The power of enterprise integration

Part 4: Integrating the new information worker

By Terri Rylander

We've entered a new era—moving away from an economy solely driven by the physical flows of material goods and into one driven more by shared data, in all its forms. As the demand increases for more and more knowledge-based information, intangible assets such as human capital and intellectual property will be called upon to support this information supply chain.

Thomas Friedman, in his book "The World is Flat," calls this shift "in-forming," which represents an individual's supply chain of information, knowledge and entertainment. Friedman says, "There is no bigger flattener than the idea of making all the world's knowledge, or even just a big chunk of it, available to anyone and everyone, anytime, anywhere."

The challenge of capturing knowledge

Capturing and integrating knowledge capital has long been a challenge for corporations. Early attempts at knowledge management have materialized in applications that manage only documents. While this approach had some value, it also had an inherent flaw: Until recently, organizations had no easy or engaging way to extract knowledge from the heads of workers. Making this situation more critical is the large number of workers poised to retire in the next few years, taking valuable knowledge right out the door.

So much of any business takes place behind the screen of a computer, making nearly every worker an information worker. Personal computers are no longer limited to the corporate office but are showing up in non-traditional worksites. Wireless technologies enable workers to take their connections on the road. Mobile phones and laptops are now commonplace on construction sites, within delivery services and in emergency vehicles.

With ubiquitous connectivity, attention turns back to integrated applications, customized to suit the worker. Applications like Web portals showed promise, but primitive portals failed to promote the creation and sharing of knowledge assets, creating more hype than function. Fortunately, technology continues to evolve, and what might have started as hype has become reality. Oddly enough, the evolution didn't happen in a corporate setting but in the public setting.

A new generation shapes the future

The Internet is the ultimate application testing ground. Early adopters, typically younger users, judge whether new capabilities sink or swim. They have shaped the way the rest of the world experiences the Internet. Far from the early days of static Web pages, the Internet now offers dynamic and personal applications, many based on feedback from the early adopters.

Today's younger workers have grown up with technology and have come to expect the features that are so useful in their social life to translate to their business life. Those who used to be the power computer users in a business are now moving into management roles and are being replaced by their junior counterparts. These younger workers are used to doing nearly everything in the space of a computer screen, including playing games, chatting with friends and sharing music.

Enter social computing

"Social computing" is a term used to describe many of these new Web-based applications so popular with the new technical generation. Included in the social computing category are user portals, blogs, podcasts, wikis, open-source software, search engines, social bookmarking and really simple syndication (RSS) feeds. The value of each of these applications grows exponentially with the number of users, and their popularity demonstrates their success.

These new social computing applications are the trigger for knowledge management transformation, replacing traditional applications like document repositories. As these new applications take hold in the enterprise, workers will find it easy to share knowledge and expertise without even thinking about it.

- **User portals**. Consider the popularity of social networking sites like MySpace and Facebook and how they might be used in the enterprise. Employees have their own sites, complete with personal information, a profile that lists areas of expertise, areas to display textual knowledge, visual and audio information, and access to commonly used applications. From a custom portal, the employee can use advanced search capabilities to search other workers' profiles for subject matter experts and for digital information.
- **Podcasts**. Some of this content may be in the form of podcasts, which are audio and video files available for download or streaming to a computer or MP3 player. Video podcasts are a good format for supplementing online training or embedding short video clips into "help" functions. In just a few minutes, a worker can watch and learn how a task is performed. Podcasts can also capture meetings or presentations for playback later or for access by those who were unable to attend.
- **Blogs**. Another way to archive business activities is through the use of blogs. In the public setting, blogs seem to be nothing more than online journals or a place to expound opinions on various topics. However, they have a more practical use in the business setting, where they can be used to capture progress and status for team projects. Once captured, the content can be tagged with keywords for easy searching. Users can search project blogs for historical information. For example, they can discover why certain decisions were made and what lessons were learned.
- **Wikis**. Workers may find this new content, including blogs and podcasts, on a corporate wiki site. Wikis are gaining in popularity as a way to organize and store information in a user-friendly manner. The advantage of wikis is that they grow organically as users add information.

  With wikis, users contribute content through collaborative writing, and other users are allowed to edit and add to what is already written. Wiki content can contain internal and external links to related information and offers users an area for online discussion. Some corporations use wiki software to supplement or even replace their existing content management systems.
- **Open source**. The wiki concept is based on the same idea behind open-source software, which leverages the power of many minds to develop a product incrementally over time. Rather than development being limited to a small, internal team, anyone from anywhere can contribute to the product, making continuous improvements. The open-source concept can be extended to the corporate culture and corporate decision making, allowing ideas to come from anywhere in the company, rather than from one team.
- **Search intelligence**. Search engine technology has advanced beyond returning Boolean exact matches and now returns not only items that match the query but also items that are similar or relevant. Search intelligence can also remember the user and suggest items that other users found useful through similar queries.
- **Social bookmarks**. Search intelligence now has been put in the hands of the user community in the form of social bookmarking. Web sites like del.icio.us allow users to tag a site with a keyword they feel is relevant, allowing other searchers to quickly find the site.
- **RSS feeds**. Why rely on users having to "pull" information when new technologies such as RSS feeds make "pushing" information possible? RSS allows users to subscribe to updates or feeds from Web sites and Web-based applications and bring them together on a user's custom portal page.

The new workplace

Think about this scenario: A worker starts her day through her personalized portal, where she can update her profile so that other users know she has expertise in a new area. She reviews her team's project updates on the team's project blog and then watches a podcast of a vendor presentation she missed last week. After using the corporate wiki to find system information and a subject matter expert, she contributes her thoughts and knowledge to a business initiative in an open online forum. She wraps up her day reading the corporate news that is pushed to her portal through an RSS feed and adds another tag she feels will help other users locate these articles later.

This scenario is becoming reality. Social computing applications are enabling the individual information supply chain. With these technologies already firmly in place in a public setting, it's only a matter of time before they become commonplace in the corporate setting. The workplace of tomorrow will make that of today seem static, and it will be difficult to remember the days when knowledge had to be rediscovered every time a worker retired. Knowledge is finally free to move about the company. T

This is the last in a series of four articles on enterprise integration. The first article discusses the strategic advantages of integrating the enterprise and an overview of the various integration components. The second article takes the mystery out of enterprise application integration and how technology has evolved. The third article explores enterprise information integration and the value of combining operational, analytical, structured and unstructured data.

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http://www.teradata.com/tdmo/v07n04/Features/IntegratingWorkers.aspx