



**Harvard  
Business  
Review**

WEBINARS

# The Internet of Things

**Featuring:**

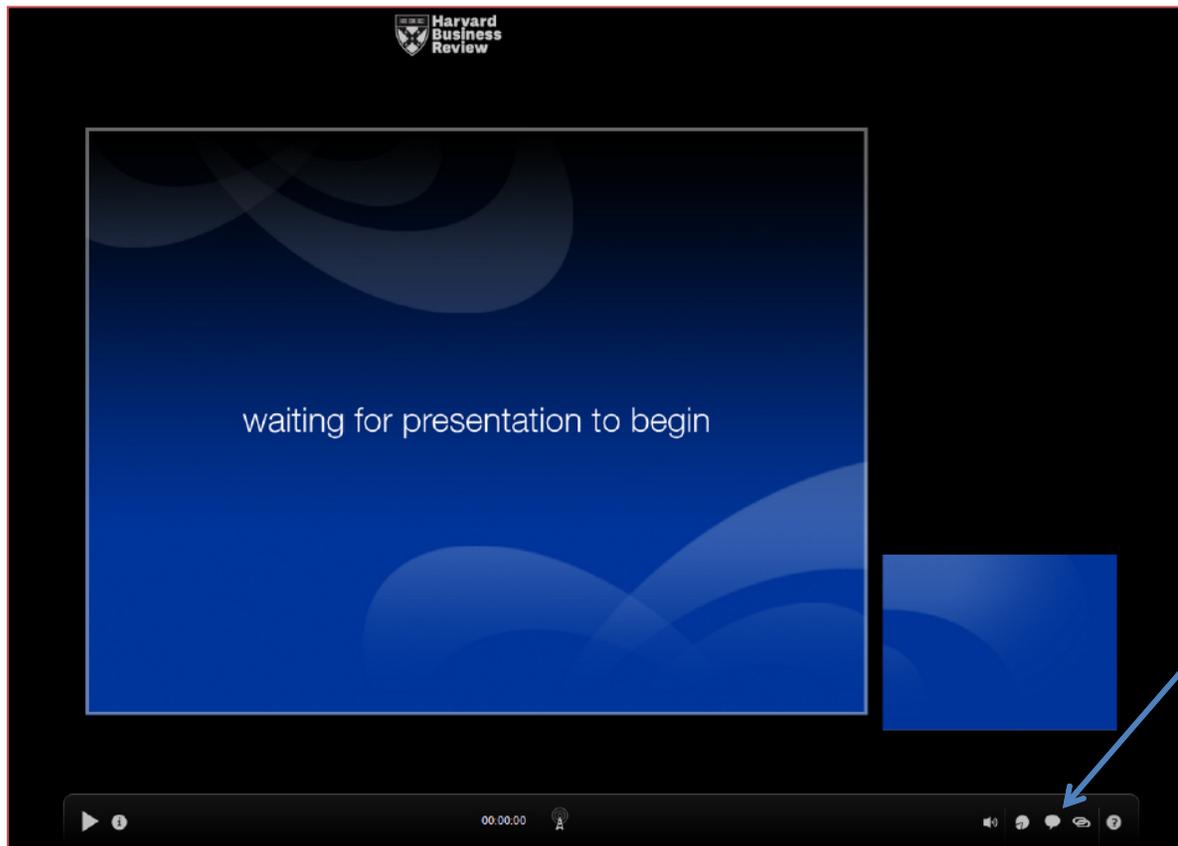
**Marco Iansiti, David Sarnoff Professor of Business Administration,  
Harvard Business School**

