

BOOK REVIEW

Critical Knowledge Transfer: Tools for Managing Your Company's Deep Smarts

Authors: Dorothy Leonard, Walter Swap, Gavin Barton

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Overview

If you are looking for a book that contains a wealth of information, profound insights, concrete tools, techniques and examples that the business leaders can use it to locate, obtain, manage, assimilate, and leverage your organization's talent – the deep smarts, *Critical Knowledge Transfer: Tools for Managing Your Company's Deep Smarts* is the pragmatic and compelling book you cannot miss.

The book is written by a group of three authors. **Dorothy Leonard** is the William J. Abernathy Professor of Business Administration Emerita at Harvard Business School; her teaching, research, and consulting for major corporations and governments have focused on innovation, new-product development, creativity, and knowledge transfer. **Walter Swap** is Professor of Psychology Emeritus and former Dean of Colleges at Tufts University. They are co-authors of Harvard Business Review Press books – *Deep Smarts: How to Cultivate and Transfer Enduring Business Wisdom* (2005), which was widely cited and translated into a dozen languages, and *When Sparks Fly: Ignite Creativity in Group*, which was awarded by the European Association for Creativity and Innovation for “Best Book on Creativity” in 1999. **Gavin Barton** holds a doctorate from Boston University. Since obtaining his doctorate, he has been an adjunct professor at Lasell College. Also, he has been a frequent guest lecturer at Tufts University.

The book is organized into two parts with nine chapters. There are three chapters in the first part (*Laying the Foundations*) and six chapters in the second part (*Tools & Techniques*). The first part presents the reader about the motivate-understand-prepare foundations, whilst the second part is set to prepare the reader for practical aspects of knowledge transfer - how to select, evaluate, benchmark, and socialize.

Review

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In the first part, *'Laying the Foundations'* is the key concept in the first three chapters, which is designed to cover the basic foundations that the reader needs to know so that they can select and match tools and techniques for knowledge transfer. The authors devote the first chapter to examining the costs of losing know-how. This chapter presents the report on what top executives they surveyed say about what their organizations are doing about those losses. It shares some prime examples of successful initiatives, as the authors say: *"Our research and work in the field have convinced us that there is value in providing an overview of knowledge-transfer experience – ours and that of others. Some of this you already know. But even veteran knowledge managers might gain some additional insights from our examples and anecdotes (p.15)"*. In chapter two, the authors differentiate between data, information and knowledge, and summarize different types of knowledge (i.e. tacit, implicit, and explicit) at different levels of accessibility to introduce the reader to some nuances in the meaning of knowledge, that will influence the selection of transfer tools and techniques. Interestingly, the deep smarts' indicators – *cognitive* (know what), *behavioral* (know how), and *physical* (sensory intelligence), are provided to help to identify people with deep smarts to explain and communicate the nature of deep smarts, and to measure the progress of individuals who are working to assimilate those smarts from people who have them (See Table 2-1, p.26). In chapter three, it describes how to identify what critical knowledge is and enlist the players who will be essential to any successful knowledge-transfer effort.

