

Reinventing Wheels



If I can manage to see further it's because I have to raise myself on shoulders of giants.

--Isaac Newton (1642-1727)

In a recent poll conducted by Chemical Engineering Progress Online, as to the most important issue facing the chemical industry today, it was not topics such as environmental compliance and regulations or Six Sigma implementation, but the "RETENTION OF INSTITUTIONAL KNOWLEDGE". Does this surprise you? In an absolute sense it did not surprise me, but in a relative sense, yes it did.

How much money does your organization spend "reinventing wheels"? Trying to find answers to problems that were solved many years ago, but whose details have disappeared due to losses in people or a poor knowledge retention system? If you take the time to analyze this, don't be surprised if it's a lot more money than you think. How else could this precious time and money resource have been used? What would your bottom line look like if every dollar you spent in research and development was spent ADDING to current knowledge and not rediscovering it? At a public training workshop some years ago, in obtaining assessments at the end of the class, we were told by one participant that they had no intention of sharing what they had learned back home as it might make their job unnecessary and threaten their career. How sad!

How do you reward knowledge sharing? Do you have a reward and recognition program for those who save money by not solving the same problem over and over again? Do you provide the time and resources for people, prior to starting a major new program, to see if someone else has already solved the problem in a general sense? Do you REALLY think the problem you are facing is truly unique and that no one has ever dealt with it before? Do people who share knowledge feel secure? In our TRIZ work, we focus on this aspect of generalizing problems so that parallel universes can be discovered. It is possible to design training exercises where a problem is described in its usual complicated company or industry language and an identical problem, easy to solve, are presented to two separate groups of people with no communication. The comparison of answers and frustration illustrates this principle vividly. If you actually have a knowledge management system, how do you classify the knowledge? Using the unusual acronyms and special language that cannot be matched against any other problem? What a waste! You need to use the most general language you can think of so that others in the organization can find it. Of course, the folks looking for the knowledge need the same kind of "generic" language training as well. It is also possible to "type" people (via the Kirton KAI instrument) and identify those who can make analogies better than others. These folks can greatly assist your knowledge management and retention systems.

If you need help with this, try the exercise we've talked about before--changing the language of your problem and all its acronyms and force yourself to describe it to a ten year old. Now ask yourself where else does this problem exist and redo your literature search using the much more general 10 year old language. You will be surprised at what you find! The Google search will be at least an order of magnitude greater and will take you into technology areas you were totally unaware of.

Our next public TRIZ course is in San Francisco on May 10-12, sponsored by the American Society of Mechanical Engineers and the American Institute of Chemical Engineers. Link for information and registration: <http://calendar.asme.org/EventDetail.cfm?EventID=11550>

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