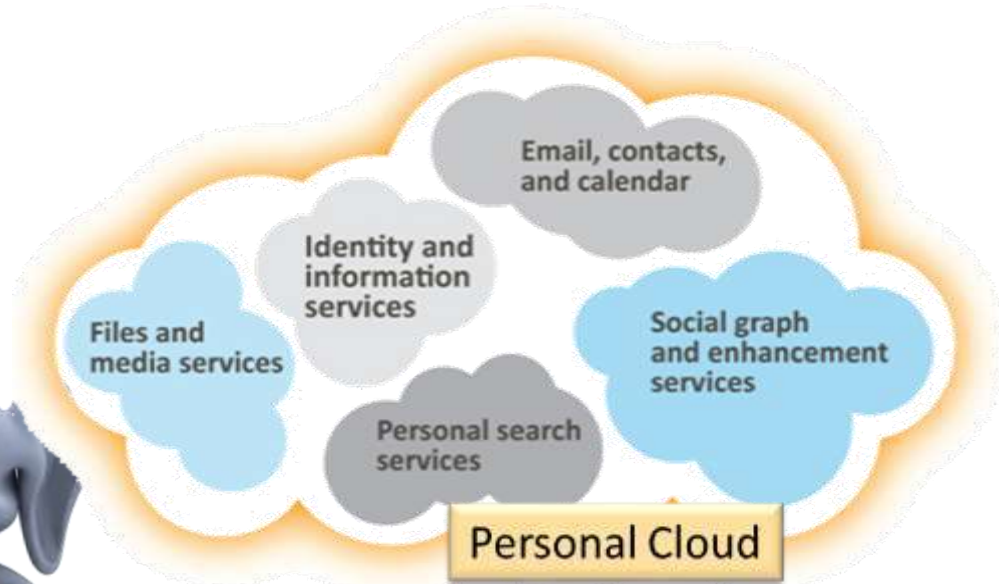- ❖ Move from **APP** to **SERVICE**

Terminals V 2 WEB/Browser client

2 types of applications:
1. **Off-line:** processing and storage local *(not apps)*
2. **Always connected:** browser based applications

Client/Server

  2 types of applications:
1. **Off-line:** processing and storage local
2. **Always connected :** data moves; processing@server; GUI@client

Terminals V1

Always connected
I/O only at the local

ADVANCES/COST
1. Communications/networking
2. Processor/storage
3. Power /battery

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105

Every decade a <u>new, lower priced computer</u> class forms with new programming platform, network, and interface <u>resulting in new usage and industry</u>.

Gordon Bell

What's new in the "cloud" model ?

Acquisition Model:	**Business Model:**	**Access Model:**	**Technical Model:**
Based on purchasing of services	Based on pay for use	Over the Internet to ANY device	Scalable, elastic, dynamic, multi-tenant, & sharable

Managed and Unmanaged Hosting **Data Center Collocation**	**Physical Infrastructure as-a-Service**
Virtual servers **Logical and virtual disks** **DBMS, middleware and other infrastructure services** **Systems Management**	**Infrastructure as-a-Service**
Development Platform **Testing Platform** **Managed Infrastructure Services**	**Software Platform as-a-Service**
APPs that can integrate into mashups **APIs from specific services / sources (API Economy)**	**APPs & APIs components as-a-Service**
Web Sites ,Collaboration, e-mail and Office **Service Desk** **Applications (ERP and vertical core systems)** **Engagement Systems (CRM, call center, MBaaS…)**	**Software Applications as-a-Service**

Level of Abstraction

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End users

Customers

IT Consumers

Software as a Service

Existing end user services market, delivered from the cloud

APPs & APIs
Components as a Service

Software Platform as a Service

Infrastructure as a Service

| Compute | Storage | Network | Database |

Physical infrastructure

Three cloud services that are difficult to separate

Traditional data center services market, such as collocation or managed hosting

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Cloud Deployment Models

|	
The cloud infrastructure is operated within the consumer's organization.	*Internal (private) cloud*
The cloud infrastructure is jointly owned by several organizations and supports a specific community that has shared concerns (e.g., mission, security requirements, policy, and compliance considerations)..	*Community cloud*
The cloud infrastructure is owned by an organization selling cloud services to the general public or to a large industry group.	*Public cloud*
The cloud infrastructure is a composition of two or more clouds (internal, community, or public) that remain unique entities but are bound together by standardized or proprietary technology that enables data and application portability.	*Hybrid cloud*

