Marshall, S. J. (2018). *Shaping the University of the Future: Using Technology to Catalyse Change in University Learning and Teaching.* Beach Road: Springer Nature Singapore Pte. Ltd.. Pp. 511. $ 24.99 paperback

Book Review

By Pamela E. Queen, PhD[1]
Morgan State University, USA

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"*The illiterate of the 21st Century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn*" (Alvin Toffler 1970).

Increasingly, universities face a mammoth challenge of sustaining its relevance in a rapidly advancing society in which the mission, structure, culture and methods of these institutions are changing. Our knowledge about education systems is evolving in aspects of how it is funded, designed, managed, and delivered. The author explores a critical question of whether institutions have the ability, agility, aspiration, and assets to adapt as higher-education systems transform, and if so, how can technology serve as a catalyst for the necessary change that modern universities must undergo.

Today, university leaders encounter a wicked problem characterized by its difficulty or impossibility to solve due to contradictory knowledge, varying opinions of stakeholders, major economic or cost burdens, and complex interdependences in which traditional problem-solving approaches are not sufficient to answer. Institutional leaders must understand forces and technological influences contributing to this wicked problem such that sense-making can facilitate understanding of university complexities and effect beneficial, impactful societal outcomes.

This book equips institutional leaders with tools, techniques, examples, and lessons learned to respond to social, political, economic and technological dynamics as the role of universities transform in a rapidly changing society. This book positions higher education within a wider social context in which technology will stimulate new

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[1] Pamela E. Queen is a professor at Morgan University, USA. She can be reached at pamela.queen@morgan.edu

opportunities requiring organizational change. This book has four parts which provide valuable insights for institutional leaders.

Part I, titled **Making Sense of the Context for Change in Higher Education**, focuses on the multifaceted interplay of higher education systems with stakeholders, technology, and factors of growth and costs. The author provides guidance for institutional leaders with emphasis on reshaping the landscape of a university as a societal institution, examines complex drivers of change in higher education, and equips university leaders with effective, purposeful strategic actions. From a global perspective, the author draws on lessons learned from over fifty case studies exploring organizational transformation in higher education institutions in New Zealand, Australia, the United States and the United Kingdom. These cases reflect on common challenges facing institutions to become more agile and adaptive in environments characterized by novel ways of accessing higher education, interactions among various stakeholders, assimilating facts, and solving problems in which sense-making and sense-giving approaches are used.

Part II, titled **Technology**, explores technology as a catalyst for change in traditional, teacher-driven educational models, open university models and technology-focused university systems which lead innovation and problem solving. Technology is a major investment and emphasis for university leaders who expect technology will improve the quality and flexibility of learning; and improve speed and performance of educational delivery. Technology promotes significant, positive experiences for many people; therefore, increasing acceleration of technology platforms is important. Technology innovation is achieved by recombining pre-existing technologies with new ideas to generate new products and services that are impractical and too costly to create entirely from scratch (Arthur, 2009; Utterback, 1994).

The author provides insightful lessons learned from a selection of failed and successful virtual university initiatives to develop a framework that university leaders can use to address the wicked problem of university change. A major failure of the virtual university model is a lack of numerous students interested in program offerings. Whereas, successful virtual universities effectively address social, political, economic, technology, and financial drivers. A massive open online course (MOOC), a contemporary equivalent of the virtual university, is an open model of free and broad access to education with wide social benefit. University leaders examining operation of MOOCs gain beneficial sense-making hints to avoid failures and acquire alternative approaches for technology integration. As university leaders contemplate the role, use and impact of new technologies at their institution, sense-making facilitates deliberation, reflection, and implementation of strategies.

Part III, titled **Sense-making and Change in Higher Education**, explores benefits of sense-making in creating a narrative in which universities assume a broader place in society. Sense-making activities assist with recognizing ways in which technology aids in accomplishing organizational goals, sustaining organizational culture, and supporting

continuous quality improvement activities. A sense-making challenge for university leaders is to imagine new uses of technology without disrupting the core ideology and context of the institution. This process connects potential technology ideas with concrete experiences to obtain understanding. Through examination of technology via quality models, university leaders will discover which models have meaning for the various stakeholders. As a commonly cited framework, Harvey and Green (1993) propose that educational quality is framed in five different concepts which often co-exist: (1) Quality as *perfection* which describes conditions of excellence, often exemplified by use of the Total Quality Management (TQM) methodology; (2) Quality as *exception* refers to exceeding a standard like an accreditation systems; (3) Quality as *fitness for purpose* refers to the degree of utility or impact based on performance measures; (4) Quality as *value for money* measures financial cost-benefit and return on investment; and (5) Quality as *transformation* describes mechanisms for continuous quality improvement activities, rather than mere quality assurance.

Part IV, titled **Leading Change in Higher Education through Sense-giving**, explains sense-giving as a powerful tool to engage people, build trust, address ambiguity, and understand relevant experiences that effect personal and organizational change. Whereas sense-making is a process of gaining understanding, sense-giving is intentional attempts to alter how other people think. Sense-giving is not creation of a vision or a plan, but rather a process of awakening in others sense-making for the purpose of guiding organizations towards new operational approaches. Sense-giving and sense-making are intertwined in stages of envisioning, signaling, re-visioning, and energizing (Gioia and Chittipeddi, 1991). The author provides fifteen scenarios of higher education in transition towards universal education. These scenarios are tools for university leaders to generate strategic options for organizational sense-making. Good scenarios support sense-making with plans that generate a wide range of possible institutional contexts that better respond to the complexities of university change. Sense-giving, as a continuous process, values diversity by engaging different voices and encouraging different perspectives which collectively provide mechanisms that address those wicked problems confronting universities.

Overall, this book is a helpful resource handbook for university leaders to overcome major institutional challenges with a framework for constructing more resilient and agile institutions capable of sustaining requisite change. Success in shaping the future of the university requires courageous, determined leaders willing to resolve the wicked problem. As university leaders use sense-making and sense-giving methods, transformational thinking is required to realize proposed evolution in educational institutions. Globally, education reform is underway with change taking place in meteoric speed (Bachman, 2000). Effective university leaders must be ready to learn, unlearn, and relearn to meet this wicked problem challenge.

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