



Book Review of Xibin Han, Qian Zhou, Ming Li, & Yuping Wang (Eds., 2024). Handbook of Technical and Vocational Teacher Professional Development in the Digital Age. Springer.

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Introduction

The emergence of various new technologies in the industrial era 4.0 has a significant impact on the world of education, including providing challenges for Technical and Vocational Education and Training (TVET) Teachers. TVET teachers need to develop their digital and pedagogical skills continuously. The professional development of technical and vocational teachers in this era is crucial to ensure relevant and up-to-date vocational education. These skills include the ability to use digital tools, understand the latest technology in the industry, apply technology-based learning methods, guide students in utilizing technology to improve their practical skills, and design a curriculum that is adaptive to technological changes.

Available as an open-access document, this book consists of five chapters that begin with an introduction to the importance of TVET teacher professional development. It can be easily obtained through Springer's website (<https://doi.org/10.1007/978-981-99-5937-2>). The content of the book covers both theory and practice in TVET teacher development. In addition to proposing and exploring digital teaching competencies for TVET teachers, the book also presents assessment instruments that can be used to evaluate digital teaching competencies in TVET.

The editors of this book have strong backgrounds in education and innovation. Xibin Han comes from the Institute of Education at Tsinghua University, Beijing, China, and has extensive experience in educational research. Ming Li works at the International Centre for Higher Education Innovation under the auspices of UNESCO at Southern University of Science and Technology, Shenzhen, Guangdong, China, committed to improving higher education and promoting higher education for developing countries in Asia Pacific and Africa. Qian Zhou is a Senior Engineer from the Institute of Education at Tsinghua University, Beijing, China, contributing

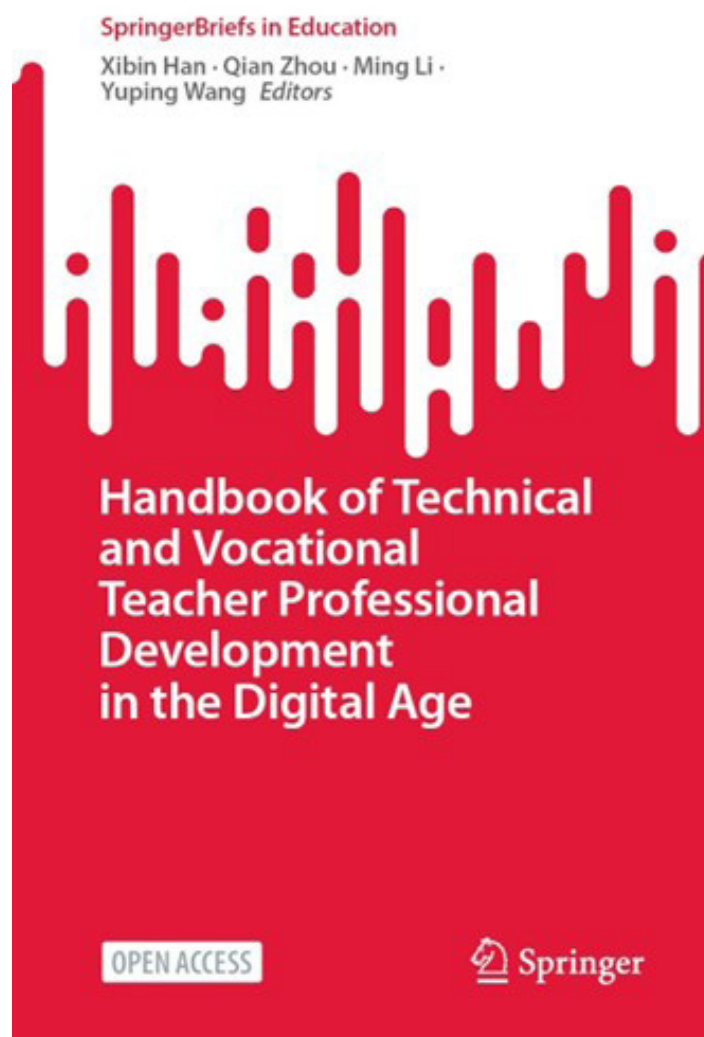


Figure 1: Book cover.

with his expertise in developing e-learning platforms that have been adopted by more than 500 universities and vocational schools in China. Yuping Wang, who comes from the School of Humanities, Languages, and Social Sciences at Griffith University, Brisbane, QLD, Australia, has a research focus on the use of innovative pedagogies supported by cutting-edge technology. The diverse experience and expertise of these editors ensure depth and richness of perspectives in this work.

Overview

The first chapter functions as a captivating and enlightening gateway to the book's core concepts. The writers skillfully establish the context by offering a thorough summary of the study's fundamental ideas, goals, and extent. They adeptly express the importance of the subject matter, creating a distinct framework for readers to comprehend the wider consequences of technical and vocational teacher professional development in the digital era. The introduction provides a comprehensive view of educators' obstacles and opportunities while adjusting to the digital landscape by incorporating the combined knowledge and skills of different authors. This diversified perspective ensures a thorough and balanced understanding. In addition, the chapter successfully captures the reader's attention by emphasizing the importance of the book's contents, setting a positive atmosphere for readers to explore the complexities of teacher professional development in the ever-changing field of technology and education in the other chapters.

