# *FUTURE-PROOFING BUSINESSES & WORKFORCE THROUGH DIGITAL TRANSFORMATION*

**Eusebio Scornavacca, PhD**
**Parsons Professor of Digital Innovation**
**Director, Center for Digital Communications, Commerce and Culture**
**John & Margaret Thompson Chair in MIS**

**Merrick School of Business**
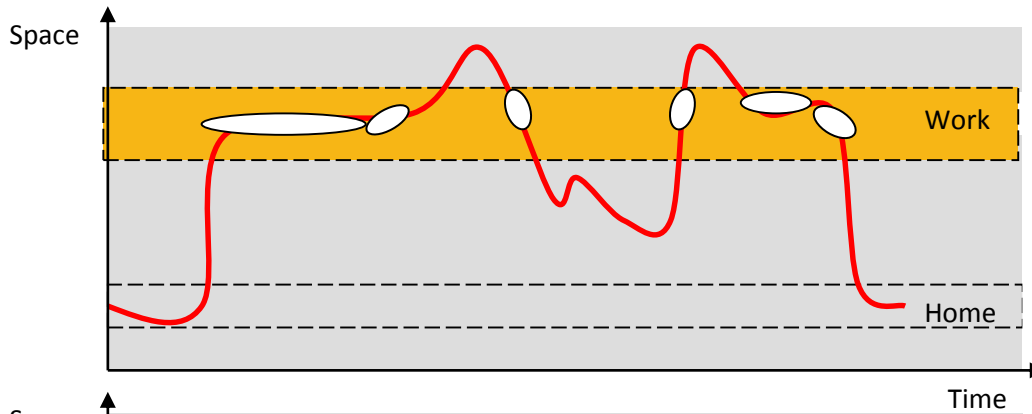**University of Baltimore**
**Maryland, USA**
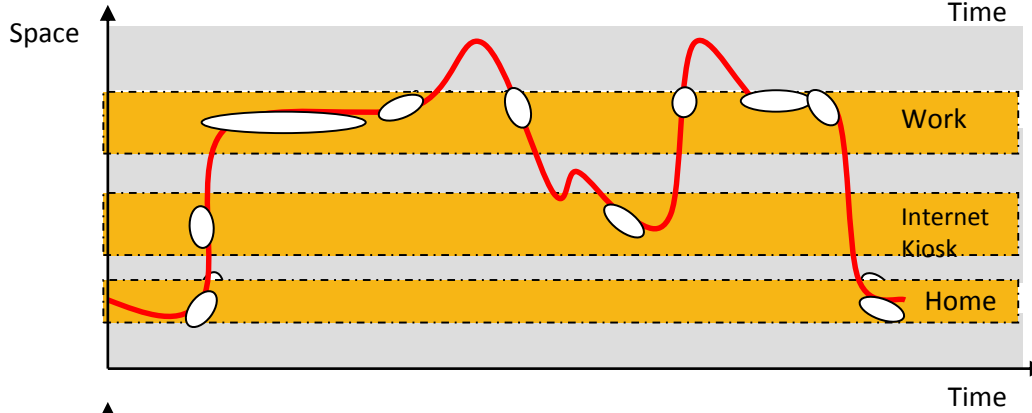
# Where should I begin....

- Key Technological Enablers
  - Diffusion of the Internet
  - Growth of wireless telecommunications
  - Increased System Convergence & Fluidity
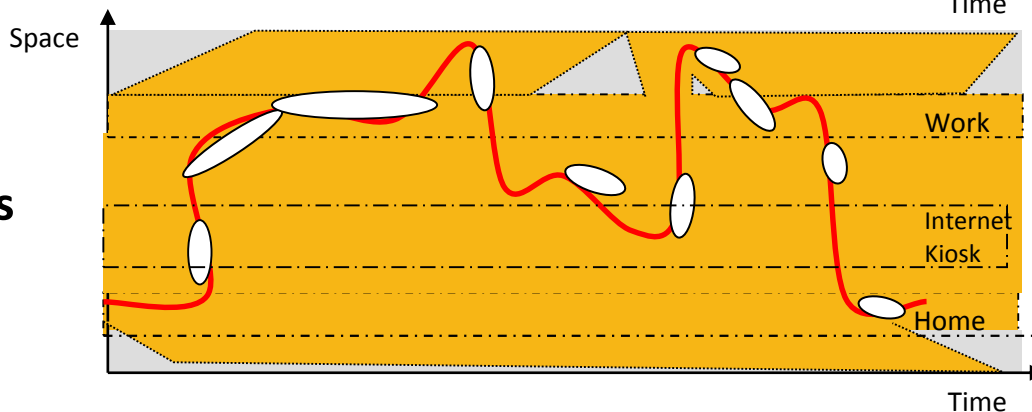  - Moore's Law

