Learning Organizations

WORKING METHODS FOR KNOWLEDGE MANAGEMENT

Titles in this series

Knowledge Economies and Knowledge Work
Bill Lafayette, Wayne Curtis, Denise Bedford, and Seema Iyer

Knowledge Assets and Knowledge Audits
Pawan Handa, Jean Pagani, and Denise Bedford

Critical Capabilities and Competencies for Knowledge Organizations
Alexeis Garcia-Perez, Juan Cegarra-Navarro, Denise Bedford, Margo Thomas and Susan Wakabayashi

Designing and Tracking Knowledge Management Metrics
Alexeis Garcia-Perez, Farah Gheriss and Denise Bedford

Translating Knowledge Management Visions into Strategies
Angel Williams, Monique Ceruti, and Denise Bedford

Assessment Strategies for Knowledge Organizations
Dean Testa, Johel Brown-Grant, and Denise Bedford

Learning Organizations

BY

MALVA DANIEL REID
University of the District of Columbia, USA

JYLDYZ BEKBALAEVA
American University of Central Asia, Kyrgyzstan

DENISE BEDFORD
Georgetown University, USA

ALEXEIS GARCIA-PEREZ
Coventry University, UK

and

DWANE JONES
University of the District of Columbia, USA

United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2021

Copyright © 2021 Emerald Publishing Limited

Reprints and permissions service
Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN: 978-1-83982-431-9 (Print)
ISBN: 978-1-83982-430-2 (Online)
ISBN: 978-1-83982-432-6 (Epub)

ISOQAR certified Management System, awarded to Emerald for adherence to Environmental standard ISO 14001:2004.

Certificate Number 1985
ISO 14001

INVESTOR IN PEOPLE

Contents

List of Figures *vii*

List of Tables *ix*

Introduction to the Series *xi*

Preface *xiii*

Section 1: Learning in the Knowledge Economy

Chapter 1 Knowledge Capital and the Knowledge Economy *3*

Chapter 2 Learning *33*

Chapter 3 Learning Cultures *45*

Chapter 4 Designs for Learning *63*

Section 2: Learning Environments

Chapter 5 Learning at the Organization Level *89*

Chapter 6 Learning at the Team or Group Level *103*

Chapter 7 Learning at the Individual Level *115*

Section 3: Developing Learning Strategies

Chapter 8 Designing and Developing an Organization-wide Learning Strategy *133*

Chapter 9 Communicating and Socializing the Learning Strategy *151*

Chapter 10 Maintaining and Sustaining a Learning Strategy *157*

Appendix 1 Pulling it All Together *161*

Appendix 2 Checklist of Intelligent Organization Behaviors *171*

Index *177*

List of Figures

Fig. 1.	Types of Intellectual Capital.	8
Fig. 2.	Individual as the Focus of Human Capital.	10
Fig. 3.	Graphic Representation of Tacit Knowledge.	11
Fig. 4.	Graphic Representation of Skills and Competencies.	13
Fig. 5.	Graphic Representation of Attitudes and Behaviors.	14
Fig. 6.	The Focus of Structural Capital is Group, Community, and Organization.	16
Fig. 7.	Graphic Representation of Explicit Knowledge.	18
Fig. 8.	Graphic Representation of Procedural Knowledge.	20
Fig. 9.	Graphic Representation of Cultural Knowledge Capital.	22
Fig. 10.	Essential Elements of Collective Culture.	23
Fig. 11.	The Focus of Relational Capital – Knowledge, Relationships, and Flows.	24
Fig. 12.	Graphic Representation of Relational Capital.	25
Fig. 13.	Graphic Representation of Reputational Capital.	28
Fig. 14.	Three Elements of Culture.	49
Fig. 15.	Transitioning from a Control to a Learning Management Style.	57
Fig. 16.	The Interplay of Factors and Culture in an Organization.	58
Fig. 17.	A Learner-focused Design Framework.	68
Fig. 18.	Framework for Understanding Learning Designs and Needs.	69
Fig. 19.	Maslow's Hierarchy of Needs.	70
Fig. 20.	A Group Learning Environment as a Driver of Individual's Effective Action.	109
Fig. 21.	Group Learning as a Driver of Procedural Capital and Improved Performance.	110
Fig. 22.	Group Learning and Relational Capital: Drivers and Outcomes.	112
Fig. 23.	Individual Learning Model.	117
Fig. 24.	Individual Learning in a Networked Environment.	124
Fig. 25.	Learning Strategy Context.	135
Fig. 26.	Elements of Learning Strategies.	137
Fig. 27.	Framework for Institutional Learning Strategies.	142
Fig. 28.	Aligning Communication and Learning Strategies.	152

This page intentionally left blank

List of Tables

Table 1. Fundamental Assumptions for a Learning Culture. 51
Table 2. Learning Partnership and Sponsorship Opportunities. 96
Table 3. Stages of Self-directed Learning and Learning Support Needed. 120

