Global Skills Index

2020

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Your Presenters Today

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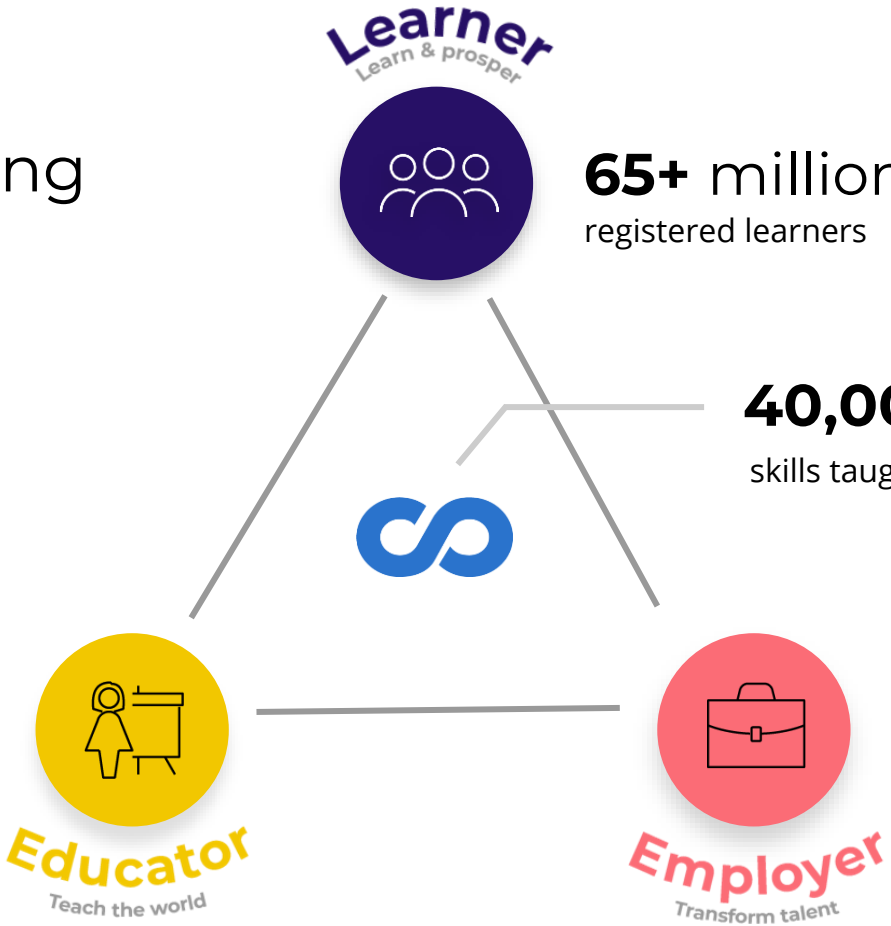
Agenda

