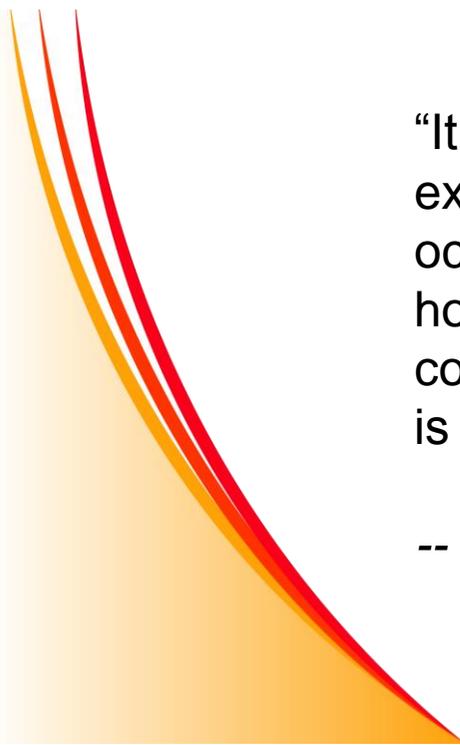


Foreword by ELLIOTT MASIE, Author of BIG LEARNING DATA

Brandon Carson

LEARNING IN THE AGE OF IMMEDIACY

5 Factors for
How We Connect,
Communicate, and
Get Work Done



“It is safe to say that technical experts are destined in the future to occupy distinguished and honorable positions in all the countries of the world. Your future is assured.”

-- *Alexander Graham Bell, 1918*





My goal today is for us to discuss the digital transformation from three perspectives that impact L&D: the human, business and workplace transformation brought about by the rise of digital technologies. The rate of change, the scale of change, and the role we play is radically changing and it's highly likely in the near future that L&D will be the primary driver in whether or not our businesses succeed. So I'm going to start by pulling way back and let us look at how we've gotten to where we are, how we should face some of these challenges we will be facing, and how we should focus ourselves to have the maximum impact on our businesses.



My story begins with elevators. More than likely you've used one. Maybe even today.

In NYC there are approximately 70,000 elevators providing 11 billion trips a year (around 30 million every day).

Otis, the world's #1 elevator maker claims their elevators carry the equivalent of the world's population every 5 days.

At times, we take elevators for granted. Often, we step into one without questioning how it works and we have expectations of what it will do for us.

But elevators are doing something much bigger than getting you to your desk...



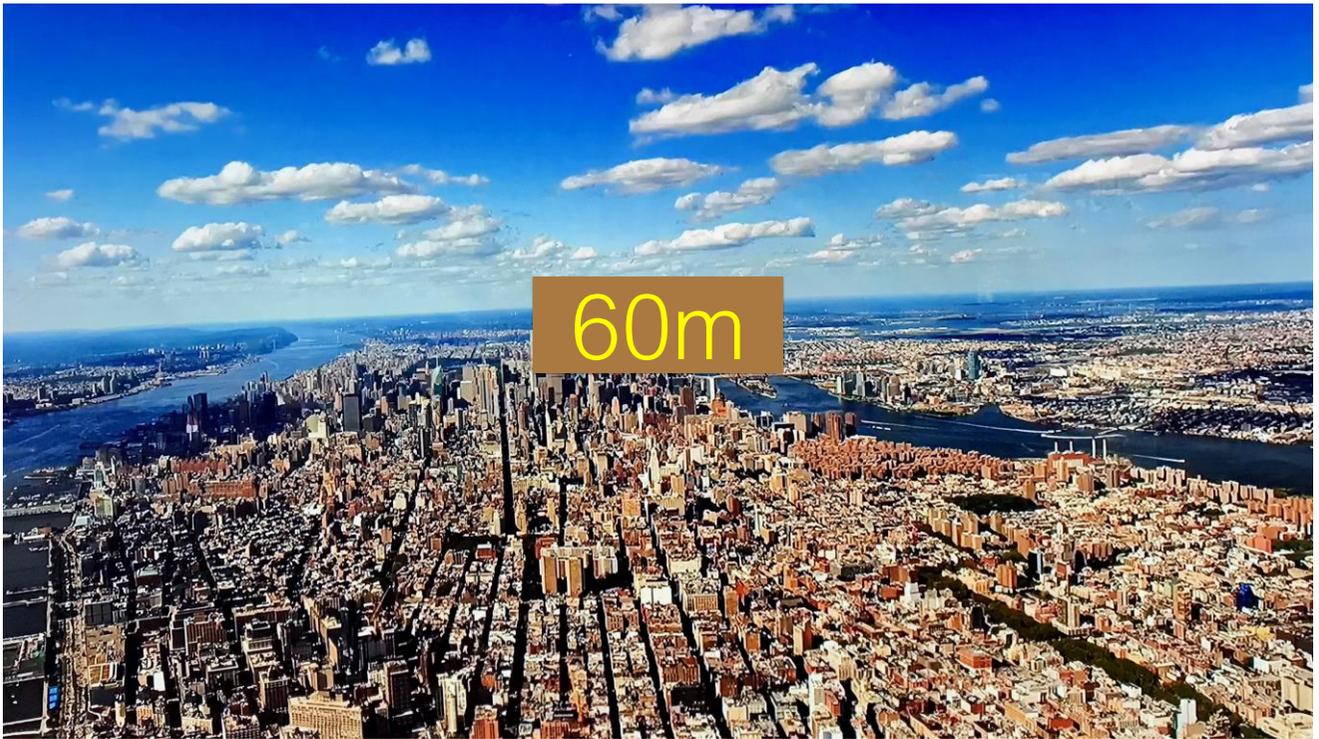
Elevators are enabling the
largest human migration in
the history of mankind