**Stationary**

Space

Work

Home

Time

**Networked**

Space

Work

Internet Kiosk

Home

Time

**Ubiquitous**

Space

Work

Internet Kiosk

Home

Time

☐ **Key disruptive aspects:**

- ▫ Spatiality
- ▫ Temporality
- ▫ Interactivity
- ▫ Task support

- - - = Physical Boundaries
⬭ = Tasks Supported by ICT
— = Temporal and Spatial Continuum
⋯⋯ = Virtual Organizational Boundaries
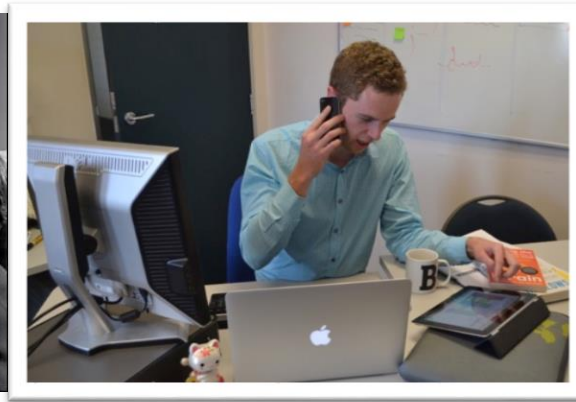⬜ = ICT support not available
🟧 = ICT support available

# So basically…

☐ Advances in wireless connectivity, technology portability, data analytics made possible the emergence of a ubiquitous digital ecosystem that enables continuous support to individuals and enhances the affordances of objects.

☐ Key technological characteristics:
- Connected
- Embeded
- Smart

# Does it really change things?

# Context, Boundaries, Productivty

# End-user Behavior & Social Norms



**Digital Immigrant**

**Digital Native**



Best party EVER

# D.R.I.P.

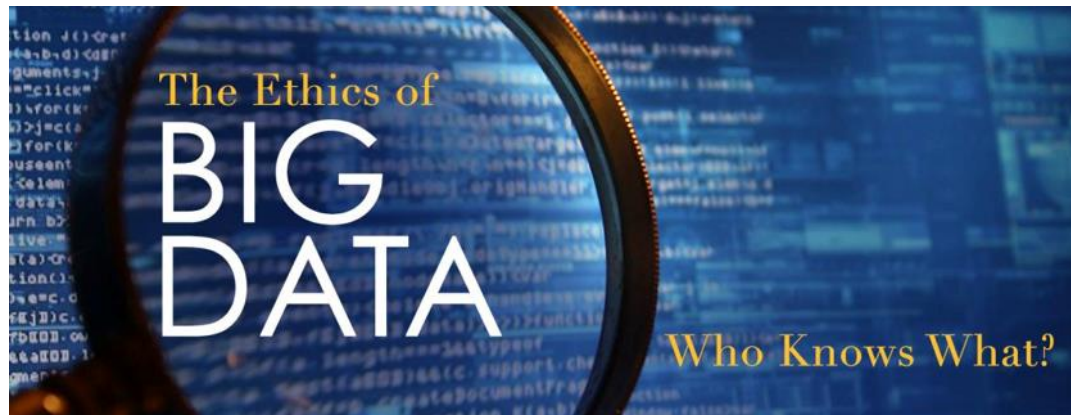□ Data Rich, Information Poor, Knowledge Miserable!





