▶ Policy Brief

June 2022

Digital learning and training
Opportunities and challenges for trade union education[1]

Key points

▶ Digital tools and methods are significant for trade union education and training.

▶ As an additional option to complement traditional modes, digital learning can provide much-needed expansion of access for learners in general.

▶ Provided a country has the necessary infrastructure, digital learning can be invaluable in maintaining access to technical and vocational education during crises, such as the COVID-19 pandemic.

▶ The successful implementation of digital learning for trade union-led education and training also depends on the availability of equipment and support staff with the necessary digital skills.

▶ Where digital learning infrastructure is lacking, too abrupt of a shift to digital education could be counterproductive.

▶ For countries with individual learning accounts, union representatives may depend on them for learning support to the extent that the courses on offer meet the specific needs of trade union education.

▶ It is important to take account of the digital divide, whereby many demographic and socioeconomic factors determine success in accessing digital technologies.

▶ To ensure that the digital divide does not become a barrier, learners should be equipped with certain skills before embarking on digital learning.

▶ Introduction

The International Labour Organization's (ILO) Centenary Declaration for the Future of Work, adopted at the 108th Session of the International Labour Conference (in 2019), highlights the importance of the human-centred approach to cope with challenges in the future of work. This approach recommends investment in people through skills development and lifelong learning, which are essential elements for sustainable development and employability in the future of work.

The aims of digital learning and training are inexorably linked to the future of work moving towards a digital society. Generation Z seems savvier than older generations in the use of digital tools and the social media

networks. It is an imperative for trade unions to embrace the positive impacts of technological advancement while adopting new changes and digital transformation.

The COVID-19 pandemic has accelerated adoption of digital tools and methods to connect people and provide goods and services, particularly in the education and learning sector. The gig economy in the Asia–Pacific region has been growing fast, with an increase of the gig workforce.[2] Online meetings, trainings and forums have become a new normal for everyone in workers' organizations, businesses, institutions and academia.

Trade unions are known as an education house, delivering a high level of training and education for their leaders and members in the areas of leadership, gender, social protection, occupational safety and health, climate change, skills, lifelong learning, wages and labour standards, especially on freedom of association and the right to collective bargaining.

Despite the limitations, such as the lack of interaction among participants, digital (or online and platform-based) learning and education have many merits and great potential for reaching many workers at once who cannot join in-person sessions.
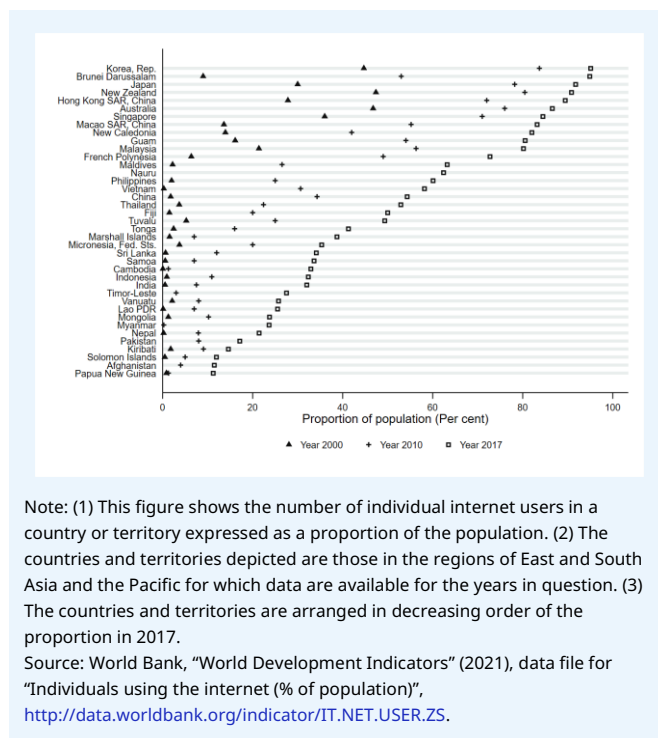
Traditionally, most of these workers' education and training has been undertaken in a face-to-face physical manner, with a high cost of travelling and accommodation. Adopting digital learning and education is a paradigm shift from the high-cost physical delivery mechanism directed at only for a few beneficiaries to a low-cost tech-based delivery mechanism for a massive unidentified audience. Because it is not possible to achieve this paradigm shift in a day, a mixed approach between virtual and face-to-face events should go hand in hand for a while.

The disruption caused by the COVID-19 pandemic has driven home the importance of including digital learning as a mode of delivery in education and training in general. This applies naturally to trade union education and training as well. Doing so would ensure that trade union leaders and the workers they represent have continued access to training and opportunities for skills development, should similar crises occur in the future.