Elevators are enabling the largest human migration in the history of mankind.



How are they doing it?

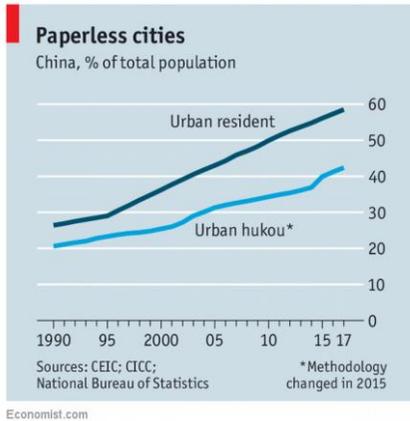
Well, let's take a look at people. By 2030 there will be 8.5 billion of us walking the earth.



And each year, 60 million people in developing countries are moving into cities.

In 1950 about 2/3 of the world's population lived in non-urban settlements and 1/3 in urban settlements. By 2050, this will be completely reversed with 2/3 of the population living in cities.

The Rise of Megacities



China's urbanization has been quite dramatic. The population of its cities has quintupled over the last 40 years, totaling over 800 million. By 2030, 1 in 5 city dwellers on earth will be Chinese.

Bigger cities are associated with higher productivity and faster economic growth which is why China is building over 19 megacities in clusters which will account for 9/10 of all Chinese economic activity. They're already well on the way with three:

- The Pearl River Delta, next to Hong Kong
- The Yangzi River Delta, which surrounds Shanghai
- And Jingjinji, centered on Beijing

The biggest city cluster in existence right now is Tokyo with over 40m people. The Yangtze River Delta cluster will be 4 times that size.

For productivity, a large labor market makes it easier to attract good talent for jobs and knowledge spreads more easily.



But, none of this would be possible without the elevator.

The elevator made it possible to put large numbers of people into a dense area. Without elevators there would be little economic value to the idea of a city itself. Some might even argue, without elevators the spectacular growth of the smartphone might not have occurred as fast as it has.

Vertical transportation, you might say, is an innovation that opened the door (literally) to many other innovations. The elevator is a simple innovation to us now.

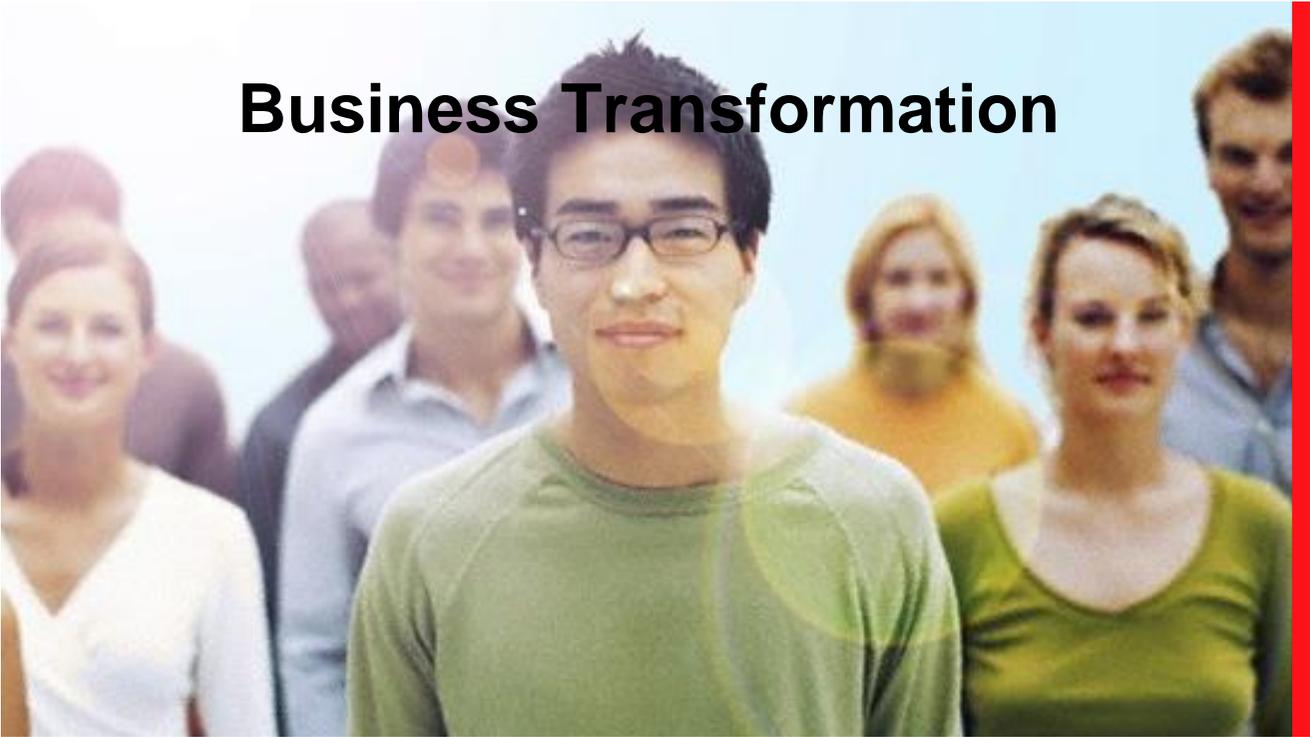
This human transformation is on a massive scale and is occurring quickly when you think about it. And it is dramatically altering how we connect to each other, how we communicate, and also how we work.