**Karim Lakhani, Lumry Family Associate Professor of Business  
Administration, Harvard Business School**

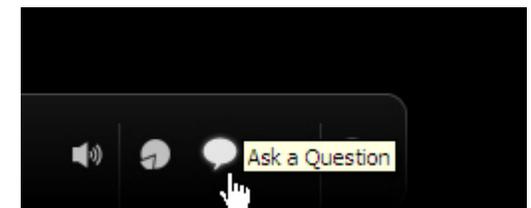
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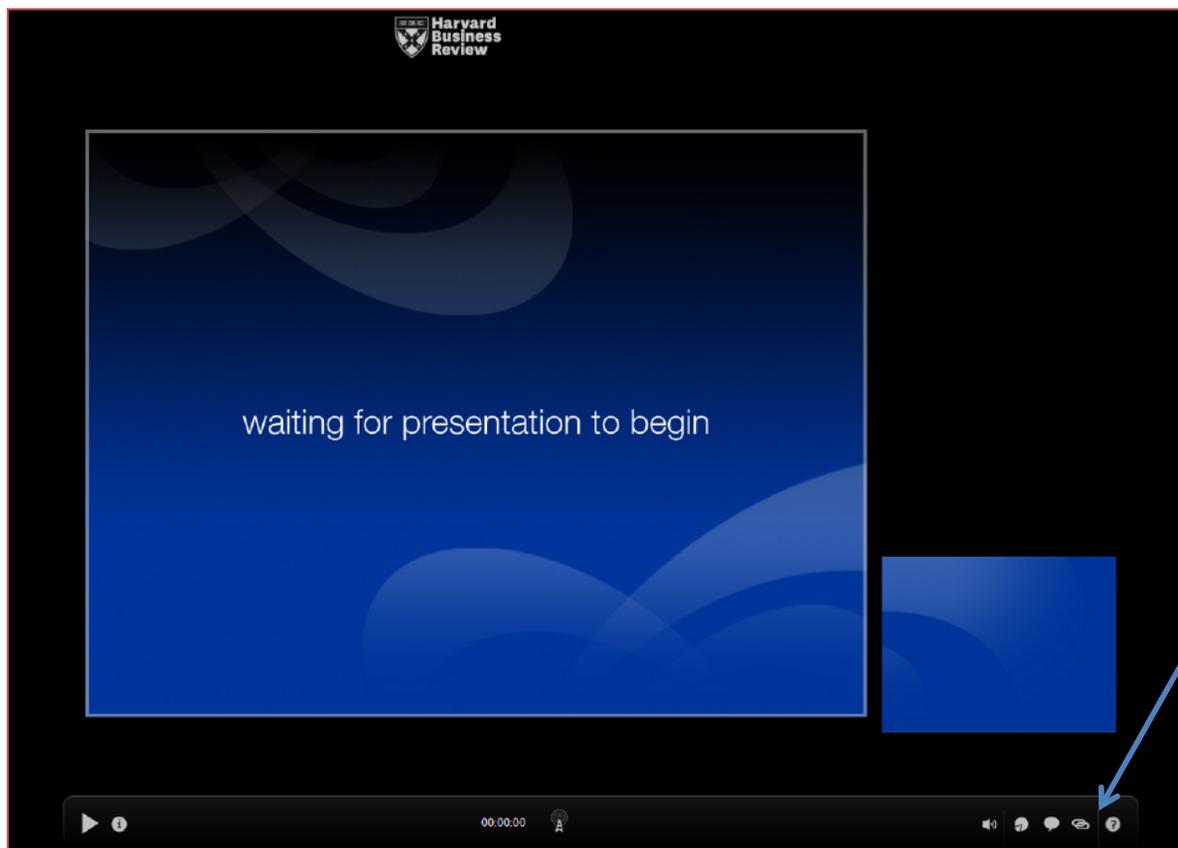
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# Workspace for a Mobile Workforce

## Today's Speakers

**Marco Iansiti, David Sarnoff Professor of Business Administration, Harvard Business School**



**Karim Lakhani, Lumry Family Associate Professor of Business Administration, Harvard Business School**



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# Digital Ubiquity:

