DSS Foundations: What is the difference between knowledge management and decision support?

by Dan Power
Editor, DSSResources.com

Both academics and software vendors can over promote technology advantages and solutions. We seem to get energized by new terms and important sounding “buzz” words. Many years ago, I listened to a speech by Milt Jenkins (2001) titled “The Evolution of the MIS Discipline: From Data, Through Information and Knowledge, To Wisdom.” When Milt finished I was a bit concerned that “Wisdom Management Systems” might become the new buzzword. Thankfully, that didn't happen.

This experience reinforced my conclusion that information technologists, like myself, have a problem. Many people are expecting too much from technology and some people seem to have forgotten that managers and decision-makers are expected to bring their values, experiences, knowledge and hopefully wisdom to the interaction with our decision support and information systems.

One symptom of this problem is the focus on knowledge management (KM) and knowledge management systems (KMS). For many years I tried to ignore the excitement about knowledge management, but in this Ask Dan! I'll try to explain how knowledge management and decision support differ. You may be asking ... why? Well, I spoke with a doctoral student who thought knowledge management might be replacing the term decision support systems (DSS). So I decided to check out the status of knowledge management. A Google search for "knowledge management" returns about 16,000,000 results; for "knowledge management system" about 13,500,000 results; for "decision support" about 9,980,000 results; for "decision support systems" about 8,280,000 results; "DSS" returns about 40,500,000 results, but that search includes phrases like Department of Social Services (DSS). Knowledge management is not replacing DSS, both remain popular concepts.

Information Week (June 25, 2001) called knowledge management “fuzzy” in an article on Lotus Development's Discovery software. Another article suggested taxonomy is the current watchword in knowledge management. Apparently, people are recognizing that how “knowledge” is organized is perhaps more important than the “bells and whistles” of the software. Fifteen years ago to get a more academic perspective I visited brint.com, a web site that was run by Yogesh Malhotra. Brint was promoting knowledge management, but it is no longer focused on KM so check www.kmnetwork.com. After reading a few articles by Malhotra (1997, 1998, 2002), I wasn't certain what knowledge management was or if it was a good thing or not. Malhotra (1999 interview) notes “Most of our knowledge management technology concentrates on efficiency and creating a consensus-oriented view. The data archived in technological “knowledge repositories” is rational, static and without context and such systems do not account for renewal of existing knowledge and creation of new knowledge.” But Malhotra seems to think that knowledge management is still
"Knowledge management technologies" are an important delivery component in what document-driven DSS. This type of decision support system helps managers use specific documents and “knowledge” to support specific decision tasks. A good document-driven DSS helps managers find relevant text-oriented information quickly. Decision support is a much more modest and much less grandiose concept that knowledge management. The scope of a document-driven DSS should be limited and we should have a framework for organizing what we are storing and collecting. A document-driven DSS should not be a static repository rather it should evolve and get better as it is used!

In his 1971 book, management scientist and philosopher C. West Churchman discussed many topics related to supporting decision makers. Early in that book he stated “Knowledge can be considered as a collection of information, or as an activity, or as a potential. If we think of it as a collection of information, then the analogy of a computer’s memory is helpful, for we can say that knowledge about something is like the storage of meaningful and true strings of symbols in a computer. ... Put otherwise, to conceive of knowledge as a collection of information seems to rob the concept of all its life. ... knowledge resides in the user and not in the collection. It is how the user reacts to a collection of information that matters. ... Thus knowledge is a potential for a certain type of action, by which we mean that the action would occur if certain tests were run. For example, a library plus its user has knowledge if a certain type of response will be evoked under a given set of stipulations ... (p. 9-11)”

Churchman (1971) argues “Knowledge resides in the user and not in the collection. (p. 10)” So let's build narrow domain collections of documents and “knowledge” relevant to specific decision processes and tasks and use them to support specific managers and knowledge workers. What do you think about knowledge management systems (KMS) versus DSS?

Providing decision support involves providing facts, forecasts, relevant information, advice, and heuristic knowledge.

Reference

DSS Foundations: What is the difference between knowledge management and decision support?


The above response is from Power, D., What is the difference between knowledge management and decision support? DSS News, Vol. 2, No. 14, July 1, 2001 (Revised 12/13/2015).

Author: Daniel Power
Last update: 2015-12-18 08:03