Considering how we're rapidly migrating to urban environments, what are your predictions on how this movement impacts the economy, the environment, and our lives?

Will megacities result in innovation and economic powerhouses? What are the implications on the environment and our ability to live so densely?

Business Transformation





digital transformation

The investment in and development of new technologies, mindsets, and business and operational models to improve work and competitiveness and deliver new and relevant value for customers and employees in an ever-evolving digital economy.

-- *Brian Solis*

Here's a definition of the digital transformation from Brian Solis.

Fortune 500
Life Expectancy

75
years
1967

15
years
2017

In 1967, the life expectancy of a Fortune 500 company was around 75 years.

In 2017, it's less than 15.

S&P 500
Companies

About half of S&P 500
companies will be replaced
over the next ten years.

33

years
1964

12

years
2027

<https://www.innosight.com/wp-content/uploads/2017/11/Innosight-Corporate-Longevity-2018.pdf>

About half of S&P 500 companies will
be replaced over the next ten years.

[https://www.innosight.com/wp-
content/uploads/2017/11/Innosight-
Corporate-Longevity-2018.pdf](https://www.innosight.com/wp-content/uploads/2017/11/Innosight-Corporate-Longevity-2018.pdf)

The rapid pace of change is being
driven by the digital convergence we're
under now.

The 3 Waves of Digital Transformation

1

1989-2000

Internet
Revolution

2

2000-2025

Information
Revolution

3

2025-

Social
Revolution

The digital transformation can be viewed in three distinct waves:

Wave 1. The rise of the Internet brings rapid technological change. We developed the systems to connect people and created standards for massive information sharing.

Wave 2. This is where we are now. Information is near real time, changing our content consumption patterns and behavior and transforming education and how we acquire knowledge.

Wave 3. There will be no unconnected people on earth. We are less defined by physical geography and more by our online activity.

Talent may not be prepared to lead or execute digital strategy



A range of skills is required

Top three most important leader skills

Transformative Vision	22%
Forward Thinking	20%
Change Oriented	18%

Top three most important employee skills

Change Oriented	38%
Tech Literacy	27%
Strategic Thinking	16%

Digital trends will likely drive change in the organization's talent base

<http://sloanreview.mit.edu/2016-digital-business-interactive-tool/>

A report by the MIT Sloan Management Review and Deloitte found the majority of company leaders surveyed can lead a digital strategy...

but don't believe their employees are prepared to execute on the digital strategy.



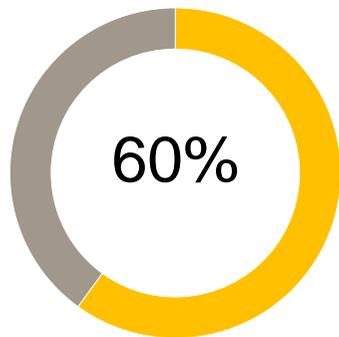
number one

Business Imperative

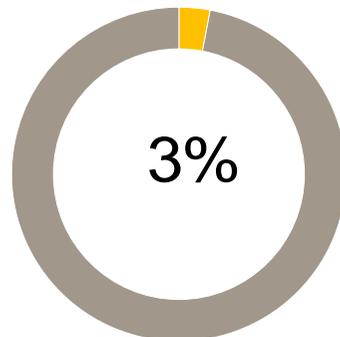
Leveraging digital technologies to drive productivity, efficiency, and innovation



Technology investment vs. Employee Investment



■ Investment in new tech (AI, etc)

