

# 5

## 5 Workplace Learning Trends and 5 Predictions for 2019

Towards a Digital-Human Workforce





# Introduction

New digital technologies like artificial intelligence (AI) and automation tools are rapidly changing the way we work, develop products, and interact with our customers. Intelligent automation tools augment what people do at work and will redefine what's possible.

As organizations navigate this complex digital transformation, learning & development (L&D) leaders are tasked with keeping employees up to speed with the ever-evolving skills ecosystem.

To uncover emerging trends and predict what's required in 2019, we surveyed 400 L&D leaders to find out what they're doing to prepare their workforce for this digital transformation. We also took a look at the hot new topics trending on our global UdeMy marketplace of 30+ million learners and thousands of businesses.

**Based on this data, here are 5 learning trends and 5 learning predictions for 2019.**

# 5 Learning Trends for 2019



# 5

## Learning Trends for 2019

1

Businesses are now the architects of the future of work

2

Automation and AI are new recruits to the workplace

3

Towards a digital-human workforce: Soft skills matter

4

What your peers are learning: Trending skills by industry

5

What the world is learning: New emerging skills by country

# 1

## Businesses are now the architects of the future of work

With the rise of automation, the world of work is experiencing the most significant job transition since the shift from agriculture to manufacturing jobs during the Industrial Revolution.



*By 2030, as many as 375 million workers— or roughly 14 percent of the global workforce— may need to switch occupational categories as digitization, automation, and advances in artificial intelligence disrupt the world of work.<sup>1</sup>*

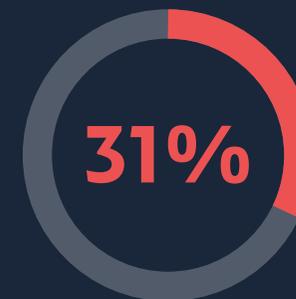
MCKINSEY GLOBAL INSTITUTE

<sup>1</sup> <https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>

L&D leaders fully recognize that we're in the middle of the fourth industrial revolution



Organizations with a formal future of work plan



Organizations with an informal future of work plan



Organizations with no future of work plan

Source: UdeMy Data

## Training employees for jobs that don't exist yet

In our era of rapid technological change, learning & development's role is to train employees for jobs that don't exist yet. L&D must become a well-oiled "reskilling machine" and provide the tools to constantly reskill workers for new, emerging roles. Rather than hiring and firing talent, employees whose jobs are automated can be reskilled for new kinds of roles at organizations.

### CASE EXAMPLE

## Malwarebytes

Udemy for Business customer Malwarebytes, a Silicon Valley cybersecurity firm, automated its quality assurance testing for software development. However, instead of laying off these employees, the company turned to online learning to quickly reskill their workforce for new programming skills required in a rapidly-changing cybersecurity industry. A computer now handles mundane testing tasks, while the up-skilled employees apply their programming knowledge to help identify errors in the company's codebase.

Read more:

[Algorithms Are Coming for Their Jobs, So Workers Are Teaching Themselves Algorithms](#)



# 2

## Automation and AI are new recruits to the workplace

Automation and artificial intelligence (AI) are changing the nature of office work, freeing people from routine jobs and allowing them to focus on more creative, strategic, and collaborative work.



*[The] latest recruits include machines and software intelligence that they are using to bring new skills to help their people do new jobs and invent a new future for themselves and the organization.<sup>2</sup>*

ACCENTURE

### CASE EXAMPLE

SILICA

Silica, a business process outsourcing and technology company in South Africa, is transforming its organization for the future of work. By removing the “pain and paper” of manual data capture processes, their clients enjoy better end-to-end service. However, the organization’s data capture roles will be reduced over time, while jobs in project management, software development, client relationship management, and technical, business and test analysis will grow. Through their Digital Learning Academy, Silica is upskilling and reskilling employees to prepare for this digital transformation.

