



United Nations  
Educational, Scientific and  
Cultural Organization

UNEVOC

International Centre  
for Technical and Vocational  
Education and Training

# Digital Competence and the Future of Work - Pathways for TVET Institutions

Thursday, 18 March 2021

9:00 – 10:30 CET

Organized as part of the project – Strengthening the Responsiveness, Agility and Resilience of TVET Institutions for the Post-COVID-19 Era

## Synthesis report

### Introduction

The COVID-19 crisis has amplified the pace at which the world is migrating towards a digital economy. With digital technology infiltrating industries through robotization, AI and 3D printing, it is apparent that sufficient digital skills are part of a core skillset for the workforce and therefore need to be an integral part of TVET curricula and learning environments.

In addition to equipping youth with a relevant skillset, TVET can also play a key role in enabling continuous learning for adults, supporting career paths, and employability. Distance learning solutions can provide cost effective and ecological means for ensuring that a growing number of people are not excluded from the workforce due to lack of skills. However, the bandwagon of continuous learning requires connectivity and at minimum foundation-level digital skills. TVET needs to play its part in preparing both youth and adults with the required digital skills – adhering to both industry needs and enabling continuous learning.

The emerging digital economy creates new opportunities, but also threatens to widen the employability gap. In the digitalized economy, it is possible to create jobs globally. Digitalized services are no longer location based and can be offered in a flexible manner from multiple locations. Innovative digital solutions, such as virtual reality-based environments, can enable access to high quality TVET training, regardless of location, making it possible to learn and demonstrate competence for a global job market.

SDG 4 targets for TVET describe key ICT skills. Many countries have already included digital skills into TVET curricula, but due to accelerating changes within industries, we need to ask ourselves what are the core digital skills required for 2030 and beyond? Faced with the COVID-19 crisis and ongoing disruption, are we preparing TVET students for the future of work? What about the teachers? Are they receiving sufficient upskilling for digital technology as well as for designing and implementing distance learning? The transformation of TVET requires partnership and collaboration with the private sector. A broader vision of how innovation and digital solutions will become a part of TVET is a prerequisite for TVET to fully embrace change and train the workforce of tomorrow.

## Aims

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This webinar was the first in a [three-part series](#) looking at the challenges digitalization poses for TVET as part of UNESCO-UNEVOC's COVID-19 response project. It has been organized in conjunction with a three-month intensive training programme to equip TVET teachers and managers in Jamaica, Kenya, the Maldives, Nigeria and Peru with relevant digital skills. The webinar brought together leading experts and interested practitioners from the global TVET community to discuss how TVET can build digital competence to better prepare people for the future of work.

It addressed questions such as what TVET should be doing to support people, businesses and industries and ease the transition to a digital economy. How can TVET ensure that teachers can acquire the skills to use digital technology for teaching and for designing distance learning? How can we best prepare TVET students for a labour market that is constantly evolving? What kind of partnerships should we build with the private sector to aid the transformation of TVET?

The webinar was organized by OMNIA Education Partnerships of Finland on behalf of UNESCO-UNEVOC. Attended by a total of **281 participants from 86 countries**, a recording of the webinar is available in [English](#) and [French](#).

## Key discussion points

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### **What are some of the most prominent challenges related to digital competence within TVET? How can TVET institutions support teachers in delivering digital learning?**

Several factors have influenced the ability of TVET institutions to deliver digital competence over the past year. Major disruption, in the shape of the shutdown of educational institutions, is the most obvious example. The availability of equipment and infrastructure, such as a secure internet connection and the right devices for teachers, students and managers, is another.

TVET institutions were quick to react to the abrupt change in their circumstances. However, many of those that struggled were also dealing with other, less obvious challenges according to Stefano Merante, Skills Development and TVET Programme Officer at the ILO's International Training Centre in Turin, Italy. When it comes to what he calls 'e-readiness', this is not just a question of skills but also whether TVET teachers and managers are able to change their attitudes and adapt to the demands of teaching online.

The experience of the Kenyan TVET sector illustrates many of these issues. As elsewhere, in March 2020 the pandemic closed down the country's schools and colleges, and teaching moved online. TVET teachers found access to infrastructure and equipment, followed by lack of digital skills, as their biggest problem according to a survey carried out in May 2020. How to develop the right online content, especially when TVET covers such a broad range of areas, was another, according to Edwin Tarno, Chief Principal at Kenya Technical Trainers College (KTTC) in Nairobi. Some also questioned whether it was really possible to teach the practical components of TVET online.