*how the internet of things impacts your business*

Marco Iansiti and Karim R. Lakhani

Harvard Business School TOM Unit and Digital Initiative

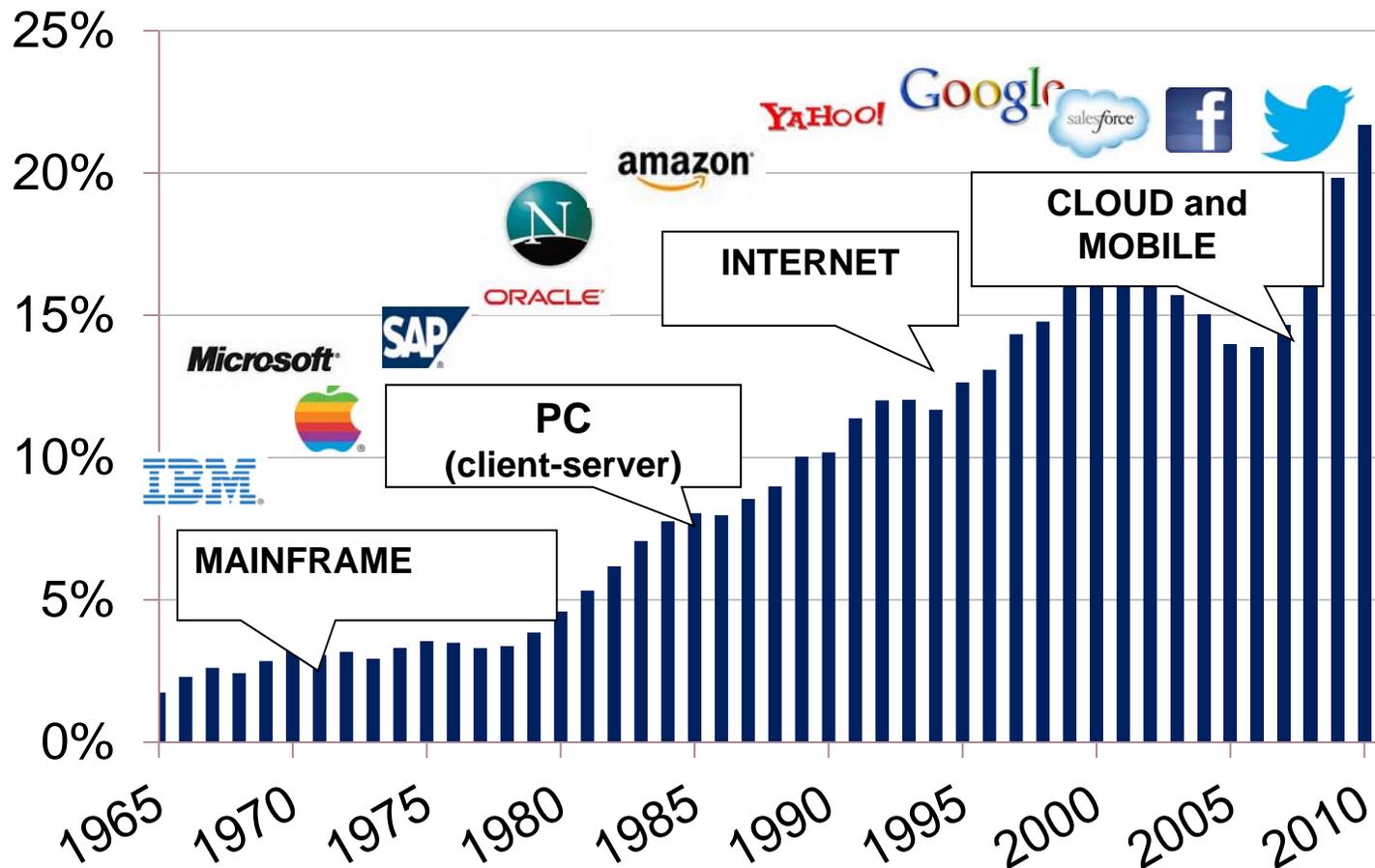
@marcoiansiti @klakhani @digHBS



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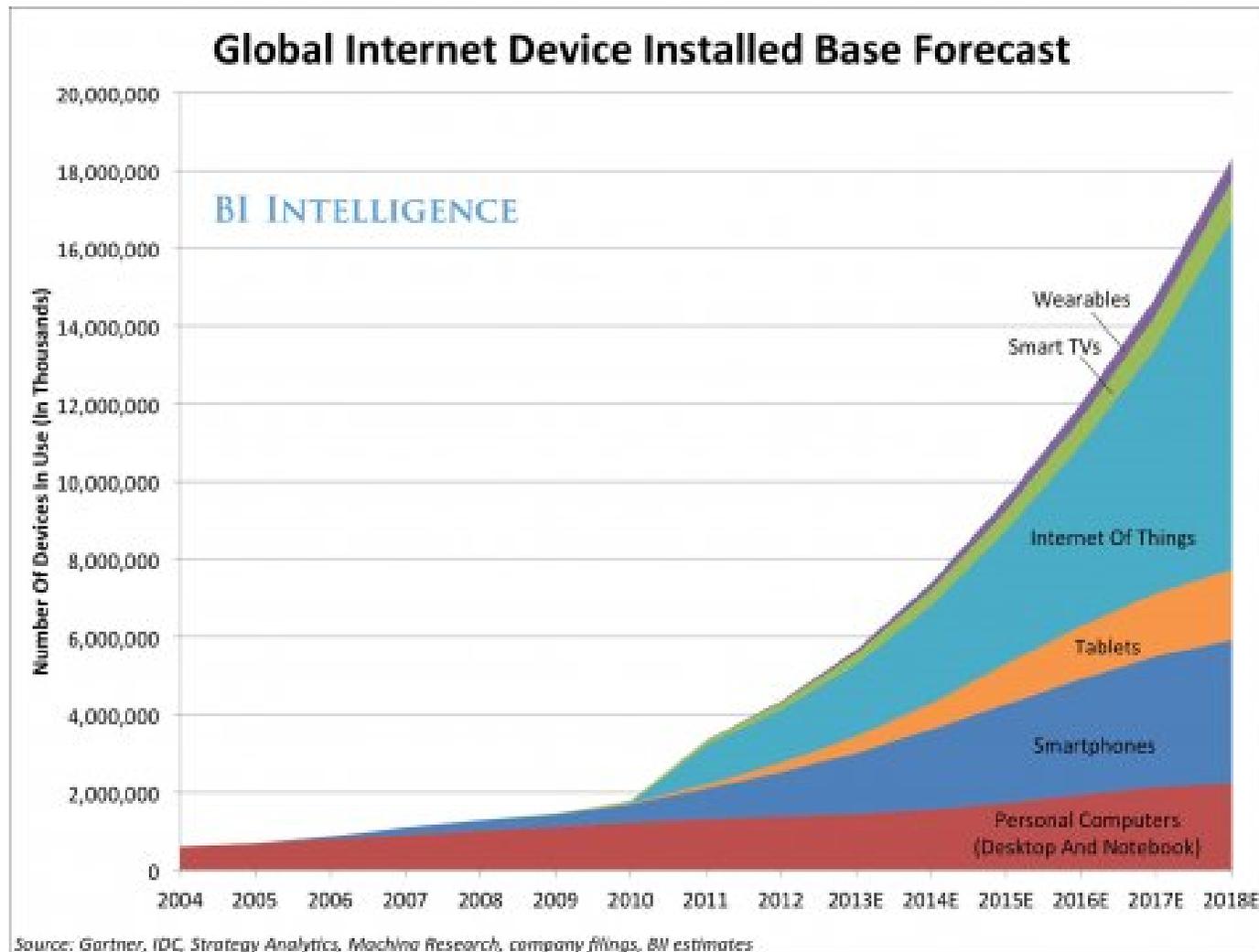
# More than four decades of digital transformation