This page intentionally left blank

Introduction to the Series – Working Methods in Knowledge Management

Knowledge sciences as a discipline has a rich and diverse history dating back to the 1950s. In the past 70 years, the discipline has drawn theory and practice from economics, engineering, communications, learning sciences, technology, information sciences, psychology, social sciences, and business and organization management. To craft this discipline, we have developed our own language and terminologies, established our own peer-reviewed journals and built a rich research foundation, created a gray literature, and established a series of networks and conferences. Over the decades, there have been many knowledge management education programs, but there is no consistent curriculum and few have sustained. It has been challenging for new practitioners to gain an understanding of the field. And, while the practice of knowledge management is growing around the world, it has not yet achieved the expected organizational stature. For knowledge management to rise to the stature of other business functions and operations, it must be able to speak the language of business, align with, and support the way the organization works.

This series is designed for business and knowledge management practitioners. Working Methods in Knowledge Management is a multiyear and multivolume series designed to address each and all of the methods required to establish and sustain an organization-wide knowledge management function. The goal of the series is to provide a business perspective of each topic. Each book begins by grounding the method in the business context – then translates established business models and methods to a knowledge management context. It is often the case that this translation expands and extends the business model and method.

The knowledge management literature is rich with introductory handbooks, guidebooks, cookbooks, toolkits, and practical introductions. This literature is an important starting point for anyone new to the discipline. We recommend any and all of these books as a way to build a fundamental understanding of the scope and coverage of the field. These texts will provide a good 10–20 -pages introduction to all of the key issues you need to be aware of as you embark on a new career in the field or have been assigned a new knowledge management role or responsibility. Once you have that grounding, though, we recommend that you look to the Working Methods in Knowledge Management texts as an intermediate source for understanding "What comes next? What now?"

Just as this series is not intended as a starting point for the field, neither is it an ending point. Each text is designed to support practical application and to foster a broader discussion of practice. It is through practical application and extended discussion that we will advance theory and research. The editors anticipate that as practice expands, there will be a need to update the texts – based on what we are learning. Furthermore, the editors hope the texts are written in a way that allows business managers to extend their work to include knowledge management functions and assets. We will learn most from expanding the discussion beyond our core community.

Joint Enterprise, Mutual Engagement, and a Shared Repertoire

From the outset, the publisher and the editors have established a new and different approach to designing and writing the books. Each text is supported by a team of authors who represent multiple and diverse views of the topic. Each team includes academics, practitioners, and thought leaders. Every author has grappled with the topic in a real-world context. Every author sees the topic differently today than they did when the project began. Over the course of several months, through weekly virtual discussions, the scope and coverage were defined. Through mutual engagement and open sharing, each team developed a joint enterprise and commitment to the topic that is enduring. Every author learned through the discussion and writing process. Each project has resulted in a new shared repertoire. We practiced knowledge management to write about knowledge management. We "ate our own dog food."

Acknowledgments of Early Support

The series is a massive effort. If there is value in the series much of the credit must go to two individuals – Dr Elias Carayannis, George Washington University, and Dr Manlio Del Giudice, University of Rome. It was Dr Carayannis who first encouraged us to develop a proposal for Emerald Publishers. Of course, this encouragement was just the most recent form of support from Dr Carayannis. He has been a mentor and coach for close to 20 years. It was Dr Carayannis who first taught me the importance of aligning knowledge management with business administration and organizational management. Dr Del Giudice has been generous with his guidance – particularly in setting a high standard for any and all knowledge management research and practice. We are grateful to him for his careful review and critique of our initial proposal. His patience and thoughtful coaching of colleagues are rare in any field. The field will reach its full potential as long as we have teachers and editors like Dr Del Giudice.

Preface

Overview of the Subject Matter

Learning is a topic that is endemic to human growth and development. Historically, learning has been framed as a formal activity associated with traditional, institutionalized education. The traditional view and treatment of learning have evolved over centuries – with the general trend line being to extend formal learning to a greater percentage of the population. Formal and institutionalized education was an important criterion for success in the industrial economy. Education credentials were the keys that provided access to work with the highest status and financial rewards. As the economy has transitioned to a knowledge economy, though, our understanding and treatment of learning have expanded. The human attributes and characteristics that are important to individuals and organizations today have expanded beyond educational credentials. The knowledge that is important for success today extends well beyond what can be credentialed, certified, standardized, and institutionalized. As the type of knowledge we value has expanded, so must the methods by which we develop and learn that knowledge.

In 2021, learning is multidimensional and multifaceted. It includes tacit knowledge and certified skills and competencies but extends well beyond those types of knowledge to include a rich set of human, structural, and relational capital attributes and assets. Learning is a part of our everyday life, especially in the workplace. Learning happens all day in many different contexts – when and where we learn is as important as what we learn. The dynamic nature of the knowledge economy means that what we need to learn is continually changing. Learning is now expected to occur over a lifetime.