In partnership with the Commonwealth of Learning, KTTC launched a training programme for TVET teachers. Kenya's TVET authority quickly produced a set of guidelines on how to deliver digital training, while a partnership with the Kenyan mobile company Safaricom helped boost people's connectivity by allocating bundles of mobile credit to students and teachers. The college is now working on how to adapt its learning management system for online use and looking at how curricula can be made more flexible. "The changes needed are many but we are certainly heading somewhere," said Mr Tarno.

Dealing with the immediate challenges facing educators in the midst of a pandemic may leave people with little capacity to make long-term plans, warned Anita Lehtikoinen, Permanent Secretary, Ministry of Education and Culture, Finland. One example she gave is that educators are currently too busy to take advantage of the way digital platforms can facilitate co-creation.

The COVID-19 crisis is driving a profound transformation in labour markets. Education authorities need to quickly develop local, regional and national strategies to help TVET respond to these changes. These should address issues of equity, access, infrastructure, pedagogical skills of teachers and the basic and digital skills of students. "We need to really collaborate and make use of the experiences we have in different parts of the world, so we don't have to reinvent the wheel," said Ms Lehtikoinen.

As the world slowly emerges from the pandemic, Jeanette Burmester, Leader of the TVET Sector Project at GIZ in Bonn, Germany, expects that the move to digitalize TVET will be tied to other agendas such as the need for action on climate. "Many countries will take this opportunity to try and build a greener recovery, we will need more smart, green jobs," she said.

## **How could innovative digital learning solutions improve quality and access to relevant TVET?**

Moving from face-to-face teaching to delivering a meaningful experience of learning online obliges teachers to make big changes to their way of working, said Mervi Jansson, CEO of Omnia Education Partnerships and moderator of the webinar.

Innovations developed in one educational setting do not always travel well to another, according to Ms Lehtikoinen. Encouraging countries to build open data and education frameworks, as well as facilitating co-creation and the sharing of online materials can help TVET communities access new ideas and develop their systems faster, she said.

Reorganizing the team at the ILO's International Training Centre has given Mr Merante a taste of how working online can give teachers opportunities to innovate. "Trainers started talking to each other as soon as the pandemic struck and I can see that new forms of informal sharing are happening," he said. This could lead to teachers becoming more autonomous in developing content and materials.

While solutions based on virtual reality remain expensive and out of reach for many, ones using augmented reality already offer trainers a hands-on way of developing skills digitally, he added.

### **How can we develop partnerships between industry and TVET institutions to support upskilling of teaching staff and up-to-date learning environments for students?**

Ms Jansson encouraged participants to use the new circumstances caused by the pandemic to take partnerships to the next level. If done well, these partnerships can create a win-win situation by providing opportunities for workers to upgrade or refresh their skills, while giving TVET teachers and students access to new technologies already in use in the workplace but which may not be available in TVET institutions.

During the first three months of the pandemic, many companies were occupied dealing with the disruption and trying to keep production going while safeguarding their workforces, said Farida El Agamy, Founding General Manager of Tharawat Family Business Forum in the United Arab Emirates. But by now, many of the large and medium-sized companies she works with have found new ways of delivering their in-house training by shifting online.

This has created new potential points of connection between companies and TVET centres, she believes, and should be further explored. Establishing a more productive dialogue between the private sector and TVET institutions could help encourage employers to invest more in funding TVET and bring about broader changes in attitudes towards the sector.

