Strategic Computing Required Articles

Article 1: UC Berkeley, Yahoo team up to research new Internet technologies

By Kathleen Maclay, Media Relations | 15 July 2005


BERKELEY – The University of California, Berkeley, is teaming up with Yahoo Research Labs to launch a new laboratory to explore innovations in areas such as Internet search technology, social media and mobile media. The founding director of the Yahoo Research Labs-Berkeley, which opens at a location near campus in August, will be Marc Davis, an assistant professor at UC Berkeley's School of Information Management and Systems (SIMS), where he is the director of the school's cutting-edge "Garage Cinema Research" group that focuses on creating the technology and applications that will enable daily media consumers to become daily media producers. Davis is also a co-founder of UC Berkeley's interdisciplinary Center for New Media.

Yahoo Research Labs-Berkeley is a first-of-its-kind partnership between a top public university and a leading Internet company to conduct research and explore new technologies that will support and reinforce key areas of Internet growth. One area will be search technology. Another will be social media, such as photos, video, music, audio and text, that are obtained from personal, public or community sources and then shared, referenced or remixed in ways that help foster social relations. Yet another area will be mobile media, involving mobile devices such as camera phones.

The partnership offers Yahoo access to UC Berkeley's intellectual capital, leadership and innovation, and provides UC Berkeley the ability to do new kinds of research with Yahoo and its hundreds of millions of users on a massive scale generally unavailable in academic settings, Davis said.

An added bonus, he said, is that UC Berkeley's lab researchers will be able to work simultaneously with Yahoo's product experts.

"Working with Yahoo's innovative scientists, engineers, designers and users, we will do research and create technology that combine understanding context with the power of communities, enabling us to have an even greater impact in reaching and benefiting Internet users around the world," said Davis.

He predicted that the collaboration will help establish UC Berkeley as the global leader in academic research at the intersection of media, technology and people. "By working together, Yahoo and UC Berkeley will change the future of Internet media for millions of people around the world," said Davis.
Plans call for involving other UC Berkeley faculty and students too, as the partnership selects specific research projects and moves forward.

Jeff Weiner, Yahoo's senior vice president for search and the marketplace, said the collaboration offers great opportunities to expand the scope of the company's research into social media, mobile media and search technology.

He said that the research area that Davis oversees represents a great example of relevant and innovative applications enabled by the intersection of social and mobile media. Yahoo is looking forward to the partnership to further the company's research and development, Weiner said, and to build the next generation of search applications and core technologies "that will enable people to find, use, share and expand information and content, no matter where they are."

"When you bring together the world's leading Internet company and one of the world's top academic institutions, the possibilities are endless," said Usama Fayyad, Yahoo's senior vice president and chief data officer.

AnnaLee Saxenian, dean of SIMS, called Yahoo Research Labs-Berkeley "an exciting and open framework for collaboration" that provides research possibilities not possible at UC Berkeley alone, largely because of the huge investments required in terms of equipment and technology.

"The lab offers unique opportunities for SIMS faculty and students, who bring a mix of social, technical and design capabilities to the challenge of developing new information systems and content," she added.

An advisory committee of Yahoo and UC Berkeley representatives will oversee the partnership. The UC Berkeley Industry Alliances Office will oversee the administrative components of the agreement for faculty, students and staff.

The lab is an investment in fundamentally new ways of doing research that will result in the creation of "sociotechnical" systems, Davis said. These systems "intimately connect people, media and technology together on a large scale in order to address new challenges and opportunities that neither people nor machines can solve alone," he said. "How hundreds of millions of people will communicate, create, play and learn together on the future internet can be influenced by the research we will do at Yahoo Research Labs-Berkeley," said Davis.

The partnership is initially set to operate for five years.

Davis will be on leave for the next academic year while running the lab.

Dana Bostrom, associate director of the Industry Alliances Office, characterized Yahoo Research Labs-Berkeley as of one of various types of collaborations that UC Berkeley has undertaken with industrial partners. Bostrom noted that Yahoo's investment in a facility near campus is unusual, and demonstrates a strong desire for collaboration.
The framework of the UC Berkeley and Yahoo pact gives all parties certain rights to intellectual property developed in the lab, and "provides an exclusive, time-limited option so that Yahoo will have first crack at what is developed in the new research facility," she said.

