

BOOK REVIEW

Using ICTs and Blended Learning in Transforming TVET

COLIN LATCHEM (EDITOR)

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At a time when skills development for livelihoods is a key priority for most governments, the potential of Technical and Vocational Education and Training (TVET) to address many of the challenges facing individuals, communities and governments worldwide in their efforts towards achieving employment, decent work and sustainable development is being increasingly recognised. TVET is, accordingly, becoming a policy priority in many countries and regions around the world. However, it is clear for both governmental institutions and international organisations, that simply scaling up TVET provision in its current forms is not only unlikely to be feasible, it is also unlikely to be an adequate response to meet demand and that the nature and roles of TVET systems in contributing to more equitable and sustainable holistic development will require their continuous transformation and expansion.

The current book, *Using ICTs and Blended Learning in Transforming TVET*, edited by Colin Latchem under the auspices of COL and the UNESCO, is a collection of articles emphasising the role of ODL in relation to skilling, and identifying the ways in which information and communication technology-based (ICT-based) methodologies can contribute to such transformation and expansion.

In the first part of the book, the editor, sets up the context. Chapter 1 identifies the demand and challenges in line with the revised goals for TVET, as defined by UNESCO in 2015, to reflect the new trends and needs for youth and for the informal sector, along with gender and sustainable development issues. In order to achieve these goals, the author defines a set of principles based on the empowerment of individuals and the promotion of employment, decent work and lifelong learning, inclusive and sustainable economic growth, social equity and environmental sustainability. He then outlines some policies that would allow an effective implementation of these principles, in particular the validation of informal and non-formal learning, the development of outcomes-based qualifications frameworks, the establishment of regulatory mechanisms to support learning pathways and the mobility of learners and workers, and the recognition of prior learning. The reader is cautioned about the challenges this transformation will face, the main ones being the changing world of work in the 21st century, the increased importance of small and medium-sized enterprises, and the increasing difficulty of ensuring equal access, avoiding gender discrimination and taking into account the imperatives of sustainable development.

The second chapter is especially aimed at the reader who may be familiar with the nature and operations of TVET but less knowledgeable about open, distance, online and blended learning, while other readers may be familiar with ICT-based modes of delivery but less familiar with the needs and



challenges facing the TVET sector. This chapter examines how ICTs can be harnessed to achieve such transformation and expansion, providing a detailed and comprehensive inventory of ICT-based applications, approaches, tools, and methods in teaching and learning.

This chapter demonstrates the many ways in which ICTs can be used to help TVET transform its operations, raise its profile, improve the quality of its courses and services and collaborate to create a training ecosystem wherein, as in natural ecosystems, all the different stakeholders in the internal and external organisational ecosystem share and exchange information, resources and sources to each other's benefit. The opportunities for making best use of these media and modes range from opening up TVET learning opportunities for remote, disadvantaged and minority communities, to meeting the demand from overseas students attracted to the opportunity to study globally-provided online programmes of proven high standards. It shows that the challenges of harnessing the technology and achieving access, connectivity, content development, localisation and customisation to maximise capacity development are there, waiting to be met.

The second part of the book is a collection of nine case studies whose authors are affiliated with institutions that have long-standing partnerships with COL and/or UNESCO. The case studies illustrate the kinds of measures that can be undertaken to apply ICT-based, blended and flexible means of delivery to the transformation of TVET at the national, state and institutional levels. They provide a comprehensive overview of the ways in which nations, states, institutions and NGOs are using technologies and methods to increase the reach, equitability and impact of TVET, improve learning outcomes and services to students and establish new paradigms and environments for developing the knowledge and skills required for tomorrow's world of work.

Chapter 3 describes how The Federal Institute for Vocational Education and Training (BIBB) operates as a centre for vocational research and the progressive development of Vocational Education and Training (VET) in Germany.

Chapter 4 describes the organisation and operations of the Open Training and Education Network (OTEN) in New South Wales, describing the transition process from the correspondence model to online, multimedia and interactive provision. This chapter also explains the role of quality assurance, student responsiveness and external partnerships.

