2024 Global Skills Report

Trusted skill insights for a rapidly changing world

coursera



Foreword

I'm delighted to present the sixth annual Global Skills Report, which has become a trusted resource for leaders and institutions worldwide as they navigate the rapidly changing skills landscape. The report draws on data and insights from our global learning community—including over 148 million learners and 7,000 institutional customers—and content from 325 of the world's leading university and industry partners.

The rise of generative AI (GenAI) underscores the pressing need for new and innovative strategies to build a competitive workforce. Jobs and industries stand on the cusp of profound transformation, with two-thirds of jobs exposed to some degree of automation¹ and GenAI poised to deliver \$4.4 trillion in productivity gains to the global economy.² In response, businesses, governments, and higher education institutions must coordinate their efforts to equip people with critical skills. The report captures several significant trends driven by GenAI, digital transformation, and automation. Notably, in 2023, a learner signed up for a GenAI course on Coursera every minute; by 2024, this rate had quadrupled. An astounding 1,060% year-over-year increase in global GenAI course enrollments highlights how learners are actively preparing for AI's impact on their careers. Improved technical skill rankings in regions like Latin America and the Caribbean reinforce the global appetite for acquiring digital skills as a way to achieve greater economic mobility.

Several factors may influence a country's skill ranking. To provide a holistic view, this edition of the report introduces an evolved skills ranking methodology that combines our skill proficiency data with leading economic indices on global innovation,³ labor force participation,⁴ human capital,⁵ and GDP per capita.⁶ While skill rankings are crucial, they are not the sole indicators of advancement. There are several countries that have witnessed a surge in new learners coming online for the first time, including those with basic skills. It may reduce their ranking in the short term, but it signals major strides towards a digitized workforce. Institution-led initiatives are expected to boost the nations' skills rankings as more individuals gain access to essential skills.

We trust this report will provide actionable insights for leaders, inspire collaboration among institutions, and contribute to a future where access to high-quality learning empowers everyone.

Jeff Maggioncalda CEO, Coursera

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COUI'SEI'O Global Skills Report 2024 | Overview

Executive summary

1 AI literacy emerges as a global imperative

The 2022 launch of ChatGPT ignited a global race toward AI literacy. <u>GenAI course enrollments</u> surged by 1,060% globally over the past year as learners sought foundational AI skills and enrolled in courses like "Prompt Engineering for ChatGPT" by Vanderbilt University and "Introduction to Generative AI" by Google Cloud.

Learners in regions like Latin America and the Caribbean are focusing more on foundational skills, while learners in North America are diving into more advanced courses like "Generative AI with Large Language Models" by Amazon Web Services and DeepLearning.AI. This suggests that while regions are at different stages of AI adoption, there's a universal recognition of the need to develop AI proficiency.

\rightarrow Turn insight into action

Businesses

Understand regional AI skill readiness to build an AI-proficient global team.

Governments

Align AI training programs with regional skill needs to build an AI-ready workforce.

Higher education institutions

Tailor curricula to regional AI skill gaps to prepare students for the future of work.

Learners

Build AI skills applicable to your current or desired career path.

2 AI readiness initiatives drive emerging skill adoption across regions

The steep increase in GenAl course enrollments isn't just a reflection of learner interest. It demonstrates the efforts of businesses, governments, and higher education institutions to prepare Al-ready economies. Across the globe, various Al initiatives are laying the foundation for skill development and innovation.

In North America, 72% of US CEOs say generative Al is a top investment priority, driving the rapid growth of the AI talent pool and increasing investments in employee AI training.⁷

Regions like Asia Pacific (1,270% YoY) and Sub-Saharan Africa (1,500% YoY) are also witnessing significant growth in GenAl course enrollments. Targeted government initiatives in countries such as India, Malaysia, and Thailand are setting the stage for AI training and adoption. India's \$1.2 billion investment in AI projects,⁸ Malaysia's National AI Studies Centre,⁹ and Thailand's AI infrastructure development program are just a few examples.¹⁰

① See a list of national initiatives in the appendix

\rightarrow Turn insight into action

Businesses

Prioritize AI training to equip employees with mission-critical skills to drive innovation and productivity.

Governments

Invest in regional and national AI infrastructure, research, and workforce development.

Higher education institutions Upskill faculty and staff in AI to enhance productivity and leverage AI tools like

Course Builder to create content.

Learners

Access AI training from universities, employers, and/or workforce agencies to boost productivity and stay competitive.

3 The digital skills gap persists in a rapidly evolving job market

More than 9 in 10 jobs now require at least some level of digital proficiency,¹¹ such as using a computer to email and create documents. Despite this need, there's still a big difference between what employers expect in terms of digital skills and what many workers actually know and can do.

Seventy percent of European businesses view the lack of <u>digital skills</u> as a major obstacle to investment, with 40% of adults lacking even basic digital skills.¹² This challenge is not unique to the region. We found that learners in many regions are prioritizing <u>human skills</u> over the digital skills that are in high demand. For instance, learners in Peru are more likely to focus on skills like culture and resilience, while those in Canada gravitate to storytelling and social media. While these skills are valuable, they do not align with the pressing need for advanced digital skills in domains like machine learning, data science, and programming languages. These are among the fastest-growing skills globally.¹³

\rightarrow Turn insight into action

Businesses

Invest in upskilling employees in missioncritical digital skills to keep pace with digital transformation in your industry.

Governments

Use labor market data to design local and national training programs that emphasize the most in-demand digital skills.

Higher education institutions

Integrate digital skills into curricula to ensure learners are well-prepared for jobs.

Learners

Build in-demand digital skills that are valuable to your field and desired career path.

4 Cybersecurity skills remain crucial amid talent shortages and evolving threats

Cybersecurity plays a crucial role in building resilient digital infrastructure, especially with the challenges posed by emerging technologies like GenAI. Despite this, enrollment growth in <u>cybersecurity skills</u> falls behind high-growth areas like cloud computing and data science.

Worldwide, the gap between the number of needed and available skilled cybersecurity professionals rose by 12.6% year-over-year.¹⁴ This trend points to an urgent need for cybersecurity skill development, especially given the increasing frequency and sophistication of cyberattacks and the growing talent shortage.¹⁵

While <u>cybersecurity enrollments</u> have remained relatively stable in some regions, there are notable variations. In Europe, cybersecurity enrollments declined by 5% year-over-year, despite the region being heavily impacted by cyberattacks.¹⁶ Meanwhile, the Middle East and North Africa saw a 17% increase in cybersecurity enrollments, which could stem from increased government focus, like the creation of the Council of Ministers for Cybersecurity.¹⁷

\rightarrow Turn insight into action

Businesses

Equip your team with cybersecurity skills to manage cyber risks and develop talent to fill skill gaps.

Governments

Foster public-private partnerships to boost cybersecurity awareness, fund skill development, and collaborate on threat management.

Higher education institutions

Integrate cutting-edge cybersecurity content into curricula to prepare students for in-demand cybersecurity careers.

Learners

Build and strengthen cybersecurity skills to prepare for an in-demand job or advance your existing career.

5 Micro-credentials are a rapid pathway for learners to prepare for in-demand jobs

Learners are increasingly turning to <u>industry</u> <u>micro-credentials</u>, including <u>Professional</u> <u>Certificates</u>, to gain digital skills for jobs. With 60% of workers requiring retraining by 2027, the need for accessible learning pathways is more pressing than ever.¹⁸

Coursera learners are enrolling in job-relevant Professional Certificates to prepare for indemand roles, such as data analysts, project managers, and IT professionals. The most popular Professional Certificates align closely with the <u>top target roles</u> learners are pursuing, which also have the highest number of job openings.¹⁹

There was a 61% year-over-year growth in <u>Professional Certificate enrollments</u> in North America, with learners gravitating toward data analytics, cybersecurity, and project management. The Middle East and North Africa saw a 41% growth, with learners focusing on similar skills.

Sub-Saharan Africa saw the smallest growth (12%), indicating a need for increased access to learning resources and support to overcome barriers—such as underdeveloped digital infrastructure, lack of accessible and affordable connectivity, and inadequate regulatory and policy environments.

\rightarrow Turn insight into action

Businesses

Adapt hiring practices to recognize microcredentials and prioritize developing skills in-house for data analytics, cybersecurity, and project management.

Governments

Invest in micro-credential programs to keep your workforce competitive, and focus on increasing access to learning in regions with slower growth.

Higher education institutions

Recognize or integrate micro-credentials for credit within your curriculum to help meet evolving student and market needs.

Learners

Pursue micro-credentials to gain practical skills for in-demand digital roles.

6 The global gender gap in online learning continues to narrow, but regional disparities persist

More women globally have been learning on Coursera, up from 43% in 2022 to 46% in 2023. In North America and Europe, women experience strong barriers to equitable education and careers—yet, with a gender gap of five percentage points, far fewer than almost anywhere else.²⁰ In the European Union, for example, more women aged 16–44 have basic digital skills than men,²¹ despite only 18% of information and communication technology (ICT) specialists being women.

Mexico and Colombia have achieved gender parity in online learning, with women making up 51% and 50% of learners, respectively. This is supported by programs like Mexico's NiñaSTEM Pueden—a joint initiative by the Organization for Economic Co-operation and Development (OECD) and the Government of Mexico²² to increase careers for women in STEM—and Colombia's efforts to close the digital gender gap.

The Middle East and North Africa has the largest disparity, with a 13-percentage-point difference between women learners and women in the general population. In Saudi Arabia, women represent just 32% of learners yet make up 42% of the general population. Technological, economic, and educational barriers are limiting women's access to education.²³

Sub-Saharan Africa has a 14-percentagepoint gap, with Botswana being a bright spot, achieving gender parity in online learning. The gap could be due to socioeconomic challenges, cultural norms, poor internet access, and the general unaffordability of data and devices.²⁴ Botswana's success is likely a result of progressive initiatives, such as SmartBots and GIGA, which connect schools to high-speed internet to strengthen access to online learning.²⁵ The Asia Pacific region has a seven-percentagepoint gap in gender parity. The Philippines and Thailand have achieved parity, likely due to effective educational reforms and STEM initiatives for girls and young women.²⁶ Thailand's Girls in ICT program builds awareness about the digital divide, supports technology education and skills training, and encourages women to pursue careers in STEM.²⁷ India is working toward closing its 12-percentage-point gap, despite sociocultural barriers and access issues.²⁸

\rightarrow Turn insight into action

Businesses

Invest in initiatives that support women's professional development and advancement in diverse roles.

Governments

Develop policies and initiatives that promote women's access to online learning and address regional barriers.

Higher education institutions

Enhance curricula to align with high-earning careers for women; promote the associated

salaries, economic opportunities, and job flexibility.

Learners

Use online learning resources and support from institutions to build skills and advance their careers.

Different regions prioritize different skills, but the majority focus on emerging or foundational capabilities

In Europe and parts of Asia Pacific, learners tend to focus on skills related to emerging technologies—such as FinTech, machine learning algorithms, and artificial neural networks—as well as human skills like resilience and culture building. In Singapore, for example, learners are pursuing skills in epidemiology, FinTech, and blockchain, alongside roles like software developer and machine learning engineer. However, this does not diminish the value of foundational skills, which are equally important for a well-rounded skill set. In regions like Sub-Saharan Africa and other parts of Asia Pacific, learners are building foundational business and digital capabilities, such as risk management, supply chain systems, business communication, auditing, spreadsheet software, and general accounting. These skills form the bedrock of many industries and are crucial for economic development.

Popular target roles in these regions include supply chain and logistics, entrepreneurship, personal financial advisor, and product marketing manager.

\rightarrow Turn insight into action

Businesses

Use regional skill trends to guide talent recruitment, development, and retention. Tailor training programs to progress skill-set journeys in different regions, acknowledging the value of both foundational and emerging skills.

Governments

Apply these insights to your policy-making and invest in initiatives that strengthen foundational capabilities and support emerging skill development, recognizing that both impact economic growth and competitiveness.

Higher education institutions

Use these trends to guide curriculum and program enhancements. Offer courses that cater to foundational business and digital skills or skills in emerging technologies, ensuring balanced skill development.

Learners

Continue to prioritize skills aligned to in-demand careers in your region, while also exploring opportunities to develop a rounded skill set that blends foundational and emerging skills.

How to read this report

The Global Skills Report presents a comprehensive view of skill and credential trends at a country, regional, and global level by drawing on insights from over 148M learners.

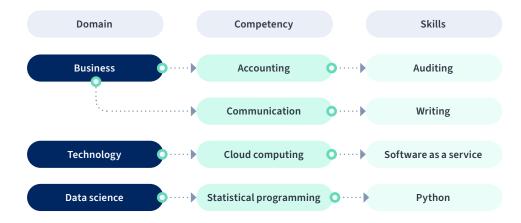
Coursera's skills taxonomy

Skills in Coursera's taxonomy fall into three cascading levels: from broad to granular, they include "domains," "competencies," and "skills." We use "skills" to describe all three categories in the foreword and executive summary. And in the regional and country spotlights, we use "top skills" to refer to the third level illustrated here. **Domains** are the broadest skill categories and include business, technology, and data science. These are the only three domains featured in the report. Respective competencies and skills fall under one of these domains.

Competencies are more granular skills tied to a respective domain. For instance, "accounting" or "communication" are competencies in the "business" domain.

Skills are the most granular skills that are covered in this report and ladder directly up to competencies.

Skills taxonomy example



③ Explore the <u>methodology</u> for the complete list of skills featured in this report

How to read skill rankings

The global and regional skill rankings represent how learners across countries perform in the business, technology, and data science domains. To provide a more comprehensive picture of skill proficiency in a country, this year's skill ranking methodology combines both learner skill proficiency on Coursera and third-party indicators illustrated below.

Country skill ranking formula

- 50% Country's aggregated skills measurement on Coursera
 - Learners' on-platform skill proficiency scores

50% Country's aggregated skills measurement index using third party metrics

- Global Innovation Index (GII)²⁹—skill application to innovation
- Labor force participation³⁰—skill matching in labor market
- Human capital index³¹ (HCI) and GDP per capita³²—output metrics of skill application in economy

This formula aims to provide a more representative picture of skill proficiency across countries. We invite our readers to interpret these findings thoughtfully and consider them as a starting point for further exploration and action.

A country's overall rank (1–109) represents the aggregate performance of a country across all domains, and the individual domain performance is represented as a percentile (0–100%). See the table below for an example.

Regional rank	Global rank	Country	Business	Technology	Data science
1	2	Japan	96%	99%	99%
2	12	Singapore	91%	91%	87%
3	13	Hong Kong	88%	83%	91%

How to read enrollment trends

The report also features <u>enrollment trends</u> on the Coursera platform that capture which competencies, skills, or top target roles learners are engaging with over time. Enrollment trends are presented at global, regional, and country levels and are presented in three ways:

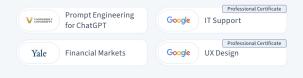
Year-over-year (YoY) enrollment growth measures cybersecurity, GenAI, and Professional Certificate enrollment growth year-over-year. Timeframes for YoY enrollment may vary. Top skills and target roles use an <u>over-indexing methodology</u> to capture what learners in a specific country or region are disproportionately enrolling in compared to learners globally.

<u>Most popular content</u> highlights the most enrolled-in courses, Guided Projects, and Professional Certificates in the past year.

How to interpret recommended content by country

This year's country spotlights also introduce recommended content that aligns to a country's top skills and top target roles. These are customized recommendations vetted by Coursera's curation experts. Consider them a starting point for identifying which content you may want to include in a learning program.

Recommended content for top skills and roles



 For more details, explore the <u>robust methodology</u> used in this year's report

Global Skill Trends

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Learning can be transformational. You learn for a better life or a better job.



Amanda Brophy Director, Grow with Google

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2024 Job Skills Report webinar

coursera



Global overview

Global averages These figures reflect the averaged data for the 109 countries covered in this report.