Coursera
global learning ecosystem



65+ million
registered learners

40,000
skills taught and learned

200
Industry &
University Partners

2,500+
Institutions transform skills with the Coursera platform

2,500+ corporations and governments choose Coursera

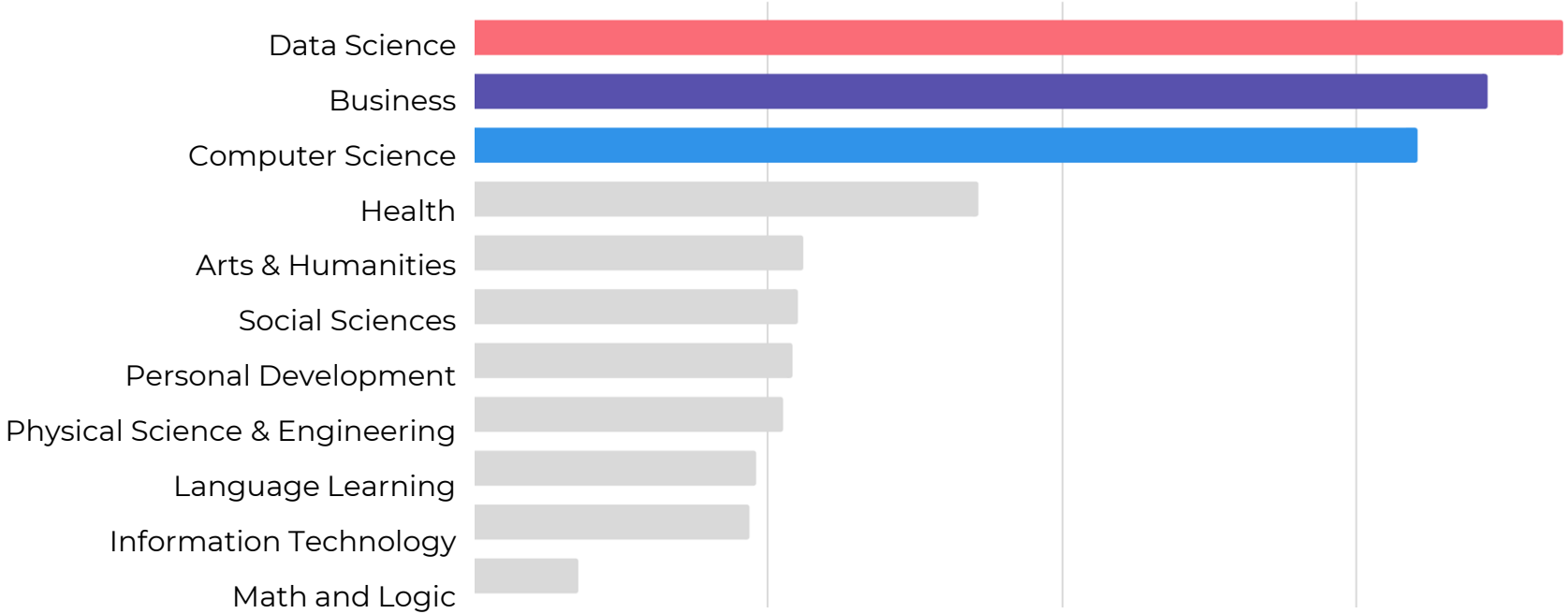
USE CASES

Digital Transformation
Industry 4.0 preparedness
Leadership
Employee retention
Culture of learning
Workforce development
Data Science and AI
IT & Cloud

coursera

What are the skills of tomorrow?

Business, Technology, and Data Science are the **three most popular domains on Coursera**. Skills in these domains form the ***backbone of the 4th Industrial Revolution***.



Build goal-oriented learning strategies with the world's most comprehensive skills data.

We cover key competencies that span Business, Technology, and Data Science.

Business	Technology	Data Science
Accounting	Computer Networking	Data Management
Communications	Databases	Data Visualization
Finance	Human Computer Interaction	Machine Learning
Management	Operating Systems	Math
Marketing	Security Engineering	Statistical Programming
Sales	Software Engineering	Statistics

Poll: What is your leading area of concern when it comes to skills development?

About the Global Skills Index (GSI)

42%

of jobs are expected to **have an entirely different skill set** by 2022

2.0

The **average shelf life**, in years, of a technical skill in the working world today

10%

of companies claim that they *truly* **realize the full value of their technology investments**

The world is undergoing a massive change

[There will be] difficult transitions for millions of workers and the need for **proactive investment in developing a new surge of agile learners** and skilled talent globally."

Sources: World Economic Forum Jobs of the Future Report; Deloitte; Accenture

COVID-19 has accelerated the need for digital skills

Reallocating digital talent among BUs	26x
Dedicating time to learn about digital technologies	12x
Data analysis of customer and business needs	4x

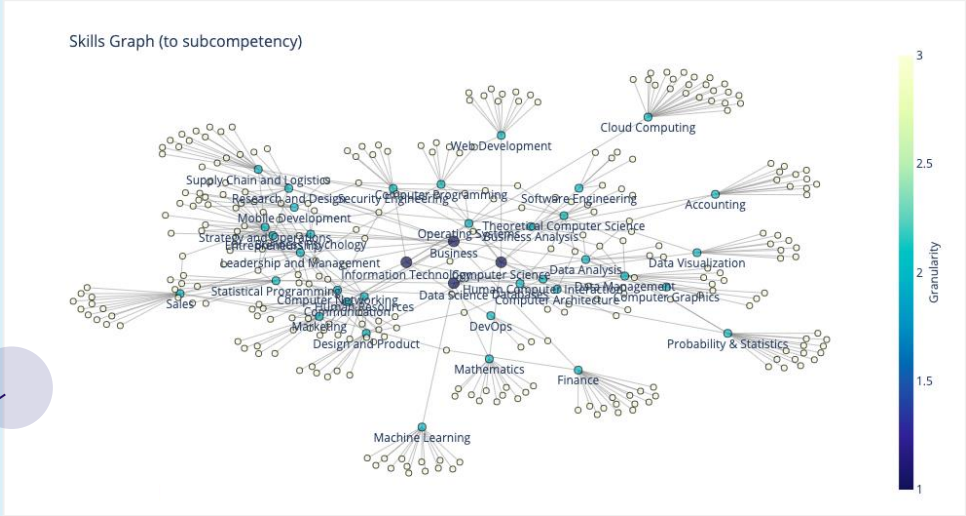
Source: McKinsey & Company

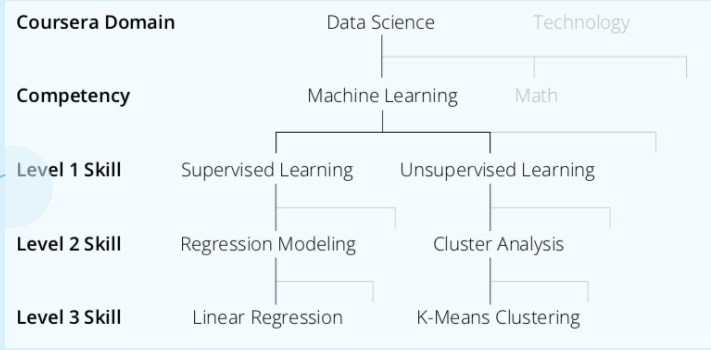
*more frequently than pre-COVID-19

Coursera Skills Graph: Evolving with the skills landscape

The **Coursera Skills Graph** is a series of machine learning models that continuously update to reflect the skills landscape—adding new skills, improving tagging models, and calibrating to industry standards over time.

