Harnessing Knowledge Dynamics
Principled Organizational Knowing
and Learning

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Knowledge exhibits some properties of inertia such as tendency to remain at rest.

Knowing reflects knowledge in action.

Learning reflects knowledge in motion.

These are three (my favorites) of the 30 knowledge-flow principles that frame Harnessing Knowledge Dynamics, a book by Mark E. Nissen (of course, if you want to know what the other 27 are, you will have to read the book). The premise of the book is that knowledge management (KM) isn’t just about classifying knowledge and building IT-focused systems in order to store, search, retrieve, and visualize it. Rather, KM is more about identifying tacit knowledge and knowledge users and matching them to work processes so that knowledge is directed to those who need to apply it with the result that value is added to the organization. In this view, a knowledge flow is the movement of knowledge from repositories; for tacit knowledge, this is usually people, to those who need to use the knowledge to accomplish some task. To me, these principles reflect the key issues in KM. The first reflects that tacit knowledge is “sticky,” meaning that it is difficult to pass from a knower to someone who needs to learn but doesn’t necessarily possess the context of understanding needed to assimilate the knowledge. The second reflects that knowers can apply knowledge to solving problems and performing tasks that are of value to the organization; it illustrates that knowledge has value. The third reflects the process needed to flow knowledge from a knower to a knowledge user.

So what is a knowledge flow? The book defines this as the dynamic movement of knowledge between coordinates.
(between individuals or organizations, or points in space or time). This is the crux of KM, and the book focuses on understanding, modeling, and visualizing knowledge flows; how these flows relate to participants in a work process; and how all of this works together to improve organizational competitiveness.

The book consists of two sections, each comprised of five chapters. Section 1, Intellectual Basis, builds the theoretical foundation, discusses the 30 principles of knowledge flow, and generates corresponding implications for managerial learning and intervention. Additionally, the section provides models and techniques for identifying, analyzing, visualizing, and applying knowledge flows. The second section, Practical Application, applies the knowledge flow principles from Section 1 and generates 30 leadership mandates for guiding an organization in applying knowledge. Section 2 uses nine case studies to illustrate, apply, and analyze the knowledge flow principles and to generate the leadership mandates. The leadership mandates are oriented to managers and serve as guidance in applying knowledge flow principles to solving organizational issues and improving organizational performance. The mandates are very focused and detailed; however, my two favorites are the shortest:

Knowledge can be lost and found.

Trust cannot be bought.

These two mandates reflect my own experience in managing knowledge. I observed early that employees can be motivated to use systems and perform in a process, but trust was fostered through the organizational culture and the values the organization considered important. Also, while I could motivate employees to perform through incentives, I couldn’t force them to share their knowledge; that took a foundation of trust that I alone could not create; either the organization had it or it didn’t. Additionally, I observed that people were the main repositories of tacit knowledge. As a consultant, I found my job was made easier when I found sources of knowledge in the organization I was consulting, too—sources they didn’t know existed or had forgotten they had. I often tell my MBA students that the main job of a consultant is to find out what management wants and then go to the employees to find the solutions that would work, since many times they already know the answers, but management just didn’t listen to them. The other function I’ve performed is that of rememberer. As I’ve gained more experience, I’ve noticed that there are many times when new members to the organization didn’t know what had happened in the past, which dictated why we did things the way we did. In these cases, I served as a knowledge link to the past, or in cases where I didn’t remember exactly what had happened, I searched and found this lost knowledge.

What does this have to do with a book review? The point I’m making is that this book is a well-blended mix of theory and practice, and it does a good job of articulating concepts and issues that many KM researchers and practitioners have intuitively grasped but perhaps not articulated. This makes the book useful for the academic, the practitioner, and the student. Value for the teacher and student is enhanced by a section of exercises and questions provided at the end of each chapter. Value for the practitioner comes from the application cases and identification of leadership implications. Value for the academic comes from the strong theoretical foundation. The next
two sections reflect my assessment of the strengths and weaknesses of the book.