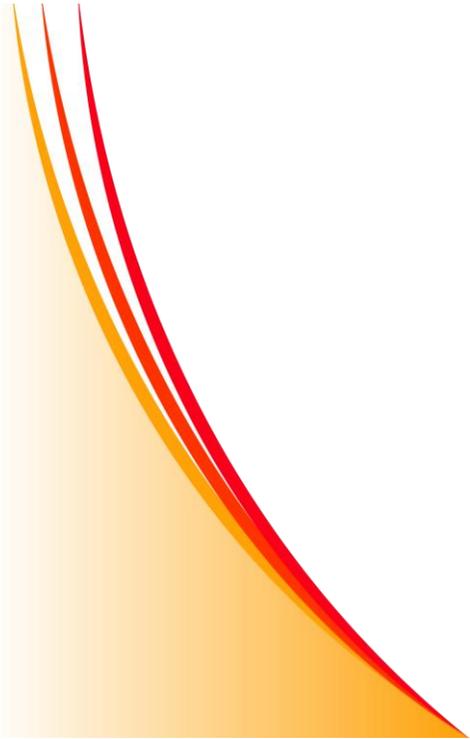


■ Investment in employee training

Accenture: Reworking the Revolution Jan. 2018

100% of CEOs believe that technology will help improve worker capabilities and they've increased spending on intelligent technologies like AI by 60% in the last year.

However, only 3% of CEOs are significantly increasing their investment in training their people.



The shelf life for your skills? 3 years.

AT&T painted a very clear vision for the future for their people, and they said "We're going to train you to do these new jobs. But it doesn't end here."

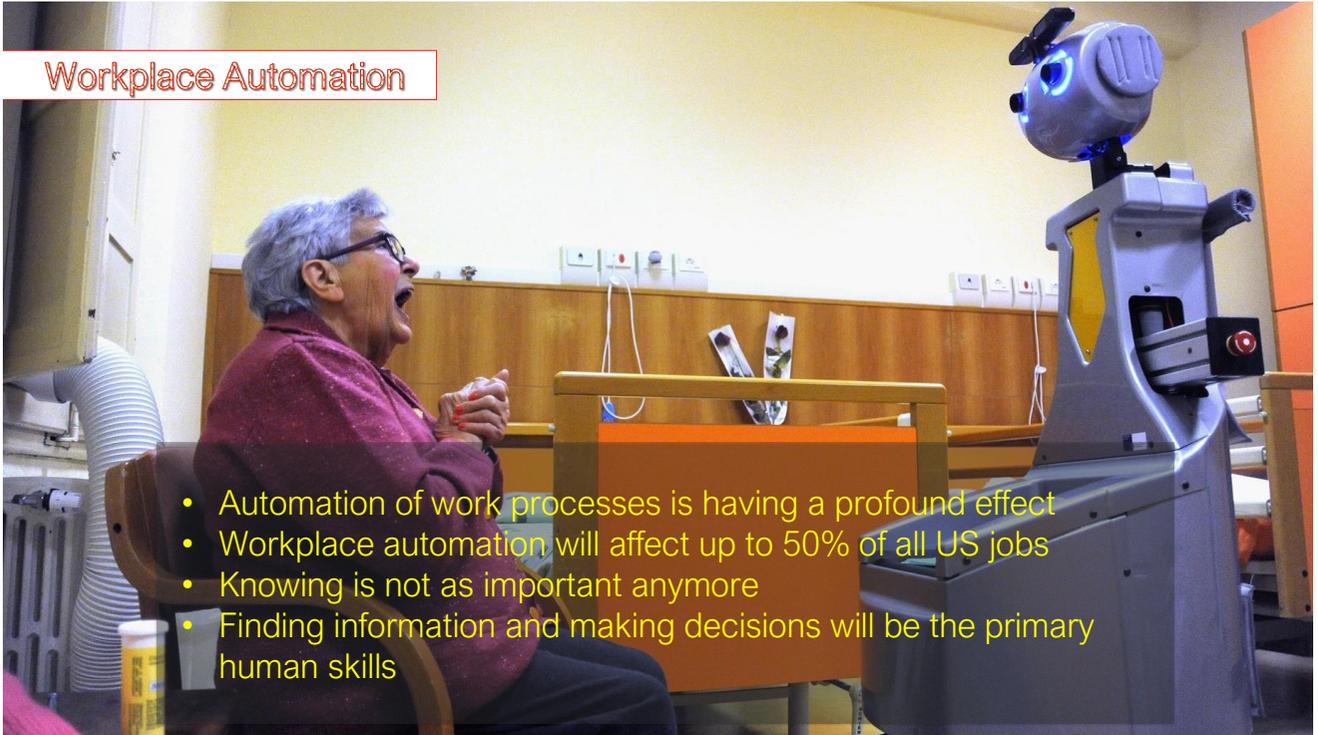
They were telling their people that the shelf life for their skills was three years. So they needed to train for new jobs, but then they needed to *keep* training so that every three years as their jobs dramatically changed, they would be prepared.



