



# Digital Jobs and Digital Skills A shifting landscape in Asia and the Pacific

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# Methodology

## LinkedIn Economic Graph

- LinkedIn Economic Graph consists of 850m members\*, 59m companies, 39,000 skills, 120,000 schools and millions of open jobs.
- ADB-LinkedIn skills taxonomy with three categories of digital skills: basic digital skills, intermediate digital skills and advanced digital skills.
- Analysis covered India, Indonesia, Malaysia, Philippines, with Australia and Singapore as APAC developed economy comparators, and the US, as an international developed economy comparator.
- Analysis covered data until February 2021.

## ADB Survey on Digital Credentials

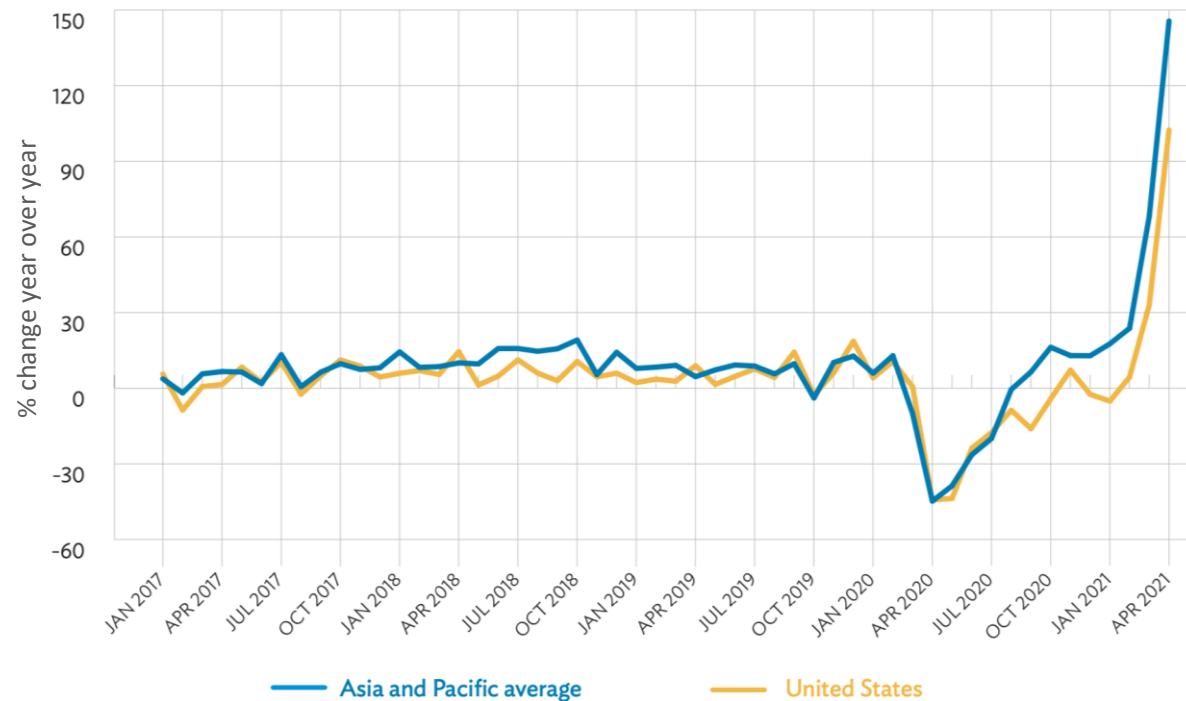
- ADB commissioned a survey of digital credentials on the provider and user side – the offering of digital credentials by online education providers and the uptake, demand and perception of digital credentials by employers
- The three sectors of e-learning, smart cities and green economy covered
- Analysis includes Bangladesh, India, Indonesia, the Philippines in Asia and the US as an advanced country comparator
- In addition to quantitative surveys, a few qualitative surveys informed the study





# Digital hiring has been highly resilient under the pandemic

Change in the Digital Hiring Rate in Asia and the Pacific versus the United States



The pandemic caused digital hiring to decrease sharply in the first 6 months of 2020, but quickly rebounded and surpassed pre-pandemic levels.