We build our **skill taxonomy** by combining open-source taxonomies and subject matter experts in each skill domain.





Methodology

Leveraging the Coursera Skills Graph

1. **Map skills to courses and assessments on Coursera.**
    a. Using a series of ML algorithms, we pair over 1,800 courses on Coursera to 40,000 skills in business, tech, and data science.

2. **Measure country, industry, and field of study skill proficiencies**.
    a. We use a variant of the Glicko algorithm to measure skill proficiencies based on assessment performance data from learners on our platform.

3. **Determine trending skills.**
    a. We combine several sources (such as on-platform searches and enrollments) into a single trends index to compute skill popularity.

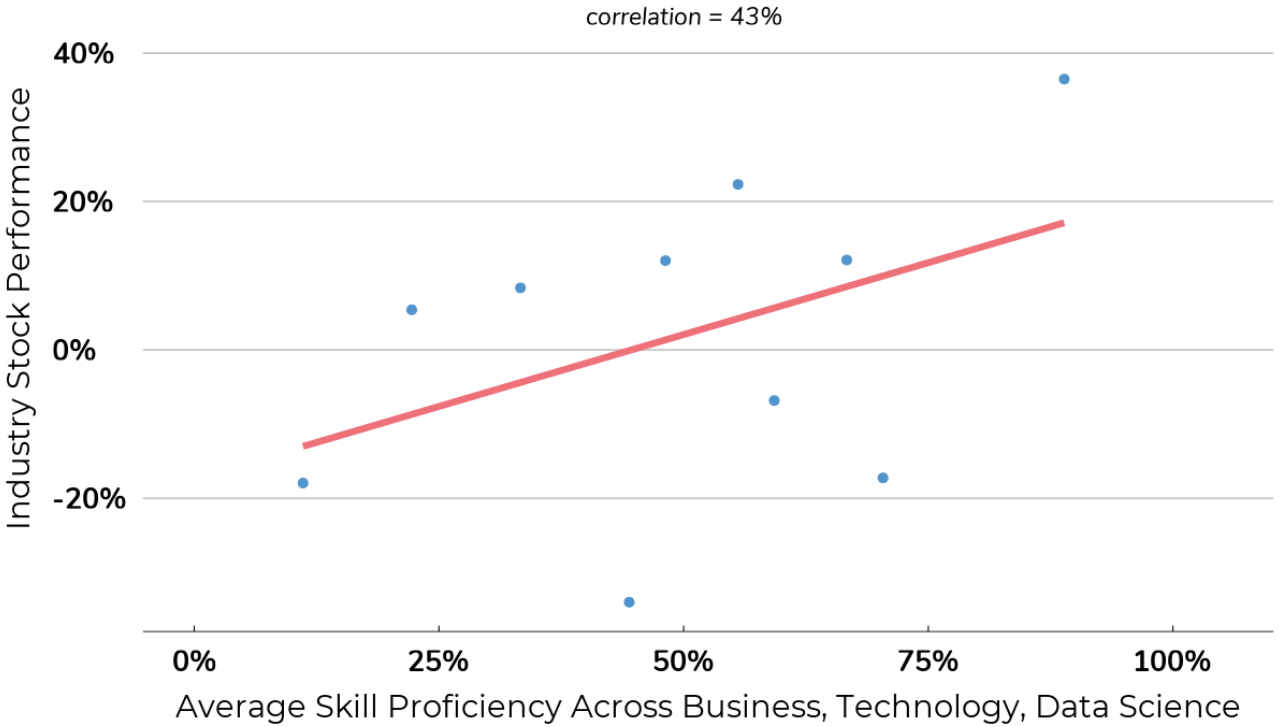
4. **Identify top roles and fields of study for each trending skill.**
    a. We identify the occupations and fields of study that are most engaged in learning a given trending skill on our platform.


coursera
Global
Skills
Index
2020

Executive Summary and Key Insights

Industries with more skilled talent, especially in technology skills, **see higher stock returns and less disruption from COVID-19.**