Data

Information

# Digital Risk & Organizational Resilience



- □ Security – Vulnerability
- □ Digital Footprint
- □ Resilience
- □ Traceability
- □ Privacy
- □ Ethics

# Innovation

- Disruptive Deconstruction
  - Separation of
    - Form & Function
    - Content & Media
    - Delivery Mechanism


de)construction



1887
Emile Berliner
invents the
Gramophone
and records

1962
Compact Cassette
invented

1982
Compact
Disc
invented

1997
MP3
player
was
invented

2005
"YouTube.com"
was activated
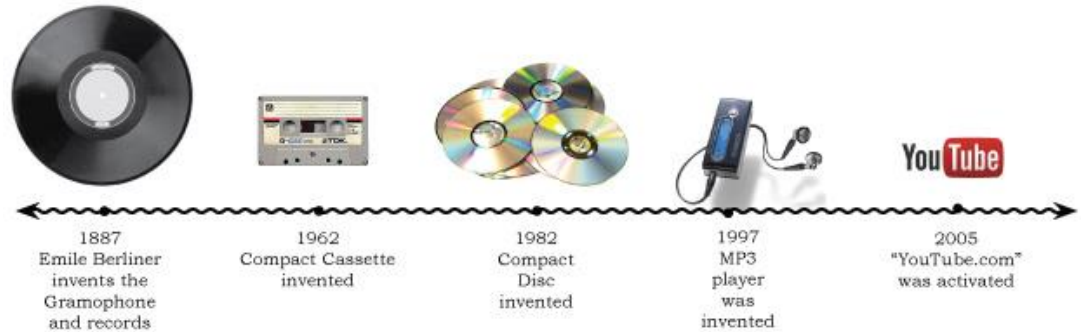
- Disruptive Reconstruction
  - Aggregation of
    - Layered Value Creation
    - Cyber-physical Products and Services

# Technological Dependence

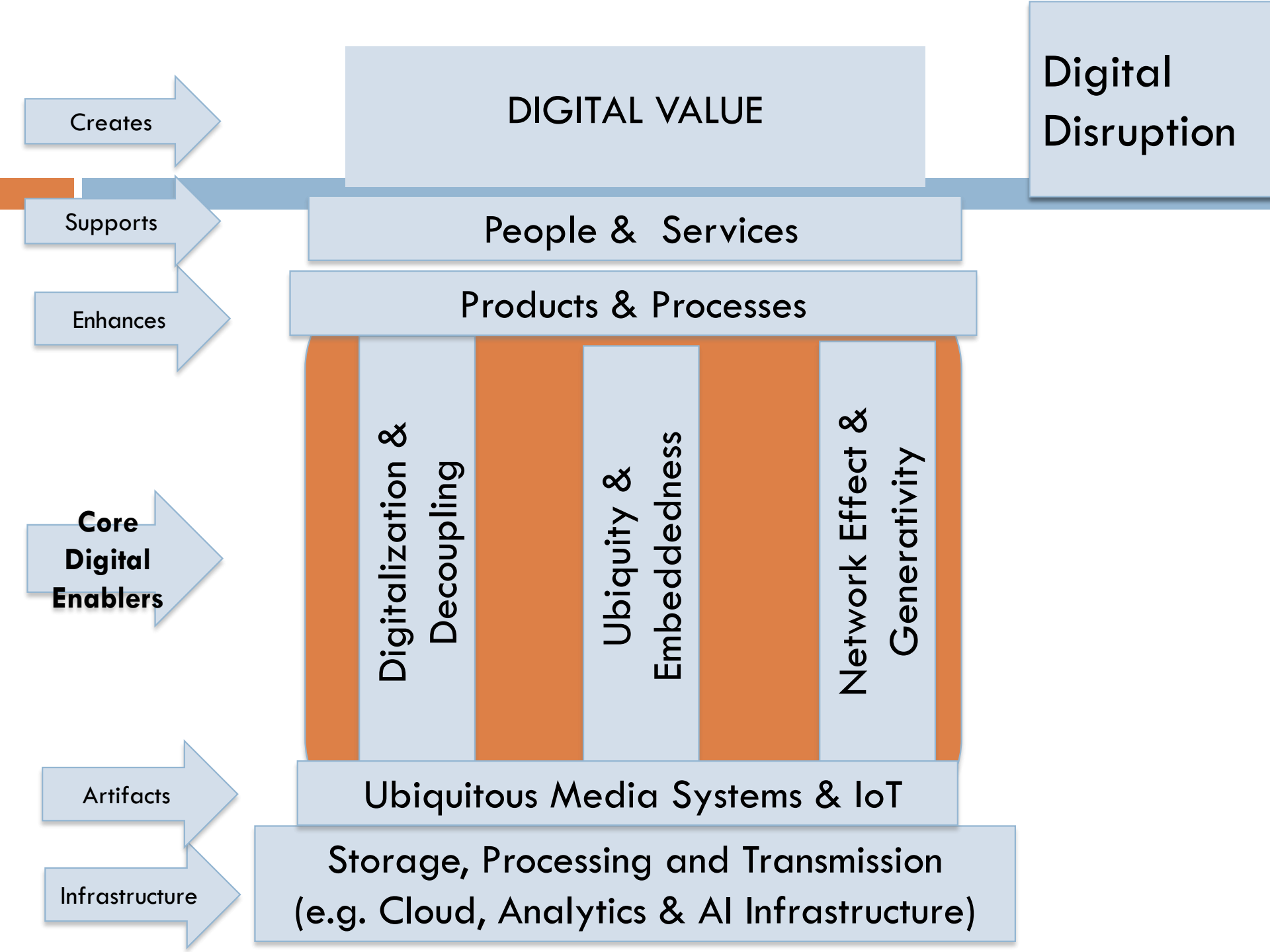Incremental technological dependence on the affordances provided by this fluid digital ecosystem.