These new developments challenge our fundamental theories of education and learning – the fields of education, psychology, knowledge sciences, organizational management, and economics are rethinking what learning means, how to integrate it into our organizational structures and designs, and how to ensure that there is widespread access to and opportunities for every individual to learn.

Where the Topic Fits in the World Today

When the authors began discussions for this text, learning, and organizational learning, in particular, was a topic of growing concern to businesses and organizations. There were important examples of high-profile public- and private-sector organizations that have designed and implemented new learning strategies.

In 2020, these organizations were at the forefront – with most organizations still focused on traditional approaches to training. Traditional training has focused on ensuring that an organization maintains skills and competencies to support its competitive market position. Traditionally, such training has focused on core business capabilities.

In 2021, there are several trends that are shaping how we think about learning and how we design learning strategies. The rapid pace of growth of the knowledge economy has highlighted learning as the core engine of organizational capital investment and growth. Workforce planning has shifted from a traditional "job focus" to a more comprehensive characterization of human attributes that support creativity, innovation, collaboration, and agility. Rather than hiring and firing for a specific operation, human resource professionals now look at an individual's potential growth over a lifetime. Individuals are now willing to work in many different environments over a lifetime. Whether we chose to work for an organization now depends on the organization's reputation, the opportunity for personal growth, and the organization's working culture. The world of virtual work now expands the landscape of organizations we might work for – regardless of where they are located. All of these trends were well underway in 2020, when the authors began work on this text.

As we write this book, we are in the midst of a worldwide pandemic. Our work environment and our learning environment have shifted dramatically. Those trends that were emerging prior to 2020 have now accelerated to define our new world. The range of knowledge attributes we need to thrive in this new world has expanded. Our personalities and our individual ways of working are now on full display – from the highest-level CEO to the entry-level team member. How well we can work with others – in a constantly changing environment – is clear to others. Relational capital – whom we know and whom we can talk to – has broken down the traditional "levels." And, we are learning more about each other's living and cultural backgrounds – because we are all now "in our native environments" rather than the organization's prescribed physical structure. We do everything from these "home environments" – most learning takes place in that context. Learning has now gone virtual.

While the core focus of this text has remained constant – to provide business managers with sufficient treatment of the issues to design a suitable and reasonable organizational learning strategy – the factors and considerations have expanded. Our original intent was to provide a framework that managers could use to design those strategies. In fact, the past year has given us many opportunities to test and validate our framework. The role and nature of learning will continue to evolve in the future.

Where the Book Fits in the Literature Today

This is the seventh book in the Working Methods in Knowledge Management series. This book builds on the treatment of the knowledge economy, knowledge capital, knowledge capabilities, and competencies, and assessment offered in the 2019 titles.

The rapid development and growth of the knowledge economy have expanded the interest in learning beyond its traditional home in the field of education science. The topics of education, psychology, economics, business administration, and human resource management are central to learning in the twenty-first century. While there is a rich literature on learning in each of these disciplines, the literature is fragmented and scattered across several domains. The authors hope to bridge these gaps, create a cross-disciplinary discourse, and expose gaps in research into organizational learning strategies. This text sits at the intersection of all these disciplines but integrates the essential concepts of each as they relate to learning as a new way of working and thinking.

We draw our fundamental theories of learning and education from educational sciences. In particular, two subdisciplines of education – learning psychology and human development – have generated what we know about how we learn today. These theories are so important that the authors have devoted a full chapter to reviewing this literature. From the researchers in this discipline, we have theories of cognition, fundamental teaching and learning models and theories, and instructional design models and strategies. These subfields also draw heavily from psychology and from neural sciences. Perhaps more than any other field, though, education provides important theoretical and applied research into the assessment.

What does the field of economics contribute to our understanding of learning? This discipline offers two perspectives on learning. The first pertains to the role that information and knowledge play in reducing the uncertainty and risk of economic transactions. The second pertains to the recent, emerging characterization of knowledge as intellectual capital. From the mid-to-late twentieth century, economists modeled and valued information for the role it played in increasing the certainty with which we made the economic choice. The higher the quality of information and the more information available, the better the economic outcome. Learning was an indirect contribution to economic outcomes. This perspective continues to be important to economists in the knowledge economy. Economists have also advanced the discussion of knowledge markets and knowledge transactions. This is a logical extension of modeling the role that information and knowledge play in markets generally. A second perspective emerged, though, at the end of the twentieth century with the new subdiscipline of economics focused on intellectual capital management. This new perspective emerged at the intersection of accounting, asset management, and economics. Several intellectual capital models emerged. As the knowledge economy has advanced, organizations have been challenged to assign value to their stocks of knowledge (i.e., intellectual) capital assets. In the past 20 years, these models have coalesced around three important categories – human capital, structural capital, and relational capital. This Emerald series builds upon the good work of leading intellectual capital researchers.