Chapter 5 describes the work of the Sri Lankan Ministry of Youth Affairs and Skills and Development, the National Competency Standards, the role of the Tertiary and Vocational Education Commission and how the Distance Education Modernisation Project was initiated to encourage and support distance education to increase access to post-secondary education.

Chapter 6 is a case study of the Open Polytechnic, New Zealand's leading distance learning provider which annually enrolls 29,000 mostly adult students throughout the country and internationally. The chapter shows how the institution considered the options for the transformations needed in its policies, procedures and uses of ICTs in order to capitalise on the new paradigms and maintain its competitiveness.

Chapter 7 explains how the University of Technology, Jamaica, the leading technological university in the Commonwealth Caribbean, developed and delivered four ICT-based, blended cross-Caribbean, in-service TVET programmes. It describes lessons learned from the steps it took in creating and

providing these programmes, why the various modes of delivery were chosen, the partnerships involved and the outcomes of these initiatives.

Chapter 8 explains how reforms over the past decade have improved the image of Finland's TVET and helped to reduce unemployment levels. The chapter then examines how TVET teachers were challenged to embrace 21st-century learning solutions, and to use an entrepreneurial hub, providing a unique learning environment, combining the worlds of learning and work in which everyone is a learner and a teacher.

Chapter 9 reports on the Innovation in Vocational Education and Skills Training in Africa (INVEST Africa) programme supported by the Commonwealth of Learning in partnership with the Commonwealth Association of Polytechnics in Africa. It describes how Rogers's diffusion of innovation model was used to train early adopters to catalyse a shift to the adoption of flexible and blended means of delivery.

Chapter 10 shows how the TVET Academy, a French non-profit NGO, piloted the use of video-recordings of "benchmarking" teachers and videoconferencing to help teachers in regional and provincial Cambodia training centres improve their teaching.

Chapter 11 describes two pilot projects that provided e-apprenticeship programmes in Manitoba and Nova Scotia in Canada. Replacing classroom attendance with ICT-based instruction meant that apprentices could remain within their own communities, save on study costs and "earn and learn." Employers only lost the service of these apprentices for short periods every week rather than for block periods of study at colleges. The chapter examines the conduct and outcomes of these two projects and also the developments that have occurred since their introduction and evaluation.

Chapter 12 examines the issues of cost that need to be considered in adopting these new approaches.

Chapter 13 considers planning for successful and sustainable applications of ICTs, and **Chapter 14** draws conclusions and makes recommendations for the international organisations, governments, policy makers, managers and staff responsible for TVET.

The first merit of Colin Latchem's book is to propose an analysis of the needs and challenges of vocational education in the 21st century, while offering a range of solutions for a better deployment of TVET taking advantage of the possibilities offered by technology. Beyond general principles and recommendations, the book covers many ways that educational technologies have been used successfully in other areas of education. Far from acknowledging that the reader is already familiar with the details of these usages, Latchem recalls an inventory of educational technologies and related andragogies, enabling the neophyte reader to better take advantage of the rest of the book.

Another merit of the book is it shows how the recommendations of COL and UNESCO for the modernization of vocational education have been effectively implemented in several countries. Through the nine case studies presented in the book, Latchem's co-authors draw lessons from these experiences, thus offering a springboard to an area where development has become an urgent priority throughout the world.

In summary, the publication is commensurate with the ambitions of its publisher and proves to be a useful document for TVET stakeholders and practitioners, who are often more familiar with the realities of the field than with the current possibilities of transforming these realities by taking

advantage of a combination of technology and new pedagogical approaches better suited to the emerging needs of a changing world of work.

Reviewed by:

Prof. Alain Senteni, former Dean of the School of e-Education at Hamdan Bin Mohammed Smart University in Dubai, and former Director of the VCILT at the University of Mauritius. Email: senteni@gmail.com