Read more:

[Silica's Digital Transformation Journey](#)

<sup>2</sup> <https://www.accenture.com/us-en/insight-intelligent-automation-technology>

## Top 10 emerging tech skills in the workplace 2019

- 1 Google Cloud
- 2 Alteryx
- 3 Robotic Process Automation
- 4 Cryptocurrency
- 5 REST Assured
- 6 Microsoft ADFS
- 7 Angular Material
- 8 Citrix
- 9 Google Flutter
- 10 Progressive Web App

Source: Udemy Data

## Robotic process automation is redefining the workplace

To see how organizations are preparing their workforce for the digital transformation, we took a look at the *brand-new emerging skills* popular on Udemy for Business.

As organizations augment their workforce with digital tools, it's not surprising that the #3 most popular brand-new emerging skill in 2019 on Udemy for Business is Robotic Process Automation (RPA). Robotic Process Automation (RPA) simply means using modern process automation tools to quickly and reliably replicate how human beings perform routine daily office work. Much in the same way that physical robots have revolutionized the manufacturing industry, software robots are now capable of having a similar impact in the office world.

In addition, Alteryx, a new data science and machine learning platform, is the #2 hot new emerging skill in the workplace in 2019. With Google Cloud (#1) gaining traction in the cloud business and the new release of Angular 7 (#7) for easy web app development, we also saw a surge in employees acquiring these new skills. Finally, cryptocurrency skills (#4) continue to rise in popularity.

**Read more:**

[Automation Skills Your Workforce Needs Today](#)

## Blockchain and AI go big

Advances in new artificial intelligence innovations are growing at a rapid pace. Venture-based AI startup deals in the US alone have grown from a handful to 750 startups between 2008–2017, reaching a total investment worth around \$5 billion.<sup>3</sup> As a result, 70% of executives are investing more in artificial intelligence technologies than they did in 2013, according to Accenture.<sup>4</sup> Blockchains are also on the rise and it's not just in the finance industry. 30% of manufacturers and retailers will rely on blockchain services to enable collaborative supply chains by 2021, predicts the IDC.<sup>5</sup>

We also took a look at what tech skills are *growing the fastest* in the workplace on UdeMy for Business. Employees at companies are learning hot trending skills like Ethereum (blockchain), artificial intelligence, deep learning, and blockchain. Big data analytics and processing tools like Microsoft Power BI, Hadoop, and Informatica also top the list.

<sup>3</sup> <https://news.crunchbase.com/news/venture-funding-ai-machine-learning-levels-off-tech-matures/>

<sup>4</sup> [https://www.accenture.com/t20160125T111718Z\\_\\_w\\_\\_us-en/\\_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Intelligent-Automation-Technology-Vision-2016.pdf](https://www.accenture.com/t20160125T111718Z__w__us-en/_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Intelligent-Automation-Technology-Vision-2016.pdf)

<sup>5</sup> [http://public.brighttalk.com/resource/core/213662/idc-futurescape---2019-dx-webcon-ppt-10222018-final\\_462561.pdf](http://public.brighttalk.com/resource/core/213662/idc-futurescape---2019-dx-webcon-ppt-10222018-final_462561.pdf)

## Top 10 fastest-growing tech skills in the workplace 2019

- 1 Ethereum
- 2 Microsoft Power BI
- 3 Kubernetes
- 4 Amazon AWS
- 5 Informatica
- 6 Artificial Intelligence
- 7 Hadoop
- 8 React
- 9 Deep Learning
- 10 Blockchain

Source: UdeMy Data

# 3

## Towards a digital-human workforce: Soft skills matter

The future workplace will involve a new relationship between people and machines. In fact, according to Accenture, intelligent automation thrives when paired with people to drive better outcomes.<sup>6</sup>



*Far from killing jobs and creating a dehumanized future, pioneering companies are using intelligent automation to drive a new—and much more productive—relationship between people and machines.<sup>7</sup>*

ACCENTURE

### CASE EXAMPLE

## [24]7.ai

Customer service firm 24/7.AI reinvented itself from a call center to an AI-driven customer support experience. But as its AI technology took over simple, routine customer requests, the company trained its human workforce in critical emotional intelligence skills to handle more complex customer calls.