How do organizational management researchers and practitioners view learning? Learning is a relatively new but important one in this literature. The perspective that is important is that of collective and organizational learning. In the past 10 years, some leading and forward-looking organizations have realized that in order to survive in dynamic business environments, organizations need to continually adapt and adjust. On a practical level, this means

shifting from rigid administrative structures to agile working groups and problem-focused teams. Being agile and problem-focused requires new forms of knowledge capital at all levels of the organization. It means shifting from the task-level business process view to business capabilities. Learning is the process that creates these essential organizational characteristics. These researchers and practitioners have realized that such learning happens in the context and on the job – learning is now a new business capability. Learning at the organizational level contributes to learning organizations. In a knowledge economy, current and potential employees want to work at organizations that grow and offer growth opportunities. Being a learning organization is now an important external brand. Current and potential employees want to work where there is a learning culture that gives them the opportunity to learn and grow every day, in any environment. The learning organization rewards its employees for their potential as well as current contributions and credentials.

Traditionally, human resource professionals have been the voice of learning and training in our organizations. The human resource profession grew out of increasingly complex work environments, increased specializations, and rapidly expanding professions. These professionals designed our job profiles and classifications and developed the concept of work-related competencies. They have been the primary connection between our sources of education and learning and staffing. In the past 10 years, these professionals have shifted their view from job profiles and classification to team composition and complementarities. The work of human resource professionals is shifting from staffing existing positions and vacancies to envisioning the future workforce. The authors have drawn from the current literature of this discipline to speak to "business-relevant" learning.

The Intended Audience for this Book

This text is written for organizational executives who are experiencing and need to design new ways of learning and to invest in their business to thrive in a knowledge economy. The book is written for business managers who must ensure that their employees are learning and growing to support the changing environment, that the day-to-day culture affords opportunities for learning, and to create a culture where employees chose to stay. The book is written for human resource and personnel management professionals and practitioners who are tasked with transitioning from a traditional training environment to a more comprehensive and inclusive learning environment. The book is written for human resource managers who are charged with envisioning and planning for the workforce of the future, working with the available human capital. The book is written for economists who are struggling to redefine what capital investment and growth means in the knowledge economy. The book is written for knowledge management professionals and practitioners who need to focus on the future and to connect their tactics and activities to the bigger picture. Finally, the book is written for workers who are struggling to understand how to prepare for and adapt to the new world of work and learning.

Structure of the Book

The book is organized into three sections and 10 chapters. Section 1 is comprised of four chapters and introduces the reader to the basic characterization and role of learning in the knowledge economy. Section 2 is comprised of three chapters. This section provides an application of a learning framework to three important levels, including at the organization, the team, and the individual level. Section 3 is comprised of three chapters. This section considers how the reader might leverage what was learned in Sections 1 and 2 to developing suitable and reasonable strategies for their organizations. This section also provides guidance for communicating and maintaining these strategies into the future.

Section 1. Learning in the Knowledge Economy

- Chapter 1. Knowledge Capital and the Knowledge Economy
- Chapter 2: Learning
- Chapter 3. Learning Cultures
- Chapter 4. Designs for Learning

Section 2. Learning Environments

- Chapter 5. Learning at the Organization Level
- Chapter 6. Learning at the Team or Group Level
- Chapter 7. Learning at the Individual Level

Section 3. Developing Learning Strategies

- Chapter 8: Designing and Developing an Organization-wide Learning Strategy
- Chapter 9. Communicating and Socializing the Learning Strategy
- Chapter 10. Maintaining and Sustaining a Learning Strategy

Chapter Summaries

The summaries of all 10 chapters are provided in the following. The reader will also find extensive references to literature from thought leaders and practitioners in that topic.

Chapter 1 describes the role of knowledge as the primary factor of production in a knowledge economy. Knowledge is the critical capital asset in the knowledge economy. Because the economic properties and behaviors of knowledge are different from financial and physical capital, the authors explain the need to rethink how we see economic transactions and how we think about capital investment and development. Learning is the primary investment activity in knowledge capital. Each type of knowledge capital is different, though, and requires a distinct learning strategy.

Chapter 2 explains traditional learning theories. Learning is the primary investment strategy for the knowledge economy. There is a rich literature – theoretical and applied – focused on learning. This chapter provides a high-level review of

various theories of learning as described in behavioral and cognitive theories. This chapter translates the theory to the knowledge economy and explains how these theoretical concepts can be applied in the future knowledge workplace. The chapter also considers how individuals learn. Finally, the chapter explains how organizations can utilize theory to enhance the learning in the workplace of employees.

Chapter 3 defines culture and explains the different conceptual models developed by key researchers in the field. The authors explain why it is essential for us to learn how to see our cultures. The chapter breaks the conceptual models down into three essential elements, including assumptions and beliefs, values and behaviors, and artifacts. The authors explain why and how each organization's culture is unique, and walk through the factors that influence our organizational cultures. The chapter reminds us that it is hard to deliberately change an organization's culture because it is inherently dynamic. Each organization should strive to understand how these factors affect our organizations.