But what is underneath the surface?

# Key Digital Disruption Enablers

- Digitalization & Decoupling
  - function no longer constrained by form
- Ubiquity & Embeddedness
  - everywhere, everyone, in everything
- Network Effect & Generativity
  - combinatorial complexity drives extraordinary unanticipated innovation

Digitalization

Creates → DIGITAL VALUE

Supports → People & Services

Enhances → Products & Processes

Core Digital Enablers → Digitalization & Decoupling | Ubiquity & Embeddedness | Network Effect & Generativity

Artifacts → Ubiquitous Media Systems & IoT

Infrastructure → Storage, Processing and Transmission (e.g. Cloud, Analytics & AI Infrastructure)

Digital Disruption

# Interesting times indeed.....



Uber — The world's largest taxi company, owns no vehicles.

The world's most popular media owner, creates no content. — Facebook

Alibaba — The most valuable retailer, has no inventory.
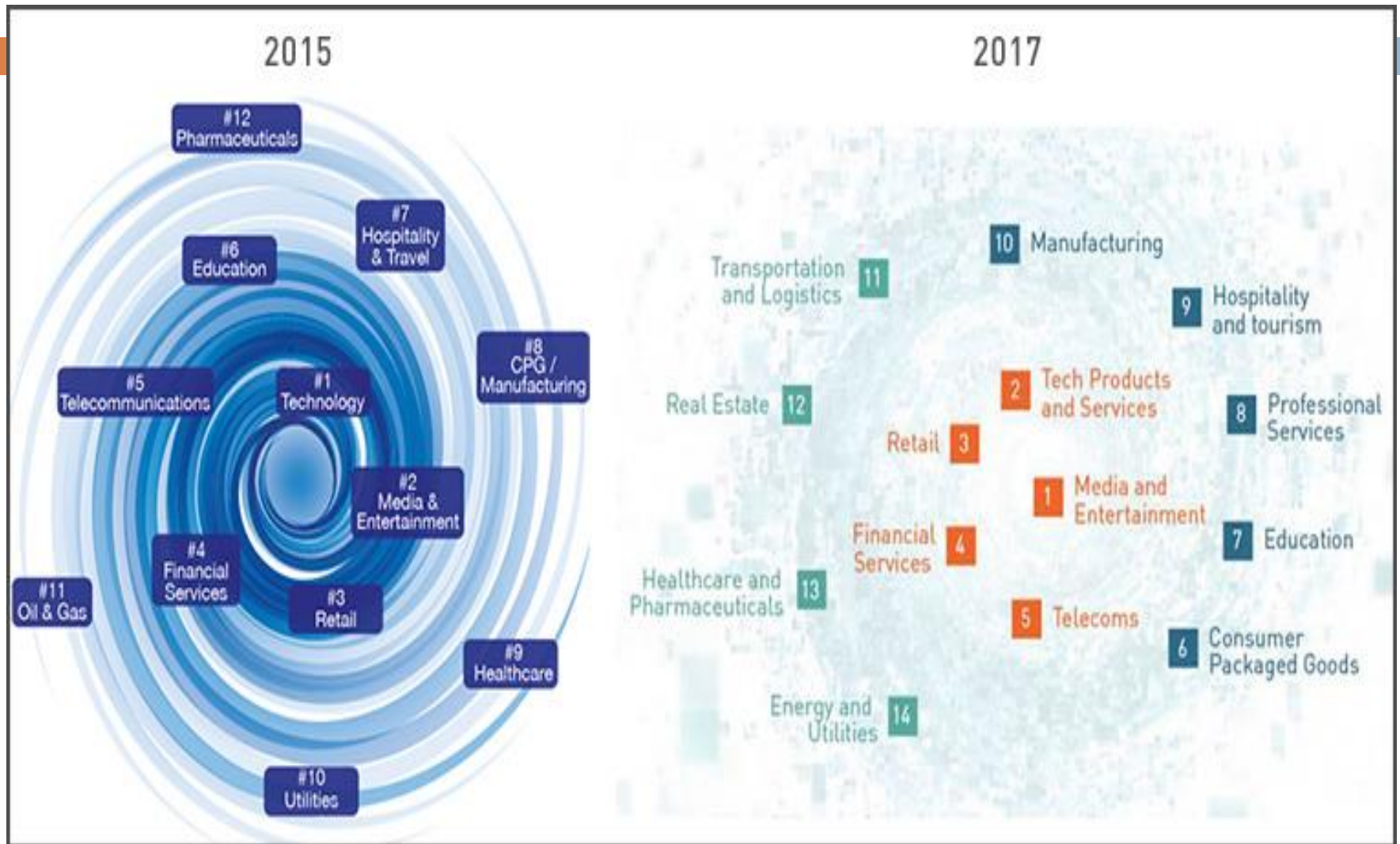
The world's largest accommodation provider, owns no real estate. — Airbnb

