Digital Transformation How Do we get there

David Bunei
General Manager – Cisco East Africa and IOI
Digital Disruption Is Impacting All Industries
What Is Digital Disruption?

The effect of **digital business models** and **technologies** on value proposition and market position

Distinguished from traditional competitive dynamics by **velocity of change** and **high stakes**

Like a vortex, digital disruption **pulls** everything toward the digital center, where everything that can be digitized, is

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
Seismic Changes Will Displace Nearly 40% of Top Incumbents, and It Will Happen Soon

Disruption = Substantial change in market share among incumbents

SURVEY QUESTION:
In your industry, how many companies will lose their place in the top 10 due to digital disruption (over next five years)?

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
However, Most Companies Are Not Responding to the Threat

45% of respondents say digital disruption is “not a board-level concern”

SURVEY QUESTION:
What is the attitude of your company’s leadership toward digital disruption?

- Does not recognize or is not responding appropriately: 43%
- Taking “follower” approach: 32%
- Actively responding by disrupting our own business: 25%

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
Even with the Risk of Market Turbulence, Most See Digital Disruption as a Force for Good

Digital disruption…

- ...is a form of progress (75%)
- ...improves value for customers (72%)
- ...empowers individuals (66%)
- ...is good for society (63%)
- ...improves quality of life (63%)

Percentage of respondents who "somewhat" or "strongly" agree with each of the statements

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
What Does It Mean To Become Digital?
## The ‘Digital Business’ Defined

| Digital businesses create new value by **enabling** efficient business processes, **differentiating** the customer experience, and **defining** new categories of value. | Digital businesses drive **sustainable differentiation** through **continuous innovation** of processes and offerings. | Digital businesses are **data-driven** and **outcome-based**. |
Digitization Is Driving an Increase in Value at Stake

Digital adoption is accelerating:
95% of Fortune 1000 expects to undertake an IoT project by 2017 (The Economist)

Digital technologies are maturing:
Wearables, connected vehicles among use cases no longer “ahead of their time”

Digital Value at Stake
The potential **bottom-line value** (higher revenue and lower costs) that can be **created** or that will **migrate** among organizations and industries based on the ability to harness digital capabilities over the next decade (2015-2024)

- **Digital business models** are changing the nature of competition
  “Combinatorial disruption” recombines traditional means of delivering customer value. Apple, Uber, Tesla, and others have used this approach to launch competitive threats across industry lines.

- **Digital value** increasingly comes from consumers, not just B2B
  Examples: telehealth, pay-as-you-drive insurance, wearables

<table>
<thead>
<tr>
<th>Sector</th>
<th>Value at Stake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>$23.8T</td>
</tr>
<tr>
<td>Public</td>
<td>$5.9T</td>
</tr>
</tbody>
</table>

Source: Cisco, 2015
Digital Disruption by Industry
In the Digital Vortex All Industries Are Vulnerable to Disruption

Ranking of industries according to vulnerability to disruption in the next five years.

Industries near the center are well on their way to disruption.

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
This “Combinatorial Disruption” Is Already Blurring the Lines Between Industries

<table>
<thead>
<tr>
<th>Disruptive Offering</th>
<th>Redefined Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay in-store or online using mobile phone or watch.</td>
<td>Financial services + technology + retail + CPG (Is Apple a watch company?)</td>
</tr>
<tr>
<td>Open interactive education, delivered entirely online</td>
<td>Education + media &amp; entertainment + technology</td>
</tr>
<tr>
<td>Social home décor site making major push into e-commerce</td>
<td>Retail + media &amp; entertainment</td>
</tr>
<tr>
<td>Connected pill is an ingestible sensor that will transform pharmaceuticals</td>
<td>Pharmaceuticals + technology</td>
</tr>
<tr>
<td>Residential solar and car battery storage technology combine to enable consumers to go “off grid”</td>
<td>Utilities + manufacturing + technology</td>
</tr>
</tbody>
</table>

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
Combinatorial Disruption: Tesla Impacting Multiple Industries

Cost Value
- Lower fuel costs
- Lower electricity costs
- Free upgrades

Experience Value
- Innovative capabilities (self-driving)
- Customization
- Direct sales model
- Concierge service

Platform Value
- Software platform (apps)
- Modular design
- Supercharging network

Industries Being Unbundled
- Automotive Manufacturing
- Oil & Gas
- Transportation
- Electric Utilities
- Mining
- Technology

Source: Digital Vortex, Global Center for Digital Business Transformation 2015
Keys to Success
To Succeed, the Digitally Transformed Organization Requires 3 Basic Attributes