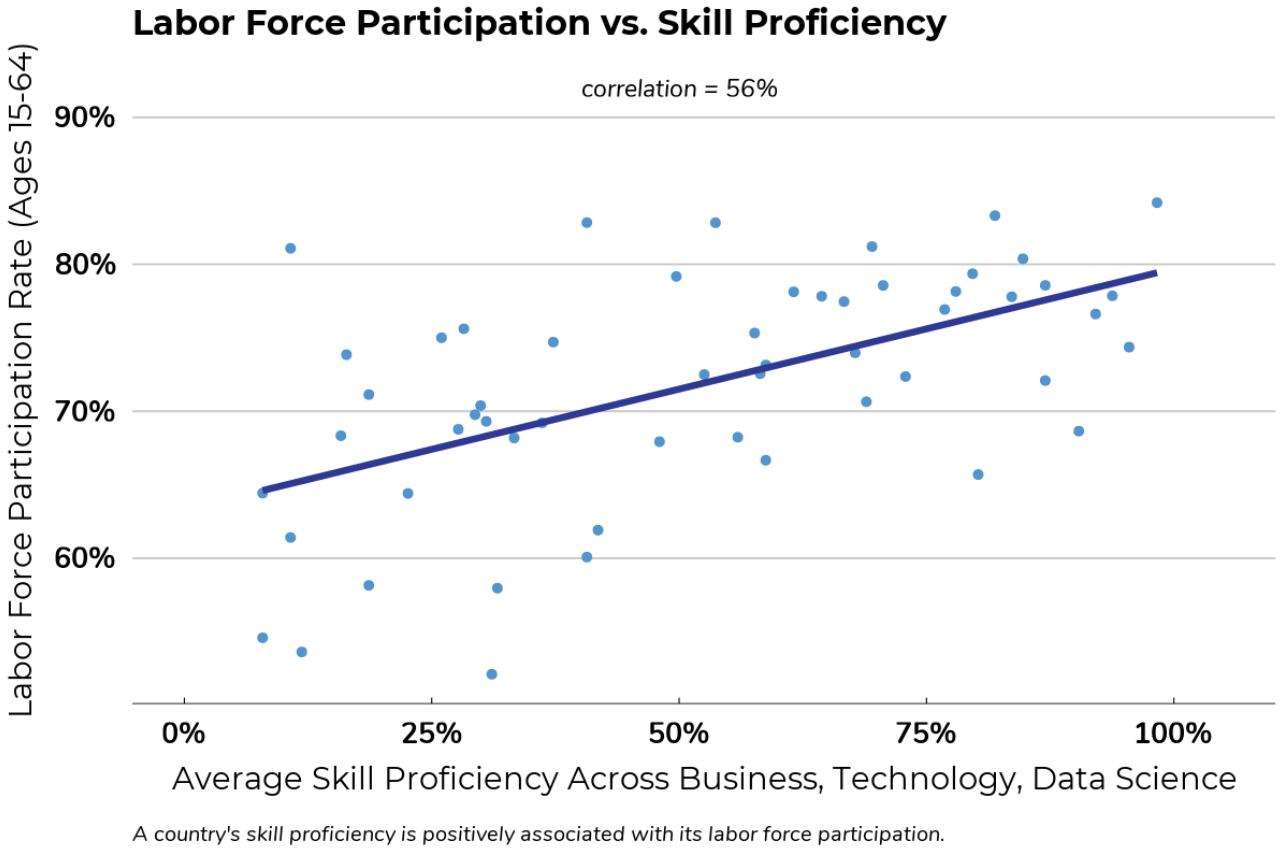
Industry Stock Performance vs. Skill Proficiency



An industry's skill proficiency is positively associated with its stock return in the last year.

Source: Coursera Global Skills Index 2020

Countries with higher labor force participation rates are also those with higher skill proficiencies.