▶ Adopting a digital approach to learning and training

One of the factors driving the increasing adoption of digital learning worldwide is the expanding use of the internet. The proportion of the population that reports internet usage has been increasing steadily. Although the extent of the increase varies from case to case, the increase in usage has been evident across all countries regardless of income level (figure 1).

▶ **Figure 1. Individuals using the internet in East and South Asia and the Pacific, 2000, 2010 and 2017**

Note: (1) This figure shows the number of individual internet users in a country or territory expressed as a proportion of the population. (2) The countries and territories depicted are those in the regions of East and South Asia and the Pacific for which data are available for the years in question. (3) The countries and territories are arranged in decreasing order of the proportion in 2017.
Source: World Bank, "World Development Indicators" (2021), data file for "Individuals using the internet (% of population)", http://data.worldbank.org/indicator/IT.NET.USER.ZS.

The rise in internet usage will continue, but the pace of increase will vary depending on such factors as the proportion of the population that still has no access to the internet. In cases where internet use is low, the extent to which different segments of the population have access and the quality of that access will vary. Such variations will affect the success of any efforts to expand the adoption of digital learning.

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[2] Comprehensive data to estimate the size of the workforce in the region's gig economy are not available. The gig economy is overall growing fast and involving more of the workforce. According to the 2018 Labour Force Survey in Malaysia, for example, of the more than 3 million persons "employed as part-time private employees and own-account workers, 556,900 (18.4 per cent) were gig workers (accounting for 54 per cent of men and 46 per cent of women). Also in the Malaysian survey, young people accounted for a large portion of gig workers; the largest proportion, at 37.6 per cent, were aged 25–34. The services sector accounted for 97 per cent of gig workers, with 2.8 per cent in industry and 0.2 per cent in agriculture. See Nurfarahin Harun, Noraliza Mohamad Ali, and Nur Layali Mohd Ali Khan, "An Experimental Measure of Malaysia's Gig Workers Using Labour Force Survey," *Statistical Journal of the IAOS* 36 (2020), 969–977.

Digital divide

The extent to which the adoption of digital learning is successful varies on the profile of learners. One critical element is the so-called digital divide, whereby many demographic and socioeconomic factors determine learners' access to and use of digital technologies.

Among workers, this divide is particularly accentuated across age groups and occupational skill levels. All things equal, younger workers tend to be more comfortable with a digital learning environment than mature-age workers. Similarly, workers in high-skill occupations tend to be adaptable to a digital environment more easily than those in low-skill occupations.

This does not mean that those who are older cannot benefit as much as younger persons from digital access. On the contrary, there are significant benefits that older persons can receive, provided they are equipped with the necessary skills to gain access to digital online resources.

A consequence of the COVID-19 pandemic has been to worsen the digital divide in certain cases. As the impact of the pandemic has shown, a sudden switch to online learning presents challenges for instructors and learners. This is true in all cases, although countries with more resources and better infrastructure have likely experienced a less abrupt switch and correspondingly less disruptive effects.

Another outcome of the pandemic has been to trigger a boom in the online learning industry. In many countries, the online learning landscape has expanded on the back of a general boom in the education technology industry. As digital learning expands in the coming years, there will be an increased risk of the digital divide widening further for those who have been left behind.

The extent to which union education and training is delivered through digital learning modes would depend on certain requisites. These include the availability of equipment and infrastructure that meet required standards of performance, as well as support staff with the necessary technical skills to lead the implementation.

Infrastructure

To succeed in implementing any form of a digital learning or training programme, it is necessary to have adequate resources (human and financial) and infrastructure.

Internet connectivity and high speed are essential elements for digital training and education. The quality of an internet connection affects the communication between trainers and learners and eventually impacts the quality of online courses. In many countries, access to internet connectivity can vary widely depending on the

quality of infrastructure. High costs of internet purchase also are a matter. Rural populations and low-income families generally tend to have less access to the internet, especially in lower-middle-income countries.

In India, where such a phenomenon has been reported, this type of disparity is an additional limitation on the opportunities of impoverished rural populations and adds a technological disadvantage to the challenges they already face.

It also constrains the capacity of organizations, including the unions, to the use the internet for any effective form of outreach or education in areas where the needs are most urgent. Another concern is the adequacy of the internet infrastructure for the effective delivery of digital content.

Poor internet access, including inadequate bandwidth, severely constrains use of rich digital content. It also interrupts proper online interactions and severely hampers digital learning.