## IT Expenditure as percentage of Total US Capital Expenditure

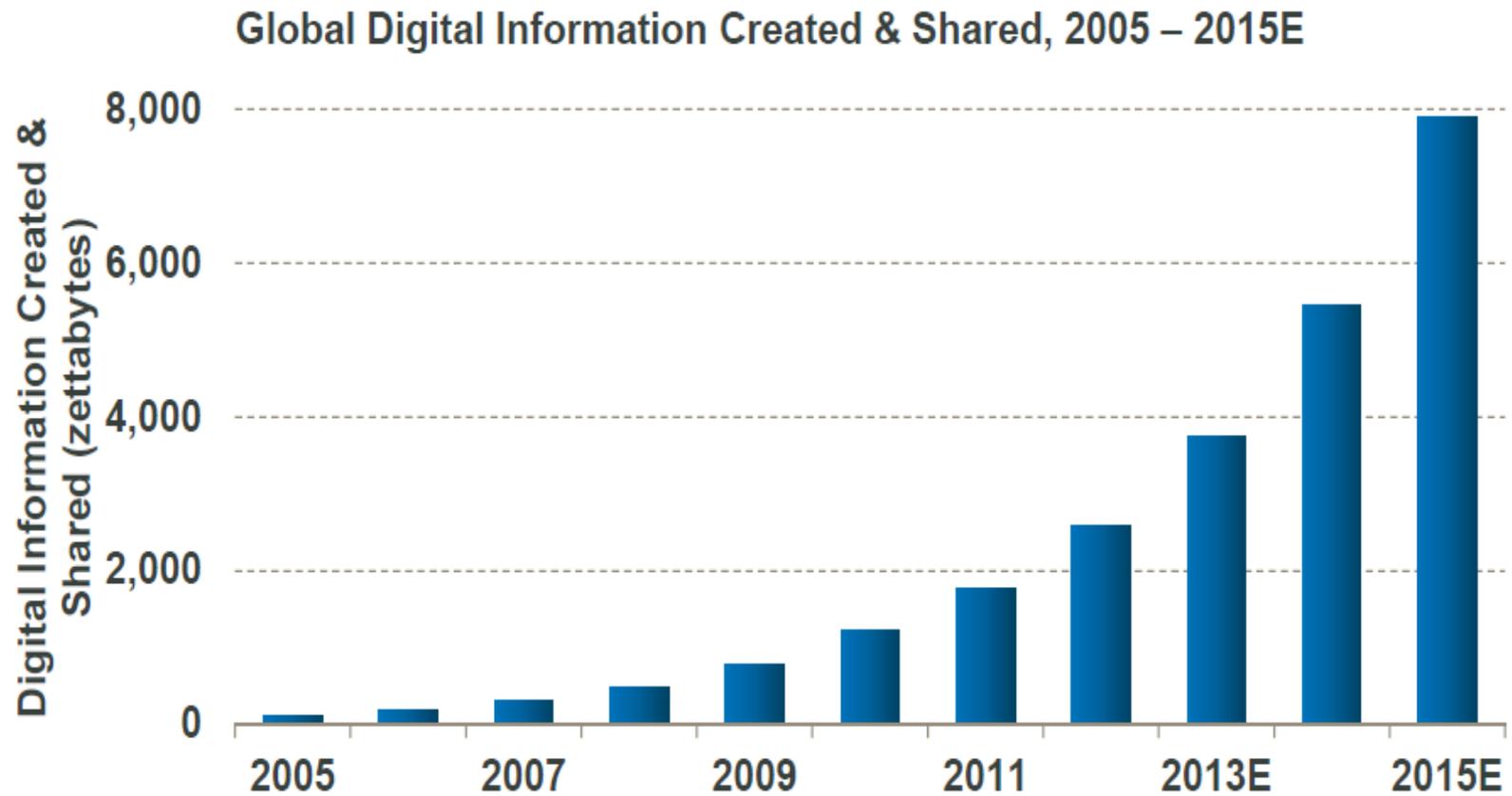


Source: US Bureau of Economic Analysis

The race to transform is heating up, as is the density and power of the network...



# Leading to the accumulation of data and insights



Source: KPCB Internet Trend Report, Morgan Stanley Research

# Digital connections are different: Five properties of digital signals

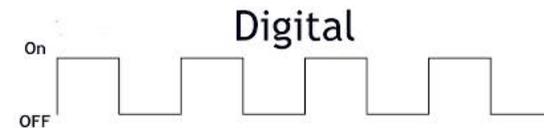
1. Error free

2. Infinitely reproducible

3. Zero marginal cost

4. Infinite connection, aggregation, and abstraction

5. Dependent on standards and tools



# Digital transformation shapes business models

A “*business model*” consists of the ways an organization makes money. There are two primary components:

1. Value creation; e.g., product and service creation and delivery, reach and engagement, direct and indirect network effects



2. Value capture and sharing; e.g., pricing, subscriptions, action based (CPA, CPC), revenue sharing, gain sharing, outcome-based models

iPhone 6		
16GB	64GB	128GB
\$199	\$299	\$399



**CONNECT TO SERVICE**  
GE connects engines to provide data to service teams monitoring performance.

# How do we make sense of Google's Nest acquisition?

Google gains entry to home and prized team with \$3.2 billion Nest deal

Google Buys Nest, The \$3 Billion Distraction



Ari Levy ✓  
@levynews



Something tells me that when Google went public 10 years ago, the prospectus didn't list Honeywell as a competitor.