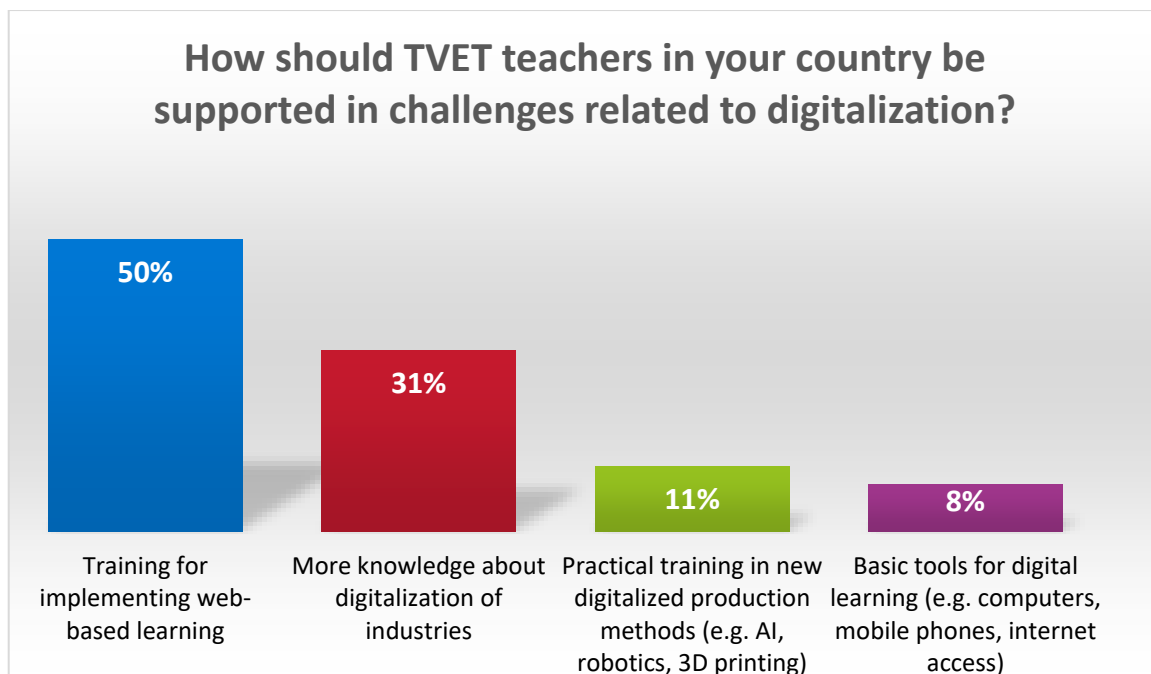
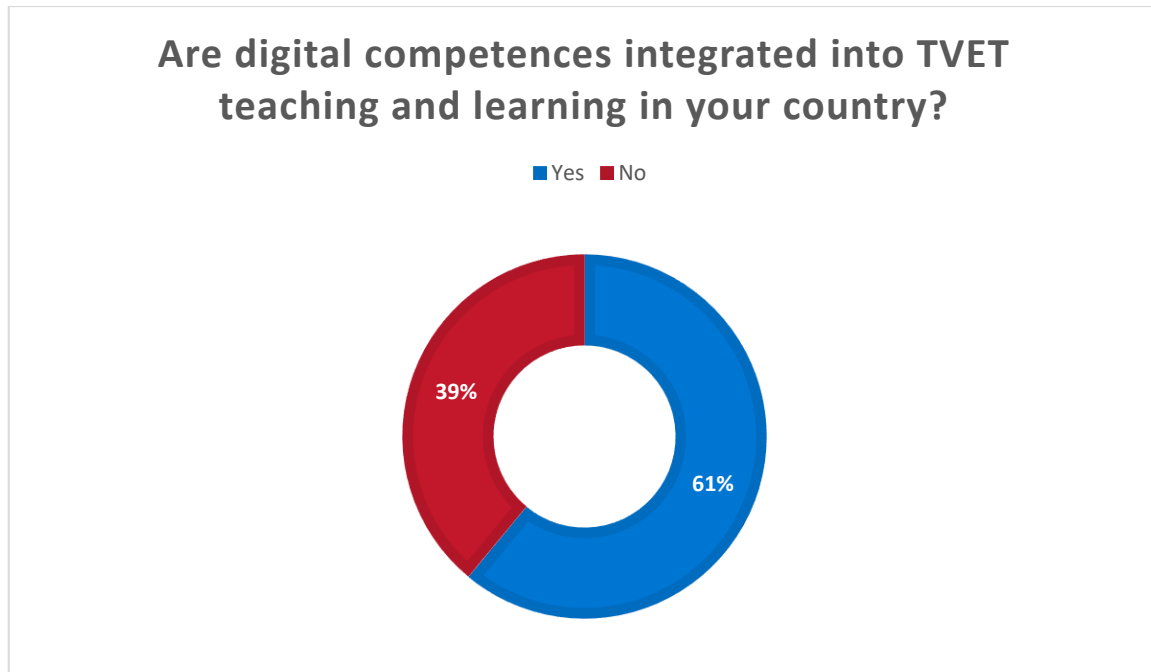
Mr Tarno called on employers to be proactive in communicating to the TVET community which new technologies they are using and which kinds of skills they require. In other parts of the world, approaches such as the dual system have been useful for building good relations between industry and education and giving learners hands-on experience of the workplace. However, in African countries, big companies are rare and student numbers are high – something which reduces the opportunities for work-based training. Governments should consider introducing incentives for teachers to do placements in industry and for schools to be given access to real-life facilities.

More work being done online means that many jobs are no longer tied to a specific location. In regions such as the Gulf, employers were already used to importing labour. Now they are taking this one step further by moving jobs which can be done online abroad, according to Ms El Agamy. “Now everything is digital, they don’t need to import workers. People in our community are not even aware that these kinds of jobs are passing them by because they are being placed elsewhere,” she said.

## Webinar poll results

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These polls were carried out during webinar registration.



## Stay in touch

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