



4th Industrial Revolution

Era of Rapid Digital Disruption

Digital Technology Megatrends & Challenges

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THE DISRUPTIVE DIGITAL REVOLUTION

UBER



NETFLIX

Technology Megatrends Driving Disruption

Democratization of technologies.

Mobile

>50%

More than half of information workers across 17 countries report using 3+ devices for work

Social

50%

Of the Asian Workforce will be Millennials by 2025

Big data+

IoT
44 ZB

By 2022, IoT will include 26B units causing explosion in the amount of data available.

HyperScale

Cloud
50%

Nearly half of total IT spend will be cloud-related by 2020

The combination is Disruptive & Game Changing
“Third Platform” (IDC), “Nexus of Forces” (Gartner),
Internet Plus (China PM)

Devices: “Info Workers Will Erase Boundary Between enterprise And Consumer Technologies.” Forrester Research. August 30, 2012
Apps: Gartner: “Predicts 2013: Business Impact of Technology Drives the Futures Application Services Market.” Nov. 21, 2012
Big data: Paraphrased from “The Impact of the Internet of Things on Data Centers.” Gartner Research, Feb 27, 2014
Cloud: “Prepare For 2020: Transform Your IT Infrastructure And Operations Practice.” Forrester Research. Oct. 24, 2012

[*Microsoft: Cyberspace 2025: Today's Decisions, Tomorrow's Terrain](#)



Disruptive Use Case - UBER



3rd & 4th Platform powering Continuous Rapid Disruption

Democratization and the Internet

Delivering
crowdsourced
services

Growing
sustainably

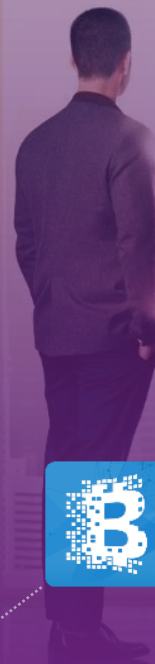
Reinventing the
value chain

Bridging
physical and
digital worlds

Achieving
continuous
uptime

Delivering
faster, smarter
service

Advancing
human-centric
design



Social



Cloud

10101
01010
00100
Data

"Internet of
Things"