148M+ **33**

Coursera learners

Median age

45%

Learning

on mobile

46% Women learners

1,060% GenAl course enrollment growth

Professional Certificate enrollment growth

↑69%

Cutting-edge Rankings 1–28 O Competitive Rankings 29–55

Emerging Rankings 56–82 Lagging Rankings 83–109

Global skill ranking categories

Cutting-edge

Rankings 1–28

Where they are

Europe, parts of Asia Pacific, and Latin America

84% Average skill proficiency percentile on Coursera

\$42,788

Average GDP per capita

.73

Average Human Capital Index

48.32 Average Global Innovation Index score

75.3 Average Labor Force Participation rate

Average Human Capital Index

59%

on Coursera

\$23,918

• • • • • • • • • • • •

Competitive

Rankings 29–55

Where they are

Primarily Europe, Latin America, and parts of Asia Pacific, though also countries like Turkey and United Arab Emirates

36.7 Average skill Average Global proficiency percentile Innovation Index score

73.4 Average GDP per capita Average Labor Force Participation rate

.66

Emerging Rankings 56–82

Where they are

North America and parts of Asia Pacific, Europe, and the Middle East and North Africa

39% Average skill proficiency percentile on Coursera

\$**18,740** Average GDP per capita

Average Human Capital Index

.57

30.1 Average Global Innovation Index score

67.8

Average Labor Force Participation rate

Lagging Rankings 83–109

Where they are

Primarily Asia Pacific, the Middle East and North Africa, and Sub-Saharan Africa

18% Average skill proficiency percentile on Coursera

21.9 Average Global Innovation Index score

\$**4,636** Average GDP per capita

Average Labor Force Participation rate

58.4

Average Human Capital Index

.48

Global skills rankings are calculated using a 50/50 blend of Coursera skill proficiency and third-party data.

Global skill rankings

Index rank	Country name	Index rank	Country name	Index rank	Country name	Index rank	Country name	Index rank	Country name
1	Switzerland	19	Brazil	37	Dominican	55	Australia	74	Cameroon
2	Japan	20	Chile		Republic	56	Estonia	75	Kuwait
3	Germany	21	Uruguay	38	Argentina	57	Turkey	76	Tunisia
4	Netherlands	22	Poland	39	Serbia	58	Qatar	77	Jamaica
5	France	23	Peru	40	New Zealand	59	Canada	78	Bahrain
6	Sweden	24	Czech Republic	41	Indonesia	60	Saudi Arabia	79	Malaysia
7	Spain	25	Bulgaria	42	Ireland	61	Ecuador	80	Cambodia
8	Austria	26	Mexico	43	Venezuela	62	Costa Rica	81	Thailand
9	Denmark	27	Ukraine	44	Honduras	63	Paraguay	82	Jordan
10	Belgium	28	Cyprus	45	United Kingdom	64	Morocco	83	Lebanon
11	Luxembourg	29	Colombia	46	Hungary	65	Georgia	84	Pakistan
12	Singapore	30	Greece	47	Taiwan	66	Botswana	85	Guatemala
13	Hong Kong	31	Slovakia	48	El Salvador	67	Azerbaijan	86	Sri Lanka
14	Portugal	32	Kazakhstan	49	Croatia	68	Panama	87	India
15	Italy	33	Belarus	50	Bolivia	69	United States	88	Zambia
16	Korea,	34	United Arab	51	Latvia	70	Romania	89	Bhutan
	Republic of		Emirates	52	Armenia	71	Rwanda	90	Oman
17	Norway	35	Israel	53	Lithuania	72	Egypt	91	Puerto Rico
18	Finland	36	China	54	Vietnam	73	Trinidad & Tobago	92	Ethiopia
									1.1

Index rank	Country name
93	Iraq
94	Bangladesh
95	Algeria
96	Yemen
97	Zimbabwe
98	Kenya
99	Cote d'Ivoire
100	South Africa
101	Philippines
102	Uganda
103	Myanmar
104	Ghana
105	Nigeria
106	Uzbekistan
107	Somalia
108	Nepal
109	Sudan

Global skill proficiency rankings across business, technology, and data science for 109 countries, based on the performance of learners on Coursera and key economic indices.

Top 20: Online learners as a percentage of labor force

In this year's report, we spotlight the countries that are actively training the highest percentage of their labor force on Coursera and investing in their populations to provide the skills employers need.

The table on this page ranks the top 20 countries globally based on the percentage of their labor force active on Coursera. By investing in accessible, job-relevant learning, these digital champions are not only driving economic growth and competitiveness, but also creating opportunities for individuals to adapt and succeed in the face of change.

① Active learners are those who have started at least one course item on Coursera within the past year.

Rank	Region	Country	Labor force active on Coursera
	Global	All	0.73%
1	Asia Pacific	Uzbekistan	6.25%
2	Asia Pacific	Singapore	3.83%
3	Middle East and North Africa	United Arab Emirates	2.07%
4	North America	Canada	2.03%
5	Asia Pacific	Hong Kong	2.02%
6	North America	United States	1.66%
7	Europe	Luxembourg	1.51%
8	Middle East and North Africa	Lebanon	1.47%
9	Latin America and the Caribbean	Uruguay	1.42%
10	Europe	Ireland	1.41%
11	Latin America and the Caribbean	Trinidad and Tobago	1.21%
12	Europe	Switzerland	1.13%
13	Asia Pacific	Cyprus	1.12%
14	Europe	Estonia	1.11%
15	Europe	Netherlands	1.09%
16	Europe	Latvia	1.07%
17	Middle East and North Africa	Saudi Arabia	1.07%
18	Asia Pacific	Kazakhstan	1.06%
19	Europe	United Kingdom	1.06%
20	Latin America and the Caribbean	Colombia	1.02%

Regional Skill Trends

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Al is coming to your job; it's not coming for your job.



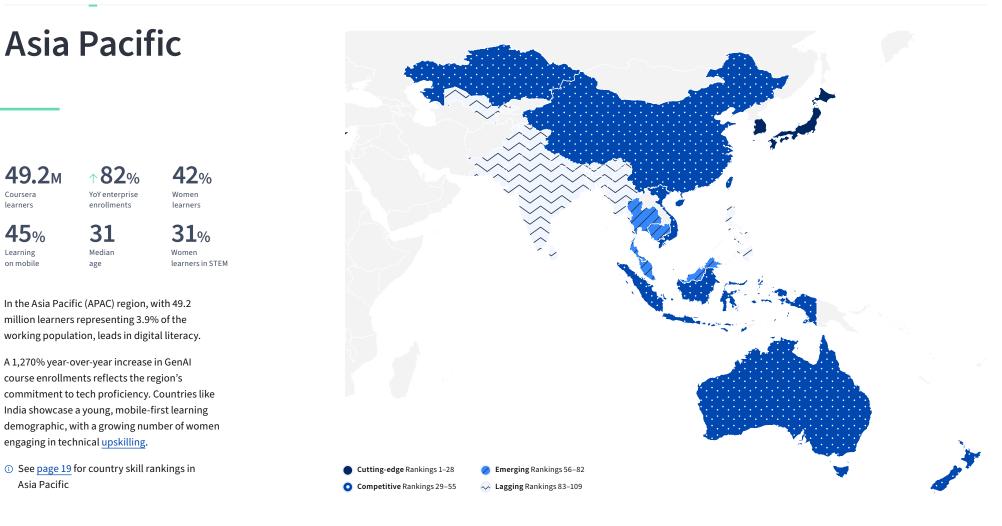
Elisa Graceffo General Manager of Technical Content, Worldwide Learning at Microsoft

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Unlocking Productivity: The Business Leader's Playbook to Generative AI Skills Training

coursera





Asia Pacific Regional enrollment trends

APAC CEOs are accelerating AI investment, driving growth in AI and cybersecurity course enrollments on Coursera.³³ Despite this momentum, the region faces the challenge of digitally skilling 5.7 billion people by 2025.³⁴

Some countries, like Bangladesh, Myanmar, and the Philippines, have noticeable gaps in tech and data science skills. Coursera collaborates with local institutions to create tailored programs that address these gaps.

For instance, <u>IMS Ghaziabad</u> incorporated microcredentials into their curricula well before the National Education Policy (NEP 2020) emphasized skill development. Differentiated learning experiences that strengthen academic excellence will be critical to preparing more students for a rapidly changing workforce.

Industry micro-credentials, such as Professional Certificates, offer pathways for businesses, governments, and educational institutions to equip the workforce with essential tech skills.

Top skills

- 1. HTML and CSS
- 2. BlockChain
- Data Visualization Software
- 4. Applied Machine Learning
- 5. Machine Learning Algorithms
- 6. Regression
- 7. Software Architecture
- 8. Artificial Neural Networks
- 9. Network Architecture
- 10. Data Analysis Software

Top target roles

- 1. Marketing Associate
- 2. Web Developer
- 3. Computer Systems Engineer
- 4. Database Administrator
- 5. Engineering Manager
- 6. Business Analyst
- 7. Network Engineer
- 8. Data Engineer
- 9. SEO Specialist
- 10. Market Research Analyst

Most popular content in Asia Pacific

project network	Tableau Public for Project Management and Beyond
Google	Foundations: Data, Data, Everywhere
project network	Small Business Marketing Using YouTube
Google	Foundations of Cybersecurity
Google	Foundations of Project Management
project network	Introduction to Microsoft Excel
Google	Foundations of Digital Marketing and E-commerce
Yale	Financial Markets
05	Supervised Machine Learning: Regression and Classification
@DeepLearning.Al	Al for Everyone

Methodology snapshot

To identify top skills and target roles, we use an over-indexing methodology. <u>Over-indexing</u> means that learners in a specific country or region are disproportionately enrolling in a given skill compared to learners globally.

Asia Pacific Regional enrollment trends cont.

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Online education with a blended learning model is going to be the most effective going forward. This is the actual comingof-age of higher education.



Dr. Fr. Sebastian George, S J Director at XLRI, Delhi-NCR

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CampusTalks with XLRI: Learning beyond curriculum



Asia Pacific Regional skill rankings

Regional rank	Global rank	Country	Business	Technology	Data science
1	2	Japan	96%	99%	99%
2	12	Singapore	91%	91%	87%
3	13	Hong Kong	88%	83%	91%
4	16	South Korea	76%	78%	93%
5	32	Kazakhstan	73%	90%	46%
6	36	China	71%	54%	77%
7	40	New Zealand	56%	61%	76%
8	41	Indonesia	25%	69%	82%
9	47	Taiwan	50%	43%	72%
10	54	Vietnam	58%	58%	48%
11	55	Australia	49%	56%	61%
12	79	Malaysia	30%	28%	33%
13	80	Cambodia	32%	35%	25%
14	81	Thailand	31%	23%	29%
15	84	Pakistan	24%	22%	20%
16	86	Sri Lanka	6%	34%	35%
17	87	India	11%	33%	30%

Regional rank	Global rank	Country	Business	Technology	Data science
18	89	Bhutan	9%	31%	26%
19	94	Bangladesh	22%	12%	16%
20	101	Philippines	17%	6%	8%
21	103	Myanmar	8%	13%	10%
22	106	Uzbekistan	4%	5%	4%
23	108	Nepal	1%	2%	15%

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Continuous learning is the key enabler to retaining and developing talent.



Sumegha Lazarus SGM & Head, Content and Digital Learning, Reliance Industries Limited

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Skills Development: How Coursera Can Upskill Employees

24.6м	87	30
Coursera	Global	Median
learners	rank	age
20.4	22.	F 2
39 %	33%	53 %
Women	Women learners	Learning
learners	in STEM	on mobile

India's 1,648% increase in GenAI course enrollments reflects deep engagement with cutting-edge technology. This aligns with the government's \$1.2 billion investment in AI.³⁵ Learners focus on programming languages and applied machine learning to prepare for technical roles, like web developer, software developer, and machine learning engineer.

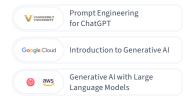
India is attracting more new learners, which may impact its skill rankings compared to previous years. While enrollments in Professional Certificates remained static year-over-year, an 8% increase in Specialization enrollments year-overyear signals interest in a wide range of content. Despite sociocultural barriers and access issues, ³⁶ India is making significant strides toward closing its skill gaps and building a competitive workforce.

Domain rankings

98 74 77 Business Tech Data science



Top courses



Professional Certificates Static YoY enrollments

Top Professional Certificates

Google	Cybersecurity	Professional Certificate
Google	Data Analytics	Professional Certificate
Google	Project Management	Professional Certificate

Top skills

- 1. HTML and CSS
- 2. Applied Machine Learning
- 3. Python Programming
- 4. Regression
- 5. Machine Learning Algorithms
- 6. BlockChain
- 7. Distributed Computing Architecture
- 8. Programming Principles
- 9. Algorithms
- 10. Software Architecture

Top target roles

- 1. Web Developer
- 2. Network Engineer
- 3. Cloud Security Engineer
- 4. Software Developer
- 5. Machine Learning Engineer
- 6. Securities &
 - Commodities Trader
- 7. Data Engineer
- 8. Database Administrator
- 9. Marketing Associate
- 10. Data Analyst

Recommended content for top skills and roles



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Country spotlight Indonesia

1.8M Coursera learners

46% Women

learners

33% Women learners in STEM

41

Global

rank

46% Learning on mobile

29

Median

age

Indonesia's 116% year-over-year increase in Professional Certificate enrollments shows a focus on industry-aligned skill development. AI and big data are projected to account for over 40% of technology training programs in the next five years, supporting Indonesia's strategy to become a key player in Southeast Asia's tech economy.³⁷

Domain rankings

83 35 21 Business Tech Data science

Enrollment trends GenAl **1,158%** YoY enrollments

Top courses

Dasar-Dasar Dukungan Teknis Google Seluk Beluk Google Jaringan Komputer Analisis Data dengan Google Pemrograman R

Professional Certificates

 \uparrow **116**% YoY enrollments

Top Professional Certificates

Google	Analitik Data	Professional Certificate
Google	Project Management	Professional Certificate
Google	IT Automation with Python	Professional Certificate

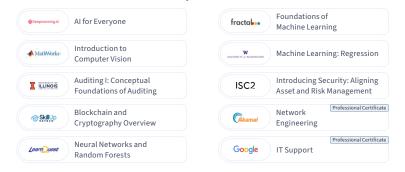
Top skills

- 1. Artificial Neural Networks
- 2. Applied Machine Learning
- 3. Computer Graphic Techniques
- 4. BlockChain
- Machine Learning Algorithms 5.
- 6. Computer Vision
- 7. Deep Learning
- 8. Audit
- 9. Network Architecture
- 10. Spreadsheet Software

Top target roles

- 1. Cloud Security Engineer
- 2. Network Engineer
- 3. Operations Manager
- 4. Product Marketing Manager
- Personal Financial Advisor 5.
- Contract Administrator 6.
- 7. IT Project Manager
- 8. Project Manager
- 9. Web Developer
- 10. General Manager

Recommended content for top skills and roles



Country spotlight Malaysia

782ĸ 79 Coursera Global rank learners 46% 34% Women Women learners

learners

in STEM

32

Median

38%

Learning

on mobile

age

Malaysia's 97% year-over-year increase in Professional Certificate enrollments highlights the country's drive to boost digital skills. The Jaunch of the national AI Studies Centre emphasizes tech education to prepare the workforce for AI and ML opportunities.³⁸ Learners focus on SQL, FinTech, blockchain, and business analytics in response to the growing demand for tech professionals.39

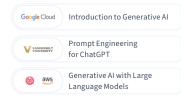
Domain rankings

77

79 74 Business Tech Data science

Enrollment trends GenAl ↑ 806% YoY enrollments

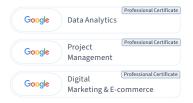
Top courses



Professional Certificates

↑97% YoY enrollments

Top Professional Certificates



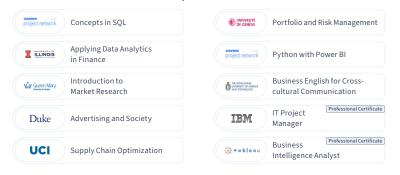
Top skills

- 1. Spreadsheet Software
- 2. SQL
- 3. FinTech
- 4. Supply Chain Systems
- 5. Market Research
 - **Business Communication** 6.
- 7. Investment Management
- 8. Advertising
- 9. Blockchain
- 10. Risk Management

Top target roles

- 1. General Manager
- 2. IT Director
- 3. **Business Analyst**
- 4. Operations and Maintenance Specialist
- 5. Personal Financial Advisor
- 6. Operations Manager
- 7. Systems Analyst
 - 8. Auditor
- 9. Product Manager
- 10. Financial Analyst

Recommended content for top skills and roles



Country spotlight The Philippines

2.4M 101 31 Coursera Global Median rank learners age 51% 36% 43% Women Women learners Learning in STEM learners on mobile

In the Philippines, learners pursue skills in auditing and digital marketing, enhancing both business acumen and technical proficiency. With women representing over half of learners, there's a move toward gender inclusivity in tech education. Plus, a 79% rise in Professional Certificate enrollments demonstrates a dedication to upskilling for the digital future.