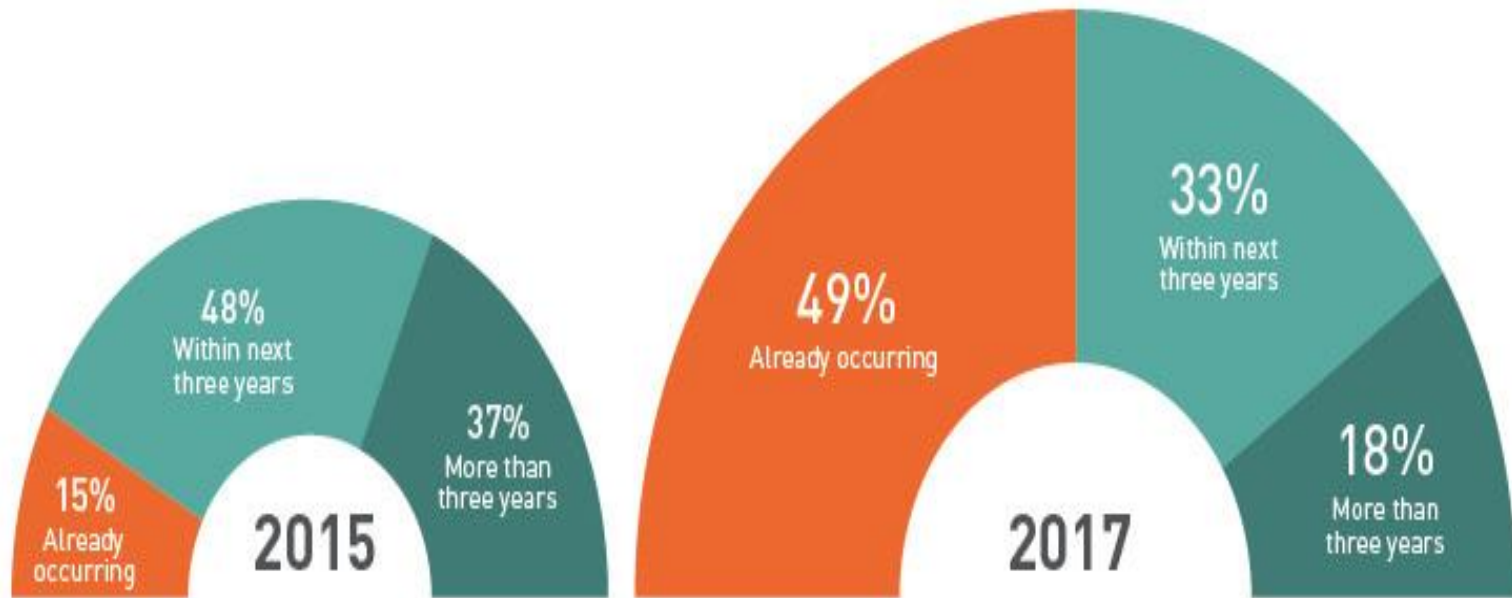Something interesting is happening.
TOM GOODWIN

# Why should I care?  Digital Vortex

# Are other managers worried about it?

Q: When Do You Expect the Impact of Digital Disruption to Occur?



Source: Global Center for Digital Business Transformation, 2017