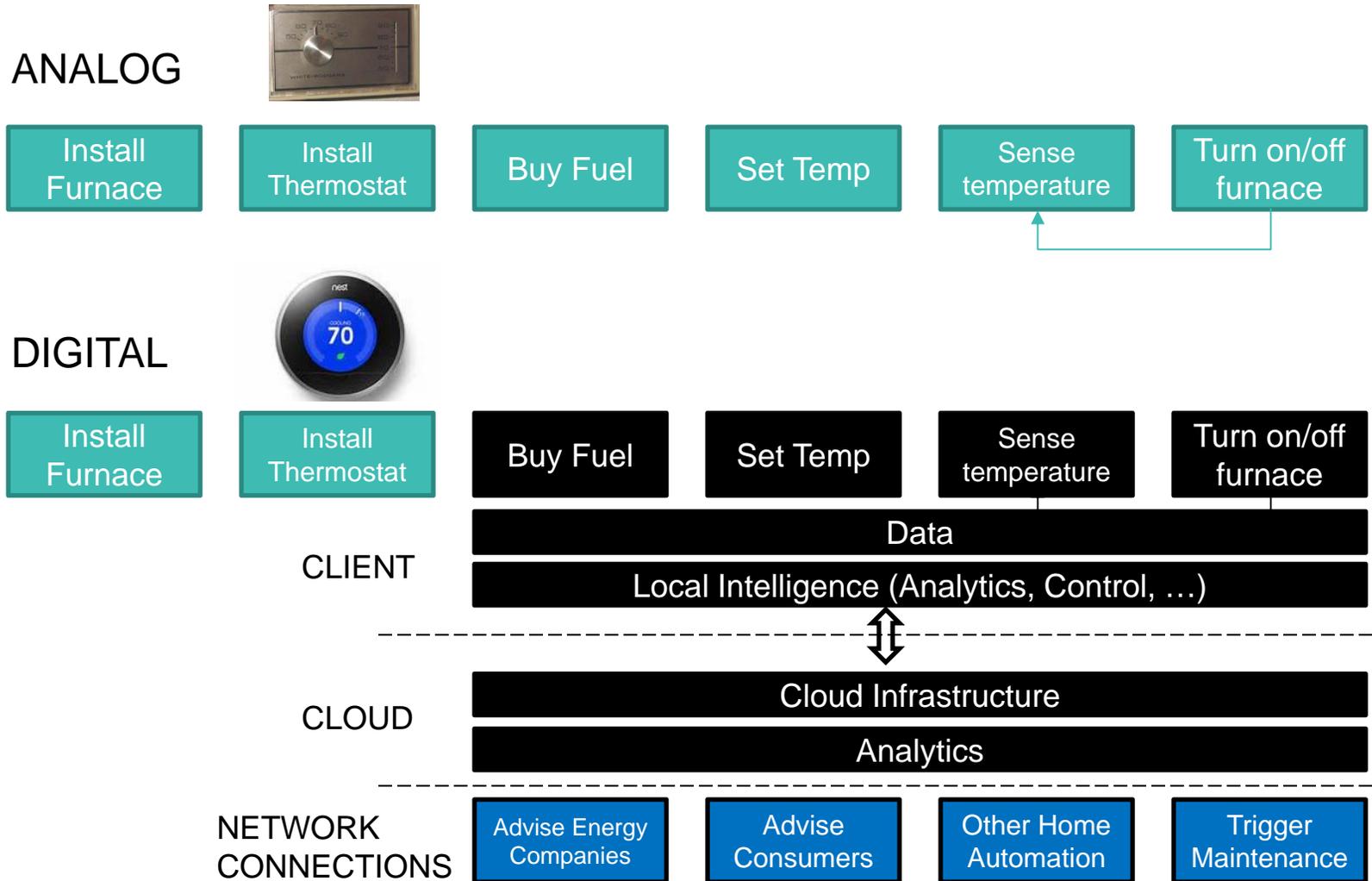


Mark Millian ✓  
@markmillian



Larry Page is sitting in the Nest control room, and turning the A/C way up in Tim Cook's house so it's really cold by the time he gets home.