Domain rankings 91 103 101 Business Tech Data science

Enrollment trends GenAI ↑ 642% YoY enrollments

Top courses



Professional Certificates

79% YoY enrollments

Top Professional Certificates



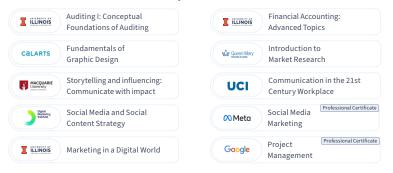
Top skills

- 1. Audit
- 2. Spreadsheet Software
- 3. Graphic Design
- 4. Storytelling
- 5. Social Media
- 6. General Accounting
- 7. Advertising
- 8. Business Communication
- 9. Influencing
- 10. Market Research

Top target roles

- 1. Personal Financial Advisor
- 2. Product Marketing Manager
- 3. Operations Manager
- 4. General Manager
- 5. IT Director
- 6. IT Project Manager
- 7. Project Manager
- 8. Business Analyst
- 9. Operations & Maintenance Specialist
- 10. Marketing Specialist

Recommended content for top skills and roles



Singapore

1.1 M	12	34
Coursera	Global	Median
learners	rank	age
45 %	36%	31 %
Women	Women learners	Learning
learners	in STEM	on mobile

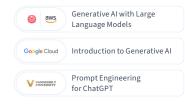
Singapore's focus on future-oriented skills, like blockchain and machine learning, aligns with its strategy to maintain its position as a global learning hub.⁴⁰ The SkillsFuture credits program reflects Singapore's commitment to lifelong learning, ensuring the workforce remains adaptable and competitive.⁴¹

Domain rankings

11 11 15 Business Tech Data science



Top courses



Professional Certificates

↑ **57**% YoY enrollments

Top Professional Certificates

Google	Data Analytics	Professional Certificate
Google	Project Management	Professional Certificate
Google	Cybersecurity	Professional Certificate

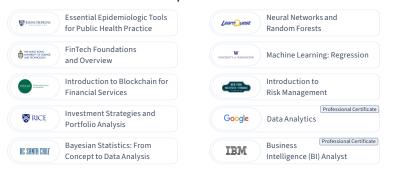
Top skills

- 1. Epidemiology
- 2. FinTech
- 3. Resilience
- 4. BlockChain
- 5. Investment Management
- 6. Bayesian Statistics
- 7. Machine Learning Algorithms
- 8. Artificial Neural Networks
- 9. Applied Machine Learning
- 10. Risk Management

Top target roles

- 1. Software Developer
- 2. Machine Learning Engineer
- 3. Bookkeeper
- 4. Securities & Commodities Trader
- 5. Auditor
- 6. Network Engineer
- 7. Data Analyst
- 8. Business Analyst
- 9. Product Manager
- 10. Risk Analyst

Recommended content for top skills and roles



Country spotlight Thailand

941k Coursera

Coursera learners

50%

Women learners

0

32% Women learners in STEM

81

Global

rank

32

Median

46%

Learning

on mobile

age

Thailand's 311% year-over-year increase in Professional Certificate enrollments highlights a push toward digital fluency and tech innovation. Thai learners are diversifying their skills—from SQL to business communication and FinTech—to

SQL to business communication and FinTech—to meet the evolving global job market demands. Meanwhile, the AI Thailand initiative aims to spur economic growth and competitiveness through AI development.⁴²

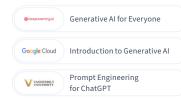
Domain rankings

 76
 85
 67

 Business
 Tech
 Data science



Top courses



Professional Certificates

↑ **311**% YoY enrollments

Top Professional Certificates



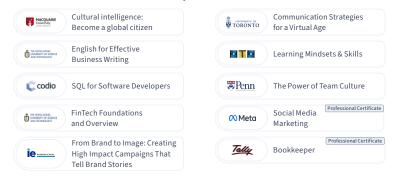
Top skills

- 1. Culture
- 2. SQL
- 3. Writing
- 4. Business Communication
- 5. Brand Management
- 6. FinTech
- 7. Spreadsheet Software
- 8. Human Learning
- 9. Advertising
- 10. Experiment

Top target roles

- 1. Media Buyer
- 2. Social Media Marketer
- 3. Public Relations Manager
- 4. Communications Specialist
- 5. Personal Financial Advisor
- 6. Product Marketing Manager
- 7. Bookkeeper
- 8. Financial Manager
- 9. Data Analyst
- 10. IT Director

Recommended content for top skills and roles



Europe

24.5M Coursera learners

38% Learning on mobile

YoY enterprise Women enrollments learners 34%

^43%

35

Median

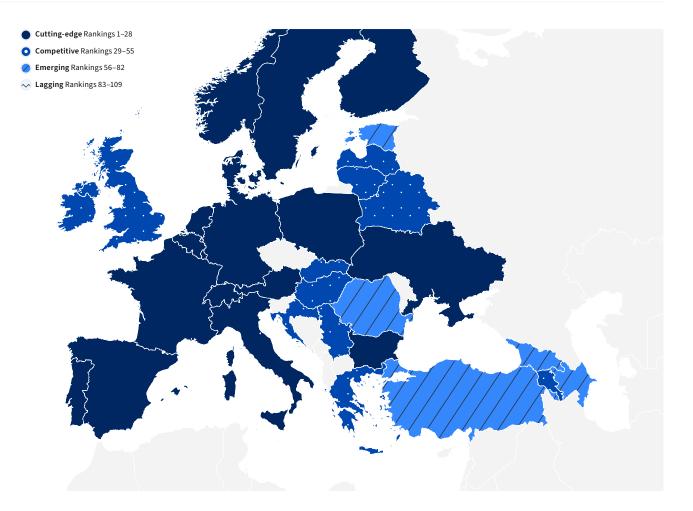
age

Women learners in STEM

46%

Learners in Europe demonstrate strong overall skill proficiency, with 19 of the top 25 countries globally originating from the region. Despite a 4.56% yearover-year decline in cybersecurity enrollments, Europe witnessed a 775% increase in GenAl course enrollments, reflecting a growing interest in emerging technologies. The region is nearing gender parity in online learning, with 46% of learners being women. Furthermore, 38% of learners in Europe are learning on mobile, highlighting a shift toward accessible and flexible learning solutions.

() See page 29 for country skill rankings in Europe



Europe Regional enrollment trends

Europe's commitment to safeguarding AI is evident in the AI Act, the world's first-ever comprehensive AI legal framework.⁴³ This aligns with the region's ambitious targets for the Digital Decade, which aims to accelerate progress in skills, government, infrastructure, and business.⁴⁴ However, the Digital Economy and Society Index (DESI) reveals that four out of 10 adults and every third person who works in Europe lack basic digital skills, with over 70% of businesses citing this as an obstacle to investment.⁴⁵

While countries like Switzerland, Germany, and the Netherlands demonstrate cutting-edge proficiency across business, technology, and data science domains, others like Romania, Georgia, and Azerbaijan have room for improvement, particularly in technology skills. To address this, the European Commission aims to reach 80% of EU adults with at least basic digital skills and 20 million ICT specialists especially women—employed across the EU by 2030.⁴⁶

Coursera's partnerships with institutions like the <u>University of Szeged</u>, whose students have access to all <u>Professional Certificates</u>, demonstrate the collaborative effort needed to bridge the digital skills gap.

Top skills

- 1. FinTech
- 2. Resilience
- 3. Culture
- 4. Epidemiology
- 5. Human Learning
- 6. Machine
 - Learning Algorithms
- 7. Artificial Neural Networks
- 8. Applied Machine Learning
- 9. Regression
- 10. Bioinformatics

Top target roles

- Treasurer
- Securities & Commodities Trader
- 3. Machine Learning Engineer
- 4. Software Developer
- 5. Personal Financial Advisor
- 6. Operations Manager
- 7. Network Engineer
- 8. Financial Analyst
- 9. Budget Analyst
- 10. Web Developer

Most popular content in Europe

Google Foundations: Data, Data, Everywhere
Google Foundations of Project Management
Yale The Science of Well-Being
Image: Constraint of the state of
Al for Everyone
Yale Financial Markets
Google Foundations of Cybersecurity
Supervised Machine Learning: Regression and Classification
Google Foundations of User Experience (UX) Design
Renn English for Career Development

Methodology snapshot

To identify top skills and target roles, we use an over-indexing methodology. <u>Over-indexing</u> means that learners in a specific country or region are disproportionately enrolling in a given skill compared to learners globally.

Europe Regional enrollment trends cont.

"

Generative AI (GenAI) is transforming the skill requirements for employees in telecoms. Today, employees must possess the ability to work collaboratively with AI systems, leverage automation tools, and interpret vast amounts of data to drive informed decision-making.



Julia Ewen-Hoffman Head of Learning & Development, Deutsche Telekom AG



Europe Regional skill rankings

Regional rank	Global rank	Country	Business	Technology	Data Science
1	1	Switzerland	100%	100%	100%
2	3	Germany	93%	96%	97%
3	4	Netherlands	95%	95%	98%
4	5	France	97%	97%	94%
5	6	Sweden	92%	98%	95%
6	7	Spain	90%	94%	94%
7	8	Austria	94%	92%	90%
8	9	Denmark	98%	75%	96%
9	10	Belgium	89%	83%	92%
10	11	Luxembourg	94%	84%	84%
11	14	Portugal	72%	94%	88%
12	15	Italy	86%	89%	78%
13	17	Norway	84%	88%	83%
14	18	Finland	70%	93%	86%
15	22	Poland	77%	86%	67%
16	28	Cyprus	75%	70%	71%
17	24	Czech Republic	81%	82%	75%
18	25	Bulgaria	78%	80%	74%
19	27	Ukraine	79%	76%	69%

Regional rank	Global rank	Country	Business	Technology	Data Science
20	30	Greece	85%	62%	70%
21	31	Slovakia	68%	81%	58%
22	33	Belarus	55%	79%	66%
23	39	Serbia	46%	67%	65%
24	42	Ireland	60%	65%	63%
25	45	United Kingdom	53%	59%	72%
26	46	Hungary	43%	57%	62%
27	49	Croatia	57%	55%	57%
28	51	Latvia	82%	51%	41%
29	52	Armenia	29%	66%	64%
30	53	Lithuania	44%	61%	61%
31	56	Estonia	61%	50%	54%
33	57	Turkey	69%	45%	43%
34	65	Georgia	28%	48%	53%
35	67	Azerbaijan	62%	30%	36%
36	70	Romania	27%	47%	47%

"

Learning is no longer an afterthought—it now informs how we solve business challenges, strategize and approach new projects.



Cyril de Avellar Learning & Development Manager, People & Culture, Ingka Group

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Ingka Group offers new online learning program through Coursera

France

1.9_M Coursera learners

43% Women

learners

33% Women learners in STEM

5

Global

rank

37% Learning on mobile

35

Median

age

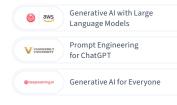
Learners in France demonstrate an aptitude for business skills, with a focus on developing leadership capabilities, resilience, and emotional intelligence. France proves its commitment to AI readiness with a 783% increase in GenAI course enrollments year-overyear. This aligns with the 85% of organizations that say they're investing in employee training to maximize the potential of AI technologies.⁴⁷

Domain rankings

4 4 Business Tech Data science

Enrollment trends GenAl ↑ 783% YoY enrollments

Top courses



Professional Certificates

 $\uparrow 29\%$ YoY enrollments

Top Professional Certificates



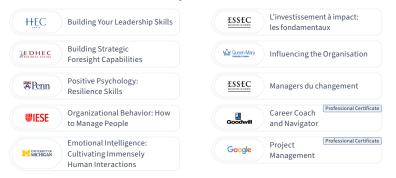
Top skills

- 1. Resilience
- 2. Culture
- Collaboration 3.
- **Emotional Intelligence** 4.
- Conflict Management 5.
- **People Development** 6.
- Investment Management 7.
- FinTech 8.
- 9. Change Management
- 10. Planning

Top target roles

- 1. Operations Manager
- Bookkeeper 2.
- Securities & Commodities Trader 3.
- 4. IT Project Manager
- **Project Manager** 5.
- Personal Financial Advisor 6.
- **Budget Analyst** 7.
- Contract Administrator 8.
- 9. Systems Analyst
- 10. Auditor

Recommended content for top skills and roles



· •

learners

Germany

2м 3 34 Coursera Global Median learners rank age 40% 30% 37% Women learners Learning Women

in STEM on mobile Learners in Germany rank third globally for overall skill proficiency-over-indexing in tech skills like artificial

neural networks, applied machine learning, and deep learning. As Germany grapples with a labor gap, investing in these skills will be critical for maintaining economic growth.48

German learners demonstrate cutting-edge proficiency across all domains, particularly in data science and technology. However, their year-over-year increase in GenAI enrollments is lower than countries like Spain, France, and the UK. Industry micro-credentials could play a key role in upskilling, especially given that 81% of students in Germany agree that obtaining Professional Certificates would enhance their job prospects.⁴⁹

Domain rankings

9

5 4 Business Data science Tech

Enrollment trends GenAl ↑ 662% YoY enrollments

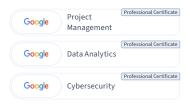
Top courses



Professional Certificates

 \uparrow **39**% YoY enrollments

Top Professional Certificates



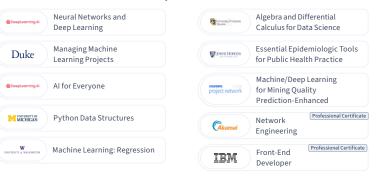
Top skills

- 1. Artificial Neural Networks
- Applied Machine Learning 2.
- Machine Learning Algorithms 3.
- Regression 4.
- Linear Algebra 5.
- Python Programming 6.
- Epidemiology 7.
- **Distributed Computing** 8. Architecture
- 9. Deep Learning
- 10. Network Architecture

Top target roles

- 1. Network Engineer
- 2. Web Developer
- Software Developer 3.
- Machine Learning Engineer 4.
- Securities & Commodities Trader 5.
- **Cloud Security Engineer** 6.
- Bookkeeper 7.
- Computer Systems Engineer 8.
- **Engineering Manager** 9.
- 10. Data Engineer

Recommended content for top skills and roles



0

Spain

2.3м Coursera learners

49% Women

learners

35% Women learners in STEM

38

Median

38%

Learning

on mobile

age

7

Global

rank

Ranking seventh for skill proficiency globally, learners in Spain excel in technology and data science. A 962% year-over-year increase in GenAI course enrollments-the highest in Europe-

reflects Spain's commitment to AI readiness, with 85% of organizations investing in employee training to maximize the potential of AI technologies.⁵⁰

Spain's National Artificial Intelligence Strategy aims to attract top AI talent. While only 64% of the population is projected to have basic digital skills by 2030, Spain's strong performance in technology and high GenAI enrollments suggest ambitions to surpass this projection.⁵¹

Domain rankings

12 8 Tech Data science Business

Enrollment trends GenAl ↑962% YoY enrollments

Top courses



Professional Certificates ⊖ **static** YoY enrollments

Top Professional Certificates



Top skills

- 1. Culture
- Calculus 2.
- Adaptability 3.
- C Programming Language Family 4.
- Bioinformatics 5.
- Other Programming Languages 6.
- People Analysis 7.
- Graphic Design 8.
- Distributed Computing 9. Architecture
- 10. Negotiation

Top target roles

- 1. Communications Specialist
- Budget Analyst 2.
- Public Relations Manager 3.
- Advertising Manager 4.
- Bookkeeper 5.
- Machine Learning Engineer 6.
- **Cloud Security Engineer** 7.
- **Operations Manager** 8.
- Product Marketing Manager 9.
- 10. Securities & Commodities Trader