Bostrom said that most intellectual property developed at the lab will be shared jointly between UC Berkeley and Yahoo.

The university has a wide range of research interests and capabilities, she said, and the partnership does not preclude UC Berkeley from entering into new agreements with other companies. But Bostrom said UC Berkeley is eager to work with companies that value interactions with its faculty and students, and sees such collaborations as important in extending its missions of education and public service.

**Discussion**

"Yahoo Research Labs-Berkeley is a first-of-its-kind partnership between a top public university and a leading Internet company to conduct research and explore new technologies that will support and reinforce key areas of Internet growth. The partnership offers Yahoo access to UC Berkeley's intellectual capital, leadership and innovation, and provides UC Berkeley the ability to do new kinds of research with Yahoo and its hundreds of millions of users on a massive scale generally unavailable in academic settings."

It would be interesting to observe the trends and issues that evolve in this *complementary relationship* between a university (UC Berkeley) and a corporate company like Yahoo. This is a kind of complementary relationship in which the players from different industries (education and web-based business) have decided to complement each other's competencies hoping that it will be mutually beneficial. However there could lead to a conflict of interest. For example the partnership has to address questions like “Will the students who work in the Yahoo Research Lab be able to own their work and use it for other projects?” (as typically university students do). “Are they allowed to use that work and experience to pursue jobs after graduation or is that a violation of Yahoo’s IP?” “Will faculty members who spend a lot of time helping students with their projects by giving ideas and pointers get any credit for their contributions?”

It will be interesting to see how they handle the issues like intellectual property rights, profit sharing, ownership etc that will crop up invariably once they start producing good (*profitable*) results.
Article 2: More EDI-INTERCHANGE = More EDI-VAN

There's a connection between the value-added network and the Internet-based paradigms of electronic data interchange

by Scott Koegler, eC-BP.org, Tuesday, November 22, 2005

Source: http://www.line56.com/articles/default.asp?articleID=7112&TopicID=2

As VANs continue to morph their offerings, overall transaction volume continues to grow, even if only in direct proportion to the growth in customer business rather than new implementations. According to Eric Austvold, Research Director with AMR Research, "This growth is in direct opposition to the common expectation that Internet based EDI systems would kill the EDI VANs."

Austvold says that AMR has identified a trend in multinational organizations looking for better ways to manage their business-to-business electronic transactions. "We see these kinds of companies looking for collaboration strategies, and VANs like GXS and Sterling Commerce are offering outsourced applications that enable this kind of collaboration. These applications act as collectors and distributors for transactions and can provide in-process views of orders that may not have been previously available.

The strategies these companies are taking may be a step in the right direction with regard to making EDI more accessible by smaller players, one of eC-BP's basic tenets. If the systems are open to interconnecting with feeds from other providers without charging for the privilege, there may be some real progress afoot. In fact, as Austvold puts it, "Both Sterling Commerce and GXS are asking their customers 'How do you want us to work with you?' and are restructuring their offerings into service models."

Bobby Patrick, senior VP and chief marketing officer for GXS says his company provides application integration code (APIs) and web integration that enable partners to go beyond simple transaction translation. "We still have traditional interconnects with VANs, but the problem is in the real time visibility. If timing isn't important you can pass transactions use whatever connection you want, and that will work," explains Patrick. Partners that connect to GXS's Trading Grid are able to pass transactions directly into the process with near real-time speed. This integration is less than "any transport" but it's necessary for interconnections to be constructed properly in order to interact with the GXS system.

Insource and Outsource

Is the customer finally driving the deal? Austvold says that the VANs are now offering a variety of options to better address the desires of their current and potential customers. These companies are looking for guidance from their customers and responding to the answers by selling a mixed offering consisting of hosted solutions, locally installed software, or even their own personnel. "They are restructuring the total package into a service model of delivery," explains Austvold.
In order to make themselves more accessible to more trading partners, GXS has turned the traditional payment scheme upside down. As Austvold explains, "GXS has created an aggressive model and has put some skin in the game." GXS staff gets paid only when new trading partners come onboard. "They are banking on the fact that their service is good enough to entice trading partners." This kind of incentive makes sense for the hubs, or retailers trying to get their suppliers compliant with their EDI efforts, as it lowers their initial costs. However if the incentives encourage mandating that every supplier implement the customer's EDI provider rather than one of the supplier's own choosing, the practice is regressive with respect to opening the market.

