

BIBB International Roadshow „Digital Media in TVET” 2021

Realizing the goal-oriented use of ICT in TVET

Date: 08.12.2021, 09:00 – 11:15 (UTC + 1), BILT Learning Forum

Agenda

Moderator: Eva Hanau, Project Manager BIBB International Roadshow

Co-moderator: Janina Meyer, Technical Advisor, BIBB

| Time / Duration | Topic & speaker |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 – 09:10 | Welcome remarks <ul style="list-style-type: none"> - Misook Lee, HRD Korea (Co-host BILT Learning Forum) - Birgit Thomann, Department Head “International VET”, BIBB |
| 09:10 – 09:20 | Introduction |
| | International practice examples for technology-enhanced learning in TVET Live presentation of digital learning applications that demonstrate possible uses of immersive technologies in combination with suitable pedagogical approaches for teaching and learning in TVET. |
| 09:20 – 09:40 | <ul style="list-style-type: none"> - Virtual & Augmented Reality Learning – Transforming Training in Lift Repair & Maintenance, VTC Hong Kong (China) Dr George Lau, Assistant Executive Director |
| 09:45 – 10:05 | <ul style="list-style-type: none"> - iVideo.education - The past, present and the future of a hypervideo platform for teaching & learning in VET, SFUVET (Switzerland) Francesca Amenduni, Senior Researcher |
| 10:10 – 10:30 | <ul style="list-style-type: none"> - A virtual training environment for electricians: Planning and executing customer orders under real-world conditions, FOSH Learning (South Africa) Harald Fleischmann, Founder |
| 10:30 – 11:00 | Panel discussion incl. Q&A Ensuring the long-term use of digital technologies in TVET – Opportunities, challenges & solutions <ul style="list-style-type: none"> - Dr George Lau, VTC - Francesca Amenduni, SFUVET - Harald Fleischmann, FOSH |
| 11:00 – 11:15 | Wrap-up |

BILT Learning Forum Marketplace

| Time / Duration | Booths |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 08.12.2021, 11:30 – 12:15 | Extended Reality Learning Experiences in VPET, VTC Hong Kong (China) iVideo.education Project, SFUVET (Switzerland) |
| 09.12.2021, 08:15 – 09:00 | Project-based Virtual Learning for South African Artisans, FOSH (South Africa) Online Toolbox “Using AR/VR in TVET”, BIBB (Germany) |

Project Information

Virtual and Augmented Reality Learning – Transforming Training in Lift Repair and Maintenance, presented by VTC Hong Kong (China)

While Hong Kong has experienced manpower shortage in various industry sectors, the situation is more acute in traditional “dirty, dangerous and demanding jobs”.

The VR Training Simulator for lift repair and maintenance makes use of immersive technologies to make learning fun and interesting, and to promote a new approach to training through technology in vocational and professional education (VPET) in Hong Kong. The application raises trainee’s safety awareness and improve trainee’s ability in responding to emergency and accidents in the lift maintenance sector.

The VR Training Simulator is recognised as an official Continuing Professional Development (CPD) training unit for registered workers in the lift maintenance industries. The project has received award at the 2020 Hong Kong ICT Awards and received the best performance award – Gold Award in the 19th Hong Kong Occupational Safety & Health Award in 2020.

About VTC Hong Kong

The Vocational Training Council (VTC), established in 1982, stands at the forefront of vocational and professional education and training (VPET) in Hong Kong. As a statutory body, the VTC ensures the skills of the Hong Kong workforce remain relevant and future ready through a full range of pre-employment and in-service programs. Its mandate to provide VPET in a wide spectrum of professions from diploma to degree levels is vital in meeting industry needs, and in fulfilling the aspirations of some 200,000 students across 13 member institutions every year.

iVideo.education: the past, the present and the future of a hypervideo platform for teaching and learning in VET, presented by SFUVET (Switzerland)

iVideo.education is a tool that supports active video-based learning. It promotes the creation of interactive videos using small pieces of footage, in order to foster knowledge acquisition, collaborative learning and students' reflection on work practice. iVideo.education allows vocational school teachers and in-company trainers, with no particular computer skills, to customize and structure didactic material for their own teaching or training activity, using existing footage and linking it to all sorts of different resources (text documents, images, audio files etc.). It also enables individual learners or groups of learners to insert notes directly into the video. During the BIBB International Roadshow 2021, the presenter will illustrate a few concrete applications of iVideo.education in VET contexts and present related research evidence at support of its adoption. In conclusion, future directions of development will be highlighted, especially in relation with 360-degree hypervideo.

About SFUVET

The Swiss Federal University for Vocational Education and Training (SFUVET) is Switzerland's expert organisation for VET. It offers basic and continuing training to VET professionals, conducts VET research, contributes to the development of occupations and supports international cooperation in vocational and professional education and training.

A virtual training environment for electricians: Planning and executing customer orders under real-world conditions, presented by FOSH Learning (South Africa)

The interactive and dynamic virtual learning environments by FOSH Learning are provided within a digital BIM (Building Information Modelling) environment and contextualize required theoretical knowledge and practical skills as defined in South African occupational qualification standards.

By pursuing a project-based training approach, the FOSH learning application does not provide ready-made knowledge and answers. Instead it creates the conditions for learners to independently plan, carry out and control work tasks in the context of specific customer requests in the area of electro installation. The application thus draws on advanced cognitive and technical skills required of artisans in an increasingly digitalized working environment and aims to strengthen the professional competencies of apprentice electricians in South Africa.

About FOSH Learning

FOSH specialises in the development of content, training material and learning experiences for various trades, including plumbing, electro installation, bricklaying and more through a collaborative and community-based approach that engages relevant stakeholders from the private and public sector and society in South Africa. By optimizing digital, virtual and online technology and combining this with modern methodologies, FOSH creates multi-dimensional and reality-based learning experiences that enable participants to succeed in the South African and African labour market.