Recommended content for top skills and roles



1.4M

Coursera learners

43% Women

learners

33% Women learners

57

Global

rank

Learning in STEM on mobile

32

Median

40%

age

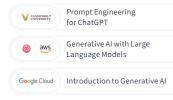
In Turkey, a 545% year-over-year increase in GenAI course enrollments reflects a growing interest in AI and machine learning. Learners are over-indexing in machine learning algorithms, with top target roles including machine learning engineer and software developer. With learners pursuing Professional Certificates at a 38% higher rate than last year, there's a clear appetite for job-relevant skills. This is critical, as Turkey must reskill more than 21 million workers to meet the demands of the future of work.⁵²

Domain rankings

35 61 63 Business Tech Data science

Enrollment trends GenAl ↑ **545**% YoY enrollments

Top courses



Professional Certificates

↑38% YoY enrollments

Top Professional Certificates



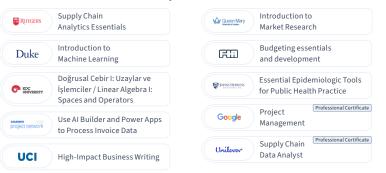
Top skills

- Supply Chain Systems 1.
- Market Research 2.
- Human Learning 3.
- 4. Epidemiology
- 5. Experiment
- Writing 6.
- **Brand Management** 7.
- 8. Linear Algebra
- **Budget Management** 9.
- 10. Machine Learning Algorithms

Top target roles

- Securities & Commodities Trader
- Machine Learning Engineer 2.
- **Public Relations Manager** 3.
- **Budget Analyst** 4.
- 5. **Communications Specialist**
- Software Developer 6
- Bookkeeper 7.
- **Operations Manager** 8.
- Media Buyer 9.
- 10. Personal Financial Advisor

Recommended content for top skills and roles



Country spotlight United Kingdom

3.8 M	45	35
Coursera	Global	Median
learners	rank 35%	^{age} 39%
Women	Women learners	Learning
learners	in STEM	on mobile

Learners in the United Kingdom are over-indexing in skills like bioinformatics, machine learning algorithms, and applied machine learning—aligning with the anticipated 38% net growth in demand for AI and ML specialists in the country.⁵³

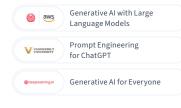
The 961% increase in GenAI course enrollments and the popularity of roles such as data analyst, software developer, and cybersecurity analyst highlight the country's commitment to developing a tech-savvy workforce. However, with 93% of UK businesses reporting an IT skills gap, there's an urgent need for targeted upskilling initiatives to ensure the workforce can meet the evolving demands of the digital economy.⁵⁴

Domain rankings

52 46 32 Business Tech Data science

Enrollment trends GenAI ↑961% YoY enrollments

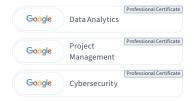
Top courses



Professional Certificates

↑59% YoY enrollments

Top Professional Certificates



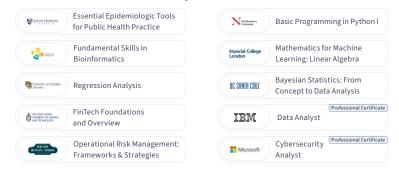
Top skills

- 1. Epidemiology
- 2. Bioinformatics
- 3. Regression
- 4. FinTech
- 5. Machine Learning Algorithms
- 6. Python Programming
- 7. Investment Management
- 8. Bayesian Statistics
- 9. Risk Management
- 10. Applied Machine Learning

Top target roles

- 1. Bookkeeper
- 2. Risk Analyst
- 3. Data Analyst
- 4. Database Architect
- 5. Software Developer
- 6. Financial Analyst
- 7. Product Manager
- 8. Technology Consultant
- 9. Cybersecurity Analyst
- 10. Data Scientist

Recommended content for top skills and roles



Latin America and the Caribbean

24.9M **49**% **^79**0⁄⁄ Coursera YoY enterprise Women learners enrollments learners 34 46% Median Learning on mobile age

46% Women learners in STEM

> Cutting-edge Rankings 1–28 Competitive Rankings 29–55

Emerging Rankings 56–82

Lagging Rankings 83–109

Latin America and the Caribbean show a strong commitment to AI readiness, with GenAI course enrollment increasing 882% year-over-year. Learners focus on emerging tech skills, preparing for roles like machine learning engineer and cloud security engineer. The region nears gender parity in online learning, with 49% women learners and 46% learning on mobile, reflecting a shift toward accessible, flexible learning.

① See page 38 for country skill rankings in Latin America and the Caribbean



Latin America and the Caribbean Regional enrollment trends

National AI strategies and policies highlight the region's dedication to AI for socioeconomic growth. Colombia launched its national AI strategy in February 2024 to close digital access gaps and advance AI adoption, for example.⁵⁵ However, infrastructural divides and the need for local talent development remain unresolved challenges.

While Brazil, Chile, and Uruguay show cuttingedge proficiency in tech and data science domains, Guatemala and Puerto Rico have room to grow. Micro-credentials are promising, with open and distance education participation surpassing OECD averages.⁵⁶

A 2023 OECD study emphasizes innovation and skill development to improve job quality and youth unemployment.⁵⁷ Initiatives like the Consortium for North American Higher Education Collaboration (CONAHEC) and the Asociación De Universidades Grupo Montevideo (AUGM) and distance learning can help bridge skill gaps. Investing in accessible, job-relevant learning allows the region to build on its AI foundation and prepare the workforce for the digital economy.

Top skills

- 1. Culture
- 2. Negotiation
- 3. Calculus
- 4. Adaptability
- 5. Other Programming Languages
- 6. Budget Management
- 7. Geovisualization
- 8. People Analysis
- 9. C Programming Language Family
- 10. Organizational Development

Top target roles

- 1. Communications Manager
- 2. Advertising Manager
- 3. Communications Specialist
- 4. Operations Manager
- 5. Budget Analyst
- 6. Product Marketing Manager
- 7. Machine Learning Engineer
- 8. Treasure
- 9. Contract Administrator
- 10. Personal Financial Advisor

Most popular content in Latin America and the Caribbean

	Contabilidad para no contadores
₩ Penn	English for Career Development
Google	Foundations: Data, Data, Everywhere
Google	Foundations of Project Management
Xistieconset	Étudier en France: French Intermediate course B1-B2
UC Chile	Introducción a la programación en Python I: Aprendiendo a programar con Python
UAB Unwetter Autonese Betterselaus	Primeros Auxilios Psicológicos (PAP)
	Finanzas personales
Google	Foundations of Digital Marketing and E-commerce
Google	Technical Support Fundamentals

Methodology snapshot

To identify top skills and target roles, we use an over-indexing methodology. <u>Over-indexing</u> means that learners in a specific country or region are disproportionately enrolling in a given skill compared to learners globally.

Latin America and the Caribbean Regional enrollment trends cont.

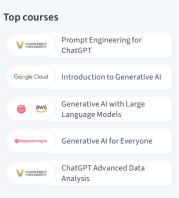
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Achievable knowledge available via platforms like Coursera is the present and future of learning.

-

Hasari Teddy Andrade Coursera Learner, Puebla, Mexico

GenAl ↑ 882% YoY enrollment growth



Cybersecurity ↑1% YoY enrollment growth

Google Foundations: Data, Data, Everywhere Introducción a la programación en Python I: Aprendiendo a programar con Python Google Technical Support Fundamentals

Google Foundations of Cybersecurity

(Getting Started with Python)

$\begin{array}{l} \textbf{Professional Certificates} \\ \uparrow 17\% \\ \textbf{YoY enrollment growth} \end{array}$

Top Professional Certificates

Google	Data Analytics	Professional Certificate
Google	Project Management	Professional Certificate
Google	Digital Marketing & E-	Professional Certificate
Google	IT Support	Professional Certificate
Google	UX Design	Professional Certificate

Latin America and the Caribbean Regional skill rankings

Regional rank	Global rank	Country	Business	Technology	Data Science
1	19	Brazil	66%	85%	85%
2	20	Chile	65%	74%	83%
3	21	Uruguay	83%	87%	60%
4	23	Peru	74%	72%	68%
5	26	Mexico	54%	77%	81%
6	29	Colombia	50%	73%	79%
7	37	Dominican Republic	80%	64%	45%
8	38	Argentina	35%	68%	80%
9	43	Venezuela	39%	53%	73%
10	44	Honduras	61%	49%	50%
11	48	El Salvador	63%	71%	34%
12	50	Bolivia	39%	63%	51%
13	61	Ecuador	36%	44%	56%
14	62	Costa Rica	41%	60%	49%
15	63	Paraguay	38%	46%	52%
16	68	Panama	42%	26%	44%

Regional rank	Global rank	Country	Business	Technology	Data Science
17	73	Trinidad and Tobago	59%	17%	27%
18	77	Jamaica	28%	29%	37%
19	85	Guatemala	16%	15%	38%
20	91	Puerto Rico	15%	17%	17%

Country spotlight Brazil

5.8м Coursera learners

46% Women

learners

34% Women learners in STEM

35

Median

45%

Learning

on mobile

age

Brazil ranks in the top 20 countries for overall skill proficiency—and the highest in Latin America and the Caribbean—with cutting-edge proficiency in tech and data science. A 1,079% increase in GenAl course enrollments and interest in roles like cloud security engineer and machine learning engineer show Brazil's enthusiasm for developing a digital-ready workforce. However, with nearly 70% of employers reporting hiring difficulties due to a skills gap, upskilling initiatives are crucial, especially for youth facing triple the national unemployment rate.58

19

Global

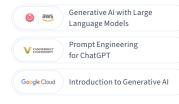
rank

Domain rankings

38 17 17 Business Tech Data science

Enrollment trends GenAl **1,079%** YoY enrollments

Top courses



Professional Certificates

 $\uparrow 10\%$ YoY enrollments

Top Professional Certificates



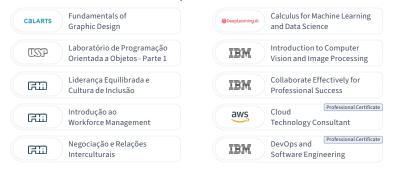
Top skills

- 1. Graphic Design
- Collaboration 2.
- Calculus 3.
- Other Programming Languages 4.
- Organizational Development 5.
- Culture 6.
- Adaptability 7.
- People Analysis 8.
- 9. **Computer Vision**
- 10. Negotiation

Top target roles

- 1. Advertising Manager
- **Cloud Security Engineer** 2.
- **Communications Specialist** 3.
- **Public Relations Manager** 4.
- Machine Learning Engineer 5.
- **Operations Manager** 6.
- **Engineering Manager** 7.
- Product Marketing Manager 8.
- **Computer Systems Engineer** 9.
- 10. Software Developer

Recommended content for top skills and roles



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Country spotlight

Chile

1.6M Coursera learners

50% Women

learners

38%

20

Global

rank

Women learners in STEM

35

Median

45%

Learning

on mobile

age

Chile ranks second-highest in Latin America and the Caribbean for overall skill proficiency, with cutting-edge proficiency in tech and data science. Learners over-index in skills like programming languages, geovisualization, and calculus.

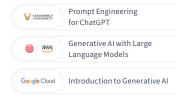
A 700% increase in GenAI course enrollments reflects Chile's AI leadership commitment. Chile also achieves gender parity in online learning. Government initiatives supporting digital skill development prepare the workforce for the IT sector's projected \$3.9 billion growth from 2022-2027.59

Domain rankings

39 29 19 Business Tech Data science

Enrollment trends GenAl ↑ 700% YoY enrollments

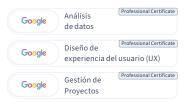
Top courses



Professional Certificates

↓ **16**% YoY enrollments

Top Professional Certificates



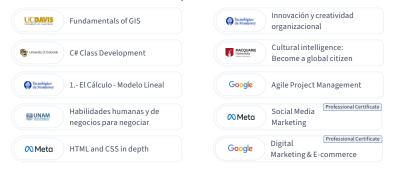
Top skills

- 1. Geovisualization
- C Programming Language Family 2.
- Other Programming Languages 3.
- Calculus 4.
- Culture 5.
- Negotiation 6.
- Adaptability 7.
- 8. Social Media
- Organizational Development 9.
- 10. Creativity

Top target roles

- 1. Operations Manager
- **Public Relations Manager** 2.
- Advertising Manager 3.
- Budget Analyst 4.
- **Communications Specialist** 5.
- Product Marketing Manager 6.
- Bookkeeper 7.
- Machine Learning Engineer 8.
- 9. Social Media Marketer
- 10. E-commerce Analyst

Recommended content for top skills and roles



Country spotlight Colombia

29 33 3.3M Global Coursera Median learners rank age 50% 34% Women Women learners in STEM learners

47% Learning on mobile

Colombia's commitment to technological advancement shows in a 659% GenAl course enrollments increase and the February 2024 launch of its AI strategy to close digital gaps, advance AI, and develop digital talent.60

Learners focus on programming and negotiation skills for roles like machine learning engineer and communications specialist. The Ministry of ICT's partnership with Coursera aims to bridge skill gaps through micro-credentials, as 80% of companies expect an insufficiently skilled talent pipeline by 2027.61

Domain rankings

55 30 24 Business Tech Data science

Enrollment trends GenAl ↑ 659% YoY enrollments

Top courses



Professional Certificates

↑33% YoY enrollments

Top Professional Certificates



Top skills

- 1. Culture
- 2. Negotiation
- 3. Calculus
- C Programming Language Family 4.
- Other Programming Languages 5.
- Geovisualization 6.
- Adaptability 7.
- Emotional Intelligence 8.
- **Probability Distribution** 9.
- 10. People Analysis

Top target roles

- 1. Communications Specialist
- **Public Relations Manager** 2.
- Budget Analyst 3.
- **Operations Manager** 4.
- Advertising Manager 5.
- Machine Learning Engineer 6.
- 7. Bookkeeper
- Product Marketing Manager 8.
- 9. Social Media Marketer
- 10. Media Buyer

Recommended content for top skills and roles



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Country spotlight Mexico

6.7м Coursera learners 51%

Women learners

39% Women learners in STEM

26

Global

rank

Learning on mobile

34

Median

47%

age

A 1,091% GenAI course enrollment increase mirrors Mexico's strong interest in AI and machine learning, expected to see 35% growth in specialist roles.⁶² Learners focus on culture, adaptability, and emotional intelligence, aligning with top target roles like operations manager, PR manager, and communications specialist.

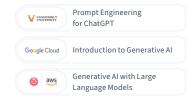
However, with 65% of companies reporting talent shortages, upskilling is crucial. Investing in workforce development and micro-credentials allows businesses and institutions to build on strong tech and data science foundations, driving growth and preparing learners for roles requiring both technical and interpersonal skills.

Domain rankings

51 26 22 Business Tech Data science



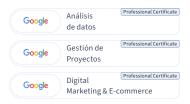
Top courses



Professional Certificates

↑ **29**% YoY enrollments

Top Professional Certificates



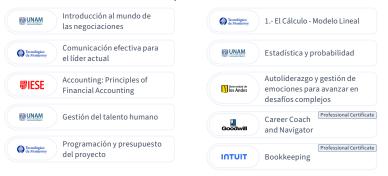
Top skills

- 1. Negotiation
- Calculus 2.
- Budget Management 3.
- Bioinformatics 4.
- 5. Culture
- Adaptability 6.
- **Emotional Intelligence** 7.
- **Probability Distribution** 8.
- General Accounting 9.
- 10. People Analysis

Top target roles

- **Operations Manager** 1.
- **Public Relations Manager** 2.
- **Communications Specialist** 3.
- **Budget Analyst** 4.
- Advertising Manager 5.
- Bookkeeper 6
- Machine Learning Engineer 7.
- Product Marketing Manager 8
- **Contract Administrator** 9
- 10. Personal Financial Advisor

Recommended content for top skills and roles



Country spotlight

Peru

1.5M Coursera learners 45%

Women learners

31% Women learners in STEM

23

Global

rank

Learning on mobile

32

Median

35%

age

In Peru, learners pursue soft skills like resilience and hard skills like programming to prepare for marketing, operations, and engineering roles. A 953% GenAI course enrollment increase indicates strong AI interest, aligning with the government's plan to significantly increase digital capacities by 2030.63 With 67% of companies reporting talent shortages, upskilling is urgent.