Chapter 4 introduces a comprehensive framework for designing a learning organization. While some organizations have begun the process of redesigning for learning, most continue to follow a traditional, formal education model. The authors consider the changing work environment of the knowledge economy and explain why it is important to rethink all aspects of learning. The comprehensive framework covers why we learn, who is learning, what they are learning, where and when they are learning, and whom they are learning from and with. The authors suggest that every organization's learning design must be suitable to its business goals and reasonable in terms of the resources available.

Chapter 5 focuses on the practical aspects of building learning capacity at the organization level. The authors define and distinguish learning organizations, learning at the organizational level, and organizational learning. The chapter defines organizational learning as the capacity for the organization – individually and collectively – to behave intelligently (syntropy) and to avoid behaving unintelligently (entropy). The chapter describes opportunities an organization can take to expand organizational learning through partnerships and sponsorships.

Chapter 6 focuses on learning at the team level. Teams and their performance are key for the ability of individuals and the organization to take effective action in uncertain, complex, or changing conditions. A collective culture that values the knowledge of all employees leads individuals to seek and use the knowledge of others, driving team, and organizational learning. The attitudes and beliefs of individuals and the workforce become as important as their skills and competencies for the success of the business strategy and its operations. Team or group learning helps capture effective procedural knowledge and diffuse it across the organization, which increases self-esteem and cost-effectiveness within the business. Team learning helps with new and extended knowledge networks, facilitating collaboration between individuals and with non-human actors for the benefit of the business.

Chapter 7 focuses on the role that individual learning plays in the learning capacity of a knowledge organization. The authors defined individual learning and considered how learning styles and factors should be considered in designing a new learning environment. This chapter also explains how individual learning fits into both the collective learning capacity of the organization and the overall

learning capacity of the organization. The chapter also highlights the importance of developing individual learning strategies and plans for each individual at every level and in every organizational unit.

Chapter 8 provides the reader with guidance and advice to develop a learning strategy for their organization. While all organizations can leverage learning theory, common definitions of knowledge capital, and work from common elements of a learning culture, each organization requires its own learning strategy. And, each organization must continually manage and renew that strategy to reflect the changing external and internal business environment. This chapter considers how to craft a strategy that is suited to a dynamic and often turbulent environment. A dynamic learning strategy – aligned with the dynamic business strategy – is essential for the adaptability and transformation that operating in such a dynamic context may require. Adaptability, innovation, and transformation require an ongoing process of knowledge capacity building and reassessment.

Chapter 9 considers how to leverage communications capabilities to support each component of the learning strategy. The promotion of a learning organization's reputation and image may benefit from public relations support. Strategic communications practices are well suited to promoting the organizational-level learning strategy. Group-level learning strategies and individual learning plans can be effectively supported by internal communication methods and practices. Finally, the most effective support strategy could be simple socialization through everyday learning conversations and communications among employees.

Chapter 10 explains how organizations might ensure that their learning strategies remain relevant, reasonable, and valuable to the organization. The authors explore what it means to keep the learning strategy alive at all levels of the organization. Keeping the learning strategy relevant means continuously reviewing the state of the external business environment, assessing the current stock of knowledge capital, defining the gaps, and updating all levels of the strategy to fill those gaps. Maintaining and sustaining the learning strategy is a significant collaborative and coordinated effort. Sustaining the learning strategy means treating learning as an essential business capability, with reviews and assessments. It means adapting the learning strategy to reflect changes in the business vision, mission, and strategies. It means continual investments in and nourishment of the learning culture.

How this Book Impacts the Field

The authors hope the book will contribute to the literature of business and management by shifting the discourse about learning as a capital investment strategy rather than as a traditional training strategy. In some ways, this book represents a return to the early twentieth century when individuals learned from many formal and informal sources in their communities. In other ways, it is a radically new treatment of these topics because it requires more intentional and deliberate planning at the individual level. Individuals can no longer rely on organizations they work with to tell them what they need to learn to survive in the knowledge economy. It represents a democratization of learning across society to ensure that learning opportunities are available and accessible to everyone. Learning is the

engine that drives the knowledge economy. Learning is what builds knowledge capital. Knowledge capital is what determines the state of any local, regional, or national economy.

The book considers how organizations might approach the development of learning strategies for each individual, for groups, and for the organization as a whole. The book recognizes that learning strategies are negotiated between individuals and organizations – to achieve value for both. Finally, the book considers how to "right-size" and "best fit" a learning strategy to support an organization's business goals – at a given point in time, in a given market, and at a given level of resources. The text emphasizes the importance of aligning business, knowledge stocks, and learning strategies.

The authors hope the book will contribute to the field of human resource management by increasing the visibility of learning and the importance of knowledge capital. The expectation is that the book will highlight the value of knowledge capital to both individuals and organizations. The focus on organizational learning is a new opportunity for both human resources and the business to engage in building new learning capacity. Hopefully, the book expands the discourse between economists, knowledge scientists, and human resource professionals on how each can contribute to designing a workplace of the future. A cross-discipline dialog will draw upon the best of each and create a richer understanding for the future.