Assuming that single-source mandates are not implemented, this is a commendable proposition that may pay off for smaller would-be trading suppliers wanting to implement EDI with a variety of customers. A single supplier wanting to connect to multiple customers should be able to use this kind of flexibility to leverage their EDI efforts while still minimizing their staff and limiting the number of connections they are required to make. In a perfect world, a supplier would have a single connection to a transport service that handles the translation from the supplier's native system to that which is required by each trading partner, and without extra costs.

What's New?

Of course, this kind of interconnection service is not a new concept. It has been, and continues to be offered by several Internet based EDI providers as "on-network translation services." The real value of this kind of translation service can be realized only when the trading partners are able to select the interconnect service that makes business sense for them. Conversely, the benefit is significantly limited when either the customer or the service provider doesn't allow suppliers to use their chosen services to interconnect, instead forcing them either to use the new service or pay additional fees to enable the cross-connection.

Certainly there are new value propositions in the works, with some available now. But the value of any particular feature is in the eye of the receiver. Providing valuable and usable facilities that allow companies to understand and manage the supply chain will make a difference to many companies with the appropriate volume and scale of business. Other companies will continue to require a reduced set of features. The key to increasing the adoption rate of e-Commerce and EDI is in allowing organizations to choose the tools that fit their business without being penalized for doing so.

Discussion

With the advent of the XML era, there has been an increasing interest in establishing standards to enable smooth information flow within and between organizations to increase the efficiency of the supply-chain and other business processes. Initiatives like Rosetta Net’s PIPs are encoding standard business processes to promote interoperability. A number of companies are trying to leverage this growing demand for interoperability by providing intermediate services that allow organizations to talk to each other.
Eric Austvold, Research Director with AMR Research says that AMR has identified a trend in multinational organizations looking for better ways to manage their business-to-business electronic transactions.

"We see these kinds of companies looking for collaboration strategies, and VANs like GXS and Sterling Commerce are offering outsourced applications that enable this kind of collaboration. These applications act as collectors and distributors for transactions and can provide in-process views of orders that may not have been previously available."

Companies like GXS allow organizations to outsource their interoperability process by acting as intermediaries that facilitate information (document) exchange between organizations. They follow a Service Oriented model and provide customized real-time services to their customers that may include hosted solutions, locally installed software, or even their own personnel. i.e. the ‘Interoperability’ business market has been taken to a whole new dimension beyond just simple document formatting. The key to increasing the adoption rate of E-Commerce and EDI is in allowing organizations to choose the tools that fit their business without being penalized for doing so.

The main business strategies that come into play here are:

- The companies acting, as intermediaries between business-to-business communications have to build a critical mass of trading partners to capitalize on the network effect and entice new clients to sign up. That would mean their consumers have all the possible services and options for communicating with multiple organizations using a single service provider, at a reasonable cost.

- This network effect would also lead to lock-in and high switching costs as it will be expensive for businesses to switch to other service providers who do not support all their trading partners even though they may be cheaper.

- The lack of standardization is the key area that is exploited by these companies. They offer virtual standardization by allowing organizations with non-standard data formats to talk to each other. However as standards become more and more common in business communication, these companies may be forced to look for alternative business strategies.

**Article 3: Portal Generates Revenue**

*Combination of IBM WebSphere Portal and Bowstreet Portlet Factory does wonders for Cardinal Health System*

by Demir Barlas, Line56, Tuesday, October 25, 2005

Cardinal Health System, best known as the operator of Ball Memorial Hospital, can put a dollar value on its physician portal.
The portal (a combination of IBM WebSphere Portal and IBM partner Bowstreet's Portlet Factory) saves each of Ball Memorial's 50 employed physicians 15 minutes a day, meaning the scheduling of an additional patient per physician per day. That represents $60,000 a month in additional revenue, or $720,000 a year.