Domain rankings

29 32 36 Business Tech Data science



GenAl ↑ 953% YoY enrollments

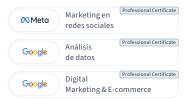
Top courses



Professional Certificates

 $\uparrow 16\%$ YoY enrollments

Top Professional Certificates



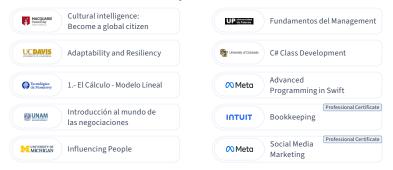
Top skills

- 1. Culture
- 2. Resilience
- Other Programming Languages 3.
- 4. Negotiation
- 5. Social Media
- **Emotional Intelligence** 6.
- C Programming Language Family 7.
- 8. Calculus
- 9. Adaptability
- 10. Influencing

Top target roles

- 1. Advertising Manager
- **Operations Manager** 2.
- **Public Relations Manager** 3.
- **Communications Specialist** 4.
- 5. Budget Analyst
- Product Marketing Manager 6.
- Bookkeeper 7.
- **Cloud Security Engineer** 8.
- Personal Financial Advisor 9.
- 10. Machine Learning Engineer

Recommended content for top skills and roles



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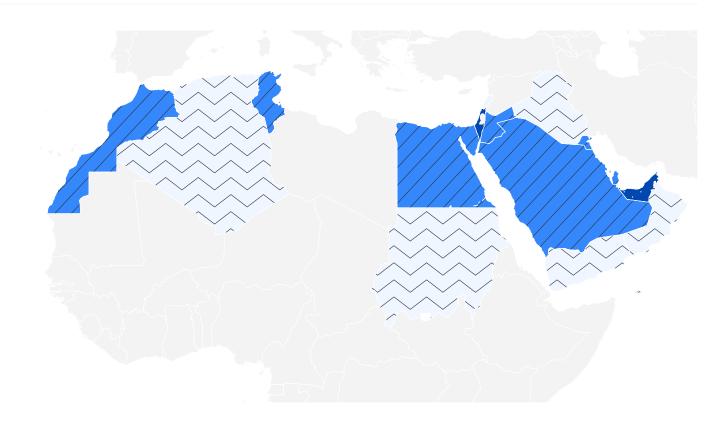
Middle East and **North Africa**



27% Women learners in STEM

The Middle East and North Africa demonstrates a strong commitment to digital transformation and emerging technologies. With a 861% increase in GenAI course enrollments and a 17% rise in cybersecurity enrollments year-over-year, learners focus on cuttingedge skills to drive innovation and tackle regional challenges. Supply chain systems emerge as a popular skill, highlighting the region's potential as a global trade hub. However, with only 35% of learners being women, there are opportunities to promote gender inclusivity in online learning.

① See page 47 for country skill rankings in the Middle East and North Africa



Cutting-edge Rankings 1–28

Emerging Rankings 56–82

O Competitive Rankings 29–55

Lagging Rankings 83–109

Middle East and North Africa Regional enrollment trends

The Middle East and North Africa are positioned to become leaders in digital transformation and trade, with governments investing in technology infrastructure and logistics.⁶⁴ The establishment of the 2023 Council of Ministers for Cybersecurity reflects the region's proactive approach to cybersecurity, evident in the 17% year-over-year growth in cybersecurity course enrollments. Learners focus on skills like leadership development, supply chain systems, and auditing, preparing for roles such as operations manager and IT project manager—aligning with the region's strategic location and workforce development goals.

However, with 82% of UAE workers seeking additional training⁶⁵ and 60% of Saudi higher education students pursuing degrees not aligned with job market demands,⁶⁶ there's a need for accessible, career-ready skill development. By investing in job-relevant learning and harnessing the young, tech-savvy population, the region can build a skilled workforce to drive economic growth and competitiveness in sectors like manufacturing, logistics, and cybersecurity.

Top skills

- 1. Leadership Development
- 2. Supply Chain Systems
- 3. Audit
- 4. People Development
- 5. Advertising
- 6. Resilience
- 7. Storytelling
- 8. Influencing
- 9. Conflict Management
- 10. Budget Management

Top target roles

- 1. Operations Manager
- 2. IT Project Manager
- 3. Project Manager
- 4. Machine Learning Engineer
- 5. Securities & Commodities trader
- 6. Personal Financial Advisor
- 7. Communications Specialist
- 8. Treasurer
- 9. Contract Administrator
- 10. Communications Manager

Most popular content in the Middle East and North Africa

جامعة الفيصل Alfaisal University	القيادة المتناقضة كأسلوب تفكير
جامعة الفيصل Alfaisal University	المهارات الأساسية لمديري اليوم
جامعة الفيصل Alfaisal University	إدارة سلاسل الإمداد Supply Chain Management
Unilever	Supply Chain Management and Analytics
Northwestern University	Leadership Communication for Maximum Impact: Storytelling
ESSEC	Mediation and Conflict Resolution
Google	Foundations of Project Management
	Learning Mindsets & Skills
UCI	Work Smarter, Not Harder: Time Management for Personal & Professional Productivity
Google	Project Management

Methodology snapshot

To identify top skills and target roles, we use an over-indexing methodology. <u>Over-indexing</u> means that learners in a specific country or region are disproportionately enrolling in a given skill compared to learners globally.

Middle East and North Africa Regional enrollment trends cont.

"

We are committed to equipping our students and graduates with the skills and knowledge needed to thrive in the ever-evolving job market. In an era where rapid technological advancements and changing industries demand continuous learning and adaptation, upskilling and reskilling have become paramount.



Prof. Ibrahim Mohamed Alkaabi Vice President for Academic Affairs, Qatar University



Middle East and North Africa Regional skill rankings

Regional rank	Global rank	Country	Business	Technology	Data Science
1	34	United Arab Emirates	99%	42%	55%
2	35	Israel	40%	72%	89%
3	58	Qatar	83%	40%	42%
4	60	Saudi Arabia	87%	39%	29%
5	64	Morocco	67%	52%	17%
6	72	Egypt	34%	39%	40%
7	75	Kuwait	51%	27%	31%
8	76	Tunisia	7%	41%	39%
9	78	Bahrain	45%	28%	28%
10	82	Jordan	52%	14%	14%
11	83	Lebanon	23%	32%	19%
12	90	Oman	19%	21%	18%
13	93	Iraq	21%	19%	9%
14	95	Algeria	2%	25%	32%
15	96	Yemen	33%	10%	7%
16	109	Sudan	3%	3%	2%

"

We will spare no effort to meet the ambitions of our students to obtain world-leading education that qualifies them for current and future labor market requirements.

"

Realizing skill development solutions that are necessary for meeting the challenges of the 21st century requires robust innovation and collaboration between key actors.



His Excellency, Dr. Ahmad Belhoul Al Falasi Minister of Education, UAE



Abdallah Al Dardari Assistant Secretary-General Assistant Administrator and Director of the Regional Bureau for Arab States, UNDP

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Coursera, UNDP, and MBRF Launch FutureSkills4All Initiative

Country spotlight Egypt 72 2.9м Coursera Global learners rank 35% 22%

Women learners

64% Women learners Learning in STEM on mobile

29

Median

age

Learners in Egypt are typically younger than the global average, with a median age of 29, and increasingly learn on mobile devices, with 64% accessing courses through smartphones or tablets. This tech-savvy generation focuses on skills like advertising, deep learning, and auditing, preparing for roles such as machine learning engineer, operations manager, and securities & commodities trader. As university degrees remain the most recognized hiring criteria in Egypt, integrating job-relevant skills into higher education curricula can help bridge the gap between academia and industry.67

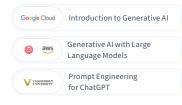
Domain rankings

73

68 68 Business Tech Data science



Top courses



Professional Certificates

↑ **34**% YoY enrollments

Top Professional Certificates

Google	Data Analytics	Professional Certificate
🔿 Meta	Social Media Marketing	Professional Certificate
🔿 Meta	Front-End Developer	Professional Certificate

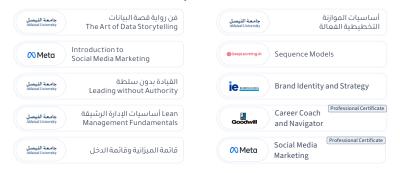
Top skills

- 1. Audit
- Storytelling 2.
- 3. Advertising
- Leadership Development 4.
- 5. Social Media
- Experiment 6.
- Brand Management 7.
- **Budget Management** 8.
- Writing 9.
- 10. Deep Learning

Top target roles

- **Operations Manager** 1.
- Machine Learning Engineer 2.
- Securities & Commodities Trader 3.
- **Public Relations Manager** 4.
- **Communications Specialist** 5.
- Social Media Marketer 6
- Marketing Associate
- **Budget Analyst** 8.
- **Financial Manager** 9.
- 10. Web Developer

Recommended content for top skills and roles



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Country spotlight Saudi Arabia

1.2 M	60	35
Coursera	Global	Median
learners	rank	age
28%	33%	55%
Women	Women learners	Learning
learners	in STEM	on mobile

Cybersecurity attacks cost organizations in Saudi Arabia and the UAE \$6.53 million in 2023, driving a surge in demand for cybersecurity professionals.⁶⁸ Coursera data shows a 65% year-over-year increase in cybersecurity course enrollments. This aligns with Saudi Arabia's efforts to develop a skilled workforce, including the goal of training 40% of the workforce in data and AI skills by 2030.

With 60% of college students pursuing degrees that don't match job market demands, bridging the skills gap remains vital.69

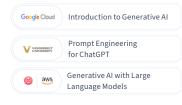
Domain rankings

15

67 79 Business Tech Data science

Enrollment trends GenAl **1,788%** YoY enrollments

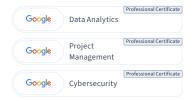
Top courses



Professional Certificates

↑98% YoY enrollments

Top Professional Certificates



Top skills

- 1. Leadership Development
- Supply Chain Systems 2.
- Resilience 3.
- People Development 4.
- Graphic Design 5.
- Change Management 6.
- **Conflict Management** 7.
- Regression 8.
- Adaptability 9.
- 10. Emotional Intelligence

Top target roles

- 1. IT Project Manager
- **Project Manager** 2.
- Personal Financial Advisor 3.
- 4. Bookkeeper
- Securities & Commodities Trader 5.
- Machine Learning Engineer 6.
- Market Research Analyst 7.
- **Communications Specialist** 8.
- **Operations Manager** 9.
- 10. Financial Reporting Manager

Recommended content for top skills and roles



Country spotlight United Arab Emirates

34 35 1м Global Median Coursera learners rank age 27% 33% 42% Women Women learners Learning in STEM on mobile learners

The UAE ranks first in the Middle East and North Africa for skill proficiency and second worldwide for business. Learners focus on leadership development, resilience, and blockchain skills, preparing for roles such as operations manager, IT project manager, and business analyst. This aligns with the UAE's focus on business intelligence and digital transformation roles, both expected to grow significantly.⁷⁰ However, with 82% of UAE workers seeking more training for career confidence, further skill development is crucial.⁷¹

Domain rankings

2

Business

64 50 Tech Data science

Enrollment trends GenAI ^ 1,102% YoY enrollments

Top courses



Professional Certificates

 \uparrow **40**% YoY enrollments

Top Professional Certificates



Top skills

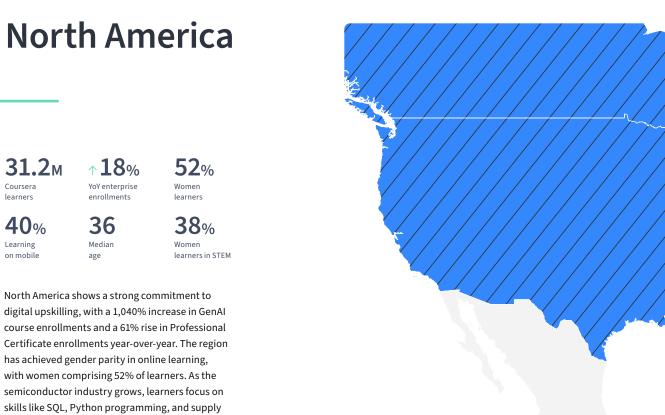
- 1. Resilience
- 2. Leadership Development
- 3. BlockChain
- 4. Supply Chain Systems
- 5. People Development
- 6. Emotional Intelligence
- 7. Conflict Management
- 8. Audit
- 9. General Accounting
- 10. Change Management

Top target roles

- 1. Operations Manager
- 2. IT Project Manager
- 3. Project Manager
- 4. Personal Financial Advisor
- 5. Contract Administrator
- 6. Bookkeeper
- 7. Product Marketing Manager
- 8. Business Analyst
- 9. IT Director
- 10. Public Relations Manager

Recommended content for top skills and roles





- Cutting-edge Rankings 1–28
- O Competitive Rankings 29–55
- Emerging Rankings 56–82
- 😞 Lagging Rankings 83–109

chain logistics to drive innovation and economic

growth in this critical sector.

North America

() See page 54 for country skill rankings in

North America Regional enrollment trends

North America remains steadfast in developing a skilled, inclusive workforce ready for the digital economy. Learners' focus on technical skills like SQL, Bayesian statistics, and Python programming aligns with the high demand for digital competencies in the job market, where 92% of US job ads require digital proficiency.⁷²

Governments and industry leaders invest in initiatives like the North American Semiconductor Conference (NASC) and the North American Ministerial Committee on Economic Competitiveness (NAMCEC) to strengthen the region's competitiveness in industries of the future, including semiconductors.⁷³

Collaboration among government, industry, and academia is key to creating quality jobs and providing talent for growth in the digital age. Coursera's partnerships with institutions like the University of Texas System⁷⁴ and the state of Nevada⁷⁵ exemplify the efforts needed to equip learners with job-relevant skills and drive economic growth.

Top skills

- 1. Geovisualization
- 2. SQL
 - 3. Business Communication
 - 4. General Accounting
- 5. Epidemiology
- 6. Spreadsheet Software
- 7. Bayesian Statistics
- 8. Python Programming
- 9. Change Management
- 10. Project Management

Top target roles

- 1. Personal Financial Advisor
- 2. Treasurer
- 3. Business
- Intelligence Analyst
- 4. Risk Analyst
- 5. Technology Consultant
- 6. Financial
 - Quantitative Analyst
- 7. Network Engineer
- 8. Database Architect
- 9. Financial Analyst
- 10. Cyber Analyst

Methodology snapshot

To identify top skills and target roles, we use an over-indexing methodology. <u>Over-indexing</u> means that learners in a specific country or region are disproportionately enrolling in a given skill compared to learners globally.

Most popular content in North America

Google	Foundations: Data, Data, Everywhere
Google	Foundations of Cybersecurity
Google	Foundations of Project Management
Google	Technical Support Fundamentals
Google	Foundations of Digital Marketing and E-commerce
Yale	The Science of Well-Being
DeepLearning.Al	Al for Everyone
05	Supervised Machine Learning: Regression and Classification
project network	Introduction to Microsoft Excel
VANDERBILT	Prompt Engineering for ChatGPT

North America Regional enrollment trends cont.

"

What I'm excited about is GenAI opens the door for all of our employees to have access to tools to do their job more efficiently.

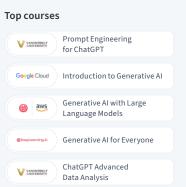


Alison Klein Information Systems Talent Manager, Dow

Φ

How to Bridge the Generative AI Skills Gap: Insights from Dow, Microsoft, and Vanderbilt University







Top courses

Google

Google

Google

Google

MICHIGAN

Professional Certificates ↑ **61%** YoY enrollment growth



North America Regional skill rankings

Regional rank	Global rank	Country	Business	Technology	Data Science
1	59	Canada	47%	50%	59%
2	69	United States	37%	36%	50%

"

Students want to know that their learning is linked to a career pathway. They want to acquire skills that prepare them for work immediately, and employers want the same thing.



Mark Rosenbaum Dean of HPU's College of Business, Hawai'i Pacific University

Щ

Professional Certificates Playbook

"

The AI revolution is not on the horizon, it is already here. Its impact will be as profound as the Industrial Revolution or the Digital Revolution. Your organization must embrace this transformation or risk being left behind. The choice is clear: adapt or become irrelevant. The time to act is now.



Mark A. Lane, PhD Strategy & Innovation Engineer, Cisco

"

Building a thriving workforce in Missouri means equipping everyone with the skills needed to succeed. Delivering on our commitment to provide equitable access to skills development, we have created unique courses like Missouri Job Ready Day One and learning pathways tailored to both the needs of populations facing barriers to employment and demands in the job market.