Quantum computing



3-D Printing



Natural interfaces

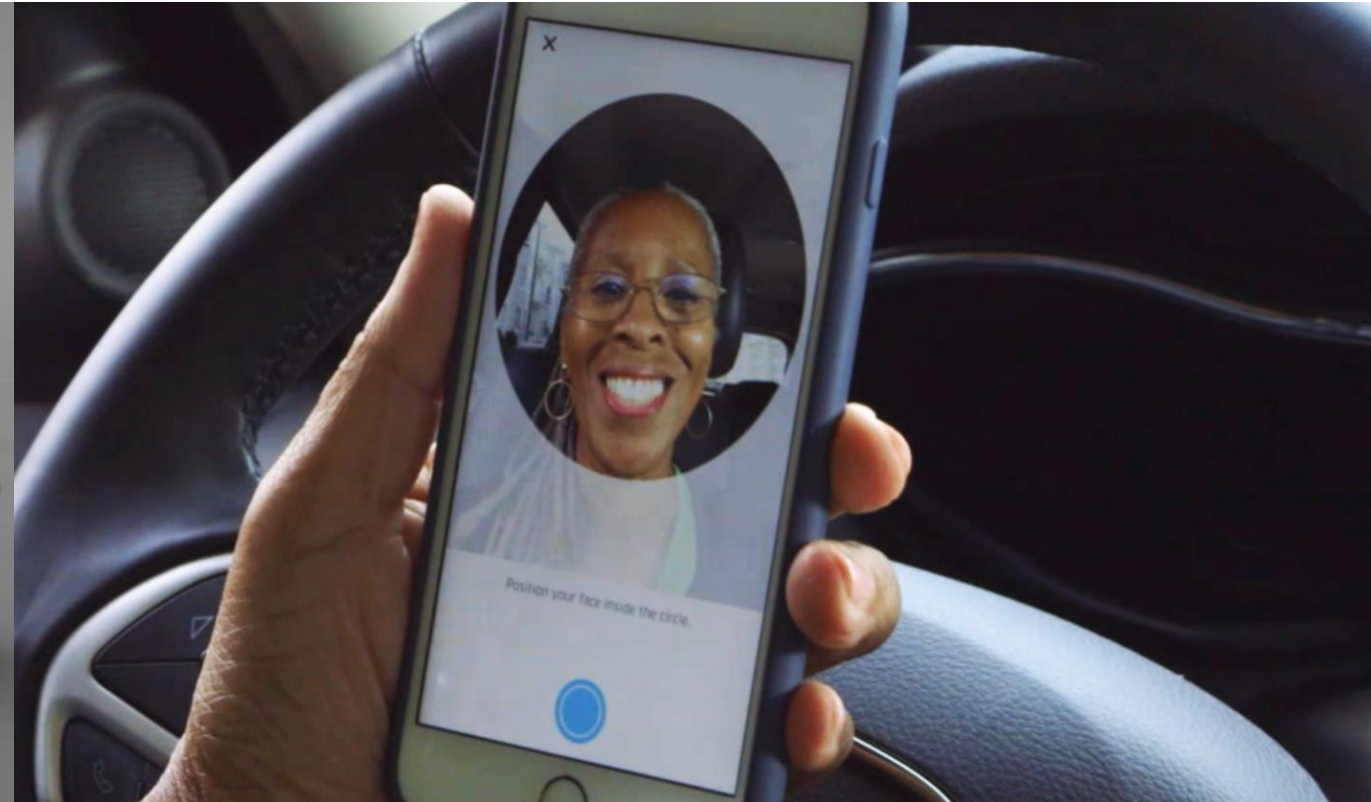


Machine Learning

UBER – advanced features



<https://www.bloomberg.com/news/features/2016-08-18/uber-s-first-self-driving-fleet-arrives-in-pittsburgh-this-month-is06r7on>



<https://customers.microsoft.com/en-US/story/uber>

ICT use is Transforming in this Digital Age

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*Our industry does not respect tradition
- it only respects innovation.*

Mobile First, Cloud First!



GETTY IMAGES

HP. CISCO. DELL. EMC. IBM. Oracle. Think of them as the walking dead.

http://www.wired.com/2015/10/meet-walking-dead-hp-cisco-dell-emc-ibm-oracle/?mbid=social_fb

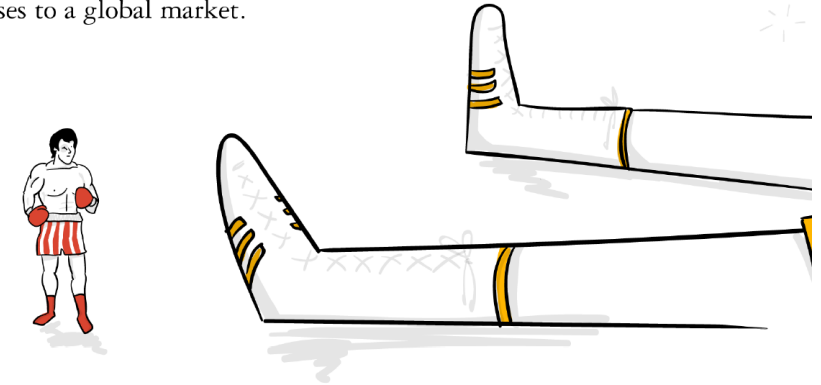
Digital Strategy for Survival – Chief Digital/Transformation Officer

Power has shifted from companies to consumers, and expectations have never been higher. Companies can't get away with having crummy products, at least not for long. For example, bad product reviews trump clever marketing. Today, great products win.



From Companies to Consumers

Meanwhile, within companies the *power has shifted as well*. Individuals and small teams can have a **MASSIVE IMPACT**. They can create new ideas, experiment, fail, and try again, and get their successes to a global market.



Small things can have Massive Impact

Government Digital Transformation

The New Normal for Government

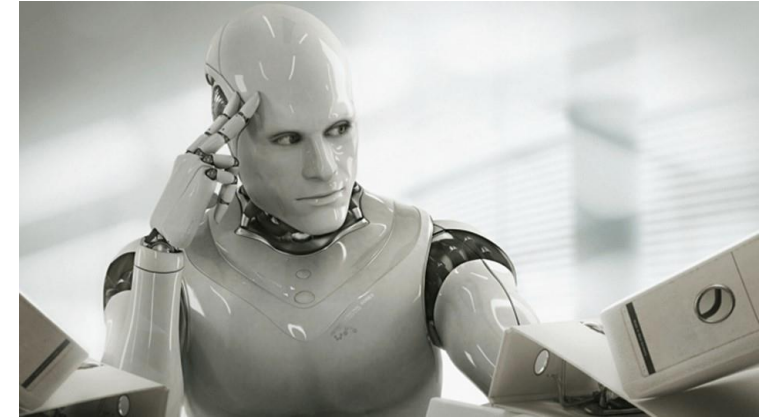
Klaus Schwab from the World Economic Forum said, "It's not about control, it's about relevance,"