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SOLID — Static Cloud Services
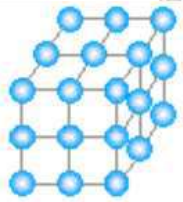
Hybrid Services always together

capacity/performance instances and defined service combinations
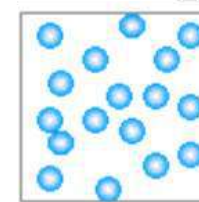
Static Cloud Services

LIQUID — Ad-Hoc Cloud Services
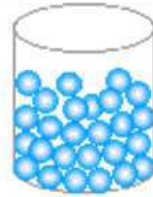
Composition of Hybrid Services

based on pre-defined events and service combinations

Ad-Hoc Cloud Services

GAS — Dynamic Cloud Services
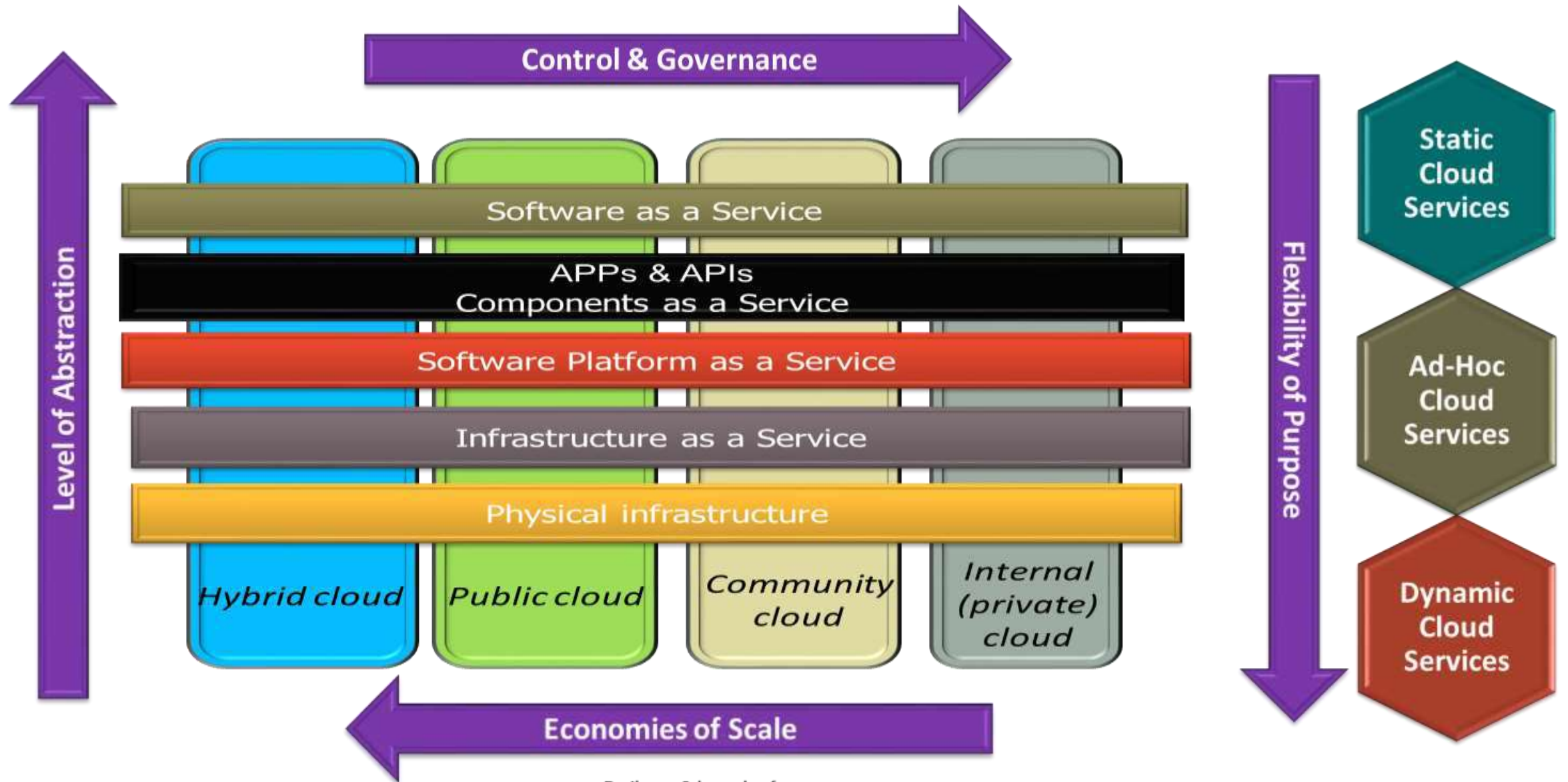
Composition of Hybrid Services

