

# Emerging Technologies

# **Previously Discussed - Four Interrelated Trends have Greatly Improved IT Capability in the Last 3 to 5 years...**

- Pervasive Network **Connectivity**
- Proliferation of **Mobile Devices**
- **Cloud Computing**
  - Software-as-a-Service
  - Infrastructure-as-a-Service
- **Data Science**
  - Analytics
  - Text Mining
  - etc.

# Agenda...

- Digital Transformation
- Seven Transformational Technologies
- Presentation Assignment

# We Live in a Digital World...

The world is being transformed by new technologies, which are redefining customer expectations, enabling businesses to meet these new expectations, and changing the way people live and work.

Digital transformation, as this is commonly called, has immense potential to change consumer lives, create value for business and unlock broader societal benefits.

# Digital Transformation

Research Source: [World Economic Forum](#)

Scroll down on this webpage to view

- [Executive Summary](#)
- Industry Reports –
  - Ex: Select “Automotive”
  - Select “White paper”

## The World Economic Forum

*The World Economic Forum is the International Organization for Public-Private Cooperation.*  
The Forum engages the foremost political, business, cultural and other leaders of society to shape global, regional and industry agendas.

# Seven Transformational Technologies



Artificial intelligence



Autonomous vehicles



Big data analytics and cloud



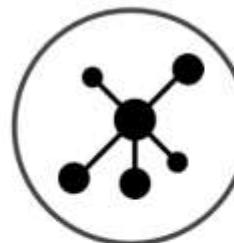
Custom manufacturing and 3D printing



Internet of Things (IoT) and connected devices



Robots and drones



Social media and platforms

In times of change the learners will inherit the earth, while the knowers will find themselves beautifully equipped to deal with a world that no longer exists.

Eric Hoffer

# DIGITAL ENTERPRISE: DIGITAL TALENT AND SKILLS



To stay relevant, companies should consider how their talent requirements need to evolve, to meet the skills and workforce challenges created by rapid digitalization.

## Attract, retain and develop talent

- Be a great place to work for millennials. Formulate a multi-year engagement strategy. Empower and incentivize the workforce through development opportunities.
- Create a workforce with digital skills. Whether it's developing training programs to obtain necessary skills or hiring digital natives, companies need to be aware of where talent is headed and how they can help.

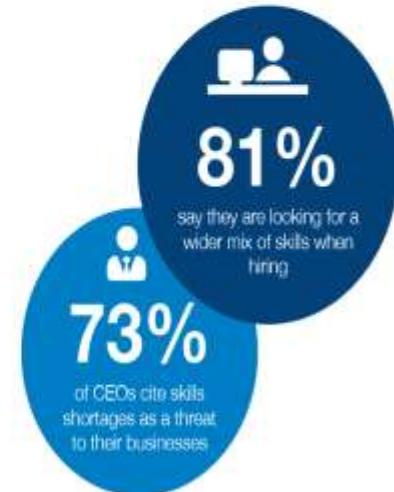
## Bring leadership into the digital age

- Leaders should hire people with digital mindsets and a willingness to change the status quo. Accept failure, and move away from the risk-averse mindset. Finally, embrace flatter structures and move away from hierarchies.
- Foster a digital culture from the top through communication, journey management, visible changes, and continuous change monitoring.

## Adapt to different ways of working

- Create environments where humans and robots can work together successfully. Evaluate the value of automation, establish the extent to which automation will form the core of your business, and invest in developing internal automation capabilities.
- Prepare for the rise of the on-demand workforce but ensure that there is enough of a balance to maintain corporate culture.

## The skills crunch



Source: PwC, People Strategy for the Digital Age

# World Economic Forum Website

# Digital Transformation

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# Presentation Assignment

# “Presentation” Assignment

- Each person selects an “Industry” and creates presentation slides.
- Describe the Digital Transformation that is occurring within the industry and why
- Describe in detail, one transformational technology that is driving the digital transformation within the industry
- Define the industry/societal impact of the transformation
  - Value Gain/Loss
  - Job Gain/Loss
  - Barriers/Legal Implications

# Industries



# Seven Transformational Technologies



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Autonomous vehicles



Big data analytics and cloud



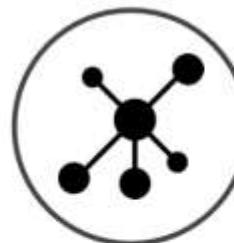
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# Presentation slides requirements

- Detailed rubric will be posted on D2L
- Due date posted on drop box
- Minimum of 12 slides
- Submit PowerPoint file or PDF
- The World Economic Forum document will be utilized as reference material for the presentation.
- You should research and include content from at least two additional information sources, and document references for these sources in your presentation.