Note from the Authors

The authors have collaborated on this text during a period of significant change. Each of our countries went into COVID-19 lockdown just as the team came together to define the scope and coverage of the book. The issues we had chosen to address were issues we all experienced firsthand. Our working environments changed from rich in-person physical interactions – at a local and international level – to sequential virtual activities. Rather than serendipitous conversations and communications, our worlds became more deliberate, intentional, and scripted. We were forced to redesign kinds of events that had become commonplace (e.g., conferences, office hours and meetings, hallway conversations, brainstorming around a whiteboard, happy hours, and collegial dinners) to something entirely new.

Our work and home environments have blended. Becoming more virtual has opened our homes to our coworkers. Where work-related learning happens is now – by definition – at and from home. When learning happens is now whenever we have the time. Everyone has now become a part-time teacher as our families' learning is now based at home. Our cultures shifted significantly, as did our communications structures and channels. Some of our fundamental assumptions and beliefs were exposed to greater scrutiny, and we were given new opportunities to "see" and compare our values. Throughout the past year, these changes have reinforced our view of the essential role that learning plays in our everyday work environments. The COVID-19 pandemic has caused us to be more creative, thoughtful, and inventive about why, what, when, where, how we learn, and whom we learn from. We hope that the way we have framed this topic has value as we all navigate this.

Section 1

Learning in the Knowledge Economy

This page intentionally left blank

Chapter 1

Knowledge Capital and the Knowledge Economy

Chapter Summary

This chapter describes the role of knowledge as the primary factor of production in a knowledge economy. Knowledge is the critical capital asset in the knowledge economy. Because the economic properties and behaviors of knowledge are different from financial and physical capital, the authors explain the need to rethink how we see economic transactions and how we think about capital investment and development. Learning is the primary investment activity in knowledge capital. Each type of knowledge capital is different, though, and requires a distinct learning strategy.

Why We Care About This Topic

Knowledge is the primary form of capital in the new economy. We care about knowledge as capital because the economic properties and behaviors of knowledge – as a commodity – are different from other forms of capital. Learning is the investment that leverages and grows knowledge capital. An organization's learning strategy and culture must suit all forms, behaviors, and properties of knowledge capital. Additionally, the investment in learning must be reasonable and suitable to the organization's business vision and goals. In this chapter, the authors explain the need to tailor learning to each type of knowledge capital.

Learning and the Knowledge Economy

The knowledge economy presents challenges and opportunities. The primary challenge is transitioning from learning processes, cultures, and designs of an industrial economy to those required to survive in a knowledge economy. Every economy is defined by what it produces and what it consumes. Economies are production engines, and they are the factors of production that distinguish one economy from another. In the agricultural economy, the primary production

Learning Organizations, 3–31
Copyright © 2021 by Emerald Publishing Limited
All rights of reproduction in any form reserved
doi:10.1108/978-1-83982-430-220211001

factors were land, seed, and human physical labor. In the industrial economy, the primary element of production was industrial machinery and facilities that converted raw resources into finished products. In the knowledge economy, the primary factors of production are all forms of knowledge capital. Knowledge capital is the engine of the twenty-first century economy. This new economic engine runs on a new kind of fuel – learning. In this new economy, everyone knows what they can do with that knowledge is now a critical competitive factor for an organization. Innovation drives competition, rather than efficiency and effectiveness of production. Learning must be pervasive, inclusive, continuous, dynamic, and creative to fuel knowledge organizations. Where learning as fuel is rationed or restricted across an organization, that organization will perform at a lower capacity. Organizations where learning as fuel is absent from everyday operations will fail to compete in the knowledge economy.

The knowledge economy creates a wealth of learning opportunities. We need a new approach to learning for the knowledge economy. The new approach means seeing learning differently – as something everyone does, every day, in every context – to achieve the organization's business goals. This new approach has significant implications for what managers do every day – for how and what they manage. Managers must now be catalysts of learning – just as managers were responsible for the performance of agricultural work or industrial operations – so today, are they responsible for creating a rich learning environment in which their workforce can thrive.

We are in a transition stage – shifting managers' role from an industrial economy to a knowledge economy. There is little guidance on what this new management role means – and what competencies support it. This book provides managers with a framework and an action plan for helping their organizations transition to this new economic reality.

Nature of a Future Knowledge-based Economy

Over the past 70 years, the US economy has shifted from an advanced industrial economy to a knowledge-based economy. A knowledge economy is one in which knowledge capital is a primary production factor, equivalent to raw materials, labor, and financial capital, as the primary means of production. In the industrial economy, physical capital (land, equipment, buildings) and financial capital were the primary factors of production and wealth sources. In the knowledge economy, knowledge or intellectual capital is the primary factor of production and the main source of wealth generation (Carlaw, Oxley, Walker, Thorns, & Nuth, 2006). Houghton and Sheehan (2000) suggest that a knowledge economy is one in which knowledge is a crucial resource … one in which the generation and the exploitation of knowledge have come to play the predominant part in the creation of wealth. Powell and Snellman (2004) define the knowledge economy as "production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance". Knowledge is what fuels our twenty-first century economic systems.