Hyper-Aware

**Sense** the location, status, and context of assets, users

**Monitor** customer sentiment and behaviors in real time

**Identify** market and competitive changes

Predictive

**Anticipate** market transitions

**Optimize** performance of assets, operations

**Foresee** and proactively address security threats

Agile

**Achieve** differentiation by responding more quickly

**Foster** disruptive innovation, build “platforms” for sustainable advantage

**Respond** to rapidly evolving threats

Source: Cisco, 2014
Digital Transformation Depends Upon the Ability To Turn Data into Insights

Analytics will drive nearly 40% of Digital Value at Stake

To progress from data to insight requires analytics across:
- People
- Process
- Data
- Things

Analytics at the “edge” [at or near the location where the data is generated] can be particularly valuable where there are latency or bandwidth constraints

Source: Attaining IoT Value: How To Move from Connecting Things to Capturing Insights, Cisco 2014
Industry Transformation Perspectives
Digital Transformation Will Be a Major Factor Across Industries …

<table>
<thead>
<tr>
<th>Industry</th>
<th>Value (Trillions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>$6.4T</td>
</tr>
<tr>
<td>Financial Services</td>
<td>$3.1T</td>
</tr>
<tr>
<td>Retail</td>
<td>$2.8T</td>
</tr>
<tr>
<td>Service Provider</td>
<td>$2.0T</td>
</tr>
<tr>
<td>Healthcare</td>
<td>$1.4T</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>$1.1T</td>
</tr>
<tr>
<td>Administrative / Waste Management</td>
<td>$899B</td>
</tr>
<tr>
<td>Transportation</td>
<td>$845B</td>
</tr>
<tr>
<td>Construction / EPCM</td>
<td>$779B</td>
</tr>
<tr>
<td>Arts / Ent. / Recreation</td>
<td>$706B</td>
</tr>
</tbody>
</table>

Top 10 industries for Digital Value at Stake, 2015-2024

Source: Cisco, 2015
## Top Private Sector Use Cases by Industry

### Manufacturing
1. Predictive Maintenance (Analytics)
2. Quality & Defect Controls Automation
3. Energy Management
4. Connected Products Maintenance
5. Remote Maintenance
6. Visual Factory
7. Assembly Line Changeovers

### Financial Services
1. Omnichannel Capabilities
2. Mortgage Advisor / Video-based Experts
3. Wealth Management — Asset Transfer
4. Mobile Banking & Payments
5. Self-serve Segment / Direct Relationship
6. Virtualized Delivery Model
7. Out-of-stock Optimizer

### Retail
1. In-store Analytics
2. Remote Expert
3. Theft / Physical Security
4. Endless Aisles
5. Checkout Optimizer
6. Smart Lockers
7. Claims Management

### Telecom SP
1. SP as an IOT Enabler
2. Network Transformation
3. Personalized Service (Analytics)
4. Churn Control
5. Intelligent Marketing
6. Safety and Security
7. Home Network Remote Access

### Healthcare
1. Patient/Medication Safety
2. Predictive Equipment Maintenance
3. Big Data Analytics
4. Administrative Process Automation
5. Physician Performance Analytics
6. Consumables Tracking
7. Healthcare Claims Management

### Oil & Gas
1. Recovery Efficiency
2. Lifting-Process Automation
3. Remote Monitoring
4. Drilling Optimization
5. Project Planning
6. Oil-spillage Control
7. Spares / Inventory Management

### Transportation
1. Predictive Maintenance
2. Analytics-driven Fuel Efficiencies
3. Driver Efficiency
4. Connected Train
5. Smart Stations
6. Below-Wing Operations
7. Connected Track & Trackside

### “Horizontals”
1. Mobile Collaboration
2. Digital Advertising
3. Cyber Security
4. Smart Grid
5. CoE for Support Functions
6. Supply Chain
7. Connected Workplace
8. Telecommuting
9. SME Virtualization
10. Payments

Source: Cisco, 2015

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Public Sector
In Public Sector, Going Digital Helps Meet New Citizen Demands

There is a gap between what citizens expect and what governments deliver.

**Digitization** helps public sector organizations:
- Increase **efficiency**
- Reduce **costs**
- Save **energy**
- Improve **lives** of citizens

**Digitization** enables government services that are **hyperaware**, **predictive**, and **agile**.

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... the Public Sector ...

Digital Value at Stake, 2015-2024

Source: Cisco, 2015

- **Cities**: $817B
- **Healthcare**: $709B
- **Education**: $101B
- **Employee**: $1.8T
- **Transport**: $282B
- **Infrastructure**: $538B
- **Defense**: $1.7T

Total Public Sector: $5.9T

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Areas of Focus for Public Sector Digital Transformation

Build a powerful **network foundation** to expand the art of the possible

**Data analytics** magnify impact of digital technologies

Digitization is a catalyst for breaking down **organizational silos**

Digital solutions must address **people/process**, not just data/things