Which brings me to the technology factors driving digital transformation:

- Workplace automation
- The cloud
- Mobile
- Big data and learning analytics
- and the IoE

Workplace Automation



- Automation of work processes is having a profound effect
- Workplace automation will affect up to 50% of all US jobs
- Knowing is not as important anymore
- Finding information and making decisions will be the primary human skills

In the workplace, profound changes are occurring as a result of digitizing work processes.

Automation in the workplace has the potential to affect almost 50% of all jobs in the US. It's not yet certain if AI will bring about the automation apocalypse though. Amazon has gone from 1,400 robots in their supply chain to 45,000 in just 3 years. But they've also added over 200,000 human jobs during that time. What's important is to understand that...

Knowing will not be as important as it once was because software, robots, and other intelligent machinery will learn and perform critical tasks for us. Many of us will be working alongside robots as well. Robots will train us, we will train robots, so...

Finding information and making decisions will be the primary skills humans need.

The Cloud

- Cloud services have reduced the need to maintain in-house hardware and software, reducing complexity and saving costs
- Cloud technology can be implemented and scaled quickly and affordably, so adoption has been swift, bringing wholesale restructuring to IT organizations

Cloud services have reduced, and in some cases eliminated, the need to maintain in-house hardware and software, reducing the complexity and resources required to manage the infrastructure.

Because cloud technology can be implemented and scaled quickly and affordably, adoption has been swift, bringing wholesale restructuring to IT organizations.

Cloud Evolution: 3 Switching Phases

1

Switching content from paper to digital to Internet

2

Switching apps from desktop to Internet

3

Switching infrastructure from enterprise to Internet

The cloud evolved from three key switching phases:

Phase 1: switching content from paper to digital to the Internet.

Phase 2: switching applications from desktop-centric to Internet-centric.

Phase 3: switching infrastructure from traditional data centers and individual enterprises to Internet delivery.

The Cloud by 2025

1

Nearly ALL enterprise data will be stored in clouds

2

80% of IT budgets will be spent on cloud services

3

The number of corporate data centers will drop by 80%

By 2025, cloud technology will transform business in 3 key areas:

1. Nearly all enterprise data will be stored in clouds
2. 80% of IT budgets will be spent on cloud services
3. The number of corporate data centers will drop by 80%

Our move to the cloud represents the largest migration in the history of the IT industry.

Mobile

- 
- Mobile is having by far the most significant impact in the near term to the workplace
 - Almost all workers are mobile. Ubiquitous connectivity has transformed how business is conducted
 - The single biggest worker use case for mobile is looking up information at the moment of need

Of all the technologies we talk about today, mobile is having by far the most significant impact in the near term to the workplace and to learning organizations.

In today's world, almost all workers are mobile in some sense. Constant connectivity has sparked a revolution in processes and agility, as well as rapid change in how business is conducted.

The single biggest worker use case for mobile is looking up information at the moment of need.

Big Data / Learning Analytics



- Historically, data has been collected separately and then manually combined to derive actionable information
- Now data can be gathered from the experience as it occurs
- The content, the learner, and the data now provide information about the effectiveness of the experience in real time.

Before almost everything was smart and connected, data were generally collected through separate transactions and combined using surveys, research, and other external sources to derive actionable information. This was a somewhat decentralized manner of manually bringing data sources together to synthesize information.

Now data can be gathered from the experience as it occurs, making the data a core component. For a learning solution, the content, the learner, and now the data combine to provide valuable information about the effectiveness of the experience.

Internet of Everything



- In less than 40 years we have evolved to ubiquitous connectivity
- The IoT bridges the gap between the physical and digital worlds

We are on target to shift to everything being connected. Interestingly enough, the shift began with the foresight of the Internet's founders: create an open, interoperable system based on standards. This led to the amazingly quick mass adoption of the Internet that in less than 40 years has brought us to ubiquitous connectivity.

Some are linking the idea of ubiquitous connectivity to Kevin Ashton, a brand manager at Procter & Gamble, who in the 90s began working with RFID chips like the one shown here to manage supply chain operations.

Ashton believed the inefficiencies and errors of human-only processes could be greatly decreased or even eliminated. Ashton coined the term describing this process as the *Internet of Things* (IoT)—a way to bridge the gap between the physical and digital worlds.

The ability to connect objects extends far beyond our electronic devices, however. The idea of connecting things has quickly moved to the idea of connecting everything.



Which of the Five Factors
discussed will have the most
impact on your learning strategy?

What is the opportunity it brings
and what is the challenge?