Julie Carter Director of Workforce Development, Department of Higher Education and Workforce Development (DHEWD), State of Missouri

Country spotlight

Canada

4 M	59	36
Coursera	Global	Median
learners	rank	age
54 %	40 %	38%
Women	Women learners	Learning
learners	in STEM	on mobile

With a 63% year-over-year growth in Professional Certificate enrollments, Canadian learners are increasingly committed to developing job-ready skills. They're pursuing micro-credentials in in-demand fields like data analytics and digital marketing, preparing for roles like product marketing manager, e-commerce analyst, and social media marketer.

This aligns with the government's efforts to address the skills gap, as 45% of Canadians lack the digital skills needed for the knowledge economy.⁷⁶ Initiatives like the Skills for Success Program (supporting 60,000+ Canadians) and Ontario's \$15 million investment in rapid training contribute to building this crucial workforce.⁷⁷

Domain rankings

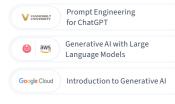
59 56 Business Tech

46

Data science

Enrollment trends GenAI ^ 914% YoY enrollments

Top courses



Professional Certificates

↑63% YoY enrollments

Top Professional Certificates

Google	Data Analytics	Professional Certificate
Google	Cybersecurity	Professional Certificate
Google	Project Management	Professional Certificate

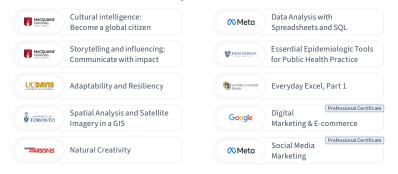
Top skills

- 1. Storytelling
- 2. Culture
- 3. Social Media
- 4. Negotiation
- 5. Resilience
- 6. SQL
- 7. Epidemiology
- 8. Creativity
- 9. Spreadsheet Software
- 10. Geovisualization

Top target roles

- 1. Product Marketing Manager
- 2. Marketing Manager
- 3. Marketing Specialist
- 4. E-commerce Analyst
- 5. Media Buyer
- 6. Personal Financial Advisor
- 7. Search Engine Optimization Specialist
- 8. Bookkeeper
- 9. Social Media Marketer
- 10. Advertising Manager

Recommended content for top skills and roles



V

Country spotlight **United States**

27.7м	69	36
Coursera	Global	Median
learners	rank	age
52 %	38%	40 %
Women	Women learners	Learning

in STEM

learners

Women learners Learning on mobile

US learners focus on a mix of business and technical skills, such as business communication, general accounting, and SQL, though mostly prepare for roles in business and finance.

However, nearly one-third of US workers lack foundational digital skills, with workers of color disproportionately affected.⁷⁸ As the public and private sectors digitize, the need for highly trained STEM workers grows, despite fewer than 100,000 US graduates earning engineering and computer science degrees each year.79

The 1,058% surge in GenAI course enrollments and the 61% year-over-year growth in Professional Certificate enrollments show learners' commitment to upskilling for the digital economy.

Domain rankings

70 71 55 Data science Business Tech

Enrollment trends GenAl **1,058%** YoY enrollments

Top courses



Professional Certificates

↑61% YoY enrollments

Top Professional Certificates



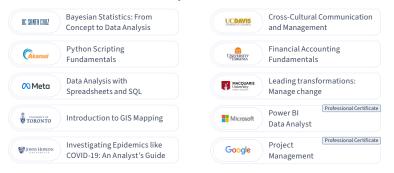
Top skills

- 1. Geovisualization
- SQL 2.
- **Business Communication** 3.
- General Accounting 4.
- 5. Epidemiology
- **Bayesian Statistics** 6.
- Spreadsheet Software 7.
- **Change Management** 8.
- Python Programming 9.
- 10. Project Management

Top target roles

- Personal Financial Advisor 1.
- **Business Intelligence Analyst** 2.
- Bookkeeper 3.
- **Risk Analyst** 4.
- 5. Technology Consultant
- Network Engineer 6.
- **Financial Quantitative Analyst**
- Database Architect 8.
- Cybersecurity Analyst 9.
- 10. Financial Analyst

Recommended content for top skills and roles



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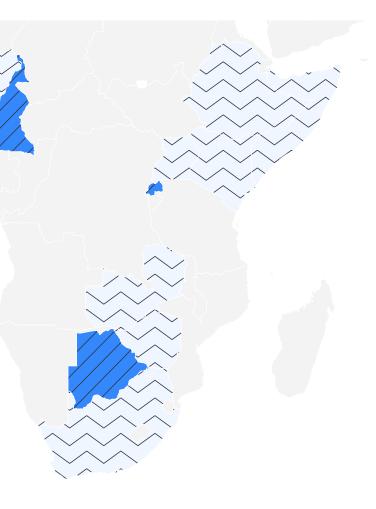
Sub-Saharan Africa

6.9 M	↑ 38%	36%
Coursera	YoY enterprise	Women
learners	enrollments	learners
65%	34	27%
Learning	Median	Women
on mobile	age	learners in STEM

Learners in Sub-Saharan Africa show a strong appetite for mobile learning, with 65% accessing courses on smartphones or tablets—the highest among all regions. They focus on developing business skills like risk management and supply chain systems, as well as technical skills like SQL and HTML/CSS. However, with only 36% of learners being women, despite comprising 46.1% of the region's labor force, there's a significant gender disparity in online learning.⁸⁰

 See page 60 for country skill rankings in Sub-Saharan Africa





Sub-Saharan Africa Regional enrollment trends

Sub-Saharan Africa must focus on developing a skilled young workforce, especially given lagging skill rankings of most countries in the region. With 230 million digital jobs projected by 2030, investing in accessible, job-relevant learning is crucial.⁸¹

Learners focus on skills like risk management, auditing, and supply chain systems. The prevalence of mobile learning (65%) highlights the importance of flexible, on-the-go learning solutions. Enabling further internet access will be critical to skills development, as 75% of Africa's internet traffic comes from smartphones.⁸²

The region must also address the gender gap in online learning, with only 36% of learners being women despite comprising 50.2% of the working-age population. Prioritizing digital literacy in education, promoting gender-inclusive initiatives, and collaborating with industry are key to building a skilled, diverse workforce.

Sub-Saharan Africa's growing youth population presents both challenges and opportunities for the workforce. About 10–12 million young Africans enter the labor market annually, where only 3 million formal jobs are available.⁸³ Transforming education systems to update curricula, investing in teacher training, and increasing education funding is vital. By equipping young Africans for the future, the region can turn its demographic challenge into an economic advantage.

Top skills

- 1. Risk Management
- 2. Epidemiology
- 3. Audit
- 4. Supply Chain Systems
- 5. Influencing
- 6. Spreadsheet Software
- 7. Advertising
- 8. Business Communication

Methodology snapshot

compared to learners globally.

- 9. People Development
- 10. Market Research

Top target roles

- 1. IT Project Manager
- 2. Project Manager
- 3. Operations Manager
- 4. Personal Financial Advisor
- 5. IT Manager
- 6. Business Analyst
- 7. Operations Specialist
- 8. Auditor

To identify top skills and target roles, we use an over-indexing

methodology. Over-indexing means that learners in a specific

country or region are disproportionately enrolling in a given skill

- 9. Marketing Specialist
- 10. Product Marketing Manager

Most popular content in Sub-Saharan Africa

Google	Foundations: Data, Data, Everywhere
Google	Foundations of Project Management
Google	Foundations of Cybersecurity
Google	Ask Questions to Make Data-Driven Decisions
project network	Introduction to Microsoft Excel
Google	Foundations of Digital Marketing and E-commerce
Google	Technical Support Fundamentals
OHNS HORKINS	Business Analytics with Excel: Elementary to Advanced
S MARYLAND	Cybersecurity for Everyone
Google	Prepare Data for Exploration

COURSERCI Global Skills Report 2024 | Regional Skill Trends | SSA

Sub-Saharan Africa Regional enrollment trends cont.

"

My advice to learners is to BE the change you want to see! Just empower yourself to give power to others.

Oluwakemi Sarah Adenekan Coursera Learner, Oyo State, Nigeria



Top courses

Google Cloud

VANDERBILT UNIVERSITY

DeepLearning Al

VANDERBILT UNIVERSITY

0 aws for ChatGPT

Data Analysis



Top courses

Technical Support

Cybersecurity for Everyone

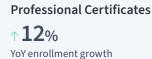
Manage Security Risks

Computer Science:

Fundamentals

Play It Safe:

Introduction to Generative AI Google Prompt Engineering Google Generative AI for Everyone 🧐 MARYLAND Generative AI with Large Google Language Models ChatGPT Advanced PRINCETON UNIVERSITY



Top Professional Certificates



Sub-Saharan Africa Regional skill rankings

Regional rank	Global rank	Country	Business	Technology	Data Science
1	66	Botswana	72%	37%	23%
2	71	Rwanda	64%	24%	28%
3	74	Cameroon	48%	38%	21%
4	88	Zambia	14%	16%	24%
5	92	Ethiopia	12%	20%	22%
6	97	Zimbabwe	13%	18%	11%
7	98	Kenya	17%	9%	12%
8	99	Cote d'Ivoire	20%	8%	6%
9	100	South Africa	10%	11%	13%
10	102	Uganda	18%	7%	5%
11	104	Ghana	6%	6%	6%
12	105	Nigeria	26%	1%	1%
13	107	Somalia	5%	4%	3%

"

Remember: skills and learning material alone don't make you successful. Instead, it's on you to prove to yourself that what you've learned is valuable and beneficial to what you want to accomplish. For me, it's solving existing problems in the community and seeing the positive impact I've helped make—from machine translation projects for Kenyan languages (Kikuyu and Kiswahili languages as part of the Masakhane Community) to using AI to solve pressing problems in the supply chain field.



Kennedy Wangari Coursera Learner, Kenya

Country spotlight

Botswana

85 k	66	33
Coursera	Global	Median
learners	rank	age
50 %	32%	54 %
Women	Women learners	Learning
learners	in STEM	on mobile

In Botswana, learners focus on leadership, risk management, and accounting skills, preparing for roles such as project manager, IT project manager, and operations manager. Despite unemployment challenges, with 25% of the labor force and 33% of youth aged 20–39 unemployed,⁸⁴ Botswana has made strides in connecting schools to high-speed internet through initiatives like SmartBots and GIGA.85

Botswana also achieves gender parity in online learning, with women making up 50% of learners. With projected annual economic growth of 4.5% over the next five years, continued investments in digital infrastructure and skills development are key to reducing unemployment and fostering inclusive growth.⁸⁶

Domain rankings

31

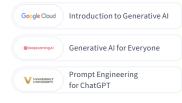
70 Business Tech

85

Data science



Top courses



Professional Certificates

 \uparrow **35**% YoY enrollments

Top Professional Certificates



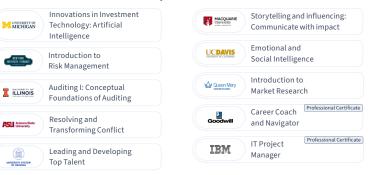
Top skills

- 1. Investment Management
- 2. Leadership Development
- **Risk Management** 3.
- 4. Audit
- Resilience 5.
- General Accounting 6.
- Conflict Management 7.
- Change Management 8.
- Emotional Intelligence 9.
- 10. Market Research

Top target roles

- 1. Project Manager
- 2. IT Project Manager
- **Operations Manager** 3.
- 4. Contract Administrator
- Personal Financial Advisor 5.
- Bookkeeper 6.
- Systems Analyst 7.
- **Business Analyst** 8.
- 9. IT Director
- 10. Auditor

Recommended content for top skills and roles



Country spotlight Nigeria

2.4M Coursera learners

34% Women learners 2 Wo

29% Women learners in STEM 32

Median

76%

Learning

on mobile

age

105

Global

rank

With 76% of learners accessing courses on mobile devices, learners in Nigeria gravitate toward flexible, on-the-go learning. They focus on

developing technical skills like SQL and HTML/ CSS, as well as business skills like advertising and business communication.

Top target roles learners prepare for span engineering and marketing, including cloud security engineer, product marketing manager, and e-commerce analyst. However, with only one in 10 workers holding positions that require advanced skill levels,⁸⁷ these skill sets are crucial in addressing Nigeria's youth unemployment rate, which stands at 53.4%.⁸⁸

Domain rankings **82 109**

109 109 Tech Data science

Enrollment trends GenAI ^ 1,817% YoY enrollments

Top courses

Business



Professional Certificates

↓7% YoY enrollments

Top Professional Certificates



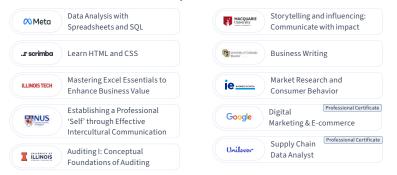
Top skills

- 1. SQL
- 2. Advertising
- 3. Spreadsheet Software
- 4. Business Communication
- 5. Audit
- 6. HTML and CSS
- 7. Influencing
- 8. Supply Chain Systems
- 9. Storytelling
- 10. Market Research

Top target roles

- 1. Product Marketing Manager
- 2. E-commerce Analyst
- 3. Personal Financial Advisor
- 4. Project Manager
- 5. IT Project Manager
- 6. Social Media Marketer
- 7. Cloud Security Engineer
- 8. Marketing Specialist
- 9. Operations Manager
- 10. IT Director

Recommended content for top skills and roles



South Africa

1.3 M	100	36
Coursera	Global	Median
learners	rank	age
46%	36%	62%
Women	Women learners	Learning
learners	in STEM	on mobile

South Africa has the potential to generate 4.5 million new jobs across industries by 2030.⁸⁹ However, with an estimated 28,800 digital and ICT jobs already being outsourced, there's a pressing need to develop a skilled domestic workforce.⁹⁰ Learners focus on building business skills such as risk management, supply chain systems, and brand management, preparing for roles like IT project manager, operations manager, and business analyst. With 62% accessing courses on mobile devices, they demonstrate a strong preference for flexible, accessible learning.

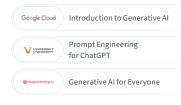
Domain rankings 99 98 Business Tech

96

Data science

Enrollment trends GenAI ↑ 1,156% YoY enrollments

Top courses



Professional Certificates

↑33% YoY enrollments

Top Professional Certificates



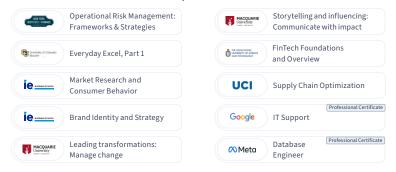
Top skills

- 1. Risk Management
- 2. Supply Chain Systems
- 3. Brand Management
- 4. Market Research
- 5. Spreadsheet Software
- 6. Change Management
- 7. Operations Management
- 8. Influencing
- 9. FinTech
- 10. Business Communication

Top target roles

- 1. IT Project Manager
- 2. Project Manager
- 3. Operations Manager
- 4. IT Director
- 5. Personal Financial Advisor
- 6. Business Analyst
- 7. General Manager
- 8. Operations and
- Maintenance Specialist
- 9. Database Architect
- 10. Marketing Manager

Recommended content for top skills and roles



Appendix

66

Each and every one of us needs to own our own careers. Each and every one of us needs to be intellectually curious in building those careers.



Leon Katsnelson Director & CTO, IBM Skills Network at IBM

Ψ

2024 Job Skills Report webinar

coursera



Glossary

Active learners: Individuals who have started at least one course item within the past year.

- Artificial Intelligence (AI) skills: A set of skills that enables individuals to understand, develop, and apply AI technologies. This report focuses on both advanced and foundational skills relevant to AI.
 - Advanced skills: Data management, machine learning, applied machine learning, artificial neural networks, Bayesian networks, big data, computer vision, deep learning, feature engineering, machine learning algorithms, machine learning software, natural language processing, and statistical machine learning.

Foundational skills: Computer programming, data analysis, mathematics, theoretical computer science, applied mathematics, and data modeling.