- Completely new ways of engaging citizens and providing citizen services that have profound impact on well being, jobs and economics.
- Using other people's infrastructure – to achieve more with less, rapidly.
- Thinking about the day after tomorrow - 10x thinking – moonshot.
- Unlocking digital potential - change in mindset, culture and approach (e.g. shying away from control mindset, challenging status-quo, adhocracy, disruption committee).

Job Disruption

Oxford University estimates 47 of US jobs could be automated within the next 2 decades; predicted top 5 are:

1. Middle management.
2. Commodity Salespeople.
3. Report Writers, Journalists, Authors & Announcers.
4. Accountants & Bookkeepers.
5. Doctors.



Make no mistake: at some level, every job can (and will) be done by machine. It is not a question of if; it is just a question of when.

Shelly Palmer, CEO at The Palmer Group

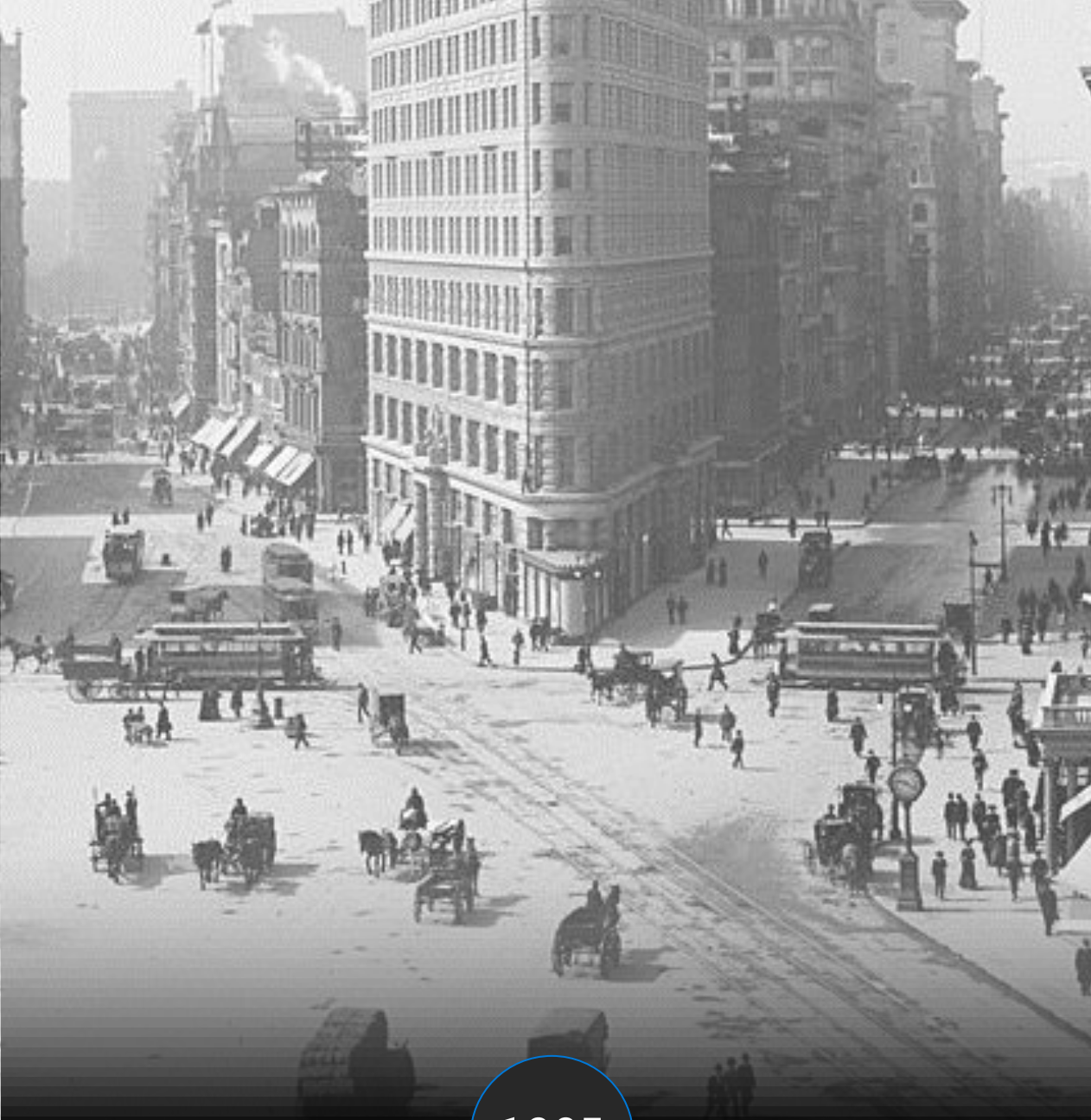
<https://www.shellypalmer.com/2017/02/5-jobs-robots-will-take-first/>