Read more:

[How L&D Helped a Customer Service Firm Prepare for Digital Transformation](#)

<sup>6</sup> [https://www.accenture.com/t20160125T111718Z\\_\\_w\\_\\_/us-en/\\_acnmedia/Accenture/Omobo](https://www.accenture.com/t20160125T111718Z__w__/us-en/_acnmedia/Accenture/Omobo)

<sup>7</sup> [https://www.accenture.com/t20160125T111718Z\\_\\_w\\_\\_/us-en/\\_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Intelligent-Automation-Technology-Vision-2016.pdf](https://www.accenture.com/t20160125T111718Z__w__/us-en/_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Intelligent-Automation-Technology-Vision-2016.pdf)

## Top 10 fastest-growing soft skills in the workplace 2019

- 1 Conflict Management
- 2 Time Management
- 3 Stress Management
- 4 Communication Skills
- 5 Company Culture
- 6 Customer Service
- 7 Emotional Intelligence
- 8 Personal Productivity
- 9 Storytelling
- 10 Change Management

Source: UdeMy Data

## Organizations that foster natural human traits excel

As routine jobs become more automated and we move toward a digital-human workforce, people will need to specialize in key soft skills that robots lack. We took a look at fastest-growing soft skills trending in the workplace in 2019 on UdeMy for Business. The good news is humans excel in areas like conflict management, emotional intelligence, and storytelling—which top the list of soft skills people are learning in the workplace in 2019. In fact, research shows organizations that help foster these natural human traits like collaboration and storytelling are higher-performing than those that don't, according to our recent [Humanizing Learning Report](#).

With our rapidly-evolving landscape, change management also crept up on the list of the fastest-growing soft skills in 2019. As organizations drive their digital transformation, automate their processes, and adopt new technologies, change management will play a critical role in facilitating a successful workforce transition.

Read more:

[Humanizing Learning Report](#)



# 4

## What your peers are learning: Trending skills by industry

These are the fastest-growing skills employees are learning by industry in 2019 on UdeMy for Business.



## Financial & business services are on the cutting edge of AI and blockchain

Financial services and business services are some of the industries on the cutting edge of adopting new technologies like blockchain, AI, data science, and machine learning, according to Spiceworks.<sup>8</sup>

<sup>8</sup> <https://www.spiceworks.com/marketing/state-of-it/report/future-tech/>

### Business Services

Business service employees are upskilling on the latest skills in AI, blockchain, and Microsoft Power BI.

#### Top Skills

SharePoint  
Microsoft Power BI  
Artificial Intelligence  
Financial Modeling  
Blockchain

### Financial Services

In financial services, while design thinking and project management (PMBOK) are important, new fast-growing skills also include programming smart contracts for blockchains (Solidity) and open source machine learning (Tensorflow).

#### Top Skills

Design Thinking  
ITIL Certification  
Solidity  
TensorFlow  
PMBOK

Source: UdeMy Data

# AI is redefining IT architecture

Incorporating AI into the business also “represents a fundamental change in how IT systems are built,” according to Accenture.<sup>9</sup> Organizations across all industries are rapidly redefining their IT architecture and adding a new layer of AI tools that allow machines to become more sophisticated. AI and machine learning also result in an unprecedented amount of data that IT infrastructures will need to process, store, and analyze.

<sup>9</sup> [https://www.accenture.com/t20160125T111718Z\\_\\_w\\_\\_/us-en/\\_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Intelligent-Automation-Technology-Vision-2016.pdf](https://www.accenture.com/t20160125T111718Z__w__/us-en/_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Intelligent-Automation-Technology-Vision-2016.pdf)

## Top Skills

### IT & Software Consulting

While AWS and CompTIA certifications will always be mainstays for IT learners, IT is also mastering new tech skills like data management (QlikView) and automation at scale (Jenkins).

- Typescript
- CompTIA A+
- AWS Certification
- Jenkins
- Qlikview

### Software & Technology

Bringing apps to production faster with Kubernetes and Spring Boot are some of the skills driving software & technology industry learners.

- Apache Kafka
- Spring Boot
- Amazon AWS
- CompTIA A+
- Kubernetes

### Manufacturing

While manufacturing learners are still focused on traditional skills like lean process improvement techniques (Six Sigma Yellow Belt), today's manufacturing industry is also rapidly redefining itself with AI and data analytics skills like Deep Learning and Tableau.