Machlup first observed this shift in the 1950s. Since the 1950s, economists have attributed the shift to the rise in the importance of services, information, an increasingly educated and trained workforce, technology, increasingly virtual work environments, and increases in artificial intelligence and automation. The common element to all of these perspectives is the increased value of knowledge.

The shifting economy changes the external business environment in which organizations function and the internal business environment that enables them to survive. Knowledge capital is increasingly important as the pace of change outside of the firm increases, which puts pressure on changes to unfold faster and more completely within the organization or organizational unit (Floyd & Wooldridge, 1996; Grant & Baden-Fuller, 1995; Oxtoby, McGuiness, & Morgan, 2002). The external environment includes other organizations, as well as the cities and neighborhoods in which they function. Organizations need to understand the extent of the changes and impacts, particularly as they affect the workforce. It is vital for all of us in the workforce to see these changes as opportunities and better understand how we can leverage our individual and collective knowledge capital to succeed in this new economy.

The shifting economy also has affected the nature of work. Labor economists, sociologists, and human resource researchers have chronicled the shift in work – from physical labor to knowledge work, from labor that supports a predefined business process to one that leverages capabilities. Knowledge work has been characterized as work that requires educational credentials and leverages "thinking." This characterization is further reinforced by the increased automation of processed based work, off-shoring of jobs, and the increased number of jobs that required advanced qualifications. Every day we read of neighborhoods and cities that have been devastated by the loss of employment and the impact this loss has on everyday lives.

There is a more fundamental disruption to work than these visible and apparent impacts. The disruption is to our essential thinking about work and the relationship of people to work (LaFayette, Curtis, Bedford, & Iyer, 2019). For centuries, we have seen people as "operational resources" – they were the laborers who worked in the field to plant and harvest crops. The land and the agricultural machinery and tools were capital, not the laborers. For centuries, we have seen people defined by the jobs and billets they filled and their classification. People were and still are in some sectors, viewed as expenses and expendable resources. When a person becomes too expensive compared to the process, we retire them, fire them, or simply make them redundant. In neither the agricultural nor the industrial economy did we see people as having value for their knowledge. While education and skills were valued in the industrial economy, we saw them as formal external credentials rather than individuals' attributes.

Knowledge has always been part of our economic systems, but recent events and advances have made it more visible and accessible. Increased knowledge capacity in populations has increased our awareness of its value and its power to

change economic relationships. A knowledge economy reduces barriers to entry, is not constrained by the traditional rules of consumption and property, and is by definition prone to economies of scale and scope. We are now seeing a growing awareness that every type of work, every role, every worker – is a source of knowledge in the knowledge economy.

The transformation has substantial implications for an organization's knowledge capacity. Organizations need to leverage the knowledge capital of their entire workforce. Learning is the source of knowledge capacity of organizations.

In the new economy, knowledge is an asset that produces wealth, multiplies the output of physical assets, gains a competitive advantage, and enhances the value of other types of capital. Recently, economists have begun to classify knowledge capital as a real capital cost because (1) investment in people is equivalent to investment in machines and plants and (2) expenses incurred in education and training are equal to depreciation costs of physical assets.

Historically, the knowledge capital we needed for an agricultural economy was related to managing the land and producing the crops or agricultural resources it produced – a few individuals had more extensive knowledge. Still, people were valued for the physical labor they provided to generate those crops. Gradually, humans are being replaced by machines in agricultural work because machines are less fragile and durable. In this earlier economy, managers and landowners were the "thinkers" – they directed and controlled the use of human labor.

Historically, the knowledge capital we needed for an industrial economy was related to how to support the industrial process – the shift in this economy was the need for more brainpower to define and manage the process. The overseer or agricultural team supervisor's role in the agrarian economy expanded to include more coordination in increasingly complex organizations in the industrial economy. Management expanded to include budgeting, directing, controlling production resources, for example, human physical labor.

In the twenty-first- century knowledge economy, the model shifts significantly. The workforce and its knowledge are now as if not more important than the process or the raw materials. The role of managers shifts from command and control of a workforce to that of a catalyst creating opportunities for the growth of knowledge capital at all levels and in all contests. In this new economy, what we mean by knowledge capital expands significantly. We note that managers are now learning catalysts, learning designers, and engineers. Learning is no longer a stand-alone role of Chief Learning Officers or Human Resource Managers or Training Officer. These individuals still play an essential role. But they are not on the job and in the position with the workforce every day. The shift in production factors means that operational managers now have new roles for ensuring that learning is part of the way we work every day.