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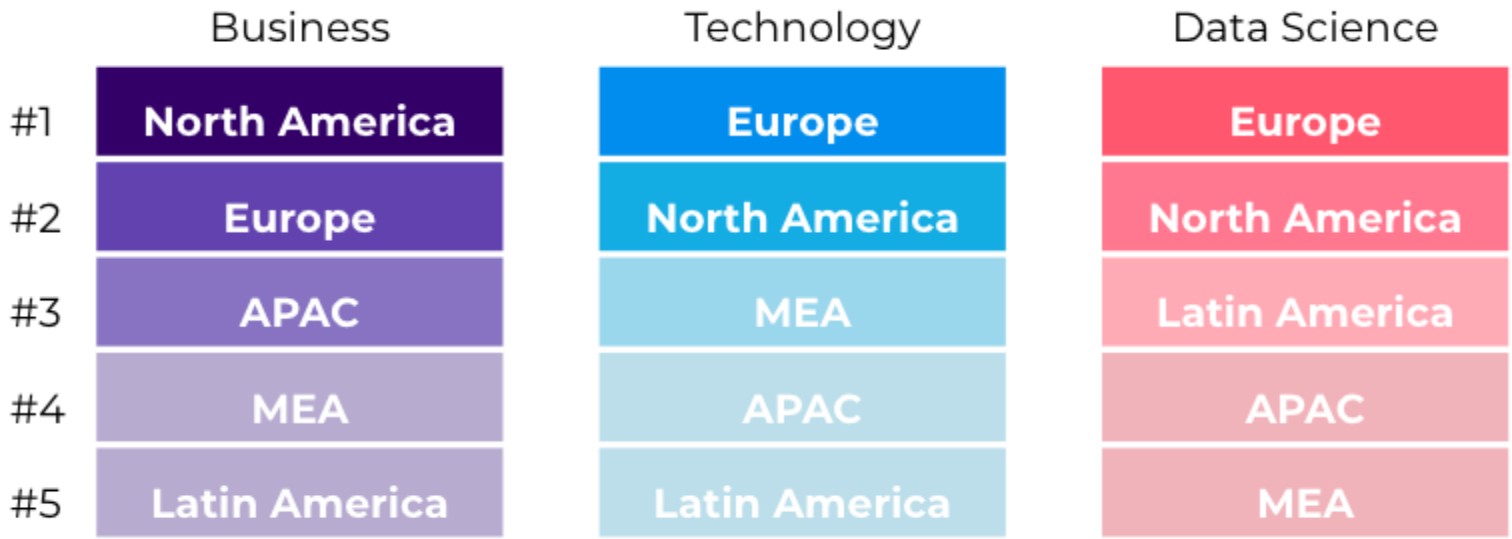
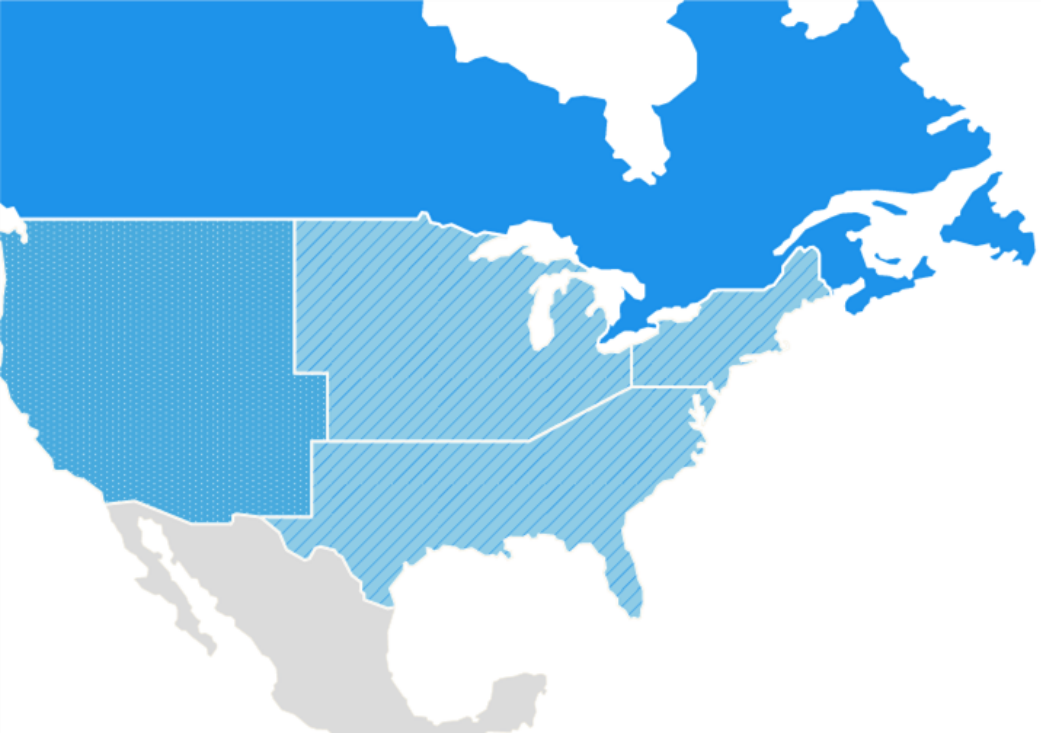
Source: Coursera Global Skills Index 2020

Regional Overview in 2020



Poll: Where are you participating from?

Regional Insights



North America

Strong skills leader; skills decay imminent.

Skill Level

CUTTING-EDGE | COMPETITIVE | EMERGING | LAGGING

A global skills leader— North America ranks #1 in business, and #2 in tech and data science.

Canada excels at tech, ranking #20 on the global charts, while the U.S. trails at #37.

The U.S. has regional variations in proficiency, stymying attempts to address the digital skills gaps of 1 in 3 workers.

Latin America

Lagging in key skills, with strong growth potential.

Skill Level

CUTTING-EDGE COMPETITIVE EMERGING LAGGING

Technology skills must be top-of-mind for the region, as it lags in global rankings.

Growing talent pools in Colombia and Mexico are starting to receive government attention.

Costa Rica is emerging as a regional leader, with more students pursuing tech careers.

Europe

World's top performer— needs a balanced skillset.

Quality education and an emphasis on adult learning helps Europe shine.