- Six Sigma Yellow Belt
- Deep Learning
- JIRA
- Communication Skills
- Tableau

Source: UdeMy Data

## Disruption is the name of the game in consumer products and retail

Disruption is the name of the game in the consumer products and retail space as new players constantly challenge major brands. Competitive plays are happening behind the scenes with new automation and data science technologies that leverage consumer insights, optimize inventories, and deliver personalized customer experiences. Expect more innovation as the bricks-and-mortar store and e-commerce merge with augmented reality and virtual reality apps coming soon to a store near you.

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### Consumer Products

AWS cloud, DevOps, and data science are some of the tech skills driving learning in the consumer products industry.

#### Top Skills

Amazon AWS

Node.js

Leadership

DevOps

Data Science

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### Retail

New retail apps are changing the bricks-and-mortar shopping experience as retail technical employees upskill on hot tech skills like Kotlin (Android app programming) and Kubernetes (bringing apps to market faster).

#### Top Skills

Splunk

Kotlin

Kubernetes

JMeter

Amazon AWS

Source: UdeMy Data

# 5

## What the world is learning: New emerging skills by country 2019

Countries across the world are learning hot brand-new emerging skills like Google Flutter, Progressive Web App, and Robotic Process Automation.

Google Flutter is a game-changer in mobile app development. Released in 2017, Google Flutter started to take off in 2018 and we expect it to continue to rise in 2019. Previously, mobile app developers had to create different code to run on different platforms. However, Google Flutter is a free and open-source mobile software development tool that allows you to create Android and iOS mobile apps with the same code base.

Progressive Web Apps (PWA) is an emerging technology that combines the open standards of the web offered by browsers to provide the benefits of a rich mobile experience. Robotic Process Automation is also taking the world by storm as organizations automate routine office work.



# Top 3 Emerging Tech Skills Globally

## United States

1. CompTIA CySA+
2. Google Flutter
3. Progressive Web App

## United Kingdom

1. Google Flutter
2. Progressive Web App
3. CompTIA CySA+

## Germany

1. Shopware
2. Google Flutter
3. Progressive Web App

## Spain

1. Progressive Web App
2. Google Flutter
3. Rhino 3D

## India

1. Google Flutter
2. Robotic Process Automation
3. Progressive Web App

## Singapore

1. Google Flutter
2. Progressive Web App
3. Robotic Process Automation

## Brazil

1. Xamarin.Forms
2. Google Flutter
3. Godot

Source: Udemy Data

# 5 Learning Predictions for 2019



# 5

## Learning Predictions for 2019

1

Personalization will drive the reskilling revolution

2

Learners will create communities of knowledge

3

Chatbots will be the future personal training assistants

4

2019 will be all about creating blended learning *experiences*

5

L&D will build the digital dream team



## Towards a Digital L&D Experience

Organizations are undergoing a major digital transformation on the L&D front - from AI and machine learning to chatbots. Based on our survey of 400 L&D leaders, here are our top 5 learning predictions for 2019.

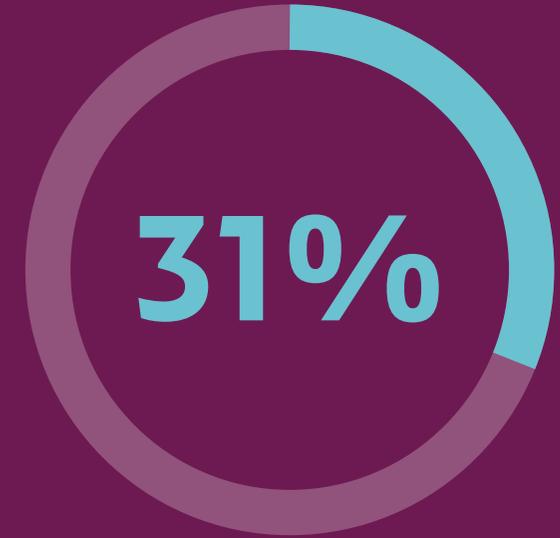
# 1

## Personalization will drive the reskilling revolution

As organizations reskill their workforce to prepare for the future of work, personalization powered by artificial intelligence and machine learning will help drive what employees should learn next.