Despite the importance of internet infrastructure, the quality of on working arrangements also depends on several other factors, such the income level of the country and the skills segment of the workforce. This is discernible from data that provide a measure of the quality of internet infrastructure (figure 2). Among high-income economies, for instance, there is a clear positive correlation between the level of internet resources available and the proportion of workers in high-skill occupations. The nature of the work done in high-skill occupations is skewed towards requiring knowledge-intensive and information-intensive applications. Such applications are closely aligned with the support accessed through internet resources.

▶ **Figure 2. Internet resources and workforce skills, by selected high-income economies, 2020**
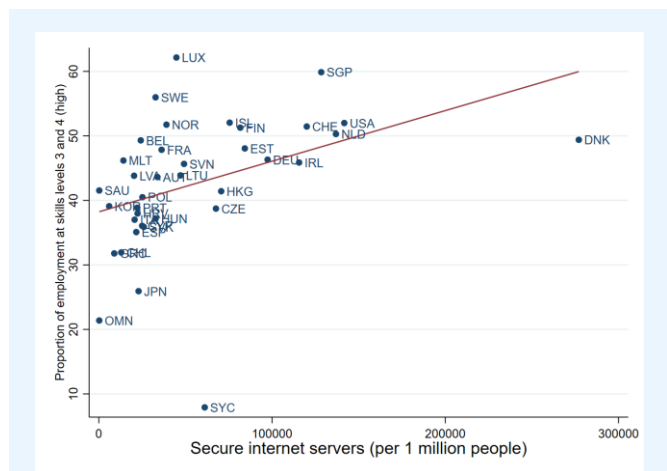
Note: (1) For each measure of interest shown on the vertical and horizontal axis, data are assembled for each high-income economy from ILOSTAT and the World Bank's World Development Indicators. (2) The high-income economies depicted are those for which data are available for both measures for 2020. (3) To reduce clutter, the three-letter codes for names are used, following the naming convention common to both source databases. (4) The scatter plot consists of 37 pairs of observation. The red line is the best fitting regression through the points, with an estimated slope coefficient of 0.0000785 (t-statistic of 2.65) and an estimated intercept of 38.2 (t-statistic of 16.7).
Source: (1) ILOSTAT, indicator: EMP_TEMP_ECO_OCU_NB. Indicator label: Employment by economic activity and occupation (thousands) [data file] (2021). (2) World Bank, "World Development Indicators" (2021), data file for "Secure Internet servers (per 1 million people)", http://data.worldbank.org/indicator/IT.NET.SECR.P6.

The correlation is non-existent for other income groups of countries and workforce skill levels. Additionally, not all types of work can involve training that can be conducted with a significant digital component. For some types of work, online training is insufficient or inappropriate, and in-person training arrangements are necessary.

Training resources

Training resources refer to instructors, materials and equipment. Generally, trade unions, especially small-sized ones, lack the infrastructure and human resources needed to effectively deliver digital training and education. The equipment of union infrastructure is an urgent requirement, together with the design of training modules and enhancing the skills of union leaders. It is also important for trade unions to ensure that skilled staff are available to support the use of digital learning platforms and the accompanying infrastructure.

It is important to have properly trained union educators or learning coordinators who can enhance their skills and knowledge to deliver the new subjects of a programme.

The union educators who participated in the ILO ACTRAV-ACFTU South–South Cooperation Project: Training Needs Assessment Webinar Series for Trade Unions in Asia and the Pacific (8–10 February 2021) suggested the following skill sets and knowledge needed for union leaders in response to the changing world of work.

- Organizing and increasing membership skills to broaden the periphery of the trade union movement to informal workers, gig workers, youth and migrant workers. Due to the pandemic, many unions have lost members or struggle to retain their members.
- Understanding social development issues to advance trade union advocacy and to influence state policies.
- Communication skills and knowledge to address workers' issues and to effectively engage in social dialogue with employers and the government.
- Understanding the future of work agenda to support the lifelong learning of workers.
- Technical know-how and ability of using modern information technology tools to advance trade union work and activities through online channels.
- Leadership skills to understand the roles and priorities of workers' organizations to ensure value-added membership services and to strengthen coordination among the three layers of trade union organizations: national, sector and enterprise-based.
- Specific knowledge in respect to social protection, especially to support the unemployed, and labour laws amended by the government.

Training modules need to be appropriately designed to meet the needs and expectations of course participants. In response to the interests of trade unions and in line with union educators' suggested skill sets needed among union leaders, the ILO Bureau for Workers Activities (ACTRAV) is developing six online training modules: (i) Digital Communications, (ii) Social Development and Advocacy, (iii) Trade and Decent Work, (iv) Social Dialogue for Solutions; (v) Advocating for Social Security; and (vi) Economics for Unions.