# Attitudes Toward Digital Disruption



Do not recognize or are not responding appropriately

Actively responding to digital disruption

43% 2015
40% 2017

25% 2015
31% 2017
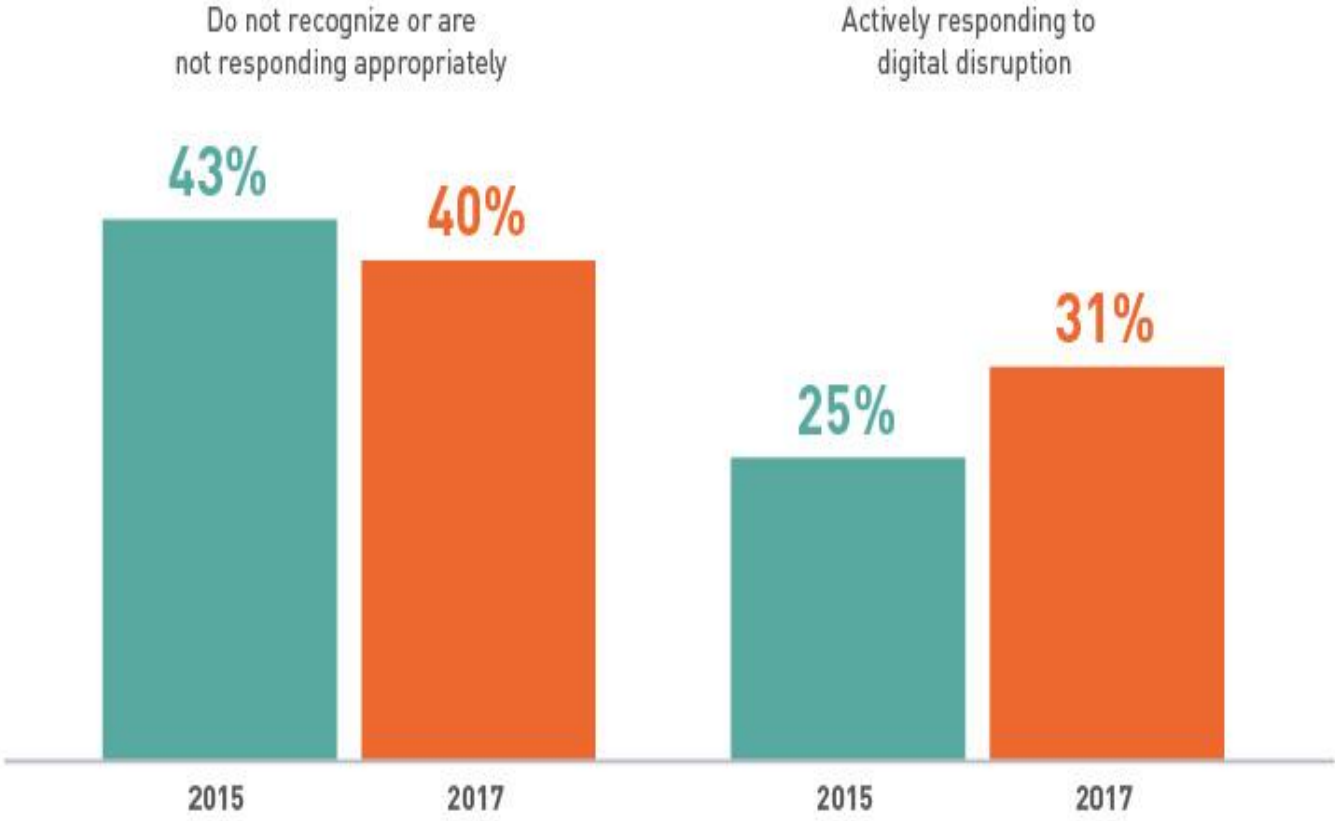
Survey Question: In general, what is the attitude of your company's leadership toward digital disruption?

