

technology viewpoints

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This issue of CGI's Technology Viewpoints takes a look at the informal learning topic from four key viewpoints:

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Informal learning: How Internet technology enables organizations to enhance collaboration and performance

Traditionally, training and collaboration within an organization have been managed through a formal, expensive process whereby employees are taken from their day-to-day tasks to sit in a conference room to absorb new information. But according to Jay Cross in his book, "Informal learning: Rediscovering the Natural Pathways That Inspire Innovation and Performance," formal learning in the form of classes and workshops is the source of only 10-20 percent of what people learn at work.

With the advent of Internet enabling technologies and new challenges, such as a vast retiring workforce, an organization needs to provide more opportunities for their employees—often spread across vast geographies—to interact and learn as an integral part of their workday. This is exactly what CGI has done and Mr. Cross uses CGI's knowledge infrastructure as a case study within his book.

This issue of CGI's Technology Viewpoints discusses CGI's experience and provides tips on the technologies that are available to help organizations improve collaboration and, more importantly, the tangible business benefits that this collaboration brings.

Enabling technologies

Create a dynamic environment that connects people to knowledge, people to people

E-mail is great if you know who you want to talk to but it doesn't provide the history capture of dialogue. Internal portals are helpful in accessing information but, on their own, they lack the ability for two-way communications and information gathering.

To connect members of CGI's communities—those experts in our focused technologies, industries and practice areas—and to help them engage in meaningful dialogue, CGI created "Focus Connections," web-based libraries with a broadcast and publishing engine. We adopted RSS, both in-bound and out-bound, allowing us to push out strategic intelligence in the form of vetted, weekly e-mail broadcasts. We also incorporated broadcast e-mail capabilities for people to quickly answer questions from the user community, and have e-mail-based forums, similar to newsgroups, that provide an easily accessible repository of all dialogues.

CGI's Focus Connections use blogs, wikis, Microsoft SharePoint, a Google search appliance, and a version of SourceForge, an open source tool. CGI uses two server-based environments—one Linux- and one Windows-based.

While incorporating and linking all of these technologies may sound complicated, once CGI pulled them together and placed the “front pages” on the infrastructure, it became a simple and familiar way for our professionals to access information and people within CGI. Training was minimal, as users interact with these applications either in their email in-box or through their Internet browser.

Bottom line: When creating an environment that blends a rich mixture of available technologies to drive optimal collaboration, organizations don't need to invent anything fundamentally new.

What about the user experience?

Users who are familiar with the Internet are familiar with CGI's knowledge sharing platform. The first interface people have to use the system is their regular email in-box. As an email-centric organization, CGI built the infrastructure to support this preference. For instance, the infrastructure has a notification system that pushes a weekly snapshot of what members of the Focus Connections would see if they visited the main portal engine. It's pushed into their in-box through an HTML format, allowing them to view a summary of the activity taking place within their area of interest, with links and other contact information to easily get more information. The notification message structure was designed to be mobile friendly, supporting both Blackberry and Windows Mobile devices. This provides a simple technique to expand the user interface to mobile devices.

When members of the Focus Connections go to their respective sites—either for more detailed information or to the front page—they experience a simple, straightforward user interface that is a familiar structure that is seen in typical Microsoft SharePoint sites—again, another familiar tool within the company.

As collaboration is about people, not technology, look at the technologies and environment your employees are most comfortable with and build the infrastructure to support their preferences.

Costs and benefits

The dollar and cents behind collaboration

In CGI's experience, developing the collaboration infrastructure around its Focus Connections has been relatively inexpensive. With such applications as Microsoft SharePoint, there is already a corporate license in place, and through the use of open source software, the license fees are non-existent outside of support costs. The infrastructure and its promotion is tied into the company's directory, which allows the Focus Connections to share in the organization's overall security and have same sign-on, regardless of what technology is being used.

Bottom line: Be creative, taking advantage of what's already in place within the enterprise, and look at open source options as an inexpensive but viable way to build a robust collaboration infrastructure.

Productivity gains with people connecting anywhere, anytime

CGI's collaborative knowledge infrastructure has allowed its members to shorten the time it takes to find information. It also has built a stronger sense of community by connecting like-minded professionals together regardless of geography or time. This has allowed CGI to have a body of knowledge that becomes repository based; information that was once traditionally locked within silos of the organization is now available to all. More importantly, this collaboration helps with profitability in enhancing CGI's ability to offer clients the best solutions while also avoiding redundant efforts, such as investing in the same technologies in multiple locations.

For clients that want to create a similar infrastructure, the benefits would be similar. Informal learning leads to productivity gains and allows an organization to better mitigate risks, such as having lessons learned discussions across the enterprise. It also improves employee retention by providing readily available access to information that helps people better function within their jobs.

Engaging people

If you build it, will they come?

Designing the people networks should lead the design of the technical networks. In CGI's case, this led the development of the collaboration infrastructure. From a promotional standpoint, the majority of the networks were created through an invitation and sponsorship basis.

For instance, with CGI's Technology Focus Connection, the desire was to pull together the company's senior architects to give them an important peer network in which to collaborate. Critical technology areas were selected to help categorize the topics of collaboration. Through a proactive reaching out to senior management and established architecture groups—and the resulting grassroots networking that takes place within an organization—the Technology Focus Connection quickly gathered 550 members into its community.

When promoting use of a knowledge infrastructure, first build a system that demonstrates business value in helping employees gain knowledge that improves their job. Then engage the company's leaders and important stakeholder groups. With management support and a solid business reason to collaborate, people will come.

Evolutionary approach

Build a roadmap

Understand the type of collaboration your organization needs by understanding your employees' needs. Build a vision for the type of environment you want to create and develop the business benefits that will result and establish an evolutionary process that allows for trial and error in a controlled environment. Incorporate measures of success so that the organization doesn't view what you are trying to accomplish as experimenting with technologies, but as an evolutionary tool that will work toward achieving real business benefits.

No “big bang” here

Think big, but start small. With the roadmap as your guide, start by launching your collaborative environment to small communities. Try the technologies to see how they work and, most importantly, monitor and get feedback on people's experience. Stagger the integration of various pieces of your collaboration infrastructure until its proven that it works and provides business benefits. Then roll out to a larger audience.

At CGI, we called this an “agile infrastructure” approach. Pilot the implementation in small pieces and roll it out to see how it's received. Incorporate feedback, refine the process and infrastructure, and then bring in the larger community.

Set the expectation of the users that this is an evolutionary step and you want their participation in enhancing the tool. This also helps with the cost, as you can see where the business benefits are realized in order to make the wisest investment decisions. This also builds credibility for the overall informal learning program.

Leverage what's already in place

Embrace and experiment with technologies that are available on the Internet. For instance, if you want to start a blog, there are free services on the Internet; you can start experimenting with the style and technique of communication. As you get familiar with these technologies and you know whether or not they work for your organization, it makes sense to bring them into the enterprise inside the firewall so that discussions remain secure.

In bringing these technologies inside, embrace readily available technologies within your enterprise. You'll need to leverage a server infrastructure within the firewall to provide an environment to host the collaboration. You can work with a partner such as CGI to help pull the infrastructure together.

Bottom line: Collaboration doesn't require a large systems integration exercise when you leverage what's already readily available and proven.