Union educators should also be able to ensure that the design of training materials fit the capacity of the available equipment and infrastructure. For instance, in a digital learning setting, the training materials could turn out to be ill-suited for use for such reasons as obsolete equipment, incompatible software or limited internet bandwidth. In such cases, the lack of proper training instruction or learning coordination would severely disadvantage course participants.

Prospective trainees are often at a disadvantage when it comes to knowing if a training course that they have

enrolled in will deliver the promised outcome. There are several reasons for this. The main reason is that the process of accessing digital learning online usually involves an online transaction, bringing with all the pitfalls that come with online use. Another reason is that while it seems easy to undergo digital learning, a prospective trainee must devote substantial resources, including considerable time, to derive the full benefits of learning. The commitment of such resources can be wasted when the training is not effective nor useful as expected.

These considerations are relevant in all learning and training contexts and apply to union education as well.

The availability of training resources differs considerably across countries. Even before the COVID-19 pandemic, many countries had taken steps to improve their digital learning resources. The momentum came from the need to confront the challenges of technological disruption. With the onset of the pandemic, these efforts have accelerated. The lengthening of the duration of the pandemic also means that these efforts have in many cases continued and been enhanced.

There are many valid concerns about whether such an approach is suitable for meeting the learning needs of the population as a whole or whether they cater only to those segments for whom accessibility is not a problem.

The existing content of commercial learning platforms is usually guided by business imperatives and not necessarily tailored to workforce needs and even less so for trade union education. If too heavy a reliance is placed on such resources, the effect could hamper rather than aid efforts to strengthen union education.

▶ Selected country experiences

In Singapore, the training arm of the National Trades Union Congress (NTUC), LearningHub, recently launched a mobile learning platform. Dubbed the Learning eXperience Platform (LXP),[3] it is touted as Singapore's largest subscription-based online learning mobile application offering on-the-go access to more than 75,000

courses across 60 categories. Payment for subscriptions on the LearningHub LXP is made using the SkillsFuture Credit awards, which all residents in Singapore are entitled to. In addition to SkillsFuture Credit, union members are eligible for additional subsidies from the NTUC's Union Training Assistance Programme. The SkillsFuture Credit scheme was introduced in 2015 and provides credit of SG$500 to all Singaporeans aged 25 or older.[4] The credit has no expiry and can be used to enrol in a range of approved courses that are advertised on an online government portal listing, including those under LXP.[5] A conditional top-up to the SkillsFuture Credit was made in 2020.

In the Republic of Korea, there were several initiatives launched in the 1990s that laid the foundation for digital learning to become an important component of the overall education and training landscape. One especially important initiative begun in 1999 is the support from the Employment Insurance Fund for online training.[6] The employment insurance scheme was introduced in 1995 and covers vocational skills development programmes as an intervention approach "to prevent unemployment".[7] At that time, the Presidential Commission on Education Reform 1995 announced wide-ranging reforms to the educational system based on the goal of creating an "Edutopia", or an education welfare State, in the twenty-first century. Among the recommendations of the Commission was the establishment of a virtual university that would offer online education programmes.[8] Since then, several virtual universities have been set up, such as the Seoul Digital University,[9] where degrees can be earned entirely through online lectures.

In India, eSkill India,[10] an internet portal under the National Skills Development Corporation, leads the way on digital learning. The portal aggregates courses from its network of "knowledge partners" and is an effort to advance the national skills development effort by facilitating access to opportunities for learning and training. Among the knowledge partners are prominent names, such as Microsoft, LinkedIn, IBM, the Khan Academy, SAS and Amazon. The Ministry of Skills Development and Entrepreneurship reported in 2021 that the top-three sectors for enrolment in the portal are information technology, electronics and health care.

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[3] See www.ntuclearninghub.com/lxp.
[4] See www.skillsfuture.gov.sg/credit.
[5] See www.myskillsfuture.gov.sg/content/portal/en/training-exchange/course-landing.html.
[6] Insung Jung, "Online Education for Adult Learners in South Korea", *Educational Technology* 43, No. 3 (2003), 9–16.
[7] Employment Insurance Act, Chapter III.
[8] Jung (2003), 11.
[9] See http://en.sdu.ac.kr/.
[10] See https://eskillindia.org/.

Together, they accounted for 57 per cent of total enrolment in the eSkill portal in 2020.

In the Philippines, the Technical Education and Skills Development Authority (TESDA) has a digital learning initiative using information and communication technologies to provide an effective and efficient way to deliver technical and vocational education and training (TVET). Called the TESDA Online Program (TOP),[11] it is touted as a web-based platform that offers free massive open online courses for technical education and skills development of Filipino workers, designed to allow learning to take place in a learner's own space and time.