In the second part, *'Tools & Techniques'* is the key concept in the rest of the chapters in the book, which provides the practical aspects of knowledge transfer. In chapter four, two basic strategic organizations give their take on addressing the loss of knowledge and productivity during transitions and are presented as: *'learn to fish'* (by trial and error and learning as you go) and *'hire a fisherman'* (by hiring a knowledge-transfer consultant). This chapter presents how to match the situation to the transfer techniques (pp.66-68). The authors provide *question kits* and examples of questions to the reader, as the authors say: *"Question kits are most valuable when the individuals involved are motivated to learn from the experts, but need a starting point and some structure to follow (p.80)"*. In chapter five, the authors present knowledge-elicitation techniques which require training and experience. Three techniques are presented: *structured narratives, facilitated peer sharing, and deep-smarts interviews*. In chapter six, the authors concentrate more on tacit knowledge, which can be re-created through accelerated experience and discovery exercises. In this chapter, gaining experience is presented. To help learners efficiently build their capacity in using a systems perspective and pattern recognition, the authors have developed a process of guided experiences called *OPPTY*, which is a structured process of guided experiences by the authors, which is short for *Observation, Practice, Partnering and joint problem solving, and Taking responsibility*. A number of example cases are presented in this section, such as eliciting knowledge at Baker Hughes (p.121), observation at Microsoft (p.129). In chapter seven, the book covers methods to assess the success of knowledge-transfer programs. The authors give an overview of the types of assessments professionals in the knowledge - transfer field use. Also, they share their experiences in teaching as lecturers in terms of the lack of a perfect way to assess cognitive changes because of learning. They conclude that successful knowledge transfer will be visible in behavioral changes but they may be less obvious. In chapter eight, General Electric's Global Research Centers (GEGRC) has served as a resource for all of GE's businesses. Accordingly, the authors present a tale from the trenches with a detailed account of how the GEGRC set up a knowledge-transfer program for triads (expert, learner, and coach – see p.70), which contains additional techniques beyond those described in this book, i.e. identifying knowledge at risk of loss (pp.166-168) and how to selecting a strategy

(pp.168-170). In the last chapter, the authors discuss how an organization can be socialized to accept knowledge-transfer initiatives. As the starting point for a knowledge-transfer initiative depends heavily on the organizational culture, the authors then raise a number of important questions to provide the reader with the idea that some cultures are better at promoting open exchanges. Lastly, it is worth noting that, at the end of each chapter, the authors provide *question kits* for managers, and also create a few questions for them to share with their team members as the recipients of knowledge-transfer, particularly with regard to critical knowledge transfer issues.

Comments

In my view, the crucial aspect of the book is that it addresses serious problems of knowledge loss and how to stop it through ‘critical knowledge transfer’. The authors emphasize that critical knowledge is concerned about a particular subset of expertise – that which is undocumented, contained in the heads and hands of the employees – the experience-based knowledge, so all knowledge is not the same. Whenever firms lose such critical knowledge, the situation will be getting worse for them, in terms of the seriousness of the knowledge loss problem. For example, if the firm has been hiring talented young engineers and managers who are very social but prefer texting and tweeting to face-to-face meetings. And they really do not like to use telephones – even for sales! They always have some great new ideas. These Gen-Y folks are impatient about moving up the organizational ladder and never expect to spend 20 years in the same company. It will be serious problem if the Gen Y folks’ vital knowledge is leaking out of the organization. To this point, the important question is *how do you integrate such ideas into the organizational culture?*

To answer this question, the authors pave the way for this serious problem through the first part of the book by providing the reader the first question: *why transfer knowledge?* Then, they come to motivate the reader to see how important the problem of knowledge loss is by giving an example of the CIO at one *Fortune* 100 Company: “*if a business is relying upon certain know-how and that is lost, the resulting disruption could affect the entire business, and the company has to suspend operations, it could cost a hundred million* (p.11).” They also raise the question – *what do you need to know about knowledge?* To deal with this point, I think the reader will be able to intrinsically estimate the situation, in terms of the seriousness of the knowledge-loss problem. Then, the authors focus on what constitutes the experience-based knowledge that is most valuable to an organization. They distinguish among *explicit knowledge*, *implicit knowledge*, and *tacit knowledge* to ensure that the reader understands the difference among these three kinds of knowledge. With the three dimensions – *cognitive* (know-how and know-what), *behavioral* (know-who and communication), and *physical* (sensory intelligence), these indicators help the reader a lot to identify people with deep smarts, to explain and communicate their nature, and to measure the progress of individuals who are working to assimilate those smarts from people who have them. Also, the authors help the reader to enlist the players – *stakeholders* (i.e. the CEO, Board of directors, the Vice President), *knowledge experts* (whoever in the organization who has the kinds of deep smarts that are critical to capture, diffuse, or transfer), *knowledge learners* (i.e. the incoming executive, other team members, potential managerial successors, colleagues – who needs to learn some of the deep smarts in someone else’s head), and *facilitators* (who help the knowledge flow from experts to learners) – who will be essential to any successful knowledge transfer effort. Based on these foundations, the reader would be able to identify the methods of identifying deeply smart experts whom best suit the organizational culture.