Workplace Transformation



workplace transformation

Identify and execute opportunities for profitable growth within its existing business units and in yet-untapped markets and product segments

INDUSTRY NEWS > CAREER & WORKPLACE

UPS picks Walmart exec as new 'chief transformation officer'

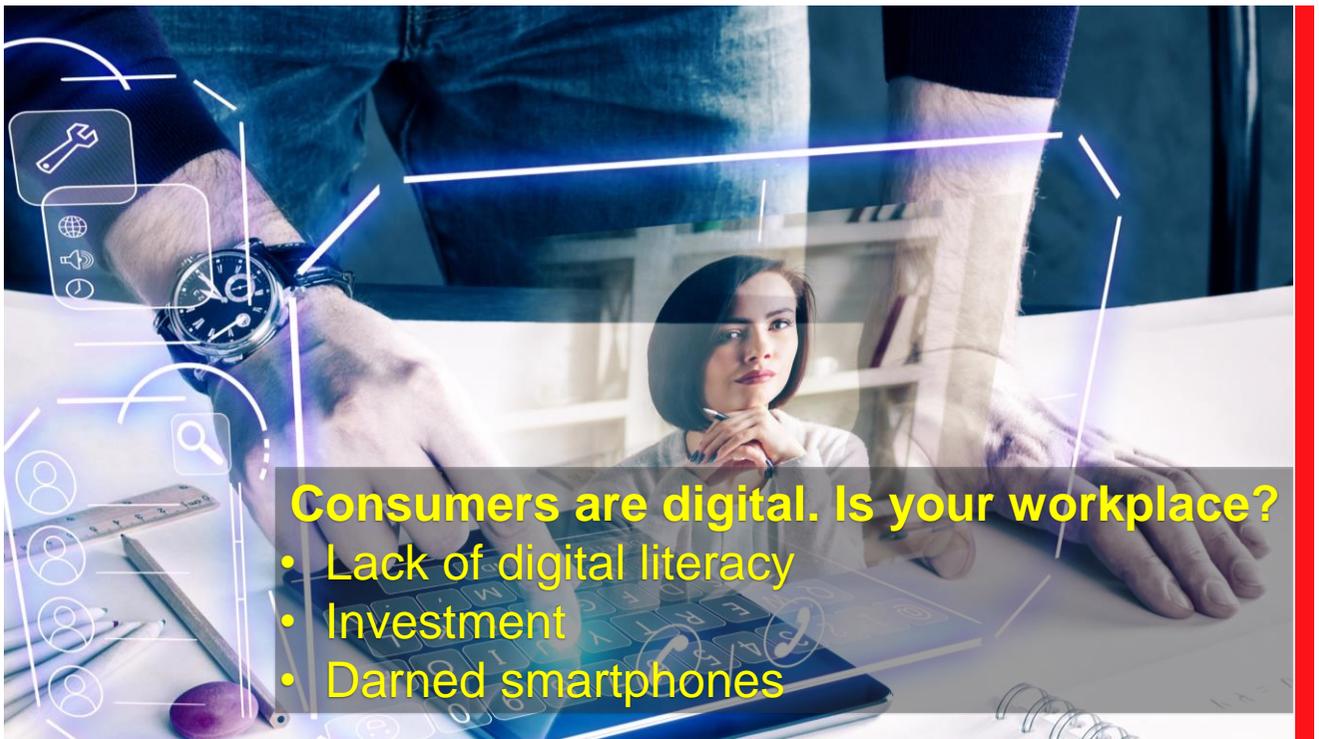


Scott Price will join UPS after working as Executive Vice President, Global Leverage for Walmart.
CURTIS MYERS VIA UPS

Recently UPS created a Chief Transformation Officer position.

The newly created role will help the company identify and execute opportunities for profitable growth within its existing business units and in yet-untapped markets and product segments.

Historically, CIOs or even CMOs have driven transformation across the enterprise. Who or what role in your organization is focused on the digital transformation?



Consumers are digital. Is your workplace?

- Lack of digital literacy
- Investment
- Darned smartphones

The digital transformation has caught many of us by surprise. In many situations, our customers are coming to us with more advanced technology than our employees have. We have to do more to meet our customers where they're at. Think of these areas where many companies are lacking:

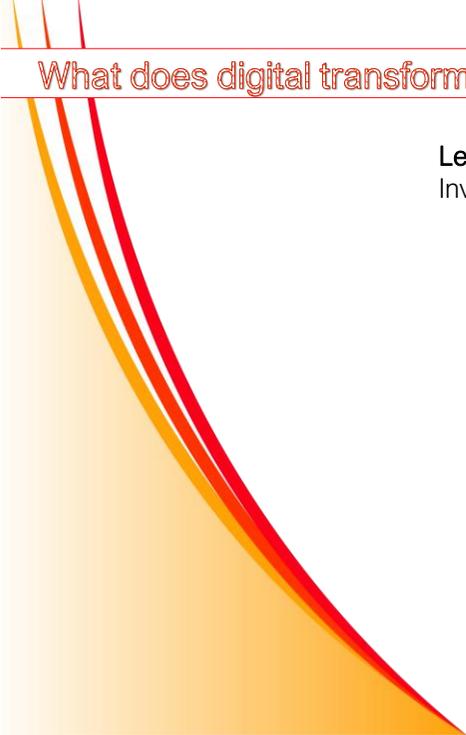
Digital Literacy. Not having the right talent is restraining the scope and extent of innovation in your company to enable you to respond to consumers' changing expectations.