Personalization, unified search, and recommendation engines are essential for effective content curation, according to Deloitte. "In learning and development (L&D), contextualization is the art and science of delivering the right content in the right format for learning, development, and performance improvement at the right time."<sup>10</sup> Artificial intelligence and machine learning can contextualize content for learners by providing course recommendations based on user behavior.

<sup>10</sup> <https://bersin角度.bersin.com/resources/research/?docid=21466>



**Organizations that plan to add artificial intelligence, machine learning, and algorithms to personalize learning in the next few years**

Source: UdeMy Data

## L&D can rely on algorithms to do the work

Personalization can help employees navigate skills progression as well as keep a pulse on hot new skills trending. Udemy for Business' Smart Recommendations powers what individual learners should learn next using the data of 30+ million learners on Udemy worldwide. By analyzing billions of learning interactions unique to our platform as well as individual behavior, we can deliver smarter, personalized learning recommendations for each employee.

This means instead of manually compiling learning paths, L&D can rely on algorithms to curate the right courses for employees to learn next. For example, employees who take an Amazon Web Services certification (AWS) course, might be served up AWS Lambda (serverless) or other related AWS courses that are trending. This could free up L&D's time to explore innovative technologies like Augmented Reality or become better strategic partners with the business.

### Read more:

[Why Personalization is the Future of L&D](#)



# 2

## Learners will create communities of knowledge

Informal, peer-to-peer learning is a well-known driver of new knowledge acquisition in the workplace. What's new is the proliferation of social media tools and online discussion forums that allow employees to easily connect online with peers for advice. In a recent study published in the Harvard Business Review, researchers discovered employees who were connected to their peers via internal social platforms were more engaged and productive.<sup>11</sup>

<sup>11</sup> <https://hbr.org/2016/04/the-benefits-of-virtual-mentors>



Organizations that offer social learning today



Organizations that plan to offer social learning in the next few years

Source: UdeMy Data

## Social tools enable faster learning on the job

Social learning enables faster learning on the job by crowdsourcing employees for information in real time. It's not possible for L&D to know all the answers (or deliver them quickly), and they'll have to rely on employees to curate and share knowledge as well. Manager cohorts who support each other over social media are an effective way for new managers to get tips on how to give feedback or approach difficult conversations. Moreover, social communities also empower employees to rate, review, and share learning content with peers.

For example, Udemy for Business is fueled by a marketplace of learners who rate and review courses, so only the best content is surfaced to learners. Rather than relying on L&D to select and promote courses, social communities rely on peer recommendations to nurture a culture of learning. In 2019, L&D will prioritize creating spaces for learners to build their own sharing communities of knowledge.

### Read more:

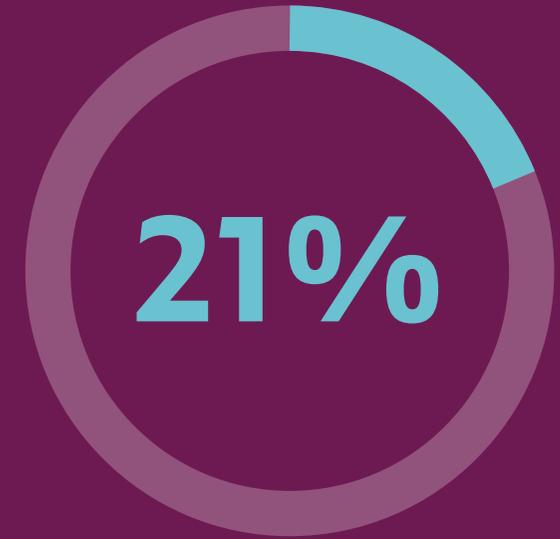
[4 Lessons on Building a Learning Culture from Slack's Head of L&D](#)



# 3

## Chatbots will be the future personal training assistants

When you interact with customer service at your favorite brand, you are likely chatting with a chatbot powered by artificial intelligence. While chatbots are increasingly common in customer service, they're slowly catching on in the education and L&D space. Chatbots offer the opportunity for L&D to provide a more personalized learning experience embedded in an employee's workflow.