The second part of the book provides the reader with the practical aspects of knowledge transfer. Now, it is assumed that the reader already has a strong grasp of *what is to be transferred*. Then, I think they can read through chapters four to six for the specific transfer options, according to the different situations (i.e. urgency, critical needs, and limited resources). For the reader, it is a useful application to deal with two basic strategies for organizations – *learn to fish* and *hire a fisherman* – to address the loss of knowledge and productivity during transitions (p.66). This part helps the reader to capture the urgent need for knowledge transfer in their organization. Also, an additional three kinds of techniques requiring training and experience – *structure narratives (i.e. critical incidents)*, *facilitated peer sharing (i.e. peer assists)*, and *deep-smarts interviews* are presented here to help the reader as well. I personally like the case of the *critical incident* to highlight the critical event of ‘New York City and Hurricane Sandy’ (pp.97-98), as I believe that this will inspire the reader to think about critical events in their own organization and the person(s) who should get involved in such the matters.

Interestingly, I think that a key component of the *OPPTY* process allows the learner to actively discover the key knowledge. This is very useful process for the reader to create their own *OPPTY* action plan in their critical events. It is worth nothing that a common point in these parts (chapters four and five) is that the authors’ make clever use of ‘Tables’ located strategically throughout the narratives (See p.74, 81, 90).

Apart from that, they provide the reader an overview of several promising methods, categorized according to two models of knowledge sharing – *building networks and raising the competency of the selected learners*. In this respect, I think the reader can learn the best practices from the authors’ own experience. Then, they tell a tale of how the GEGRC set up a knowledge transfer program through ‘smart questioning’ and *OPPTY*, which the reader can effortlessly follow such *OPPTY and question kits*. Lastly, they emphasize that ‘knowledge transfer’ depends heavily on the organizational culture. I do agree with this point as there might be various stages of the KM processes, but having a *shared* understanding is still the most important element within the organizational culture.

In short, I agree with the authors when they say that “*we intellectually know that knowledge sharing is a part of every job, every day. The more that knowledge sharing can be built into onboarding, succession planning, retirement planning, and routine rotations, the more that we will avoid the costs of knowledge-loss as mentioned in the first chapter and overcome the obstacles enumerated in this final chapter. ...we cannot change everything all at once, but we hope that we can all move toward that goal (p.199)*”, which intrinsically sums up the entire theme of the book.

Applications

With the speed of business today, most companies cannot afford to lose the deep, experience-based knowledge of the departing employees and leaders. Accordingly, this useful book can effectively help them. In general, the book is written for anyone managing talent in today’s volatile environment. It helps the reader reflect and act on the critical issue of knowledge transfer more effectively. Although the authors provide examples from business firms throughout the book (i.e. large software company (LSC), Microsoft, Baker Hughes, Transition-Path, Medco, the Leonard –Barton Group, and Cisco in India), I still think that this pragmatic book should be read by leaders in both private-sector and public sector organizations. Like private-sector organizations, the leaders in public-sector organizations

should choose the means (i.e. using *OPPTY*) to achieve the ends desired (i.e. passing knowledge on). Regardless of the business' size – small or large, I think that the practical aspects of knowledge transfer are useful applications for managers, especially for those who work in international firms. Specifically, human resource managers in private-sector organizations and administrators in public-sector organizations, who certainly know that much vital knowledge is leaking out of their organization during job transitions and want to stanch such flow, should read this brilliant book to act effectively on critical knowledge transfer issues.

Although the book is written by a group of western academics with a number of examples conducted in a western culture and environment, the practical applications can be applied to the reader who works in Asia's volatile environment as well. Furthermore, it is highly recommended that the Asian reader carefully read chapters four to six to find the most suitable specific transfer options. For example, the Asian reader can learn how to decide which critical incidents will make useful stories for eliciting knowledge and then capturing deep smarts with help through the critical events. Also, they can use the illustrative questions to be asked in selecting the critical incidents. In this pragmatic book, it already suggests some questions from the perspective of experts, upper management, and learners that may be used to decide how to select the key recent, relevant, or revealing critical incidents that need to be used for knowledge transfer. To connect this with ASEAN community, the Asian reader can apply the practical applications for eight careers to take advantage of the free flow of skilled labor among ASEAN member states - *engineering, nursing, architectural, surveying, accountancy, dental, medical services and tourism*, in the era of the Asian Economic Community – AEC, which aims to move ASEAN towards a joint single market and production base for goods, services, investments, capital, and skilled labor.