Source: LinkedIn Economic Graph





# Digital jobs more in demand in developing economies

Top jobs in demand by number of hires, September 2020 – February 2021

Australia	Indonesia	India	Malaysia	Philippines	Singapore	US
Project manager	Graphic designer	Software engineer	Software engineer	Customer service rep	Software engineer	Software engineer
Software engineer	Marketing specialist	Sales manager	Admin assistant	Software engineer	Project manager	Real estate agent
Business development manager	Software engineer	System engineer	Project engineer	Financial advisor	Business development manager	Project manager
Business analyst	Lecturer	Business development manager	Project manager	Graphic designer	Marketing executive	Salesperson
Account manager	Sales specialist	HR executive	Marketing executive	Social media manager	Account manager	Account manager

Technical digital jobs are more in demand in developing Asia, while there is a greater need for business and management roles in developed economies.

Source: LinkedIn Economic Graph



# Coding and programming skills emerging as needs across all jobs

Digital skills most in demand by country, September 2020 – February 2021

Rank	Australia	Indonesia	India	Malaysia	Philippines	Singapore	United States
1	Microsoft Office	Adobe Photoshop	SQL	Adobe Photoshop	JavaScript	JavaScript	Microsoft Office
2	JavaScript	Adobe Illustrator	JavaScript	Adobe Illustrator	SQL	Java	JavaScript
3	SQL	Microsoft Office	Java	JavaScript	HTML	SQL	SQL
4	Java	JavaScript	HTML	SQL	Java	Python programming language	Java
5	C#	Logo Design	C programming language	Microsoft Office	Cascading Style Sheets	C#	Python programming language
6	Agile methodologies	PHP	MySQL	Java	MySQL	HTML	Social media
7	Python programming language	MySQL	Cascading Style Sheets	HTML	Adobe Photoshop	C++	Agile methodologies
8	Git	Java	C++	MySQL	C#	MySQL	C#
9	Requirements analysis	HTML	Python programming language	C#	Microsoft Office	Cascading Style Sheets	Git
10	Amazon Web Services	SQL	jQuery	Cascading Style Sheets	Adobe Illustrator	Git	C++

SQL and Java indicate broad applicability and relevance across occupational areas, as fundamental coding and programming required for data analysis and building software and hardware tools

