The Importance of Agility in a Rapidly Changing World

Ivalua
Greg Anderson
Vice President
The Importance of Agility in a Rapidly Changing World
Three key themes

The global economy is rapidly changing

Technology is disrupting every industry

Agility is essential to win in the market
The $80 trillion world economy
China dominates GDP growth projections

Where is Global Growth Happening?

Percentage of Estimated Global Growth (2017-2019) in Real GDP
Chinese cities have greater GDP than entire countries.
Global populations will shift

**2010 TOP 20 GLOBAL CITIES BY POPULATION**
Global populations will shift
Global populations will shift
Urbanization will increase dramatically
Urbanization will increase dramatically
Why the shift to urban living? $$$
Where are the jobs created?
Moving off the farm and out of the factory
GDP followed a similar pattern
Productivity enabled the structural transformation

How Employment and Output Have Changed in the Manufacturing Sector

Source: Federal Reserve; Novogradac & Company LLP

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Pittsburgh is emblematic of the transformation

The Steel City’s rebirth as a center of technology and tech-driven manufacturing might still shock those who picture the city as another casualty of deindustrialization. But the fact is, the region’s success in the tech economy has been decades in the making, and strategies continue to expand opportunities now and in the future.
The rise of tech is accelerating the structural transformation

TOP 5 PUBLICLY TRADED COMPANIES (BY MARKET CAP)

2013 Q1
- Apple: $416B
- Exxon: $404B
- Berkshire Hathaway: $257B
- PetroChina: $255B
- Walmart: $246B

2018 Q1
- Apple: $851B
- Alphabet: $717B
- Microsoft: $703B
- Amazon: $701B
- Tencent: $508B
The once mighty are faltering

Sears reportedly preparing for bankruptcy filing

GE shares drop to 9-year low as weak power business stumbles
The pace of creative destruction is accelerating

“Since 2000, 52% of companies in the Fortune 500 have either gone bankrupt, been acquired or ceased to exist.”

Constellation Research, 2016
Lessons in overconfidence

We’ve learned and struggled for a few years here figuring out how to make a decent phone ... PC guys are not going to just figure this out. They’re not going to just walk in.

ED COLLIGAN
CEO of Palm

In 2006, After getting the news that Apple was developing a phone.

Neither RedBox nor Netflix are even on the radar screen in terms of competition.

JIM KEYES
CEO of Blockbuster

Slow disruption: energy

SHARE OF U.S. ENERGY CONSUMPTION BY MAJOR SOURCES, 1776 - 2016

- 1882: World's first hydroelectric power plant operates in Appleton, Wisconsin.
- 1908: The Ford Model T is released and significantly contributes to increases in gasoline consumption.
- 1957: World's first large-scale nuclear power plant opens.
- 2000s: Renewable energy consumption increases.

Faster disruption: music

In 2002, CDs made up 95.5% of the recording industry's revenue.

For the first time this millennium, music revenue is growing again.
What-the-hell-just-happened disruption: cameras

**What Smartphones Have Done to the Camera Industry**
Worldwide shipments of photo cameras by CIPA members since 1951*

* CIPA (Camera & Imaging Products Association) is an international industry group consisting of members engaged in the development, production or sale of imaging related devices. Members include Olympus, Casio, Canon, Fujifilm, Sony and Nikon among others.

Source: CIPA

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Crazy fast technology progress/adoptions these days

TECHNOLOGY ADOPTION BY HOUSEHOLDS IN THE UNITED STATES

100% 80% 60% 40% 20% 100% 80% 60% 40% 20%


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Automotive disruption

DISRUPTING THE CAR
Alternatives to car ownership by trip length

Micromobility
0-5 miles

Medium distance
5-15 miles

Long distance
15+ miles

BIKES & SCOOTERS
motivate
Lime
JUMP
SPIN
scoot
Razor

RIDE HAILING
UBER
LYFT
VIA

CAR SHARING
MAVEN
CAR2GO
Getaround
TURO

60% of trips in the US
25% of trips in the US
15% of trips in the US

Source: NHTS
Peak car? Probably.

