



ASEAN
AUSTRALIA
SMART CITIES
TRUST FUND
Asian Development Bank



Australian Government
Department of Foreign Affairs and Trade



DIGITAL SOLUTIONS:

DIGITIZED SOLUTIONS CONNECTING LABOR MARKET AND STUDENTS

DELIVERING TRANSFORMATIVE EDTECH SOLUTIONS
ACROSS THE EDUCATION SECTOR

OPPORTUNITY

Many fast-growing Southeast Asian economies are faced with expanding workforces and dominant labor markets transitioning from the agriculture sector to industry and services. Yet this growth is uneven as youth unemployment, gender inequality, rural/urban differentials, and skills shortages remain shared challenges. Given this reality, there is a need for the education sector to be more agile in supporting these new and growing demands from key economic sectors to ensure that in-demand skills are integrated into the curriculum of higher education and technical and vocational education (TVET) institutions in each city.

Digitized Education Technologies (EdTech) are delivering transformative solutions across the education sector and helping reduce inequality in education systems. In addition to providing access to relevant and quality instruction to students living in rural or remote areas, EdTech is also proving successful at filling critical gaps between labor market demands and graduating students. The latest generation of EdTech solutions is driven by the gradual transition from traditional classroom-based learning to digital learning approaches such as e-learning, AI-based career guidance and profiling platforms, and data-driven labor market information systems. The resilience of these online learning and career guidance platforms proved especially crucial during the 2020 COVID-19 pandemic, as civic and educational institutions were forced to close, limiting the conduct of on-site classes and services.

BENEFITS

- Improved teaching quality, targeted teaching material based on demands, and better access to learning material through online learning, especially in rural areas;
- Improved engagement between students and subject matter through technology and digital tools;
- Enable data collection to produce insights into the demand for specific skills and occupations;
- Large potential in scalability; and
- Customization for different countries.

PRECONDITIONS

- Identification of demand and gaps;
- Labor market regulations must support initiatives;
- Close engagement of implementing agencies and employers;
- Conduct of viability and sustainability analysis; and
- Establishment of baselines for literacy levels and internet access.



bit.ly/3I0KKUZ

KEY TAKEAWAYS ON EDTECH TO ADDRESS THE SKILLS GAP

*From the ASEAN Australia Smart Cities
Webinar Series Part 5: Digitized Solutions
Connecting Labor Market and Students*

- The ability and agility of the education sector to match labor market demand is even more important now, as the talent and skills landscape is changing rapidly.
- Some of the key challenges to effective implementation of EdTech continues to be 1) access to internet connection, 2) human resources (teacher skills), and 3) funding sources.
- Conventional methods of skills demand assessment are slow and expensive to conduct, with results being outdated quickly in today's current fast-paced work environment. AI and big data approaches can help rethink and innovate skills anticipation and planning.
- Cities and governments should focus on developing innovative funds to co-invest in digital transformation to drive innovation and smart EdTech solutions supporting the labor market in their cities/countries.

SCAN
CODE FOR
DIGITAL
VERSION



bit.ly/3otZCch

USE CASES



Photo attribution: Shutterstock/rawpixel.com



Photo attribution: Shutterstock.com/piyaset



bit.ly/39Y1R48

Using artificial intelligence for skills supply, demand, and training analysis

SINGAPORE/MYANMAR

AGENCIES INVOLVED

- [JobKred](#)
- [UNESCO](#)

One of the challenges that industries are currently facing is finding the right individual for a particular job. Career guidance and profiling platforms like JobKred are using big data and artificial intelligence-powered solutions to identify employer demands and needs.

JobKred's platform provides real-time and predictive guidance on the candidate's skills gaps in relation to the job market's skills demand. Their data is generated from four primary sources: including job boards, social media, resumes, government statistics, and is used to do intelligent skill-gap analysis to predict skills requirements. Their skills assessment analysis provides actionable data and can recommend online learning courses to build job-relevant skills.

Several Singapore universities such as Nanyang Technological University, National University of Singapore, and Singapore Management University; government agencies such as Workforce Singapore; and development institutions such as ADB, The World Bank, and UNESCO (particularly for the latter's TVET System Review in Myanmar) have successfully used JobKred's technologies in their respective labor market research initiatives.



bit.ly/3oBg0bD

Using ICT to promote TVET access and equity

PHILIPPINES

AGENCIES INVOLVED

- [Technical Education and Skill Development Authority \(TESDA\)](#)

Since 2012, the Philippines' Technical Education and Skill Development Authority (TESDA) has been running the TESDA Online Program (TOP), also known as e-TESDA. The program provides free access to technical training for a range of individuals, including out-of-school youth, unemployed adults, workers, professionals, and Filipino migrants, through information and communication technologies.

Programs such as e-TESDA provide an efficient way to deliver technical education and skills development services and enable students to learn at their own pace, place, and convenience. The program has expanded over time, with the TOP launching nine online courses consisting of 38 modules. It now covers as many as 34 online courses consisting of 99 modules.

Another TESDA program, the Training for Work Scholarship Program (TWSP), launched in 2006, serves as another program to increase access to Technical Vocational Education and Training (TVET) and address the critical skills shortages in identified priority sectors by giving scholarships to qualified applicants.

ABOUT THE ASEAN AUSTRALIA SMART CITIES TRUST FUND

The ASEAN Australia Smart Cities Trust Fund (AASCTF) assists ASEAN cities in enhancing their planning systems, service delivery, and financial management by developing and testing appropriate digital solutions and systems. Digital solutions address vital cross-cutting themes such as social inclusiveness, gender equity & women's empowerment, climate change & environmental sustainability, and public-private partnerships. By working with cities, AASCTF facilitates their transformation to become more livable, resilient, and inclusive, while in the process identifying scalable best practices to be replicated across cities in Asia and the Pacific.



[AASCTF](#)



bit.ly/30zLuo0



[@aasctf](#)



[@aasctf](#)