Why it is better than others

In the field of knowledge management (KM), a huge number of the books aim to provide general views toward how to manage knowledge in the organization, i.e. Nonaka & Takeuchi (1995), Grey (1996), DeJarnett (1996), Wiig (1997), Hibbard (1997), Davenport et al. (1998), Beckman (1999), Laudon & Laudon (2000), Alavi & Leidner (2001), Tiwana (2002), Al-Hawamdeh (2003), Hult (2003), Joch (2004), Murray (2005), Dalkir (2005), Jasimuddin et al. (2006), Grudin (2006), Wallace (2007), O'Dell & Hubert (2011), Jasimuddin (2012). None of them seriously focused on the 'knowledge transfer' issue. Most of them present different KM elements, i.e. knowledge creation, transfer, storage, and dissemination. For example, Nonaka & Takeuchi (1995) mainly focused on the interaction between tacit and explicit knowledge that brought about 'knowledge creation'. Although all elements are important matters regarding to KM, 'knowledge transfer/sharing' is still considered as a 'core process' of KM, considering that the main goal of KM practice is to foster the flow of knowledge among individuals.

Along these lines, a number of scholars pay attention to studying 'knowledge transfer/sharing', i.e. Wiig (1993), Disterer (2001), Tiwana (2002), Gibbert&Krause (2002), Lee&Al-Hawamdeh (2002), Barrett et al. (2004), Dalkir (2005), Yang (2004), Ichijo&Nonaka (2007), Leistner (2010), Anaya (2012). Among these scholars, Leistner and Anaya are the authors who have interesting and up to date books about the same topic. Whilst Leistner's *Mastering Organizational Knowledge Flow: How to Make Knowledge Sharing Work* (2010) is holistic, comprehensive, and grounded in KM practice (i.e. how you can influence the organizational knowledge flow, new ways to look at technology, and its role

within the knowledge flow), Anaya's *Knowledge Transfer* (2012) describes a knowledge transfer program that incorporates training and development strategies, which enable to transfer senior employees' knowledge and skills to the next generation that have been proven to work through extensive use in actual knowledge transfer situations involving industrial and professional disciplines. Both of them are undoubtedly good to read. However, '*Critical Knowledge Transfer*' by Leonard, Swap and Barton (2015) is still the most outstanding book in this specific topic area as it is more updated and provides profound insight into the challenge of knowledge loss, along with concrete tools, techniques, and unique examples that businesses can apply immediately to prevent such losses from causing permanent and irreparable damage to the organization. Also, it is precisely written, beautifully organized, and tremendously interesting, due in large part to the many concrete examples. Reading this book will open the reader's door of comprehension about what *deep smarts* are. Among the books about this topic, "*Critical Knowledge Transfer*" is more interesting, practical, and down-to-earth for anyone who is involved in education, business, administration, or entrepreneurship and they would certainly benefit from the perspectives and procedures presented through this pragmatic and compelling book.

Conclusion

"*Critical Knowledge Transfer*" provides a comprehensive and practical guide for transferring the deep, critical, experience-based knowledge along with concrete tools, techniques, and examples that any organizations can apply immediately to prevent the loss of vital knowledge from staff and leaders leaving for good. This pragmatic book is essential for those who manage talent, especially for HR leaders. The reader will eventually have a comprehensive overview of knowledge transfer and the important aspects of the processes. Significantly, the basic foundations, tools, and techniques are challenging matters for the reader, including the Asian reader, to apply to overcome any obstacles and move toward the ultimate goal of effective knowledge transfer. All in all, such brilliant aspects presented in this pragmatic and compelling book make the book unique and stand out from others of the same nature.