- Cybersecurity skills: A collection of skills that allows individuals to protect computer systems, networks, and data from unauthorized access, attacks, or damage. These skills include risk management, network security, cryptography, and incident response, among others.
- **Cybersecurity enrollments:** The year-over-year (YoY) increase in the number of learners enrolling in courses related to cybersecurity on the Coursera platform. We compare cybersecurity enrollments in 2022 to cybersecurity enrollments in 2023.
- Digital and human skills: Two broad categories of skills that are essential in today's workforce. Digital skills encompass abilities related to understanding, using, and creating value with technology, while human skills refer to cognitive, social, and emotional capabilities that enable effective interpersonal interactions and decision-making.

- **Digital skills** include everything from typing and posting on social media to developing software and managing cybersecurity. Digital skills exist on an ever-evolving spectrum.
- Human skills constitute our ability to relate to one another and include skills such as creativity, critical thinking, information interpretation, decision-making, leadership, and communication.
- Note: These two categories are complementary. People use human skills to effectively and ethically make use of digital skills. Likewise, digital skills enhance human skills.
- Enrollment trends: Patterns in learner enrollments on the Coursera platform, which can reveal insights into the popularity and relevance of specific skills, competencies, or courses in a given country or region.

- Generative AI (GenAI): A subset of artificial intelligence (AI) that focuses on creating new content, such as text, images, audio, or video, based on learned patterns and rules from existing data. GenAI technologies include language models like GPT-40 and image generators like DALL-E.
- GenAI enrollments: The YoY increase in the number of learners enrolling in courses related to generative AI technologies on the Coursera platform, calculated for a specific country or region. We compare total cumulative enrollments on June 13, 2023 with total cumulative enrollments on May 13, 2024.
- Industry micro-credential or micro-credential: A short, focused, and flexible learning program that allows individuals to acquire specific job-relevant skills or competencies. Micro-credentials, such as Coursera's Professional Certificates, prepare learners

for in-demand industry skills and can complement traditional degree programs for higher education institutions, upskill teams for businesses, or develop an entire workforce for governments.

- Leadership skills: A set of skills that enable individuals to guide, motivate, and manage teams effectively. These skills include adaptability, change management, emotional intelligence, decision-making, and strategic thinking, among others.
- Learner: An individual who is registered for content on the Coursera platform. Learners can be enrolled in multiple learning programs, but are counted only once in the platform's metrics. The skills benchmarking data in this report is based on learner data.

Most popular content: These sections

highlight the courses, Guided Projects, and Professional Certificates with the highest enrollments in the past year among learners in each region. Most popular content is based on the overall number of enrollments and provides insights into the content that attracts the most learners in a given area.

- Over-indexing ("top skills"): A measure of the relative popularity of a specific skill among learners in a particular country or region compared to the global learner population on Coursera. Over-indexing is not a measure of proficiency.
- Professional Certificate(s): Coursera offers <u>Professional Certificates</u>, a type of microcredential, from leading industry partners that teach the specific skills needed for entry-level roles in in-demand digital jobs. Professional Certificates typically take 4–6 months to complete and include hands-on projects that simulate real-world tasks.
- **Professional Certificate enrollments:**

This metric examines the YoY growth in total enrollments for a country or region. Growth figures for regions take into consideration only the enrollment figures of the 109 countries included in this report. We compare Professional Certificate enrollments in 2022 to Professional Certificate enrollments in 2023.

- Recommended content for top skills and roles:
 - These sections highlight courses and learning programs that align with the skills and career paths trending among learners in each country or region. Recommendations are based on learner enrollment data, reflecting the content that is most popular and relevant to the local learning community. Institutions can leverage these insights to inform their learning programs, ensuring they offer courses and curricula that match learner interests and market demands.
- Skill ranking: A measure of a learner's mastery of a specific skill, based on their performance in assessments and projects within relevant courses on the Coursera platform. This year's *Global Skills Report* introduces a new methodology that combines learners' skill proficiency scores on the Coursera platform with third-party indicators, including the Global Innovation Index (GII), Labor Force Participation Rate, Human Capital Index (HCI), and GDP per capita. This approach provides a more comprehensive view of skill proficiency across countries. The report includes both global skill rankings, comparing countries

worldwide, and regional skill rankings, comparing countries within specific regions. Skill proficiency is a key metric used in this report to benchmark countries and regions.

- Skills: The transference of knowledge into value and the ability to perform specific tasks. To figure out what skills each Coursera content offering teaches, we use Coursera's Skills Graph, which draws information from open-source taxonomies like Wikipedia and insights from Coursera educators and learners. A single course often covers several different skills.
- **Top GenAl course(s):** The GenAl course or courses with the highest total enrollments within a specific country or region, which is based on the overall number of learners enrolling in the course. It helps identify the GenAl course that is most in-demand among learners in a particular area.

Top Professional Certificate(s):

The Professional Certificate or Certificates with the highest total enrollments within a specific country or region, which is based on the overall number of learners enrolling in the certificate program. This helps identify the most sought-after Professional Certificate(s) among learners in a particular area.

- Top target roles: Roles and career trajectories that are gaining popularity among learners in a specific country or region, as indicated by enrollment patterns in courses and learning programs related to those roles. These insights can help institutions, businesses, and governments align their offerings with the evolving interests and aspirations of learners.
- Upskilling: The process of acquiring new skills or enhancing existing skills to improve job performance, adapt to changing job requirements, or prepare for new roles. Upskilling is increasingly important in today's rapidly evolving digital economy.

Methodology

Overview

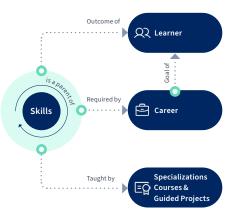
Coursera's *Global Skills Report* assesses the skill proficiency of learners, measures which skills are trending globally, and identifies roles that engage highly with skills critical for the future of work. This year's report focuses on the 109 countries with the most learners on the Coursera platform, accounting for over 95% of learners.

The report's methodology incorporates data from several components:

- 1. The Coursera Skills Graph
- 2. Skill proficiency scores and benchmarking by country
- Third-party metrics included in our skills index New
- 4. Over-indexing trends

The Coursera Skills Graph

The Coursera Skills Graph maps the connections among skills, content, careers, and learners on the Coursera platform.



Assessed by

- Quiz Assessment
- Programming assignment

For the *Global Skills Report*, we leverage the following parts of the Skills Graph:

Skill to skill

Describes the connections among skills and generates a skills taxonomy where broad, higher-level skills are parents of more granular, lower-level skills.

Skill to content

Maps skills to the Coursera content that teaches them.

Skill to assessment

Maps skills to the graded items that assess them. Graded items on Coursera include multiple-choice quizzes, peer review assignments, and programming assignments.

Skill to occupation

Connects the Lightcast Occupation Taxonomy to relevant Coursera skills needed in the roles.

Skill to learner

Connects skills to learners who have demonstrated them by passing relevant graded items, measured using a variant of the Glicko algorithm.

The full set of skills and competencies for which we measure learner proficiency, grouped by domain (business, technology, and data science), are listed in the table provided on the next page.

Set of skill levels related to the *Global Skills Report*

Business Skills in this domain include a range of soft skills for every context, along with those that are required for the management and operation of an organization.	Technology Skills in this domain focus on the creation, maintenance, and scaling of computer systems and software.	Data science Skills in this domain focus on capturing and utilizing the data generated within a business for decision-making and/or powering underlying products and services.
 Accounting focuses on proper record keeping and communication of financial information for corporations in accordance with government regulations. Sample skills: auditing, financial accounting 	Cloud Computing involves delivering computing resources—namely hardware, software, or software development platforms—via the internet. Sample skills: software as a service (SaaS), Kubernetes	Data Management comprises everything related to managing and accessing data for reporting, analysis, and model building. Sample skills: cloud APIs, Hadoop
 Business Analysis is the discipline of recognizing business needs and developing solutions to business problems. Sample skills: business intelligence, spreadsheet software 	Computer Architecture is the set of rules and methods that specify the structure, organization, and implementation of computer systems. Sample skills: network architecture, distributed computing architecture	Data Visualization involves the creation and study of visual representations of data to communicate information clearly and efficiently. Sample skills: Tableau, plotting data
 Business Psychology applies the science of human psychology to practical business applications in order to train and motivate employees and teams to work more effectively. Sample skills: marketing psychology, organization development 	Computer Graphics is the creation and manipulation of visual data through the use of computational tools and techniques. Sample skills: graphic design, interactive design	Machine Learning creates algorithms and statistical models that computer systems can use to perform a specific task without explicit instructions. Sample skills: multitask learning, deep learning
 Communication is the practice of discussion between two or more individuals in written or oral forms. Sample skills: people skills, writing 	Computer Networking is the process of creating a digital telecommunications network where connected devices exchange data with each other. Sample skills: cloud computing, Internet of Things	Math is the study of numbers and their relationships, applying these principles to models of real phenomena. Sample skills: calculus, linear algebra

01	02	03	04
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_	Business (cont.)	Technology (cont.)	Data science (cont.)
5.	Data Analysis is the process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making. Sample skills: exploratory data analysis, spatial data analysis	Computer Programming is the process that professionals use to write code that instructs how a computer, application, or software program performs. Sample skills: JavaScript, Java	Statistical Programming is the set of programming languages and tools used to create statistical models and algorithms. Sample skills: R, Python
6.	Entrepreneurship is the process of designing, launching, and running a new business.	Databases are an organized collection of data, generally stored and accessed electronically from a computer system.	Statistics deals with all aspects of data collection, organization, analysis, interpretation, and presentation.
	Sample skills: adaptability, innovation	Sample skills: relational database, key value database	Sample skills: regression, A/B testing
7.	Finance is focused on the efficient allocation of capital toward investment opportunities under conditions of risk or uncertainty.	Design & Product is about how to create software products that effectively solve user problems or otherwise provide them value.	N/A
	Sample skills: financial ratios, blockchain	Sample skills: product management, user research	
8.	Human Resources refers to the corporate function of overseeing the various aspects of employment, such as onboarding/ offboarding, labor law compliance, employee benefits, and talent acquisition. Sample skills: benefits, employee relations	DevOps is focused on building software delivery pipelines, deploying and monitoring services, and designing accelerated feedback loops to improve development speed. Sample skills: continuous integration, storage security	N/A
9.	Management is about how to set a company's strategy and coordinate the efforts of employees.	Human Computer Interaction studies the design and use of interfaces between people and computing environments.	N/A
	Sample skills: people management, business analytics	Sample skills: user experience, interactive design	
10	Marketing is the process of creating relationships with potential and actual customers, allowing businesses to identify how they should present themselves and who they should cater to.	Mobile Development is the process of developing software applications for mobile devices such as mobile phones or tablets. Sample skills: Android development, iOS development	N/A
	Sample skills: digital marketing, product placement	כאוויני אווני. אווערטע עפיפוטאוויפות, ווסס עפיפוטאוויפות	

Business (cont.)	Technology (cont.)	Data science (cont.)
 Research & Design is about problem framing and solution modeling to inform business strategy. 	Operating Systems consists of building system software that provides common services for other types of computer programs.	N/A
Sample skills: innovation, market research	Sample skills: mobile app development, C programming language	
 Sales is focused on taking a company's products and services to market and transacting with actual customers. Sample skills: cross-selling, lead generation 	Security Engineering is a specialized field that focuses on the security aspects in the design of systems that need to be able to deal robustly with possible sources of disruption. Sample skills: cybersecurity, cryptography	N/A
 Strategy & Operations consists of the planning and strategic work organizations undertake to grow and prosper. Sample skills: operations management, strategy 	Software Engineering involves applying rigorous principles to the design, development, maintenance, testing, and evaluation of computer software. Sample skills: software architecture, software development	N/A
14. Supply Chain & Logistics is about the systems involved in the efficient flow of goods and services from suppliers to consumers.Sample skills: supply chain systems, planning	Theoretical Computer Science focuses on mathematical aspects of computer science and the theory behind algorithms, data structures, computational complexity, and related topics. Sample skills: algorithms, cryptography	N/A
15. N/A	Web Development is the work involved in developing websites. It can range from developing a simple static page to complex web applications such as e-commerce sites. Sample skills: Angular, HTML and CSS	N/A

Relationships between skills and content

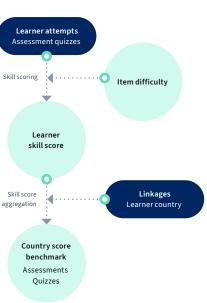
The skills in the Coursera Skills Taxonomy are mapped to the content that teaches them using a machine learning model trained on a dataset of instructor and learner-labeled skill-to-content mappings. The model considers features like occurrence counts in lecture transcripts, assignments, and course descriptions, as well as learner feedback.

With over 10,000 content offerings across business, technology, and data science from leading university and industry partners worldwide, our catalog spans the wide variety of skills relevant to the competencies in this report.

For each skill-content pair, this machine learning system outputs a score that captures the likelihood of the skill being taught in the content. To define the set of skill-to-content tags that power this report, we tune a cutoff threshold based on expert feedback from our content strategy team.

Coursera skill benchmarking

To benchmark skill proficiency at the country level, we first measure each learner's proficiency in each skill. Then, we aggregate those proficiencies to compute statistics like the country skill proficiency in a particular skill.



Individual skill scores

Using the set of assessments for each competency, we train machine learning models to simultaneously estimate learners' skill proficiencies and assessment difficulties. This methodology allows us to measure learner skill proficiencies while adjusting for item difficulty, ensuring fair comparisons across the wide range of content on the platform. The full details of our methodology for individual skill scoring are detailed in a public technical paper.⁹¹

Country and state skill scores

With skill scores computed at the individual level and using connections between users, states, and countries, we calculate country and state proficiency levels for each skill by averaging the individual skill scores.

For country aggregate scores in each domain, we average the country scores for the competencies within those domains, including only countries with at least 250 learners in at least three competencies per domain. We compare countries via percentile ranking of the aggregate scores. To get a country's overall Coursera skill proficiency, we rank the average of its business, technology, and data science percentiles. State-level scores are computed similarly and compared only to other states within the same country. The same 250-learner minimum applies to states.

Third-party data

In conjunction with the average Coursera skill proficiency of each country, we incorporate other country-level indicators from the World Bank and the World Intellectual Property Organization (WIPO) to create a skills index for the country rankings. This allows us to corroborate our on-platform scores with external metrics and captures a more holistic view of learner skill application in the economy.

We incorporate the following metrics from the World Bank:

- GDP per capita⁹²
- Human Capital Index⁹³
- Labor force participation rate⁹⁴

We incorporate the following metrics from the World Intellectual Property Organization (WIPO):

Global Innovation Index (GII)⁹⁵

We use the most recent year of data for each country, up to the oldest accepted year (2018). Missing metrics or data older than 2018 are imputed with the metric average. Metrics not already on a scale from 0 to 1 are normalized by ranking across all countries to create metric percentiles.

The third-party skills index for each country is calculated using the following formula:

$$\frac{0.5}{4} \text{ (GII percentile)} + \frac{0.5}{4} \text{ (LFP percentile)} + \frac{0.5}{4} \text{ (GDP percentile)} + \frac{0.5}{4} \text{ (human capital index)}$$

The maximum possible value for the index is 0.5 if a country is ranked number 1 in all selected metrics.

Combined skill index

Country skill ranking formula

- 50% Country's aggregated skills measurement on Coursera
 - Learners' on-platform skill
 proficiency scores
- 50% Country's aggregated skills measurement index using third party metrics
 - Global Innovation Index (GII)⁹⁶—skill application to innovation
 - Labor force participation⁹⁷ skill matching in labor market
 - Human capital index (HCI)⁹⁸ and GDP per capita⁹⁹ output metrics of skill application in economy

A country's on-platform skill percentile and third-party index are weighted equally to calculate the final country rankings overall and by domain. The percentile rankings are divided into four quartiles:

- Cutting-Edge (Rankings 1–28)
- Competitive (Rankings 29–55)
- Emerging (Rankings 56–82)
- Lagging (Rankings 83–109)

Coursera's over 148 million registered learners span the globe and myriad industries, but note that the *Global Skills Report* estimate may not reflect the average skill proficiency of all members within an entity because Coursera learners are not necessarily representative of a country, even with some normalization from the selected third-party metrics.

Over-indexing or "top" skills

To determine which skills learners are most interested in within a particular country or job group, we look for skills that over-index in the data by the number of enrollments. While trending skills reveal what is generally popular, over-indexing skills reveal what is disproportionately popular within a particular group.