The second chapter offers a rigorous and perceptive examination of the theoretical principles that form the basis for the issues addressed in the book. The writers provide a thorough and precise explanation of important words, giving readers a strong foundation in the vocabulary necessary for understanding the intricacies of technical and vocational teacher professional development in the digital era. Furthermore, the chapter functions as a good literature review, consolidating pertinent theories, frameworks, and approaches, thereby establishing a strong intellectual foundation for the forthcoming talks. The collective endeavor of numerous authors guarantees a multitude of viewpoints, augmenting the depth of the content. The chapter combines theoretical insights and practical considerations to establish a solid basis for educators, researchers, and practitioners who aim to understand the theoretical foundations that shape effective professional development strategies in the context of technological advancements. In summary, this chapter greatly enhances the scholarly quality of the book by providing readers with a knowledgeable introduction to the theoretical framework related to professional development for technical and vocational teachers in the digital age.

Chapter 3 is a significant and crucial addition to our overall technical and vocational education and training (TVET) knowledge in the digital era. The authors explore the essential domain of professional abilities, offering a meticulously organized framework complemented by explicit indications and an evaluation tool. This chapter establishes the fundamental abilities necessary for proficient instruction in the TVET sector and offers a pragmatic instrument for

evaluating and improving these aptitudes. The focus on evaluation aligns with current educational methods, enabling educators and administrators to evaluate and enhance the impact of professional development programs. The authors' combined work guarantees a comprehensive and well-rounded approach, integrating theoretical ideas with practical tools. This chapter serves as a significant resource for educators and policymakers by focusing on the special needs of TVET professionals. It offers practical information for cultivating a trained and competent workforce in the quickly changing technical and vocational education field. Chapter 3 is an essential resource for individuals looking to understand and use professional skills in the field of TVET. It helps bridge the divide between theoretical knowledge and real-world practice.

Chapter 4 provides an extensive and pragmatic manual on developing the essential professional skills required for technical and vocational education and training (TVET) instructors. The chapter is notable for its systematic approach, offering a range of efficient solutions that cater to the different requirements of TVET educators in the digital era. The authors adeptly integrate theoretical ideas with practical illustrations, resulting in a resource that is both academically rigorous and readily usable in educational contexts. The tactics described in this chapter address the changing requirements of TVET instruction, ranging from creative teaching methods to utilizing digital technologies for skill enhancement. The collective endeavor of numerous authors guarantees a comprehensive viewpoint, enhancing the discourse with a wide range of experiences and perspectives. Chapter 4 is a helpful resource for educators, administrators, and policymakers who want practical solutions to improve the professional skills of TVET teachers. It aims to develop a competent and flexible workforce in the ever-changing technical and vocational education field.

Chapter 5 offers a persuasive examination of real-life instances that exemplify successful methods in technical and vocational education and training (TVET). Using a range of exemplars, the authors illuminate successful programs and approaches that demonstrate best practices in cultivating professional competencies among TVET instructors. This chapter provides educators, administrators, and policymakers with concrete examples of successful interventions, serving as both an inspirational and informative guide. The authors emphasize the flexibility and variety of techniques in various circumstances by showcasing several successful practices. This promotes a better understanding of the complex difficulties and opportunities in Technical and Vocational Education and Training (TVET). The collective endeavor guarantees a comprehensive collection of experiences, forming a valuable asset that recognizes great achievements and offers insights into reproducible methods for improving the quality of TVET training. Chapter 5 provides valuable insights and practical guidance for individuals seeking to promote technical and vocational education excellence by sharing exemplary practices.

One of the main characteristics of this handbook is its emphasis on practical applications. The writers surpass theoretical frameworks by including concrete illustrations and case studies that elucidate the assimilation of digital

resources into professional development programs. The conversations around inventive teaching methods, internet-based educational platforms, and the utilization of technology to improve vocational training offer a great asset for educators aiming to adjust their approaches to meet the requirements of the digital era. This has also been proven by several previous researchers (Li et al., 2022; Puspitasari et al., 2018; Zeng et al., 2019). In addition, the handbook discusses the significance of fostering collaborative learning and community development among technical and vocational educators. The focus on establishing a conducive digital environment for enhancing professional growth demonstrates a modern comprehension of how technology may facilitate a sense of camaraderie among instructors (Choon et al., 2022; Herrera-Pavo, 2021; Lock, 2006; Opareniuk, 2023).

A critical evaluation

While the book delves into technical and vocational education specifics, its insights and strategies are broadly applicable, making it a valuable resource for educators across various disciplines. However, the use of some repetitive phrases can make the reading rather monotonous. A sharper introduction and stronger conclusions in each chapter might have improved the reader's framework of understanding. Therefore, suggestions for improvement include enhancement of specific details, variation in language expression, and strengthening of the introduction and conclusion sections to improve the overall impression and appeal of the reading. Overall, the "Handbook of Technical and Vocational Teacher Professional Development in the Digital Age" stands out as a well-researched and practical guide, offering educators a roadmap for navigating the challenges and opportunities of integrating digital technologies into their professional development journeys.

Conclusion

The "Handbook of Technical and Vocational Teacher Professional Development in the Digital Age" authored by Xibin Han, Qian Zhou, Ming Li, and Yuping Wang, is an extensive and up-to-date guide that explores the complex terrain of teacher training in the digital era. The writers consolidate a vast amount of knowledge, providing a comprehensive examination of methods and techniques to improve the professional development of technical and vocational teachers. The book tackles the evolving challenges educators encounter and offers practical perspectives on utilizing digital tools and technologies to enhance teaching in technical and vocational education. This manual offers readily accessible tools and references that can be utilized or modified by TVET instructors, administrators, and policymakers to actively involve and assist in advancing

teacher professional development throughout the era of digital transformation.

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