Preface

Knowledge is power. Knowledge represents one of the few bases of sustainable competitive advantage available to the modern enterprise, but knowledge is distributed unevenly through most organizations. Rapid and reliable flows of knowledge across people, organizations, times, and places are critical to enterprise performance. Unfortunately, most leaders and managers have negligible current guidance for assessing and enhancing knowledge flows in practice. A dearth of contemporary research addresses the dynamics of knowledge, which are fundamental to understanding knowledge flows—and in turn both individual and organizational learning and the knowledge-based competitive advantage that they enable.

Epistemology has much to say about the nature of knowledge, but it offers little actionable guidance for the leader and manager; Information Science and information technologies have much to say about flows of information and data, but knowledge is distinct (e.g., it enables action) and exhibits different dynamic behaviors; Knowledge Management has much to say about organizing static knowledge, particularly knowledge articulated in explicit form, but it remains largely silent concerning the dynamics of tacit knowledge; Strategy has much to say about the benefits of competing on the basis of knowledge, but it offers little in terms of how such benefits can be obtained.

Alternatively, Knowledge Flow Theory has been developed to address the dynamics of knowledge—as distinct from information and data—directly. It applies equally well to tacit and explicit knowledge, static knowledge stocks and dynamic knowledge flows, knowledge at the individual and organizational levels. With this, principled techniques enable the practicing leader and manager to analyze and visualize flows of knowledge using a multi-dimensional framework. Such techniques facilitate diagnosing an enterprise’s knowledge flows for problems such as bottlenecks, clumping, source inadequacies, and short circuits. Archetypical knowledge-flow patterns associated with well-understood management interventions (e.g., training, mentoring, communities of practice, experience, technology) can be matched with diagnosed problems to generate practical plans and actions for enhancing knowledge flows.

The knowledge of how to diagnose and enhance knowledge flows exists today. It has emerged from the laboratory and begun informing leaders and managers in highly practical ways. Such knowledge, however, remains held by a relatively small and rarefied collection of academics and practitioners, knowledge which itself can enable competitive advantage, particularly over those hipster organizations that have dismissed knowledge management as a fad passé and their primitive counterparts that continue to place hope and money on information technology tools.

Indeed, Knowledge Flow Theory is much more than theory; it is practice—just not common practice yet—informed by actionable principles. This book condenses, consolidates, and collimates such actionable principles into an articulated form that can enable leaders and managers to depart from the prevalent, current, and problematic practices of trial and error, imitation, technology focus, and willful ignorance.
Trial and error represents a well-known approach to organizational knowing and learning: it is known for being very slow and inefficient as well as error-prone. Imitation represents another well-known approach to organizational knowing and learning: it is known for copying the many mistakes of others as well as their occasional successes. Technology—particularly information technology—is necessary but not sufficient: it tends to be expensive and to change rapidly, but it is known for not supporting sustainable competitive advantage. Willful ignorance represents a “strategy” adopted at one’s peril.

In contrast, our principled approach to organizational knowing and learning can enable leaders and managers to identify and solve problems with knowledge flows. Through such principled intervention, an organization can set the standard to be envied and imitated by its competitors.

This book builds upon theory but targets practice; it takes knowledge known only within a small, rarified community and shares it with many leaders and managers. It translates what may seem arcane and controversial into managerial guidance that is sophisticated yet practical. It complements the many extant management books on strategy, technology, knowledge, and systems while addressing a well-recognized and significant void. This book provides 30 principles on which to base the most important decisions and actions in an organization: harnessing dynamic knowledge principles for competitive advantage in the technology-driven world. Such a principled approach defines a unique place for and contribution of the book. This book also provides 30 leadership mandates to make actionable the principles and applications presented in this volume. Such integration of principles and applications defines another unique place for and contribution of the book. The book further provides clear and broad application to multiple organizations in the corporate, government, and non-profit sectors, and it takes on cyberspace, cloud computing, virtual environments and worlds, social media, and emerging knowledge phenomena to guide contemporary leaders and managers and to illustrate the broad and powerful applicability of such principles and mandates—tomorrow as well as today.