Much of the physician portal's utility lies in Bowstreet's ability to reach back, via portlets, to various third-party systems and databases in order to serve physicians the information they need. "Each portlet has its own user interface and link to a different back-end system," says Steve Ricketts, VP of Marketing for Bowstreet. "Our automation tool enables somebody with lesser skill to build out that portlet in a lot less time."

The alternative is expertise in Java hand coding, which doesn't come easy. Christina Fogle, Manager of eSystem Support for Cardinal Health System, puts it as follows: "Instead of paying $250 per hour, I currently pay less than $85 for outsourced portlet development."

The developers in this case don't have to be intimately familiar with the back ends that the portal needs to tap, because Bowstreet's "got a wizard interface that tells you where the data source is, and what type of style sheet you want to use," explains Ricketts.

That means anywhere between 40 and 70 percent improved efficiency in programming, "depending on the complexity of the coding," says Fogle. The savings involved meant portal ROI in 9 months, aside from the revenue-generating possibilities discussed above.

In sum, what Cardinal Health now has is "a one-stop portal for all of the patient-related medical information that physicians and medical staff use," according to Ricketts.

**Related Article: Bowstreet's Portal Push**

*Company best known for providing tools to complement IBM WebSphere now provides its own dashboards and portal interface; the secret sauce is profiling technology*

by Demir Barlas, Line56, **Monday, May 16, 2005**


Bowstreet has built its business on providing tools that port data to the IBM WebSphere portal. Now the company is providing a portal interface -- specifically, sales and executive dashboard solutions -- of its own.

That's a natural step, and one that takes advantage of what Steve Ricketts, VP of marketing at Bowstreet, calls the "secret sauce [of] profiling technology." This is really about role-based customization on the one hand and data control on the other. "If you make a change to the base model, you don't have to make the change to every version," he explains. Given that a Bowstreet dashboard will use portlets to link up to several systems -- e.g., customer relationship management, IBM Lotus Domino, and Microsoft..."
Excel -- it is important that a change made in the dashboard, say in a particular table view, subsequently update in all the systems in which that data is embedded. Without this kind of data consistency, the potential of electronic collaboration is eviscerated; so this is actually an illustration of the way in dashboards can also serve as basic content management systems.

Bowstreet's dashboards focus on sales and executive issues. Jeff Newman, director of product marketing for Bowstreet, gave Line56 a detailed demo of the executive dashboard in action with a view to illustrating the power of personalization and the ability of Bowstreet's technology to pull data in from many disparate sources into the same interface.

The executive dashboard can be technically be stocked with any kind of any enterprise data, but a typical layout might be to have key performance indicators (KPIs) somewhere at the top, so the executive can tell at a glance if the company is on track, underperforming, or overperforming in crucial areas like sales. The dashboard also allows the executive to change KPI thresholds, e.g. to create a new operating goal for the entire company. The KPI is an example of a composite portlet, one that has to take into several sources in order to present what looks and acts like a single piece of information.

Another composite portlet is the "My Alerts" portlet, which can include news tracking information. In the demo, the executive gets an alert that a European competitor has been acquired, creating a situation in which the company stands to lose market share in Europe. From within the dashboard, as Newman demonstrates, "you can instantly communicate with online team members, send instant messages, e-mail, or set up e-rooms and Web conferences. You can put together a task force to go after the opportunity."

The dashboard offers intelligence on how to do so more effectively. For example, let's say that the proper response to this acquisition in Europe is going to be to set up an internal sales team that will go after potentially disaffected customers of the joining companies. "The executive clicks on the HR tab and it shows that it takes 30 days to hire a sales person, so you don't have the leeway to wait," Newman says. "You need to hire someone internally."

The dashboard now allows the executive to find the best sales rep by performance in the European region, and a single click promotes this employee. The dashboard automatically updates the existing HR system of record, and the executive can enter information like base salary levels right in the portal interface.

After putting together a new time and designating its leader, the executive can use the dashboard to do more tasks related to the project. For example, the dashboard can find European customers who have given the company high satisfaction ratings, preparing the way for a new marketing campaign.

All in all, it serves notice that Bowstreet is ready to compete with other portal providers, staking its success on the popularity of the dashboard model. "We see a lot of companies
Looking to use their portal frameworks as platforms for supporting dashboard solutions," Ricketts concludes.