Organizations that plan to add chatbots in the next few years

Source: UdeMy Data

## Chatbots can help reinforce learning

Chatbots could potentially help L&D deliver personalized content based on employee questions. (Think of how Alexa and Siri search Google for content based on your questions.) Post-training, chatbots could also enable employees to ask questions on content they've just learned as they apply new knowledge on the job. In the future, chatbots might offer a better experience for employees than traditional LMS systems as a channel to deliver learning in the flow of work. However, L&D teams still have a long way to go when it comes to implementing chatbots. Chatbots will need access to extensive curated content libraries and programmed to serve relevant content at the moment of need.



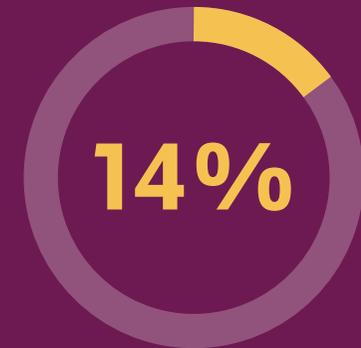
# 4

## 2019 will be all about blended learning *experiences*

In 2019, it will be all about blended learning *experiences*. L&D will take traditional classroom instruction and layer it with online learning, social peer-to-peer learning, augmented reality, virtual reality, and one-on-one coaching to create a more blended and engaging learning experience in the flow of work.



Organizations that plan to incorporate virtual reality in the next few years



Organizations that plan to add augmented reality in the next few years

Source: UdeMy Data

## Mapping learning to the employee lifecycle

For example, L&D teams might create a blended learning experience mapped to the employee lifecycle and distribute nuggets of learning at every stage of an employee's journey. It might start with a mobile augmented reality experience during onboarding to familiarize employees with the office space. Virtual reality unconscious bias training could reinforce company culture and values. When an employee is promoted to a new manager, it might involve new manager cohort workshops and online courses. Later as managers face more complex challenges, L&D teams may offer one-on-one coaching and social media peer groups. During performance review season, L&D might recommend online courses on how to give feedback effectively and so on. In 2019, L&D will innovate new ways to create blended learning experiences to better engage learners in the moment of need.

### Read more:

[How Patreon Approaches L&D with a UX Design Lens](#)



# 5

## L&D will build the digital dream team

To navigate its own digital transformation, L&D teams will need to change as well. Instructional designers won't be replaced by chatbots, new technologies, and content platforms but they'll need to rethink how they design the entire learning experience to take advantage of the great features these innovations offer. Digital tools will empower L&D to do new things and shake up workplace learning, but it will also require rethinking who gets hired onto the L&D team.

The role of the L&D practitioner has shifted and now requires new skills like user experience design, augmented reality, marketing, and data analytics. L&D will also have to get out of the classroom and become a strategic influencer with key stakeholders.

As L&D builds its digital dream team, we expect new roles and skills to include:

UX designer



Data analyst



Social community manager & curator



Learning technology or digital learning manager



Stakeholder and change manager



Marketing specialist

## L&D is tasked with change management

L&D is tasked with the important job of driving the digital transformation for the business. As automation and AI become integrated into the workplace, L&D will have to think creatively about how to transition and develop this new digital-human workforce. Some L&D departments have rebranded themselves as “organizational transformation teams” as part of change management departments. In 2019, we expect to see a closer relationship between the learning function and change management as L&D transforms the workforce in the digital age.





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- ✓ Understand the theory behind Artificial Intelligence
- ✓ Make a virtual Self Driving Car

# Conclusion

L&D will drive the most significant transition in the workforce since the Industrial Revolution. This large-scale reskilling will be fueled by new technologies on the learning front.

**Learn how Udemy for Business can drive your digital transformation**

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## About Udemy for Business

Udemy for Business helps companies stay competitive in the digital transformation of the workplace by offering fresh, relevant, and personalized on-demand learning content powered by a content marketplace. Our mission is to help employees do whatever comes next—whether that’s tackling the next project, learning a new skill, or mastering a role. We do this by curating 3,000+ of Udemy’s top-rated courses taught by the world’s leading experts. Our content covers key business and technical topics ranging from development and IT to leadership, marketing, design, stress management, and much more. In addition to a curated content collection, organizations can host and distribute their own proprietary content on Udemy.

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