The overall objective is to inform the practicing leader and manager about the importance of dynamic knowledge and to provide practical but principled guidance for diagnosing and enhancing knowledge flows. The mission is to condense Knowledge Flow Theory—and the principled practice that it informs—and to distill it into an actionable form of immediate relevance and use by enterprise leaders and managers. The principal audience is the enterprise leader and manager (e.g., in business, government, non-profit) with concerns about organizational knowledge and sustaining competitive advantage. The book provides a set of actionable principles to understand the phenomenon of knowledge flows, and it includes many concrete examples to help ground such principles in the realities of practice. The principles explain why dynamic knowledge phenomena behave as they do, and through principles-based reasoning, they inform the leader and manager of ways to harness dynamic knowledge for competitive advantage in the technology-driven world. The application cases explain how organizations from across a very wide range of sizes and domains—from the largest corporations and government agencies to the smallest non-profit clubs and groups—both succeed and fail at harnessing dynamic knowledge; hence, through case-based reasoning, they provide both positive and negative examples for the leader and manager to use in comparison with his or her own organization.

The academic is also likely to take interest in the book for use in teaching (e.g., on knowledge management, information systems, strategy, organization) and for research. The concise and articulated set of 30 principles for knowledge dynamics remains unmatched today in the scholarly literature. Each chapter also includes exercises to stimulate critical thought, learning, and discussion. These exercises are ready for classroom use and allow ample room for instructors to tailor the associated discussions. The references cited in this book point to a rich and integrated literature that remains fragmented largely among
several different scholarly fields at present. Such references point to a substantial, growing intellectual basis for understanding knowledge flows and for harnessing the power of dynamic knowledge. Because most dynamic knowledge principles remain timeless, the corresponding references refer to seminal and key works published many years or even decades ago; yet because the technology-driven world changes incessantly, the corresponding references are much more current (at the time of this writing).

The international scholar and business manager is likely to take interest in the book as well. Although the examples and cases reflect in large part the author’s principal focus on relatively large, Western organizations, the examples and cases span multiple nations across Europe and North America, and they include small non-profit firms as well as large corporations and government agencies. Further, the intellectual basis of the book builds upon scholarly work rooted in the East and West alike, and the dynamic knowledge principles articulated throughout the book are intended to be quite general, applying equally to the small firm as to the large, in the East as in the West, and to tomorrow as to yesterday. Nonetheless, we acknowledge that the examples and cases do not include everyone and that some people may wish to see others. We welcome such people to build upon the content, concepts, and principles written in this book and to expand our collective repertoire to address just such additional examples and cases.

This book is organized into three major sections. Section 1, “Intellectual Basis,” provides the intellectual foundation needed for practical application as addressed in Section 2 of the book, and it enables insightful interpretation of emerging phenomena discussed in Section 3. Each section is comprised of five chapters, and each chapter is organized with a comfortable level of similarity.

The book also includes a relatively large glossary of key terms. Each such term is defined and includes a pointer to the chapter in which it is discussed. Although universal agreement on the definitions contained in this glossary would not be expected at this time, by including such glossary, we make explicit the meaning and usage of key terms used in the book. This helps to promote a common lexicon in the field of Knowledge Dynamics. It also enables one to understand, explicitly, what the various terms in this book are intended to mean. This provides a stark contrast with most books today.

The book further includes an appendix that lists the code of a small, simple, illustrative expert system discussed in the knowledge technology chapter. By including the complete code, the book enables an instructor to leverage the expert system discussion and gives students an assignment to develop a small system of their own. Students can learn much from developing expert systems, particularly when assigned to “knowledge engineer themselves”; that is, when the assignment is for students to make explicit the knowledge that they possess. This helps students to understand better their own tacit knowledge, and it reinforces numerous important principles about knowledge from the book.

To harness the power of dynamic knowledge principles, one must understand how knowledge flows, in its myriad different forms, through the organization; that is, one must understand the dynamics of knowledge flows. The key to such understanding is knowledge: knowledge about knowledge dynamics. Such knowledge represents the focus of this book. Through its principles, the leader and manager can learn to harness knowledge for sustainable competitive advantage in the technology-driven world.

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