# Digital Transformation is changing value creation models

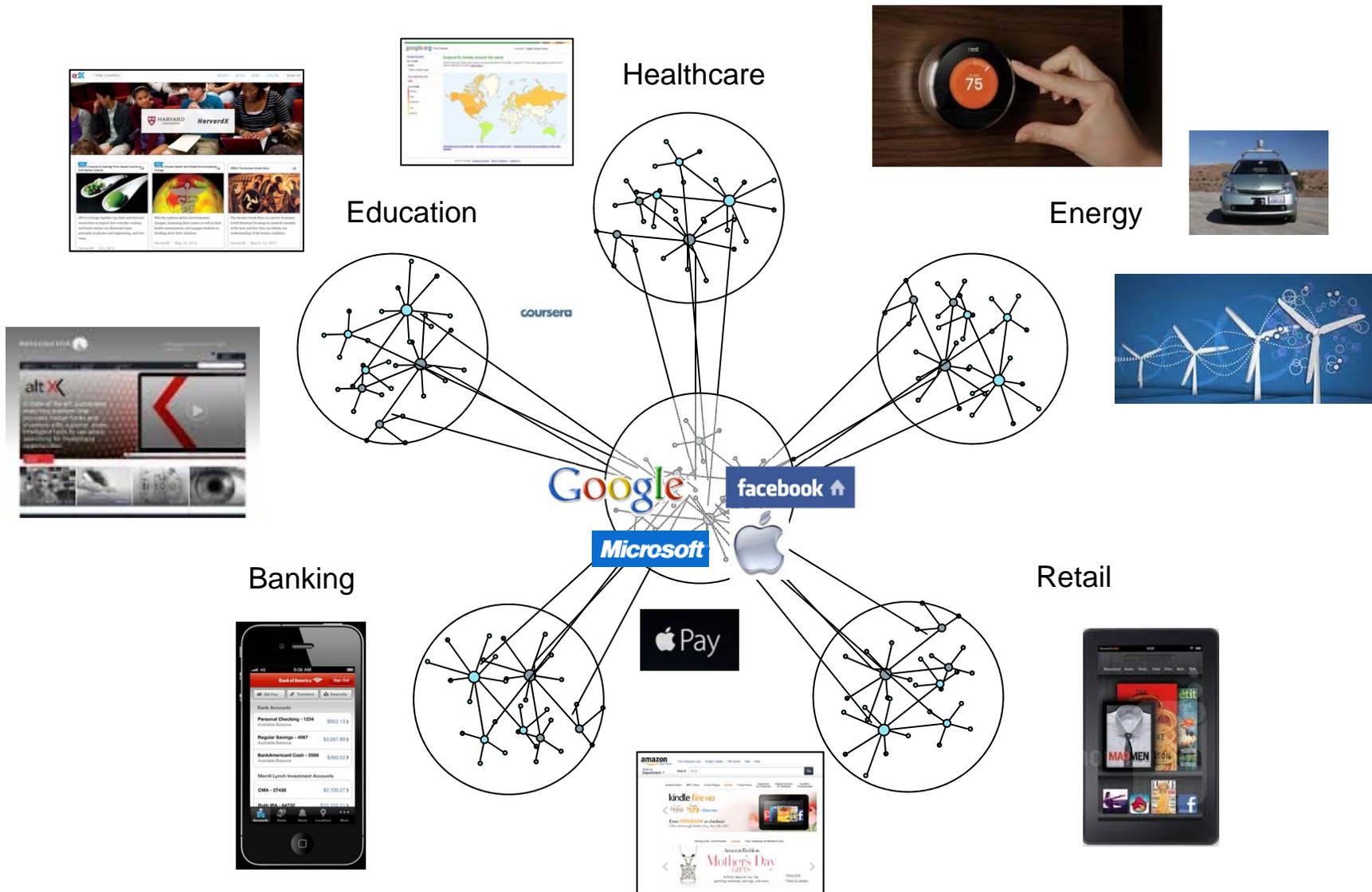


# Is this our future world?



© marketoonist.com

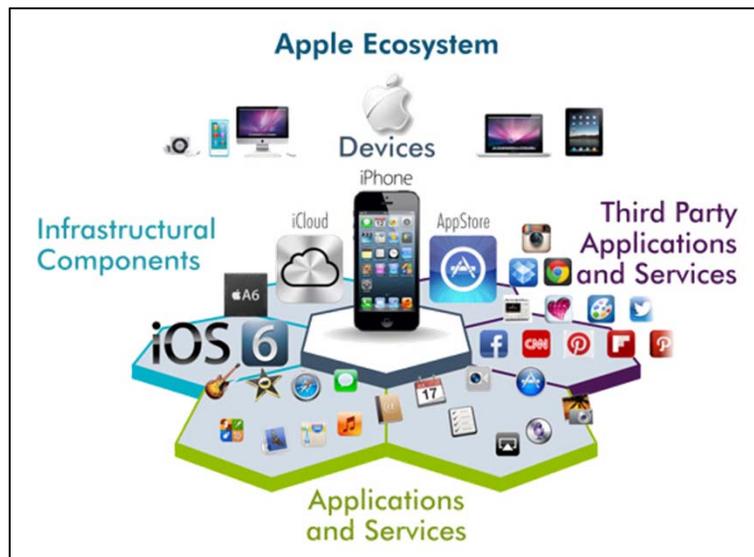
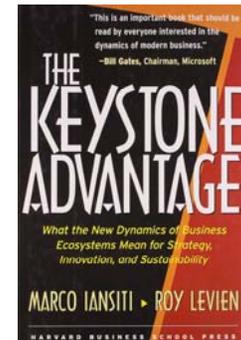
# Ultimately, digitization is connecting all industries into a giant ecosystem...



