The following article appeared in Structural Engineer Magazine in November, 2002. More articles by Michael Hogan can be found at the Ideate web site: www.id-8.com

Knowledge Retention

In July's column, I mentioned the kind of Knowledge Retention tool I'd like to see used in an AEC firm. For those firms who want to get a taste for knowledge retention tools without investing in a consultant to build one, there are some low-cost baby steps that can be taken.

Capturing the knowledge in your firm means better distribution of information and less knowledge lost through 'leakage' (retirement, resignations, promotion, etc.). It also allows new team and office members to bring themselves up to speed more readily. The types of knowledge needing protection from leakage include project knowledge, business knowledge, and even office procedures.

One low-cost knowledge retention tool I mentioned in July was a wiki. Wiki's are the most open and democratic knowledge container available. Anyone with access to the wiki can put in their two cents - by adding their own opinions, commenting on those of other contributors, or even editing the entries of others. New pages and topics can be added by anyone at any time.

A wiki is like a whole team assembling and editing community documents.

New Wiki topics and recent changes are listed on the first page, so you can see them as soon as you connect. Wikis take a little effort to learn and use, and are fully searchable. They are also available for almost any web server, and the software is free (or very cheap). With so many people involved in entering and organizing information, it is easy for Wiki topic organization to go awry - but it is also easy to correct the organization when it does go bad.

The primary drawbacks are it's completely democratic nature, it's lack of links to email, and it's passive nature. By 'passive nature' I mean that the resource is there whenever you go there to look for it, but it never goes looking for you when there's something new you should know about.

I was recently involved in a project that needed some form of communication for the geographically dispersed project team, and a no-cost wiki was used. Although information was posted there, team members frequented the site less and less as time went on. Without activity the wiki floundered, the information got stale, and no-one used it as a resource. It's frequent activity that keep these resources fresh and valuable.

A very different means of knowledge retention is gaining popularity: Web Logs. Blogging (maintaining web logs) has become a favored method of publishing daily or weekly musings on the web - open for commentary by others.

A blog is like a single expert publishing frequent articles with others replying with 'letters to the editor'.

A web log is an authoritarian animal. One expert posts articles, and the rest of the team provides commentary. Most web logs are searchable, make it easy to include images and other files, and the software is available for free or low cost. Unfortunately, it also has no particular connectivity with your in-house email (where most project activity happens) nor does it have any particular notification features to remind users of new activity.

There is a very interesting low-cost package from Traction software (www.tractionsoftware.com) which mixes ease-of-use features of web logs with the collaborative and organizational aspects of the wiki. On top of those, Traction adds several types of email connectivity.

On the notification side, users can 'subscribe' to notification of additions or changes. This type of notification increases collaboration by encouraging team members to visit the site, respond and stay informed. Additionally, a 'journal' of recent additions can be automatically launched to team members on a daily or weekly basis (any time period can be used). The 'journal' methodology works well for upper management and team members who want to stay informed without regularly participating.

On the input side, email accounts can be monitored by the software to automatically insert email contents and attachments into the site. This way, getting email contents into your knowledgebase can be as simple as cc:ing or forwarding to the email address corresponding to the project or topic.

All of the software mentioned so far can be installed on your own web servers (in-house, extranet, or publicly available) and operate on any of several operating systems (Windows, Linux, etc.). This is a big plus.

In my mind, it is essential to either have physical ownership of your data or have it easily downloadable from your web service. The reasons for this are twofold. First, you must protect yourself from dependence upon a service which may fold, be bought out, change business model, or change it's pricing structure. It's still early in the ASP marketplace and turnover is high. You sure don't want to lose your carefully accumulated knowledge to someone else's business

decisions! Second, that information you've been patiently gathering may have lots of other uses in your office - so make sure you can import it into your in-house data repositories.

Some other knowledge retention solutions rely on peer to peer sharing. We'll have to touch on these in another column.

What are you doing to retain business knowledge? E-mail me at mhogan@id-8.com to let me know.

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