https://www.linkedin.com/pulse/5-jobs-robots-take-last-shelly-palmer?trk=eml-email_feed_ecosystem_digest_01-hero-0-null&midToken=AQHqd-cX_oprBg&fromEmail=fromEmail&ut=2IpYHUNyjvTM1

To be competitive in this new era ...

The Disruptive Digital Revolution is here to stay powered by the third and fourth platforms – we cannot ignore it.

- Digital Strategy will be important for governments.
- Policy Considerations to enable the country to remain competitive in the 4th Industrial Revolution:
 - Skills for the Unknown future - Promoting STEM Education; infuse Computer Science, Data Engineering & Science knowledge into education, encourage 21st Century Skills.
 - Consider Hyperscale Computing Cloud First Policies.
 - Escalate Cybersecurity as a National Security Issue (seriously – policies, enforcement, persecution, defense).
 - Open Data – unleashing the potential of government data:
 - Risk Based Data Governance and Classification balancing benefits vs Privacy and Security.
 - Pragmatic Privacy Laws – from collect and consent to use based privacy.



1905

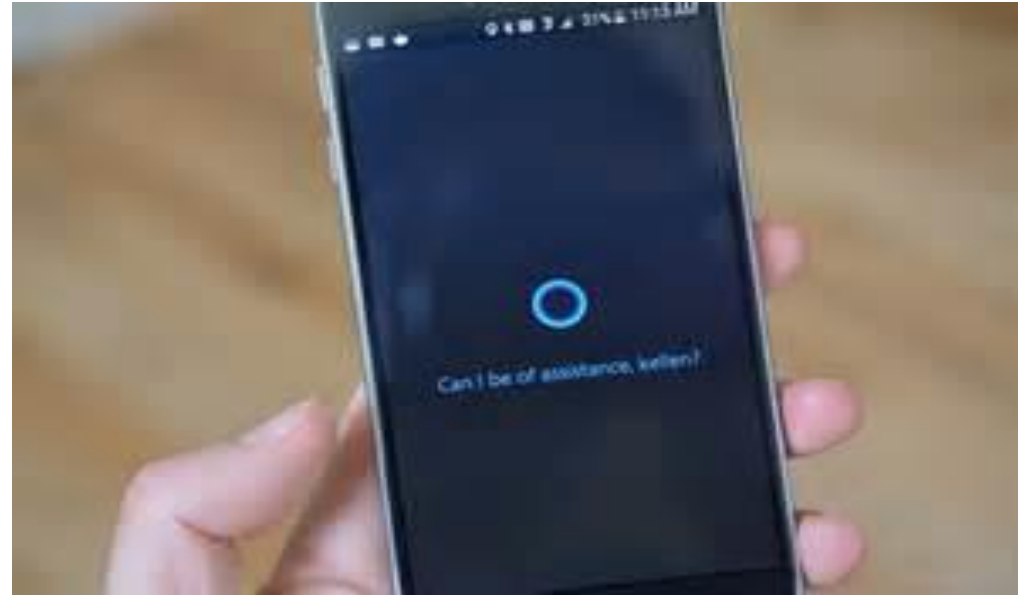


1925

Prof. Peter Hinssen

London Business School

"Some of the things that we dreamt about when we were young are now just playing out in real life. "



"...it's about mindset and culture more than anything else."

Governments around the world are starting to pursue more advanced thinking. The exponential, the 10x thinking. This is very close to a startup good at that 10X thinking moonshot type of big bets.

Thank you.

We aspire to be the most trusted commercial cloud provider in the world

<https://azure.microsoft.com/en-us/support/trust-center/>
<https://products.office.com/en-us/business/office-365-trust-center-cloud-computing-security>