Investment. Investment in digital transformation initiatives are often viewed as short-term cost centers with limited budgets. We need to take a long-term view and begin making more long-term investments.

Those darned smartphones. Hundreds of millions of people worldwide use smartphones and other digital devices to communicate, buy and sell, learn, and be entertained, but too many companies still have not made critical investments to be digitally competitive and consumer responsive as this global shift occurs.



What is Starbucks? A coffee company? A coffeehouse chain? In 2014, Adam Brotman, the EVP of global retail operations and digital engagement, shared that Starbucks “acts like a consumer technology company” when it comes to its digital strategy. He advised other companies to do the same. Every company is now a technology company.



What does digital transformation require?

Leadership and Purpose

Investments in digital expertise, capabilities, and innovation

Leadership and Purpose

Digital transformation requires acceleration of enterprise-wide investments in digital expertise, capabilities, and innovation.



What does digital transformation require?

Leadership and Purpose

Investments in digital expertise, capabilities, and innovation

Understanding New Behaviors

DT has changed customer and employee expectations, preferences, and behaviors

Understanding New Behaviors

Mobile devices and constant connectivity have changed customer and employee expectations, preferences, and behaviors. Disruptive technologies, such as the factors I'm discussing here today, will continue to alter human behavior.



What does digital transformation require?

Leadership and Purpose

Investments in digital expertise, capabilities, and innovation

Understanding New Behaviors

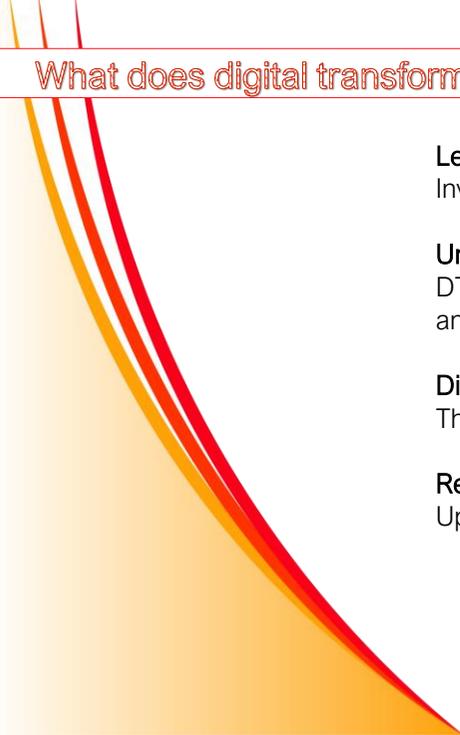
DT has changed customer and employee expectations, preferences, and behaviors

Digital Literacy

The customer experience defines and prioritizes DT strategies

Digital Literacy

Customers and employees are evolving from business as usual. But it's not clear if we all understand our connected customers and employees. While understanding evolving customer and employee behaviors and preferences is the top driver for digital transformation, many of us have not mapped our customers' journey to define and prioritize digital transformation strategies. And, fewer than half are studying how mobile devices affect customer touchpoints.



What does digital transformation require?

Leadership and Purpose

Investments in digital expertise, capabilities, and innovation

Understanding New Behaviors

DT has changed customer and employee expectations, preferences, and behaviors

Digital Literacy

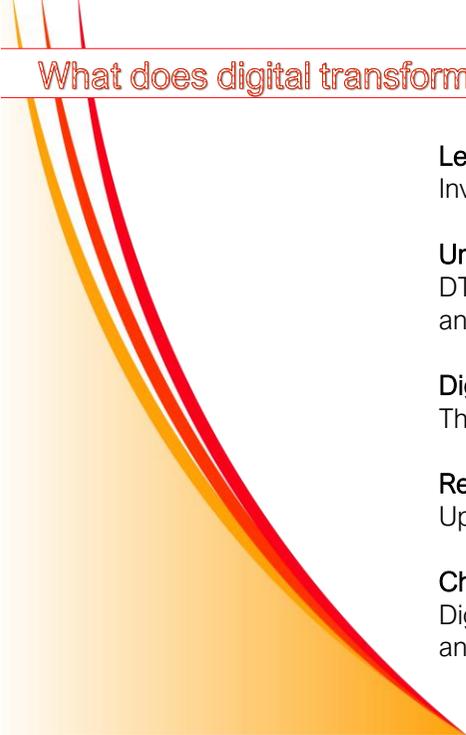
The customer experience defines and prioritizes DT strategies

Recruiting and Training Digital Talent

Up-level employee skillsets and invest in new digital talent

Recruiting and Training Digital Talent

Companies must modernize employee skillsets for the digital economy and invest more in new digital talent. The employee experience is a crucial, yet often overlooked, element of a successful digital transformation.



What does digital transformation require?