..which makes network hubs ever more critical

*A “Keystone Strategy” proactively shapes an ecosystem, controls its health and, in doing so, benefits the performance of the firm...*

*...by investing in assets and capabilities that make the network more productive while they tie it together*



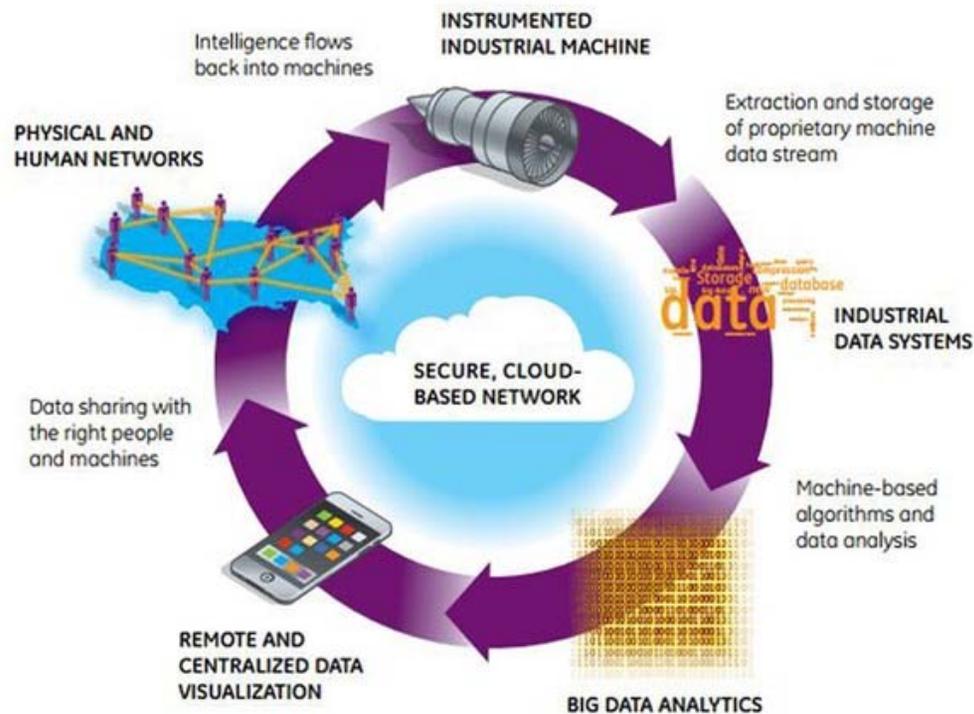
Already, more than half of the world's most valuable companies grew by shaping their digital ecosystems

1. Apple
2. Exxon
3. Google
4. Microsoft
5. Berkshire Hathaway

# Driving the Industrial Internet: GE's Keystone Strategy



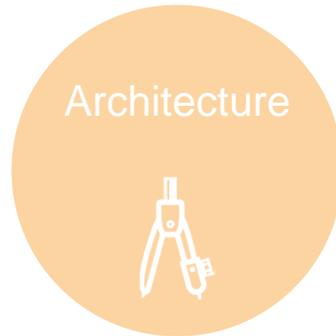
- Create value by aggregating data and capabilities
- Capture value through outcomes-based pricing
- Share value by improving efficiency and managing risk



# GE's investment in digital transformation



Changing sales structure, culture, process, and incentives



Defining new business and delivery models for software and services



Developing and deploying scalable predictive solutions to enable Industrial Internet programs



Providing a unified, service-based solution on a protected, fully-automated network



Focusing on security management strategies to prevent, detect, and fix risks to GE's data, assets, and intellectual property



Driving revenue and growth by increasing adoption and demand



Transforming raw data into insights and opportunities, through descriptive, predictive, and prescriptive analytics



Developing applications and solutions around asset optimization and operations optimization

