



Photo: Carole Culmer

The need to address lost knowledge

I suspect that small businesses have always had an intuitive sense of how vital it is to hang on to their knowledge as well as to innovate. Employees in small businesses are never viewed as being interchangeable; in large businesses, especially in the past, phrases like 'head count' say it all. The international field has more of the attitudes and opportunities of a small business because it is particular people who make a difference and the glue that holds it together is powerful, yet strangely ephemeral. In a fascinating book, *Lost Knowledge: Confronting the Threat of an Aging Workforce* (ISBN 0-19-517097-0), David W. DeLong explores the complex challenge of retaining organizational knowledge that cannot be addressed solely with a knowledge management solution. As the subtitle of the book states, he is particularly concerned about the impact of the unprecedented number of highly skilled professionals and managers who will leave their jobs in the next few years as those born between 1946 and 1954 retire from the workforce.

While the idea of 'lost knowledge' can obviously be applied to many situations, in this book the concept is used in a narrower context, i.e. knowledge represents the capacity for effective action or decision-making in a specific organizational context. Thus, lost knowledge results in the decreased capacity for effective action or decision-making in a specific organizational context. Knowledge can be lost:

- at a broad organizational/functional level, such as the potential loss of a nuclear-testing capability;
- at a work-unit/small-group level, such as where a semi-conductor design team fails to retain its notes and other documentation of progress made when a project turns out to have only been temporarily shelved; and

- at an individual level, where knowledge about customers and how to market effectively to them can be lost when a long-serving employee leaves.

DeLong focuses on situations where an organization has had the capacity for effective action or decision-making in a particular function, team or individual role and has demonstrated this ability repeatedly. The danger lies in this capability being seriously threatened or disappearing because of retirement, turnover of younger employees, reorganization, reassignment or a lack of access to knowledge archives. He generally puts the last of these down to poor record-keeping or obsolete electronic storage.

Some striking historical examples of lost knowledge (intellectual and cultural as well as technological) are contained in the book, such as:

- the destruction of the Great Library at Alexandria, thought to contain over 400,000 papyrus scrolls, including the original manuscripts of the Greek tragedians Sophocles, Aeschylus and Euripides;
- the disappearance of know-how in making Damascus steel (the world's first high-carbon steel) worked by blacksmiths for centuries in India for the incredibly sharp, strong swords and knives used by warriors in Persia and Arabia; and
- the loss of techniques in violin-making (admittedly disputed by scientists), leading to Stradivarius and Guarneri violins from the 17th and 18th centuries now being worth over US\$1 million apiece.

While these examples may sound romantic, they graphically illustrate the problem. DeLong believes that, although knowledge retention may be a secondary concern today, for virtually every organization – large or small – reducing the costs of lost knowledge will become an increasingly compelling issue. Furthermore, he is of the opinion that, by ignoring this, the threat will grow exponentially in the years ahead, contributing to major operational disruption, the loss of competitive advantage and even tragic accidents.

DeLong comes to the conclusion that, while short-term threats of knowledge loss will increasingly plague organizations, a strategic perspective needs to be taken, whereby knowledge retention acquires a long-term focus. In order to sustain workforce capabilities in the face of changing demography and the threat of skills shortages, knowledge retention will have to become a way of thinking for management. Every organization will have to define the problem for itself and decide on its own solution. DeLong suggests a more formalized approach to planning for knowledge retention in large bureaucratic organizations that pursue a 'rationally deliberate' strategic planning process and a more flexible portfolio of projects for smaller, more dynamic organizations that use an 'adaptively emergent' planning process. Either way, the important thing is to act.

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