Leadership and Purpose

Investments in digital expertise, capabilities, and innovation

Understanding New Behaviors

DT has changed customer and employee expectations, preferences, and behaviors

Digital Literacy

The customer experience defines and prioritizes DT strategies

Recruiting and Training Digital Talent

Up-level employee skillsets and invest in new digital talent

Change Management

Digital transformation is an enterprise-wide, cross-functional endeavor and is not just about technology.

Change Management

Digital transformation is an enterprise-wide, cross-functional endeavor and is not just about technology. It's about mapping the company's products and services to the new needs of the customer. It's a fight against market disruption. It's more than likely not a BAU practice. You need to think about how it affects every area of your business and begin to undertake the change management necessary to up-level the enterprise to be able to execute on your digital strategy.

We need to acknowledge that technology will indeed take a large percentage of what we are used to doing away from us. Period. We will need to lean on these areas greatly to weather this transformation.

The 3 competencies for digital learning leaders

1

Persistence with a growth mindset

- Able to deal with ambiguity
- Look at the world through multiple stakeholder lenses

New technology demands a different type of leadership with a different skillset.

Persistence with a growth mindset

Modern leaders must be entrepreneurial, and be able to deal with ambiguity, notice key patterns amongst the noise, and look at the world through multiple stakeholder perspectives.

2

Ability to identify and define strategy through multiple lenses and execute

- Strategy answers the question: where are we going?
- Execution determines how you will get there.

Today's leaders translate strategy into action. The leader must inspire his or her team to understand the strategic vision, agree with it, and help get there through their action. Leaders provide prioritization and direction so the team can deliver top results.

The 3 competencies for digital learning leaders

3

Business and digital expertise

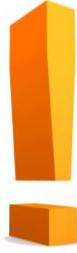
- Lead cross-functional teams
- Keep people connected
- Drive a culture of innovation and continuous learning

Lead cross-functional teams

Keep people connected

Drive a culture of innovation and continuous learning

What L&D future will you create?



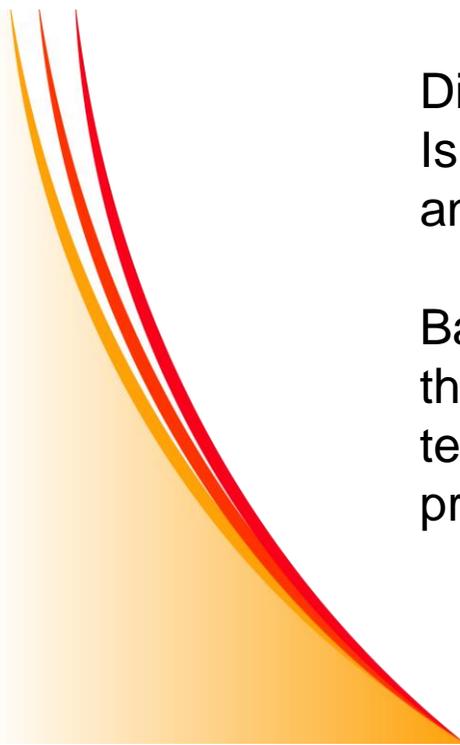
You're no longer a support organization.

It's time to run learning as a business.

What L&D future will you create?



- How will you deliver L&D solutions as companies bring in more automation that changes work processes?
- How do you get company leaders to understand how these technologies impact workplace performance?



Digital Transformation:
Is your bias toward action or wait
and see?

Based on either choice, what are
the people, process and/or
technology choices that will
provide you the best outcomes?



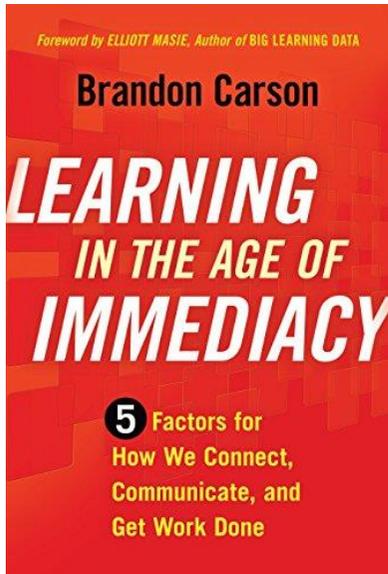


Steel, oil and rail were the technologies that dominated the 19th and early 20th centuries. Now, the technologies driving the digital transformation are dominating the 21st century...

But, technology is meaningless if it doesn't make our lives better. Ultimately, it's humans who build, design, and use technology to get work done. We have experienced a fundamental shift in how quickly new technology is adopted, in how workers improve their skills and knowledge, and how we collectively view work itself.

There is no formula to inventing the future. We have to have a complete vision for what we can uniquely do, and then back it up with conviction and the capability to make it happen. The fact is we are all becoming connected, and from now on, all workers at all levels will interact with technology to get their job done.

contact



Brandon Carson

- <http://www.ageofimmediacy.com>
- brandon.carson@delta.com