According to published information on the portal, no tuition fee is required for accessing any of the courses. To access a course, users must register for an account on the portal. For those who complete a course, a Certificate of Completion is awarded, and participants also have the opportunity to undergo face-to-face assessments for national certification at any TESDA-accredited assessment centre or venue.

While the TOP offers opportunities for unions to meet some of their training needs in this way, it is not tailored specifically to the requirements of trade union-led education.

There are no tie-ups for union education. Trade unions continue to report conducting training with a non-digital approach. National trade unions across the Asia–Pacific region operate their own training and education centres, which undertake numerous training programmes. Most of their programmes are conducted in-person and are not available through a digital platform yet. Taking into account the rapid transformation towards a digital society and in conjunction with the drive for a future of work, trade unions need to invent strategies or a road map with an investment of resources to reform their workers' education centres towards digital platform-based lifelong learning institutions.

The expansion of digital learning extends to international organizations. The International Training Centre is the capacity-development arm of the ILO.[12] Before the COVID-19 pandemic, the bulk of the capacity-development services of the Centre used to relate to group training delivered face-to-face on campus or in the field, but distance learning activities increased in 2020 and 2021.

The Centre has continued to transform as an innovative digital learning and collaboration service provider. The pandemic has prompted the Centre to move to a digital learning hub faster. As a result, 95 per cent of the Centre's annual training activities in 2020 was conducted by distance learning and only 5 per cent by face-to-face training.[13] The number of participants has increased, from some 22,000 in 2019 to more than 36,000 in 2020.

▶ Conclusion

Digital learning and education have great potential for both union service providers and worker learners. It can overcome a shortage of financial resources, time consumption and expand coverage to a larger pool of beneficiaries. It helps fulfil the recommendation of the ILO Centenary Declaration for investment in people through skills development and lifelong learning. However, several challenges are associated with the weak capacity of workers' organizations in terms of providing education and lifelong learning, such as the lack of infrastructure like internet connectivity, a limited resource pool and the poor design of courses. These weaknesses must be resolved to maximize the benefits of digital technologies for workers' education programmes. If the digital technologies are inadequate, the best-designed training can be rendered ineffective. One of the priorities of digital learning and training in trade union education is to equip union leaders and representatives with this understanding and enable them to better support their membership in the transition to new working paradigms.

Individual learners' capacity is also important. The actual extent to which learners will benefit will depend on several factors, including the type of work, the skills level of the individuals and the learning motivation. But no matter how advanced an organization's infrastructure is or how sophisticated its online training system and outreach are, there will always be a group of workers whose training needs cannot be met through digital training. This could be due to the type of work they do or the form of training offered. Therefore, a mixed approach between face-to-face and virtual events are necessary. Online courses need

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[11] See https://e-tesda.gov.ph/.

[12] The International Training Centre offers individual and institutional capacity-development services to support its constituents worldwide to make the Decent Work Agenda actionable. The main target group of the Centre's capacity-development services are ILO constituents – workers' and employers' organizations and labour ministries. The Centre also offers learning services for ILO staff and staff of other United Nations agencies and other ILO partners with a mandate to promote decent work and social justice, among them government agencies, non-governmental organizations and the private sector. The Centre is in Turin, Italy. For more information on the Centre, go to www.itcilo.org.

[13] ITC, *Interim Implementation Report 2021* (Turin, 2021), www.itcilo.org/about/board.

to be organized in a dynamic, attractive manner, and trainers need to be better prepared.

With any significant change in the framework for learning and training, the main concern is to ensure that those who have the greatest needs do not end up worse off after the change. This concern is heightened with digital learning and training due to the imbalance in access to resources and the differences in the quality of infrastructure. In an extreme case, where all learning is to be moved fully online, for example, those without online access would be completely excluded.

While this is not an impediment to the development of online training, it is something that the training strategy and the TVET system should anticipate and accommodate (please refer to the policy briefs on skills and lifelong learning in India, Republic of Korea, Philippines, Singapore and Viet Nam).

The COVID-19 pandemic has forced workers' organizations to equip themselves with internet infrastructure and adopt new mechanisms of communication with their members to deliver their services and activities. There are now important reasons to incorporate a digital learning and training into union education. Doing so will empower union representatives to better assist the workers they represent in adapting to and achieving greater benefits from digital technologies. At this point at least, the greatest potential that digital approaches offer is to support and supplement conventional approaches to learning and training – and not as a replacement.