Russia leads in data and technology and could thrive with additional business skills

The U.K. lags behind the region, facing a talent shortage amidst Brexit uncertainty

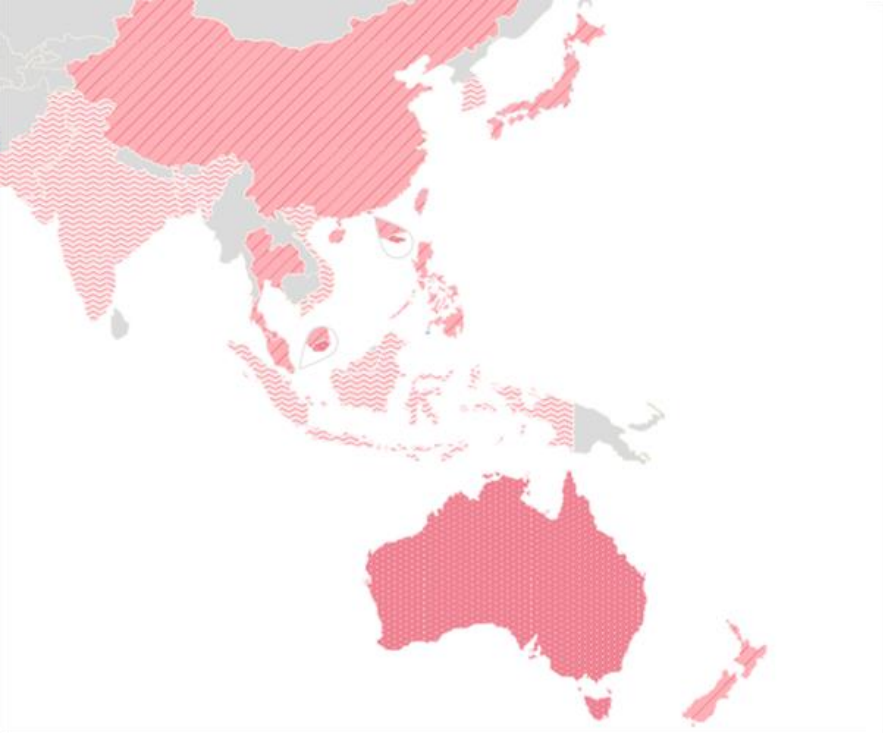
Middle East & Africa

Lagging skills across domains— skills development is a must.

Data science skills are critical—all countries except Israel rank below-average.

UAE's government makes diversification a priority, boosting its growing economy.

South Africa lags in data science skills, hindering its ability to compete globally.



Asia Pacific

Largest global economy; skills divide apparent.

Skill Level

CUTTING-EDGE COMPETITIVE EMERGING LAGGING

Tech and data science are key to regional employability, as work is at risk of automation.

Developing countries rank among the lowest globally, underscoring a strong need to upskill.

India is emerging as a global talent hub for tech—education is a government priority.

Industry Results

Poll: Which industry do you represent?

Influential Industries in 2020

	Business	Technology	Data Science
#1	Manufacturing	Technology	Technology
#2	Professional Services	Media & Entertainment	Finance
#3	Telecommunications	Finance	Automotive
#4	Technology	Professional Services	Telecommunications
#5	Healthcare	Manufacturing	Media & Entertainment
#6	Finance	Consumer Goods	Professional Services
#7	Insurance	Automotive	Healthcare
#8	Automotive	Telecommunications	Manufacturing
#9	Consumer Goods	Healthcare	Consumer Goods
#10	Media & Entertainment	Insurance	Insurance

Trending Skills in Finance

Business

Microsoft Excel
Digital Marketing
Financial Modeling
Blockchain
Project Management

Technology

Cloud Computing
Artificial Intelligence
Algorithms
C
Algorithmic Trading

Data Science

Python
Deep Learning
SQL
Data Storytelling
R

81% of banking CEOs express concern over the speed of technological change

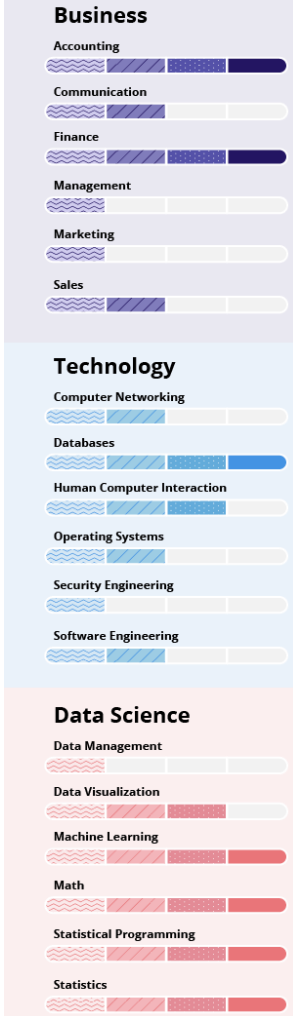
Industry

Finance

Strong in data science, with a significant investment in machine learning and AI skills

Mixed tech outlook as the industry focuses on cloud computing and blockchain but lags in cybersecurity

Falling behind in customer-facing skills like sales, marketing & communication



Lagging | Emerging | Competitive | Cutting Edge

Finance

Strengths and Growth Areas

Rapid disruption calls for continued skills excellency in industry strengths across business, tech, and data science.

Customer-facing business skills, like sales, marketing, and communications, are critical to adapt to increased online banking.