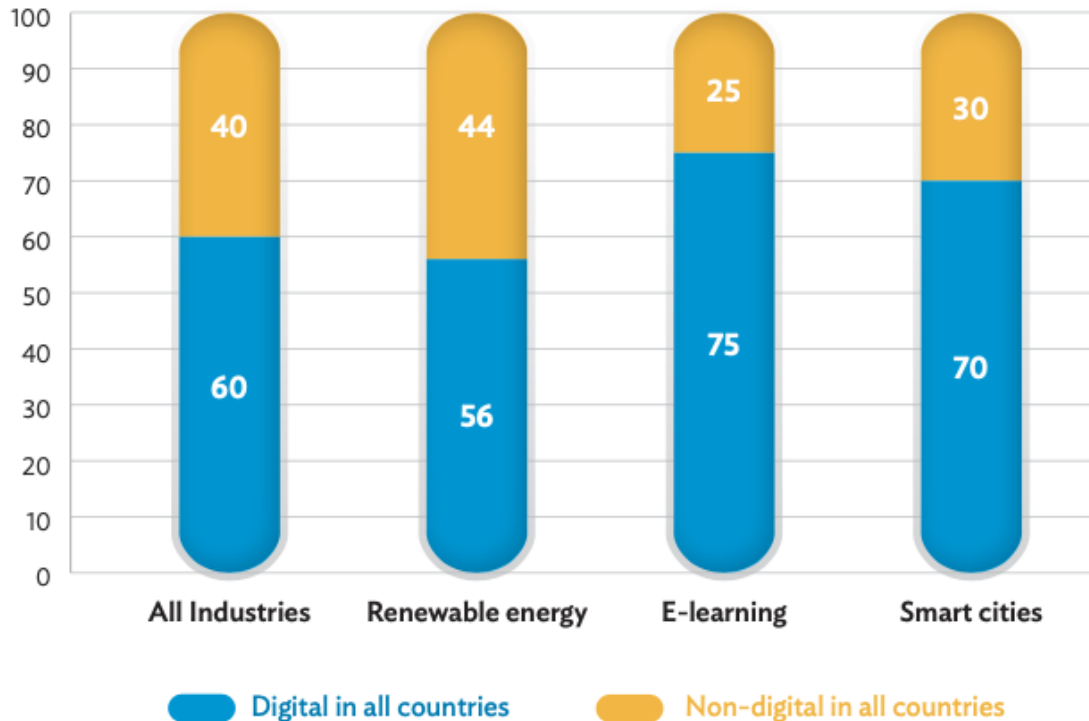
Source: LinkedIn Economic Graph





# Smart cities and e-learning need digital skills more than renewable energy sector

Proportion of digital talent, by industry



Smart cities and e-learning are newer industries, driven by digital technology and require a more digitally-capable workforce.

Source: LinkedIn Economic Graph



# Growing role and recognition of digital credentials for digital skills

## Employers or demand-side stakeholders

Current demand for digital skills

Challenges related to skill shortages or talent mismatch

Workforce development initiatives

Recruitment trend and practices

Confidence in digital credentials vis-a-vis traditional credentials

## Training providers or supply-side stakeholders

Current offerings of digital skills training programs and digital credentials

Recognition of digital credentials in the job market

Level of collaboration with relevant stakeholders including industry and academic institutions

## Both sets of stakeholders

Impact of COVID-19

Roles played by specific government policies and guidelines

Equity and inclusiveness in digital skilling and credentialing ecosystem



# Key Insights on Digital Credentials

## Rising importance of digital credentials

- 89% surveyed agree that digital credentials will be critical to higher education in future
- Digital credentials accompany more than third of job applications
- High uptake of digital credentials in India and Indonesia (20% more job applications than the US have digital credentials)

## Uptake of digital credentials in industries

- Good uptake of digital credentials at entry level in the three sectors:
  - 71% online employers
  - 60% smart cities
  - 55% green economy
- Millennials and GenZ dominate the workforce in the three sectors

## Digital co exists with traditional degrees

- 77% believe that digital credentials will co-exist with traditional qualifications in the short run
- Digital credentials are more in use for junior and entry level positions

## Types of digital credentials

- Digital certificates (59%)
- Digital license (47%)
- Badges (27%)
- Micromasters (22%)
- Nano degrees (17%)