What is this knowledge capital that managers need to cultivate in their workforce? What is the definition and characterization of knowledge capital – how is it different from earlier economies?

Economic Properties and Behaviors of Knowledge Capital

In a knowledge economy, the core commodity – the primary factor of production – is knowledge. The definition of knowledge itself presents challenges. Knowledge is a term that has meaning in many and perhaps all fields. In some fields, it is defined as a process. In other fields, it is a tangible or intangible thing. And, in others, it is an attribute of a person. Let's take an economic perspective since we're interested in understanding how knowledge changes our economic systems. Knowledge is what fuels our twenty-first century economic systems. Knowledge has always been part of our economic systems, but recent events and advances have made it more visible and accessible. Increased knowledge capacity in populations has increased our awareness of its value and its power to change economic relationships.

As a capital asset, knowledge is different from physical or financial capital. How are they different, and what are the implications of these differences? Economic properties of knowledge vary from other kinds of capital because the concept of scarcity does not apply. After all, knowledge grows rather than diminishes through use and expenditure. Knowledge must be experienced because it is a public rather than a private product. It has high opportunity costs associated with consumption rather than acquisition. Knowledge markets are also imperfect and non-competitive (LaFayette et al., 2019). The economics literature identifies 15 properties that affect the behaviors of knowledge capital, including:

- Scarcity
- Experience Goods
- Extensibility
- Public Goods
- Opportunity Costs
- Non-competitive Markets
- Cost of Time
- Openness
- Collaborative
- Transparency
- Interactiveness
- Perishability
- Derivative
- Infinite Useful Life
- Dynamic

Each of these economic properties will influence how we think about and invest in and grow knowledge capital.

Primary Factors of Production – Knowledge Capital

Knowledge capital is referred to in different ways by business managers and accountants, economists, human resource professionals, and technologists (Carayannis & Formica, 2006; Chen, Zhu, & Yuan Xie, 2004; Edvinsson & Malone, 1997; Roos, Edvinsson, & Dragonetti, 1997; Sveiby, 1997a, 1997b). *Business managers and accountants* treat knowledge capital as an intangible asset. This perspective compares the tangible and quantifiable attributes of physical and financial capital to the intangible attributes and hidden value of knowledge capital. Business managers and accountants have long recognized the value of human

capital – the way they refer to knowledge capital. From this perspective, knowledge capital includes reputation, know-how, process knowledge – no business process or operation can function without some working knowledge. Business managers also understand the value of knowledge to an organization's competitive status in a market, its role in redefining or remaking those markets, and the composition of those markets.

We can already see the impact of businesses that have realized the value and leverage that knowledge capital offers.

Types and Attributes of Knowledge Capital

This text is grounded in the economics literature and the work of intellectual capital researchers. Intellectual capital researchers offer several different typologies of knowledge capital. The work of Bontis (1996, 1998), Bontis and Fitz-Enz (2002), Andriessen and Stem (2004), and Amidon, Formica, and Mercier-Laurent (2005) is the most widely referenced and cited. These researchers define three broad categories, including: (1) Human Capital – tacit knowledge and skills, and attitudes; (2) Structural Capital – culture, procedural knowledge, and explicit knowledge; and (3) Relational Capital – communication, knowledge, and social networks as well as overall reputation and brand. We take as a starting point three categories of knowledge capital, to which we've mapped existing frameworks and treatments (Andriessen, 2004a, 2004b, 2004c, 2006). These categories include human capital, structural capital, and relational capital (Fig. 1).

The new emphasis on knowledge capital requires new strategies and tactics for growing, investing in, managing, and leveraging people. Our traditional focus has been on people as resources aligned with jobs and processes. The conventional

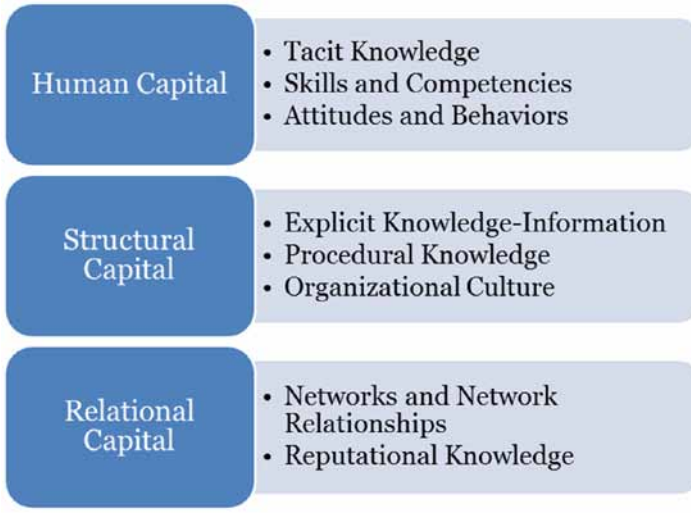

Fig. 1. Types of Intellectual Capital.