Cutting-edge skills in:

Business	Accounting
	Finance
Tech	Databases
Data Science	Machine Learning
	Math
	Statistical Programming
	Statistics

Lagging skills in:

Business	Management
	Marketing
Tech	Security Engineering
Data Science	Data Management

Cybersecurity

Domain: Technology

The rise of cloud services, smartphones, and IoT has created a **new breed of cybersecurity threats.**

Cybersecurity has gained in prominence as **data privacy** has become a top concern for consumers everywhere.

Who's engaging with this skill?

Software Engineers, IT Managers, and **Security Engineers** are highly engaged with cybersecurity skills.

Cybersecurity has **+280%** year-over-year growth in enrollments.

Why is this skill important?

There is a **global surge in hiring** demand for cyber security skills, as **cyber attacks** are predicted to cost the world **$6T by 2021.**

They are **mission-critical** to avoid unnecessary **reputational, economic,** and **regulatory costs.**

Trending Skills in Healthcare

Business

Microsoft Excel
Project Management
Supervision
Digital Marketing
Added Value

Technology

Artificial Intelligence
Javascript
Algorithms
C
Algorithmic Trading

Data Science

Python
Data Storytelling
R
SQL
Biostatistics

Around **25% of today's tasks in the healthcare workforce** will be automated by 2030

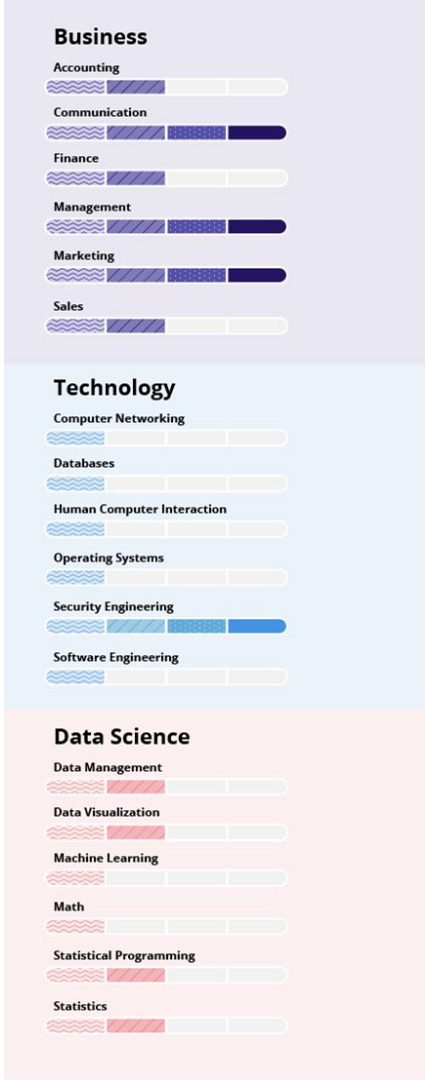
Industry

Healthcare

Main focus is business specializing in complex management and communication

Lack of tech skills across all core competencies, barring security engineering

Emerging in data and behind in the one critical skill that will make an impact—machine learning



Lagging Emerging Competitive Cutting Edge

Healthcare

Strengths and Growth Areas

Continuing to invest in **business** and **security** will be important to keep healthcare functioning

Cutting-edge skills in:

Business	Communication
	Management
	Marketing
Tech	Security Engineering

Digitizing the industry requires a significant shift in technology and data skills development

Lagging skills in:

Tech	Computer Networking
	Databases
	Human-Computer Interaction
	Operating Systems
	Software Engineering
Data Science	Machine Learning
	Math

Trending Skills in Consumer Goods

Business

Product Placement
Digital Marketing
Project Management
Supply Chain
Writing

Technology

Cloud Computing
User Experience
Graphic Design
Algorithms
Javascript

Data Science

Python
Deep Learning
SQL
Data Storytelling
NLP

For the first time in history, a majority of the global population is online (4 billion people); in 2021, over half of them are expected to buy goods and services online.

Industry

Consumer Goods

Middle-class spending expected to triple by 2030, presenting huge opportunity for growth.

Subpar rankings across business, tech, and data science threaten the industry.

Data science skills are mission-critical to handle massive surge in consumer data.

Business

- Accounting
- Communication
- Finance
- Management
- Marketing
- Sales

Technology

- Computer Networking
- Databases
- Human Computer Interaction
- Operating Systems
- Security Engineering
- Software Engineering

Data Science

- Data Management
- Data Visualization
- Machine Learning
- Math
- Statistical Programming
- Statistics

Lagging | Emerging | Competitive | Cutting Edge

Consumer Goods

Strengths and Growth Areas

Surge in consumer data demands strong data science skills to match the industry's tech investments in security and software engineering.

Cutting-edge skills in:

Business	Sales

Competitive skills in:

Tech	Security Engineering
	Software Engineering
Data Science	Data Visualization

Data science fundamentals, including math and statistics, must be a top priority to enable data-driven business practices.