**STRENGTHS**

There are three main strengths of the book. The first is the focus on understanding, analyzing, and modeling knowledge flows. The technique of multidimensional knowledge flow visualization is a useful tool for KM researchers and practitioners.

The second is combining the use of case studies with theory in order to illustrate how the principles of dynamic knowledge flow are applied in organizational settings. I particularly like the use of cases from a variety of different organizational settings. Cases used come from new product development, project performance, technology transfer between a university and a business organization, military applications to warfare, federal bureaucracies, public service organizations, and large-scale IT integration, nonprofit organizations, a tennis club, and a nondenominational community church. The use of a variety of organizational settings demonstrates that knowledge flow principles can be adapted to any organization and build credibility for practitioners wondering if this is just another minimally useful theory or a real-world applicable tool.

The third is the inclusion of exercises at the end of subsections within each chapter. The exercises provide talking and review points and enable the book to be received more aptly as a textbook.

**WEAKNESSES**

There are three main weaknesses. The first is that the discussion on technology will not satisfy the technophile. I understand and appreciate the focus on people and process. However, in order for the book to be the sole textbook for a general course on KM, it also needs to address technology in more detail. Some additional technologies to discuss include wikis, data mining, data warehouses, and Customer Relationship Management (CRM). Wikis enhance communication, which would seem to improve knowledge flows. Some more detail needed would be with respect to knowledge representation in databases and data warehouses, knowledge discovery through data mining, and managing customer knowledge through CRM.

The second is that the book doesn’t integrate well other key concepts and techniques from KM. Social Network Analysis (SNA) is a tool for analyzing knowledge flows within groups and/or organizations, which is gaining acceptance. Knowledge mapping is a tool for mapping sources of tacit knowledge in an organization and assisting in locating lost sources of knowledge. Finally, I would have liked to see stronger ties between knowledge flows and formulating KM strategy.

The third is that although the chapter sections do have exercises, the exercises appear to be the same or closely related. I agree that the exercises are good (see strengths), but having the same set of exercises weakens the appeal to students and teachers, as it doesn’t vary the discussion as much as it could. This can also be said for having cases that vary so much on subject. While they indicate that knowledge flows apply to many organizational settings, they don’t allow the in-depth look that having nine cases all focused on typical business organizations would have. As an example, having cases that focused on different industries such as retail, finance, health care, engineering, and so forth would have appealed to the MBA student. However, I also have to admit that this is a weakness that
cannot be solved. It would not be possible for the cases to meet everyone’s needs or viewpoints without making the book overly long and tedious.

**CONCLUSION**

I like *Harnessing Knowledge Dynamics*. It makes a strong contribution to the KM discipline and helps guide the discipline to include the areas of workflow and knowledge flow and to enhance organizational performance. The book’s strengths greatly outweigh its weaknesses, but the weaknesses do limit the usefulness of *Harnessing Knowledge Dynamics* as the sole textbook for a general course on KM. I do see *Harnessing Knowledge Dynamics* as a text for a course focused on integrating KM into organizational work processes, a course that I think should be included in every KM degree program and required for every Chief Knowledge Officer or KM manager.

Murray E. Jennex is an associate professor at San Diego State University, editor-in-chief of the International Journal of Knowledge Management, and president of the Foundation for Knowledge Management (LLC). Dr. Jennex specializes in knowledge management, system analysis and design, IS security, e-commerce, and organizational effectiveness. Dr. Jennex serves as the Knowledge Management Systems Track co-chair at the Hawaii International Conference on System Sciences (HICSS). He is the author of over 80 journal articles, book chapters, and conference proceedings on knowledge management, end user computing, international information systems, organizational memory systems, e-commerce, security, and software outsourcing. He holds a BA in chemistry and physics from William Jewell College, an MBA and an MS in software engineering from National University, an MS in telecommunications management and a PhD in information systems from the Claremont Graduate University. Dr. Jennex is also a registered professional mechanical engineer in the state of California and a Certified Information Systems Security Professional (CISSP).