Source: Global Center for Digital Business Transformation, 2017

# Digital Transformation

- "Digital" is not all about technology

- Thinking digitally is different than thinking we are "Digital" (tech savvy).

- Digital Transformation is about <span style="color:red">Transforming Organizations</span> through the use of Digital Technologies, Business Models and Strategy to <span style="color:red">Improve Performance</span> and, above all, <span style="color:red">Create Value</span> to stakeholders.

# Digital Transformation – Do or Die

- The Forth Industrial Revolution is based on Digital Disruption and is dramatically changing industries and the skillset needed for a successful workforce.
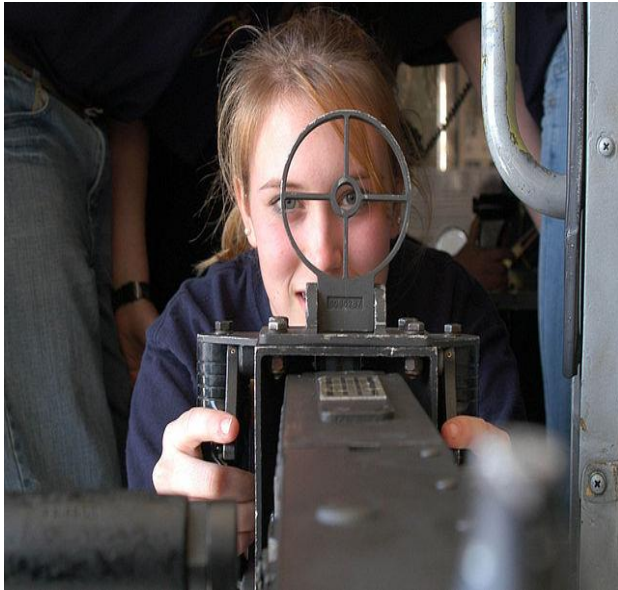


- □ The real question is: how long until you are in the crosses of the Digital Revolution??

- □ In order to thrive (not only survive) in the Digital Economy companies must develop a Holistic Digital Transformation Strategy

# The 3 "Sins" of Digital Strategies

- **1. Focus on disruptors rather than disruption**
  - The focus should be on the disruptions occurring in your industry, not exclusively on the disruptors.

- **2. Technology-focused, siloed digital strategy**
  - Too much attention on 'digitalization' of silos as the ultimate goal instead of looking holistically at the organization. The main goal should be value creation and enhancing performance.