**Peak Car**

With all the mobility alternatives, fewer Americans will buy their own cars

- Traditional U.S. passenger car sales
- Shared, private autonomous vehicles

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional Sales</th>
<th>Shared, Autonomous</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
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<tr>
<td>2022</td>
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<td>2024</td>
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<td>2026</td>
<td></td>
<td></td>
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<tr>
<td>2028</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td></td>
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</tr>
</tbody>
</table>

Source: Beryllis Strategy Advisors, Statista

**More Mobile**

Global car sharing fleets surge in size to improve availability

- Number of vehicles in car-sharing fleets

Source: Bloomberg New Energy Finance
Retail banking disruption

The Future of Retail Banking

Will challenger banks replace physical branches?

Challenger banks are attacking banks across vectors

- Digital-only platforms
- Centralized personal finance

- Transparent competitive pricing
- Entering new markets & products

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Moving to mobile

Mobile is the leading platform for retail banking with consumers

Source: CBInsights analysis on UK Banking Trends

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Disrupting brokerages

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Sign Up
Healthcare disruption

Share of workers with $1000+ annual deductible for single coverage

- 2011: 31%
- 2012: 34%
- 2013: 38%
- 2014: 41%
- 2015: 45%
- 2016: 51%

Kaiser/HRET Employer-Sponsored Health Benefits Survey
Consumerism in action

### Urgent Care Clinics Are Taking Off

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>'08</th>
<th>'10</th>
<th>'12</th>
<th>'14</th>
<th>'16</th>
<th>'18</th>
<th>'20</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 thousand centers</td>
<td>7.5k</td>
<td>9k</td>
<td>10k</td>
<td>11k</td>
<td>12k</td>
<td>13k</td>
<td>14k</td>
<td>15k</td>
</tr>
</tbody>
</table>

### Urgent Care vs. Emergency Department

<table>
<thead>
<tr>
<th>Condition</th>
<th>Urgent Care</th>
<th>E.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergies</td>
<td>$97</td>
<td>$345</td>
</tr>
<tr>
<td>Acute Bronchitis</td>
<td>$127</td>
<td>$595</td>
</tr>
<tr>
<td>Earache</td>
<td>$110</td>
<td>$400</td>
</tr>
<tr>
<td>Sore Throat</td>
<td>$94</td>
<td>$525</td>
</tr>
<tr>
<td>Pinkeye</td>
<td>$102</td>
<td>$370</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>$112</td>
<td>$617</td>
</tr>
<tr>
<td>Strep Throat</td>
<td>$111</td>
<td>$531</td>
</tr>
</tbody>
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[Debt.org](https://www.debt.org)
Pharmacy disruption

We tried PillPack, the pharmacy startup Amazon acquired for $1 billion, and we can see why it has big pharmacies terrified
Dental disruption

Teeth-straightening startup SmileDirectClub is now worth $3.2 billion
Consumer demand = customized mass production
3D printing at scale? Yes.
Disrupting commercial real estate
Using machine learning for optimal floor planning

WeWork’s floor plans show efficient space usage
To sum it up so far…

The world population is growing and increasingly moving into urban areas, where innovative workers seek one another to collaborate in building and developing new knowledge-based industries that are increasingly disrupting and dominating a rapidly evolving global economy.
Improving your agility

INSTEAD OF RISKING ANYTHING NEW, LET'S PLAY IT SAFE BY CONTINUING OUR SLOW DECLINE INTO OBsolescence.
Collaborate to delight your customers
Streamline everything, but maintain flexibility

FIG. 10 Use of mainstream technologies in procurement

<table>
<thead>
<tr>
<th>Currently</th>
<th>2-3 years</th>
</tr>
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<tbody>
<tr>
<td>Cloud-based applications/SaaS</td>
<td>82%</td>
</tr>
<tr>
<td>Data visualization tools</td>
<td>69%</td>
</tr>
<tr>
<td>Master data mgmt. technologies</td>
<td>81%</td>
</tr>
<tr>
<td>Advanced analytics</td>
<td>84%</td>
</tr>
<tr>
<td>Mobile computing</td>
<td>84%</td>
</tr>
<tr>
<td>Social media/collaboration</td>
<td>74%</td>
</tr>
</tbody>
</table>

Source: Key Issues Study, The Hackett Group, 2018

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BROAD ADOPTION
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Rethink your team
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