The methodology works as follows:

- Compute the share of enrollments in courses teaching {skill S} overall (say 20%)
- Compute the share of enrollments in courses teaching {skill S} from learners within group G (say 30%)
- Compute the "skill-quotient" of {skill S} for group G as (30% / 20% = 1.5)

The notion of whether a course teaches a skill is derived from the Coursera Skills Graph, described earlier in this appendix. The same methodology is applied to calculate overindexed roles by substituting {skill S} with {competency C} or {role R}. {Role R} consists of the set of skills required for a role, as defined by our skill-to-occupation mappings.

State skill ranking: India

(i) Rankings include states with a minimum of 250 learners.

Rank	Region	Business	Technology	Data science
1	State of Punjab	100%	100%	95%
2	Chandigarh	95%	90%	100%
3	West Bengal	75%	95%	85%
4	Haryana	90%	55%	80%
5	State of Himachal Pradesh	60%	60%	90%
6	State of Jharkhand	80%	50%	70%
7	State of Assam	85%	85%	30%
8	Maharashtra	70%	75%	50%
9	Karnataka	50%	80%	65%
10	Tamil Nadu	65%	65%	45%
11	National Capital Territory of Delhi	55%	20%	75%
12	Gujarat	45%	25%	60%
13	Uttar Pradesh	25%	30%	55%
14	Andhra Pradesh	15%	70%	25%
15	Rajasthan	20%	45%	40%
16	Bihar	30%	35%	35%
17	State of Chhattisgarh	40%	40%	10%
18	Kerala	35%	10%	15%
19	Odisha	10%	15%	5%
20	Madhya Pradesh	5%	5%	20%

State skill ranking: United States

() Rankings include states with a minimum of

250 learners.

Rank	Region	Business	Technology	Data science
1	Washington	93%	100%	100%
2	Colorado	89%	93%	98%
3	Michigan	96%	91%	85%
4	Illinois	100%	80%	91%
5	California	78%	96%	96%
6	New Jersey	85%	87%	89%
7	Montana	91%	89%	76%
8	Minnesota	65%	98%	80%
9	Massachusetts	74%	76%	93%
10	District of Columbia	87%	74%	83%
11	Oregon	70%	85%	87%
12	Wisconsin	98%	65%	67%
13	lowa	80%	72%	70%
14	New Hampshire	72%	70%	63%
15	Pennsylvania	67%	59%	74%
16	New York	61%	78%	59%
17	Maine	76%	63%	46%
18	Hawaii	83%	57%	30%
19	Virginia	11%	83%	72%
20	Delaware	43%	61%	61%
21	Rhode Island	54%	67%	41%
22	North Carolina	48%	43%	52%
23	Idaho	59%	30%	54%

United States cont.

(i) Rankings include states with a minimum of 250 learners.

Rank	Region	Business	Technology	Data science
24	Maryland	26%	37%	78%
25	Texas	46%	50%	43%
26	Indiana	63%	22%	48%
27	Arizona	41%	48%	39%
28	West Virginia	57%	35%	37%
29	Utah	15%	54%	57%
30	New Mexico	33%	28%	65%
31	Missouri	52%	39%	35%
32	Florida	50%	52%	24%
33	Georgia	37%	41%	20%
34	Connecticut	39%	7%	50%
35	Ohio	30%	26%	33%
36	Nebraska	22%	46%	17%
37	Tennessee	35%	15%	26%
38	Kentucky	28%	24%	22%
39	Kansas	13%	33%	28%
40	South Carolina	24%	17%	13%
41	Louisiana	17%	11%	7%
42	Alabama	20%	9%	4%
43	Arkansas	9%	20%	2%
44	Nevada	7%	4%	15%
45	Mississippi	2%	13%	9%
46	Oklahoma	4%	2%	11%

Examples of large-scale AI initiatives

Region	Country	Initiative
Asia Pacific	India	Digital Personal Data Protection (DPDP) Act ¹⁰⁰
Asia Pacific	Thailand	AI Thailand ¹⁰¹
Asia Pacific	Singapore	AI Verify ¹⁰²
Europe	European Union	AI Act ¹⁰³
Latin America and the Caribbean	Chile	Política Nacional De Inteligencia Artificial ¹⁰⁴
Latin America and the Caribbean	Colombia	Política Nacional Para La Transformación Digital e Inteligencia Artificial ¹⁰⁵
Middle East and North Africa	Saudi Arabia	Saudi Data & AI Authority ¹⁰⁶
Middle East and North Africa	UAE	UAE National Strategy for Artificial Intelligence 2031 ¹⁰⁷
North America	Canada	Pan-Canadian Artificial Intelligence Strategy ¹⁰⁸
North America	United States	Federal: Blueprint for an AI Bill of Rights ¹⁰⁹
		Connecticut: SSB No. 1103 - Public Act No. 23-16 ¹¹⁰
		Louisiana: SCR 49 ¹¹¹
		Maryland: HB0622 ¹¹²
		North Dakota: HB1361 ¹¹³
		Texas: Artificial Intelligence Advisory Council ¹¹⁴
Sub-Saharan Africa	N/A	African Union Development Agency's AI Blueprint ¹¹⁵

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The capabilities of GenAI are groundbreaking and game-changing.

Dr. Jules White Director of the Initiative on the Future of

Learning & GenAl, Vanderbilt University

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It's About Making Better Decisions, Not Replacing People: Generative AI Insights from Dr. Jules White of Vanderbilt University

Endnotes

- 1. <u>The Potentially Large Effects of</u> <u>Artificial Intelligence on Economic</u> <u>Growth</u> (Goldman Sachs, 2023)
- 2. <u>The economic potential of generative AI: The</u> next productivity frontier (McKinsey, 2023)
- 3. <u>Global Innovation Index (GII)</u> (WIPO, 2018–2023)
- 4. <u>Labor force participation rate</u> (World Bank, 2018–2023)
- 5. <u>Human Capital Index (HCI)</u> (World Bank, 2018–2023)
- 6. GDP per capita (World Bank, 2018–2023)
- 7. KPMG 2023 U.S. CEO Outlook (KPMG, 2023)
- India announces \$1.2 bln investment in AI projects (Reuters, 2024)
- 9. Expanding AI education in Malaysia's public universities (OpenGov, 2023)
- 10. Thailand national AI strategy and action plan (AI Thailand, 2022)

- 11. <u>Closing the digital skill divide</u> (National Skills Coalition, 2023)
- 12. <u>The Digital Economy and Society Index</u> (DESI) (European Commission, 2022)
- 13. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- 14. ISC2 Cybersecurity Workforce Study (ISC2, 2023)
- 15. <u>Global Cybersecurity Outlook 2024</u> (World Economic Forum, 2024)
- 16. IBM X-Force Threat Intelligence Index 2024 (IBM, 2024)
- 17. <u>Arab League forms cybersecurity</u> ministerial council to combat growing threats (Forbes Middle East, 2023)
- 18. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- 19. <u>Occupational Outlook Handbook</u> (U.S. Bureau of Labor Statistics, 2024)

- 20. <u>The right to higher education in Europe</u> <u>and North America: briefing note</u> <u>compendium</u> (UNESCO International Institute for Higher Education in Latin America and the Caribbean, 2023)
- 21. Digital skills in 2023: impact of education and age (European Union, 2024)
- 22. NiñaSTEM (OECD, 2023)
- 23. Saudi Arabian Students' Beliefs about and Barriers to Online Education during the COVID-19 Pandemic (National Library of Medicine, 2022)
- 24. <u>Preparing girls for the future of Africa:</u> <u>Approaches to empowerment through</u> digital skills (World Bank, 2023)
- 25. Botswana makes strides in bridging the digital divide (UNICEF, 2022)
- 26. <u>Philippine Commission on Women Education</u> <u>Initiatives</u> (Republic of the Philippines, 2022)

- 27. <u>Bigger Bandwidth: Girls in ICT make</u> way for digital equity in Thailand (UN Sustainable Development Group, 2021)
- 28. India Social Development Report 2023 (Oxford Academic, 2023)
- 29. <u>Global Innovation Index (GII)</u> (WIPO, 2018–2023)
- 30. Labor force participation rate (World Bank, 2018–20233
- 31. Human Capital Index (HCI) (World Bank, 2018–2023)
- 32. GDP per capita (World Bank, 2018–2023)
- 33. <u>How Asia-Pacific CEOs can grow in</u> <u>the AI era amid economic challenges</u> (EY CEO Outlook Survey, 2023)
- 34. Unlocking APAC's digital potential: Changing digital skill needs and policy approaches (AWS, 2021)

- 35. India announces \$1.2 bln investment in Al projects (Reuters, 2024)
- 36. How can India prepare its youth for the future of work? Here's what's needed now (World Economic Forum, 2022)
- 37. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- Expanding AI education in Malaysia's public universities (OpenGov, 2023)
- 39. <u>Bridging the skills gap: Fuelling</u> careers and the economy in Malaysia (Economist Impact, 2023)
- 40. <u>Singapore education and training</u> services industry snapshot (U.S. Department of Commerce, 2023)
- 41. <u>6 lessons from Singapore on upskilling for</u> the future (World Economic Forum, 2023)
- 42. <u>Thailand National AI Strategy and</u> Action Plan (AI Thailand, 2022)
- 43. AI Act (European Commission, 2024)
- 44. <u>2023 report on the state of the Digital</u> Decade (European Commission, 2023)
- 45. <u>Shaping Europe's digital future: Digital skills</u> and jobs (European Commission, 2023)

- 46. <u>Towards 2023: the European year</u> of skills (Publications Office of the European Union, 2022)
- 47. <u>Cisco Al Readiness Index -</u> France (Cisco, 2023)
- 48. <u>Germany's shortage of workers is biggest</u> risk to growth, minister says (Reuters, 2024)
- 49. Advancing higher education with industry micro-credentials (Coursera, 2022)
- 50. Cisco Al Readiness Index Spain (Cisco, 2023)
- 51. <u>Unlocking Spain's digital</u> potential (AWS, 2021)
- 52. How reskilling can play a key role in Turkey's recovery (World Economic Forum, 2021)
- 53. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- 54. IT skills gap report 2023 (Forbes Advisor, 2023)
- 55. Inteligencia Artificial, innovación y datos, las apuestas para volver a Colombia una PotencIA Digital (Gobierno de Colombia, 2024)
- 56. <u>Making the most of technology for learning</u> and training in Latin America (OECD, 2020)

- 57. Skills in Latin America (OECD, 2023)
- 58. Brazil's future workforce trends (CSIS, 2018)
- 59. <u>Chile country commercial guide</u> (U.S. Department of Commerce, 2023)
- 60. Inteligencia Artificial, innovación y datos, las apuestas para volver a Colombia una PotencIA Digital (Gobierno de Colombia, 2024)
- 61. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- 62. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- 63. <u>Política Nacional de Transformación</u> <u>Digital</u> (Gobierno de Perú, 2023)
- 64. <u>See how the Middle East is people-</u> powering the digital revolution (World Economic Forum, 2023)
- 65. <u>Majority of UAE workers see AI as key to</u> <u>future jobs</u> (Fast Company Middle East, 2023)
- 66. <u>A study to identify the potential skill gaps in</u> <u>the Saudi labor market requirements</u> (Prince Mohammad Bin Fahd University, 2023)
- 67. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)

- Saudi Arabia sees surge in demand for cybersecurity experts amid global threat (Al Arabiya News, 2024)
- A study to identify the potential skill gaps in the Saudi labor market requirements (Prince Mohammad Bin Fahd University, 2023)
- 70. <u>The Future of Jobs Report</u> (World Economic Forum, 2023)
- 71. <u>Majority of UAE workers see AI as key to</u> <u>future jobs</u> (Fast Company Middle East, 2023)
- 72. <u>Closing the Digital Skill Divide</u> (National Skills Coalition, 2023)
- 73. Joint statement on the launch of the North American Semiconductor Conference and North American Ministerial Committee on Economic Competitiveness (The White House, 2023)
- 74. University of Texas System and Coursera Launch the Most Comprehensive Industry Micro-Credential Program Offered by a U.S. University System (Coursera, 2023)
- 75. <u>Nevada DETR and Coursera announce</u> <u>statewide program providing</u> <u>free job training to thousands</u> of people (Coursera, 2023)

- 76. <u>Government of Canada creating</u> more skills training opportunities for <u>Canadians</u> (Employment and Social Development Canada, 2023)
- 77. <u>Ontario Invests in New and</u> <u>Expanded Rapid Training Programs</u> (Government of Ontario, 2021)
- 78. <u>Closing the Digital Skill Divide</u> (National Skills Coalition, 2023)
- 79. Improving workforce development and STEM education to preserve America's innovation edge (The Brookings Institution, 2023)
- 80. <u>Labor force, female (% of total</u> <u>labor force) - Sub-Saharan Africa</u> (The World Bank Data 2023)
- 81. <u>Digital Skills in Sub-Saharan Africa:</u> <u>Spotlight on Ghana</u> (International Finance Corporation, 2019)
- 82. <u>Share of web traffic in Africa as of July</u> 2023, by device (Statista, 2023)
- 83. <u>Preparing young Africans for jobs of the</u> <u>future</u> (Africa Renewal Magazine, 2022)
- 84. <u>Challenges and opportunities for a systems</u> <u>approach to skills development in Botswana</u> (International Youth Foundation, 2023)

- 85. <u>Botswana makes strides in bridging</u> the digital divide (UNICEF, 2022)
- 86. <u>Challenges and opportunities for a systems</u> <u>approach to skills development in Botswana</u> (International Youth Foundation, 2023)
- 87. Why do so many Nigerian workers remain poor? Labor force surveys may have the answer (World Bank, 2024)
- FG inaugurates committee to tackle increasing youth unemployment In Nigeria (Nigeria National Bureau of Statistics, 2022)
- 89. <u>Skills demand and supply in South</u> <u>Africa's digital economy</u> (International Labour Organization, 2022)
- 90. <u>Mapping of digital and ICT roles and</u> <u>demand in South Africa</u> (Harambee Youth Employment Accelerator, 2020)
- 91. Using a Glicko-based Algorithm to Measure In-Course Learning (Educational Data Mining Conference Proceedings, 2019)
- 92. GDP per capita (World Bank, 2018–2023)
- 93. Human Capital Index (HCI) (World Bank, 2018–2023)

- 94. <u>Labor force participation rate</u> (World Bank, 2018–2023)
- 95. <u>Global Innovation Index (GII)</u> (WIPO, 2018–2023)
- 96. Global Innovation Index (GII) (2018–2023)
- 97. <u>Labor force participation rate</u> (World Bank, 2018–2023)
- 98. <u>Human Capital Index (HCI)</u> (World Bank, 2018–2023)
- 99. GDP per capita (World Bank, 2018–2023)
- 100. <u>Understanding India's New Data</u> Protection Law (Carnegie India, 2023)
- 101. <u>Thailand national AI strategy and</u> action plan (AI Thailand, 2022)
- 102. <u>Singapore's Approach to Al Governance</u> (Personal Data Protection Commission, Government of Singapore, 2023)
- 103. AI Act (European Commission, 2024)
- 104. Política Nacional de Inteligencia Artificial (Ministerio de Ciencia Tecnología Conocimiento e Innovación, Gobierno de Chile, 2021)

- 105. <u>Política Nacional Para La Transformación</u> <u>Digital e Inteligencia Artificial</u> (Consejo Nacional de Política Económica y Social, Gobierno de Colombia, 2019)
- 106. <u>Saudi Data & Al Authority</u> (Government of Saudi Arabia, 2019)
- 107. UAE National Strategy for Artificial Intelligence 2031 (Government of UAE, 2023)
- 108. <u>Pan-Canadian Artificial Intelligence</u> <u>Strategy</u> (Innovation, Science and Economic Development Canada, 2022)
- 109. <u>Blueprint for an AI Bill of Rights</u> (White House Office of Science and Technology Policy, 2022)
- 110. <u>SSB No. 1103 Public Act No. 23-16</u> (Connecticut State Legislature, 2023)
- 111. SCR49 (Louisiana State Legislature, 2023)
- 112. HB0622 (Maryland State Legislature, 2023)
- 113. <u>HB1361</u> (North Dakota State Legislature, 2023)
- 114. <u>HB 2060</u> (88R) (Texas State Legislature, 2024)
- 115. <u>Africa's push to regulate AI starts now</u> (MIT Technology Review, 2024)

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