Lagging skills in:

Business	Accounting
	Communications
	Finance
	Management
	Marketing
Tech	Computer Networking
	Operating Systems
Data Science	Math
	Statistics

Python

Domain: Data Science

Open-source, easy to learn, and **versatile,** Python is one of the most **in-demand programming languages.**

Python permeates across industries; it's used for **web dev, data analysis, ML,** and a variety of other applications.

Who's engaging with this skill?

Quantitative Analysts, Physicists, and **Actuaries** are most engaged with Python, followed by **Data Scientists** and **Data Analysts.**

Python has **+180%** year-over-year growth in enrollments.

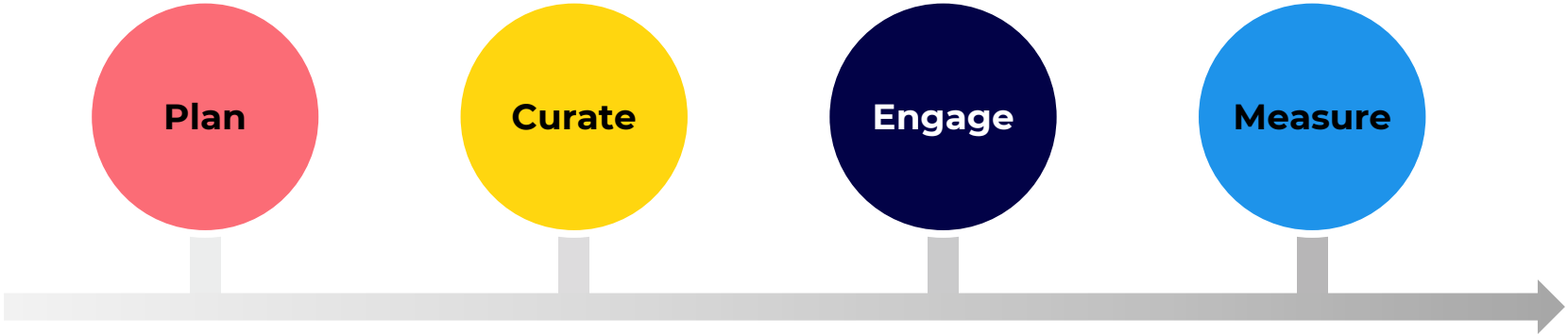
Why is this skill important?

Python is powerful for all **data-driven** professionals, regardless of their **computer science background.**

This language, used by Google, Facebook, Reddit, and others, will be critical for organizations to **build their digital presence.**

Skills Transformation Approach

Companies that are upskilling for digital transformation face four challenges:



Coursera for Business

Skill development for business transformation

JOB-BASED SKILLS

Launch transformational learning fast with Academies and SkillSets — job-based learning programs crafted from the insights of over 65 million learners

CONTENT

Offer world-class content and credentials from top universities and companies like Yale, HEC, ISB, Google, and IBM

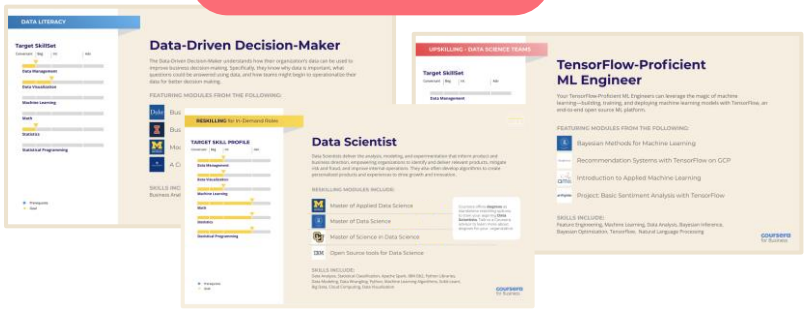
HANDS-ON LEARNING

Master skills via flexible, hands-on learning with Guided Projects, in-course assessments, and your own content — all self-paced and available anywhere, anytime

MEASUREMENT

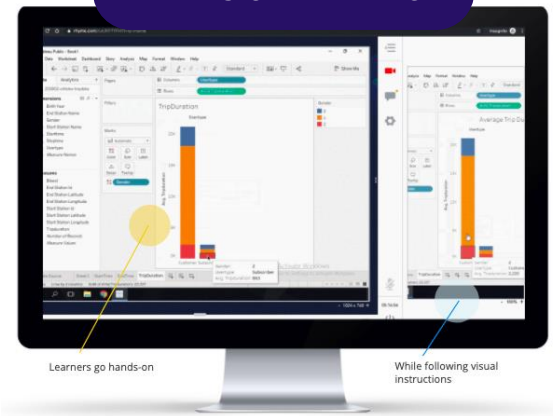
Track actual skills developed by role, domain, and level of mastery and benchmark against industry peers

JOB-BASED SKILLS



CONTENT

HANDS-ON LEARNING



MEASUREMENT

coursera.org/gsi

What you need to **drive true talent transformation**

Download
the Essential Skills Playbook to see an Essential Skills Map for your industry

Contact us to learn more
about Coursera's enterprise learning platform

Download
the Global Skills Index if you haven't yet

Q&A

Thank you

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Email *business@coursera.org*