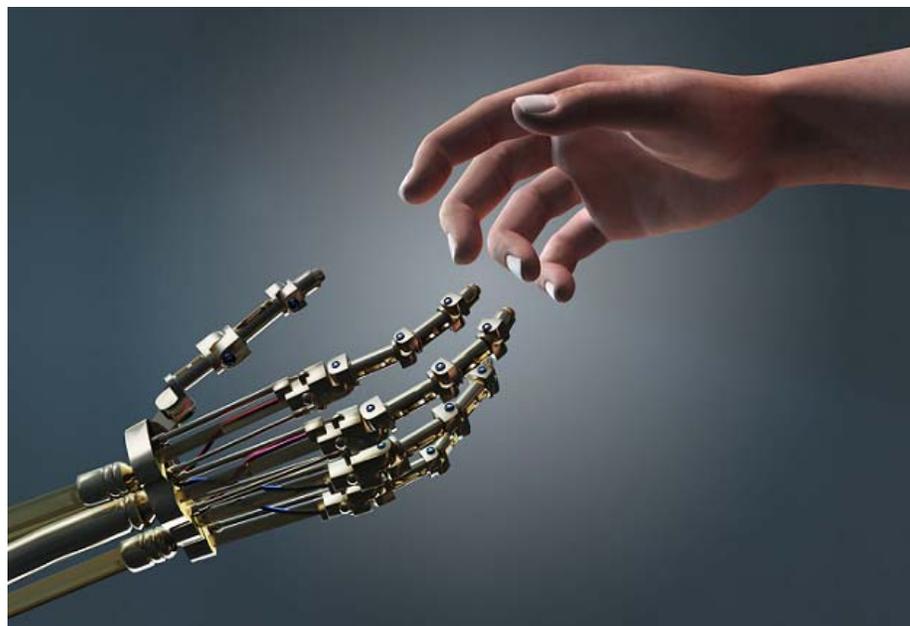
# Ultimately the ubiquity of digital transformation drives profound changes...

...re-architecting transactions and processes...

- Digitizing process components
  - Distributing transactions more easily
  - Generating data and opportunities for powerful analytics,
  - Connecting with other businesses, forming large networks
  - Changing value creation and capture
- ... transforming business models, organizations, cultures and ecosystems

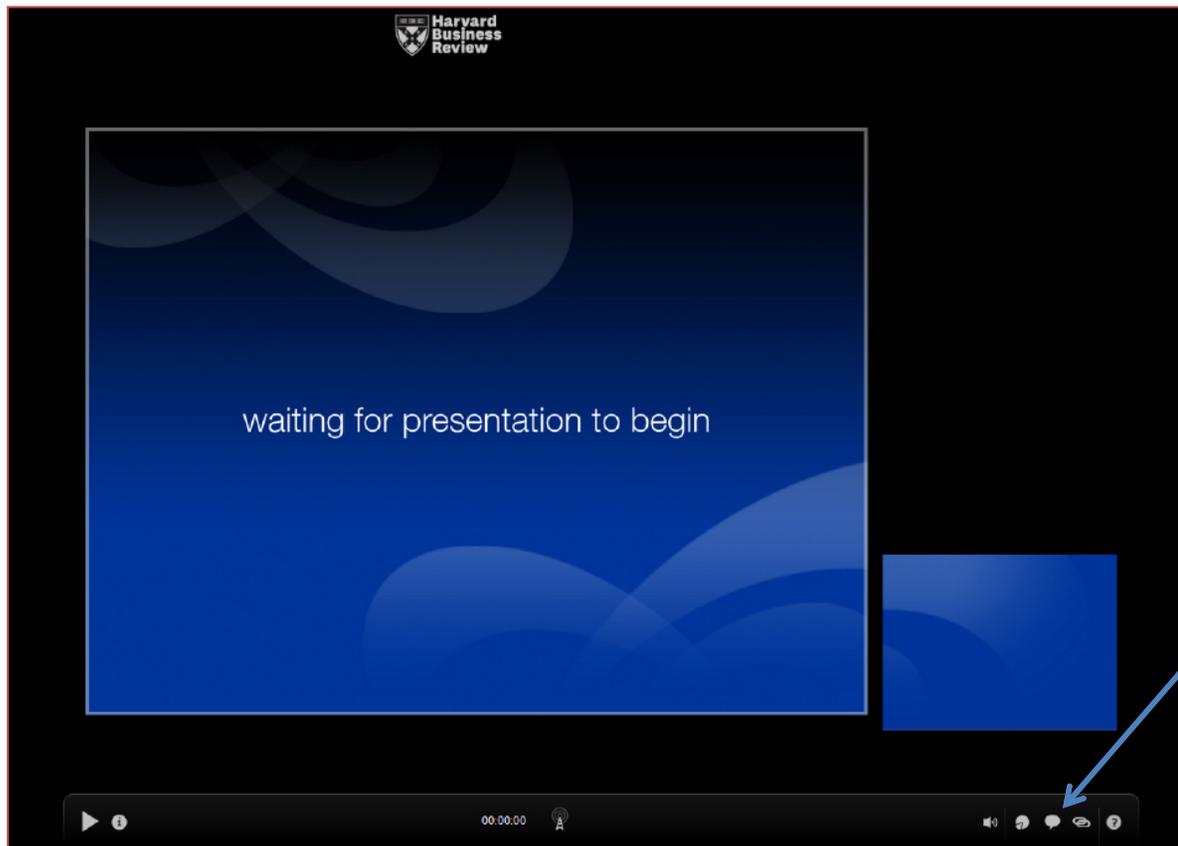


In the end: *one world, one network:*

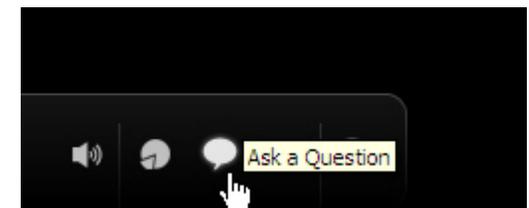


*...our digital and analog worlds are merging. And we need to manage the implications...*

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