based on runtime dynamic processing needs and pricing

Dynamic Cloud Services

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Control & Governance

Level of Abstraction

Flexibility of Purpose

Static Cloud Services

Ad-Hoc Cloud Services

Dynamic Cloud Services

Software as a Service

APPs & APIs
Components as a Service

Software Platform as a Service

Infrastructure as a Service

Physical infrastructure

Hybrid cloud

Public cloud

Community cloud

Internal (private) cloud

Economies of Scale

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CIO

CIO Purview

Rest of Organization

- Workers
- Business Units
- Marketing
- Chief Digital Officer
- Digital Unit(s)

Cooperative IT

Core IT

ERP   DMS
Intranet   CRM

Org
Emphasis &
Priority

Systems of
Record   Internet Presence

Systems of
Engagement   E-mail   UC
ESN

CMS   Collaborative
Economy

LOB
Apps   Productivity Aids

Mobile Apps

Marketing Experiences

Social Tools &
Digital Communities

Edge IT

BYOD, BYOC, BYOT

Private Cloud   Hybrid Cloud   Public Cloud

Community Cloud

Systems of Records

Systems of Engagement

Systems of Records
ORACLE   SAP   Microsoft Dynamics

Systems of Engagement
spring

The Enterprise

http://zdnet.com/blog/hinchcliffe

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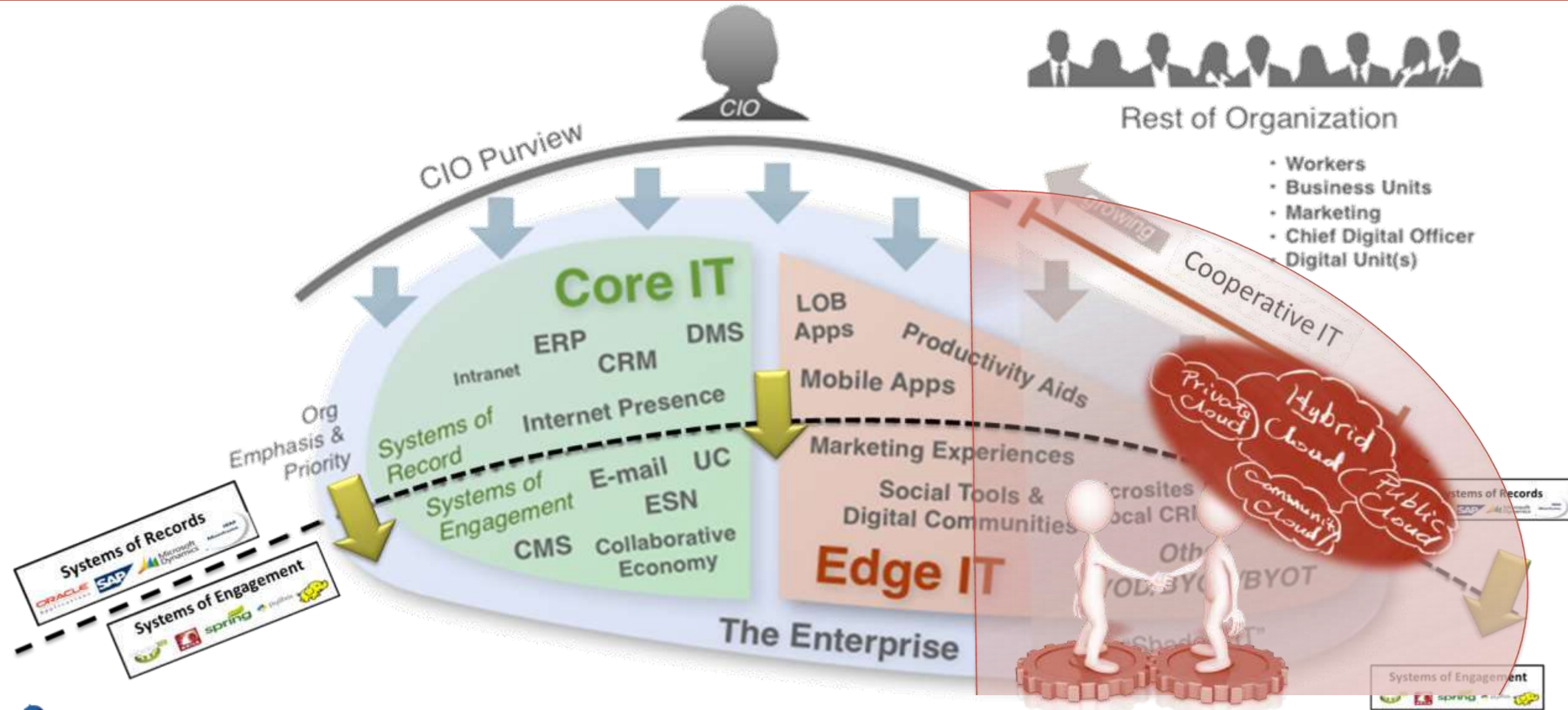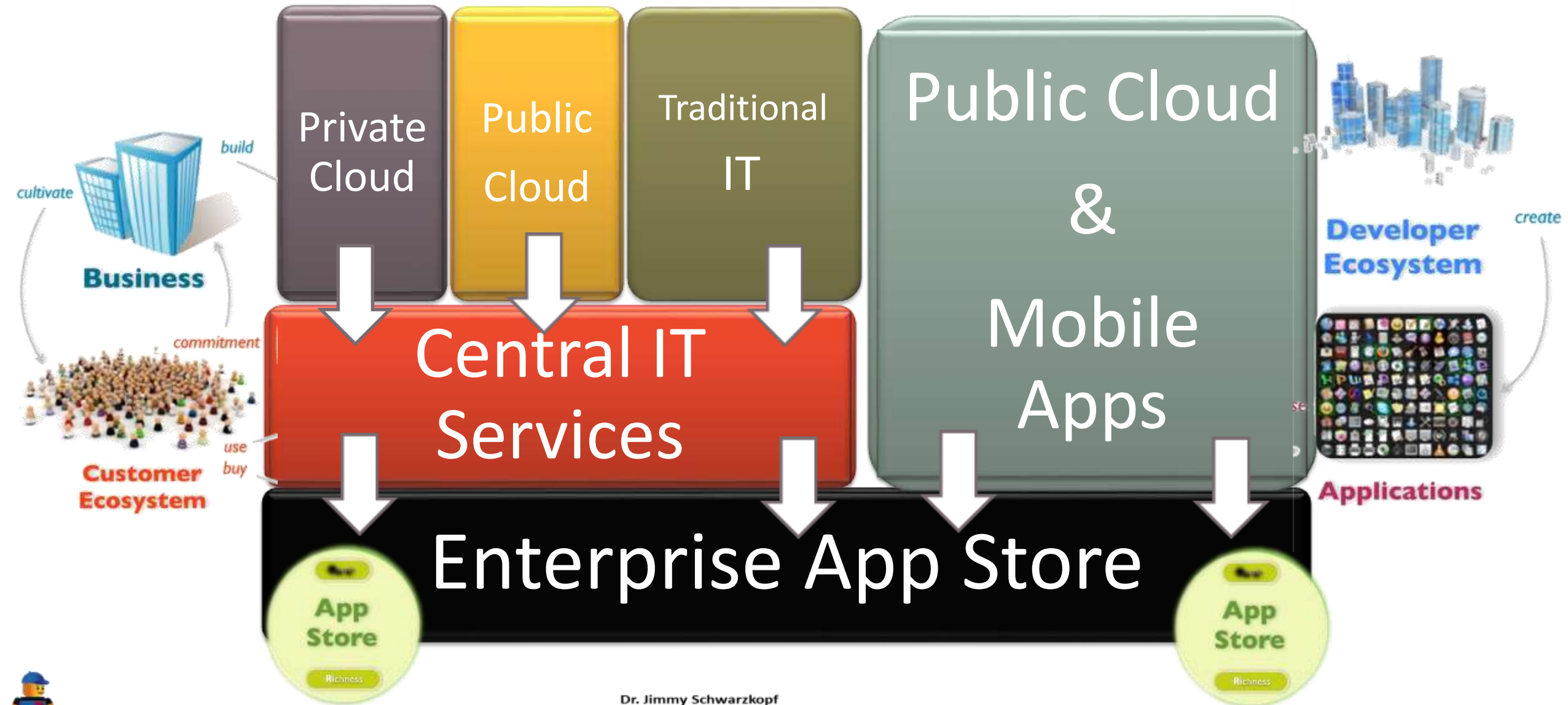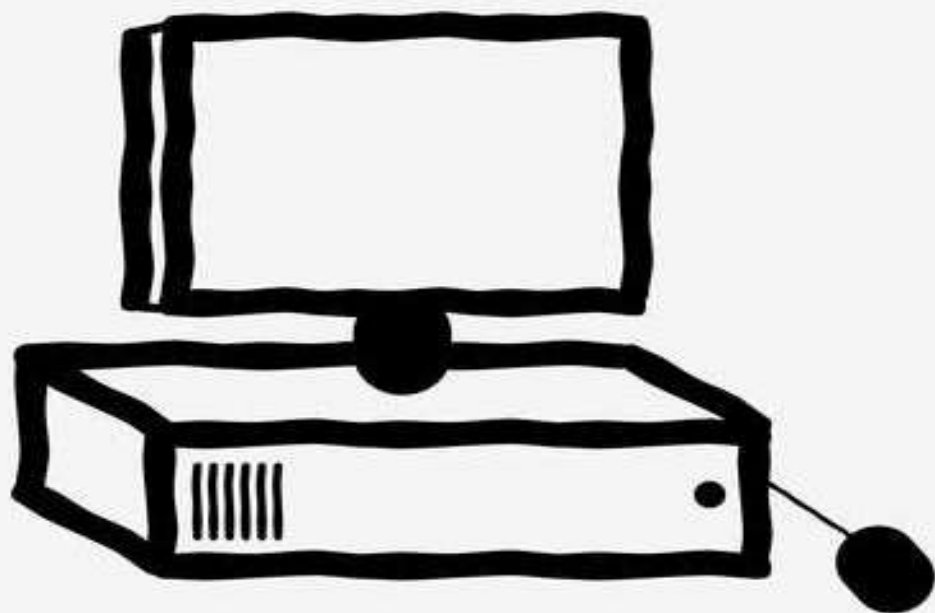
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CIO

CIO Purview

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- Workers
- Business Units
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Cooperative IT

Core IT

ERP   DMS
Intranet   CRM

Systems of Record   Internet Presence

Systems of Engagement   E-mail   UC
ESN

CMS   Collaborative Economy

Org Emphasis & Priority

Systems of Records

Systems of Engagement

LOB Apps   Productivity Aids

Mobile Apps

Marketing Experiences

Social Tools & Digital Communities

Edge IT

Private Cloud   Hybrid Cloud   Public Cloud

Community Cloud

Systems of Records

BYOD/BYOC/BYOT

Systems of Engagement

The Enterprise

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THAT'S
ALL
FOLKS!

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