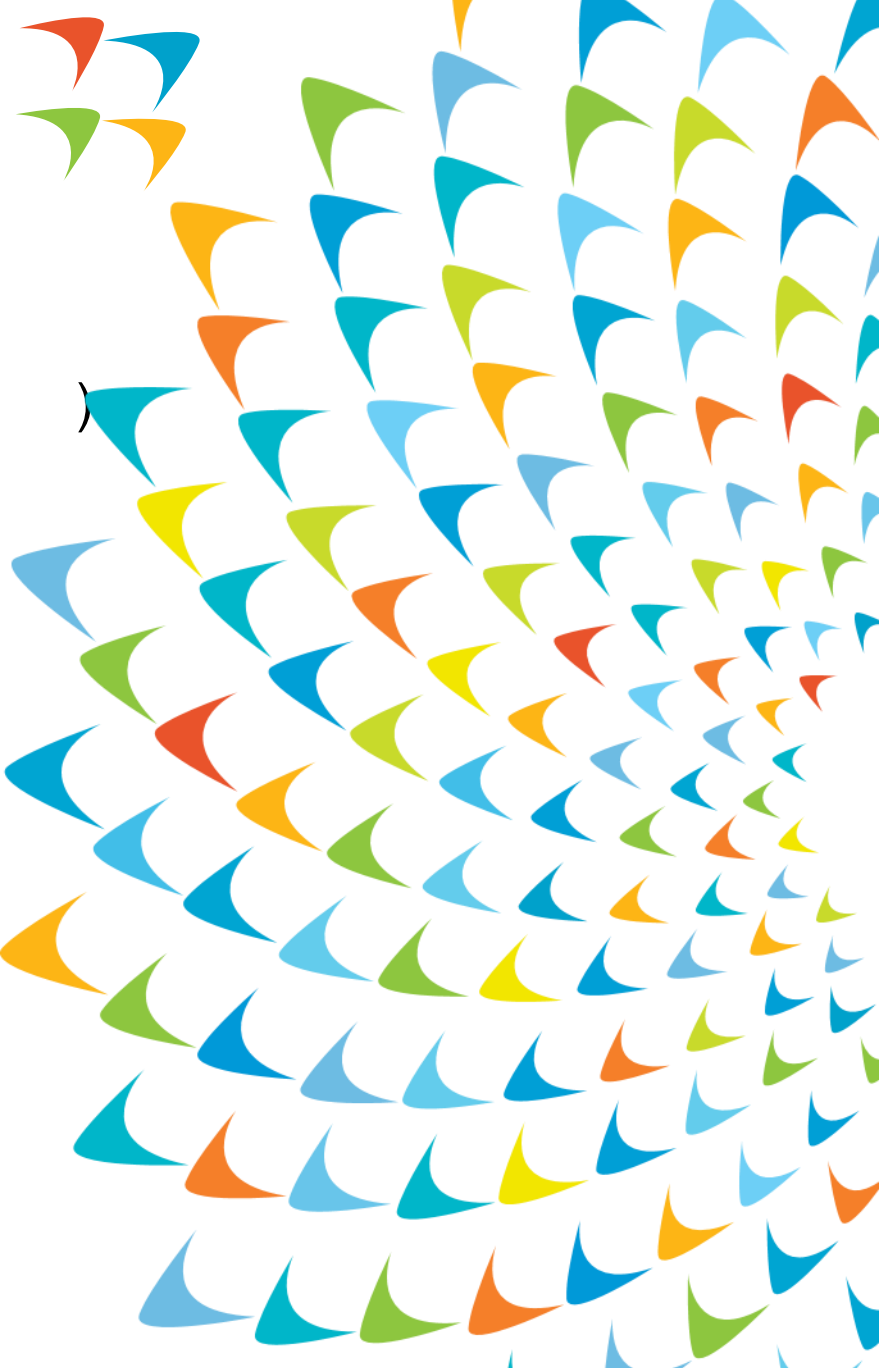
## Lags and gaps for women

- In Asia, female enrollment in digital skill courses only half of male enrollment;
- 60% of surveyed employers reported that fewer than 30% of applications submitted by female candidates offer digital credentials.
- Males dominate the smart city and renewable energy industries, but e-learning has better gender balance
- Share of women in the workforce with advanced disruptive tech skills is less than 30%
- Women and young people have a predominant share of the employee base in the e-learning sector. This is particularly true of female workforce in e-learning in India.



# Key recommendations of the study

- Investing in digital skills is key to leverage jobs, growth and inclusion (size of digital economies, e-commerce markets)
- Expanding the workforce capabilities for advanced digital skills to leverage frontier, disruptive technologies
- Developing an eco-system approach to digital skills development – basic, intermediate and advanced; including a system for establishing and recognizing credentials
- Facilitating vertical and horizontal stacking of digital credentials for in-depth and broad knowledge
- Scaling up on-the-job and workplace-based upskilling and reskilling on digital skills
- Ensuring equity and inclusion in digital skills development for women, youth with disadvantages, people with disability
- Increasing the proportion of women with advanced disruptive technology skills by facilitating access to such advanced digital skills training



**DISCUSSIONS  
AND Q&A**

**THANK YOU!**