- 3. **Digital disruption is not the only source of disruption**
  - While digital disruption is extremely relevant, this does not mean we can overlook more traditional forms of disruption.

# Top Challenges

We must to develop key organizational capabilities and individual competences to future-proofing businesses and workforce.

TOP CHALLENGES FOR DIGITAL TRANSFORMATION INITIATIVES

| Challenge | Percentage |
|-----------|-----------|
| Low digital literacy or expertise among employees and leadership | 31.4% |
| Digital transformation is viewed as a cost center | 30.9% |
| Company Culture | 30.5% |
| Lack of budget | 30.5% |
| Lack of staff resources | 30.1% |
| Legal, risk management, and/or compliance concerns | 24.6% |
| Human barriers (e.g. politics, egos, sabotaging, fear) | 23.7% |
| No sense of urgency | 19.7% |
| Lack of data or ROI to justify value of digital transformation | 10.6% |
| No leadership driving efforts | 6.1% |
| Respondents have not experienced any of these challenges | 4.2% |

Each of the following describes different types of challenges surrounding digital transformation initiatives. Please indicate the most difficult challenges you or your company come up against in digital transformation efforts. You may select up to three. N= 528

Source: Altimeter Digital Strategist Survey, August 2017

# Future-proofing Businesses and Workforce: Organizational Capabilities

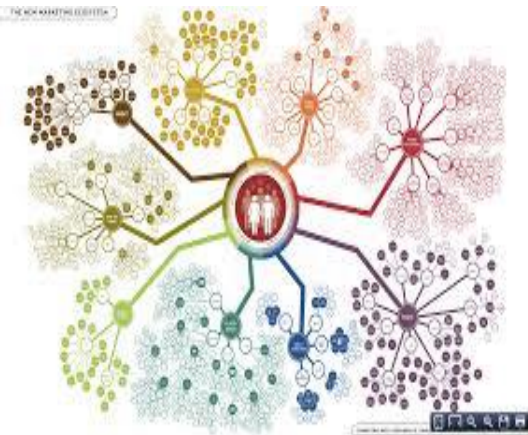| | Capability | Explanation |
|---|---|---|
| 1. | User Engagement | Engaging users' in value co-creation and combining seamlessly the physical and digital experiences. |
| 2. | Hyper Awareness | Capability to understand and identify emerging patters that will affect the organization. |
| 3. | Anticipatory Decision Making | Analyze information that comes through hyperawareness and predict trends as well new areas of impact. |
| 4. | Operational Agility | Resources in the organization have to be flexible. |
| 5. | Constant Innovation | Innovation is promoted by the leveraging of new technologies affordances. |
| 6. | Creative Business Model | Reconfiguring value delivery models by using technology to connect products, services and information in order to gain competitive advantage. |

# Future-proofing Businesses and Workforce: Individual Competences

| | Competence area | Examples of Domains | | Competence area | Examples of Domains |
|---|---|---|---|---|---|
| 1. | User Experience | User experience design<br>Logic and creativity combination<br>Interface Design | 5. | Digital Communications & Content | Social media<br>Content management<br>Social networks<br>Digital Entertainment<br>Digital Design |
| 2. | Data Analytics | Data leverage (algorithms)<br>Business analysis<br>Big data analytics | 6. | Business Soft Skills | Change management<br>Innovation<br>Entrepreneurship<br>Business modeling<br>Critical thinking<br>Collaboration<br>Leadership |
| 3. | Emerging Technologies | Mobile and HTML5<br>Blockchain<br>Cloud<br>iOT | | | |
| 4. | Cyber Risk | Risk management<br>Network security<br>Cyber security management<br>Cyber Leadership | 7. | Digital Civility | Intellectual Property<br>Ethics<br>Cyber Law<br>Privacy Management<br>Digital Citizenship |

# Final remarks

- The rapid development of Ubiquitoes Digital Ecosystems is creating a threats and opportunities to businesses.

- Digital Disruption is revolutionary (not evolutionary).

- Digital Business Transformation Strategy must be holistic and foster the development of key organizational capabilities as well as individual competences and be focused on value creation.

- Start future-proofing your businesses now!

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