**Discussion**

Cardinal Health System is an integrated health network consisting of hospitals, physician offices, pharmacies, home-health care and rehabilitation services. They have a unique physicians portal. The portal (a combination of IBM WebSphere Portal and IBM partner Bowstreet's Portlet Factory) has the ability to reach, via portlets, to various third-party systems and databases in order to serve physicians the information they need. The value of the portal to its customers like Ball Memorial Hospital is calculated as follows:

“The portal saves each of Ball Memorial Hospital’s 50 employed physicians 15 minutes a day, meaning the scheduling of an additional patient per physician per day. That represents $60,000 a month in additional revenue, or $720,000 a year.”

In addition, Bowstreet, the company that provides the portlet technology, has an automation tool that provides a wizard for creating new portlets.” The result is that you do not need highly specialized developers to develop your portals thus bringing the costs of portal development and maintenance further down. The VP of Bowstreet says that their company’s main strategy is to “take advantage of the secret sauce of profiling technology.” The Profiling technology strategy includes a combination of role-based customization and data control. Bowstreet’s portlet technology lets portlets to link up to several systems like CRM systems, IBM Lotus Domino, and Microsoft Excel and pull information from them. Their “dashboard” interface model provides a high level of personalization by pulling data in from many disparate sources into the same interface.

Bowstreet has positioned its portlet technology as the core technology for building one-stop portals for accessing and integrating information from disparate sources. The Cardinal Health Systems portal that run using this technology has already proved the worth of obtaining fast relevant integrated information by reducing the time physicians time in looking for that information, which translates into profits for hospitals like Ball Memorial. Bowstreet also claims that since the portlet development and maintenance does not need high programming skills or knowledge of collaborating systems, hence it translates to portal ROI in 9 months besides the other revenues provided by its use.

A combination of collaboration, personalization and timely information access are the main strategies that are highlighted in this story. The main formula here is “Fast timely information = greater profits” where information is an integration of data from various sources (which would not have been possible otherwise). Bowstreet could possibly consider a versioning approach by pricing its portals based on the number of portlets used by it. This can help differentiate between clients who need fast integrated information from a large number of sources and would be willing to pay more for it as compared to clients who need data integration from only 1 or 2 sources.
**Article 4: Google Offers Incentive to Lure Enterprise Customers**

*Swap out your legacy enterprise search system for a Google Search Appliance and get a free Google Mini*

By Keith Regan  
E-Commerce Times, 11/09/05 10:39 AM PT

Source:  
http://www.ecommercetimes.com/story/jpVMJOz4KS87Oj/Google-Offers-Incentive-to-Lure-Enterprise-Customers.xhtml

Hoping to convince more enterprises to ditch existing search tools for its offerings, Google (Nasdaq: GOOG) is giving away its Google Mini search appliance to companies willing to make the switch to its high-end search tools for business.

Customers who sign up to switch to Google Enterprise will be able to receive free Google Mini, a scaled-down version of the same technology. Full-size enterprise appliances start at around US$30,000, while the Mini sells for just under $3,000.

On the official Google blog, David Bercovich, Product Marketing Manager for the Google Enterprise Team, said good feedback from past enterprise customers who have switched to Google Enterprise convinced the company to sweeten the deal with the giveaway.

"We're hearing a fair number of stories from customers using our enterprise search products about how pleased their users are when they replace another search engine," Bercovich wrote. He said National Semiconductor (NYSE: NSM) saw internal search volume increase by nearly 10 fold while the National Park Service saw a 20-fold decrease in the number of Web-site focused complaints.

The Mini debuted earlier this year to substantial fanfare as Google was seen taking aim at the small- to mid-sized corporate market for the first time by offering a lower-cost search appliance. The company says the Mini is sized to work well in branch offices or other locations that have limited amounts of data that need to be indexed and searched.

**Enterprising Google**

Google has made a significant push toward the enterprise search space, a market niche all but abandoned by some of its consumer-focused search rivals in recent years.

Google has not revealed specific information about its enterprise unit, but General Manager Dave Girouard told the E-Commerce Times that the enterprise segment is seeing strong growth and is "increasingly profitable."
And the search company has left little doubt that it's serious about becoming a force in the enterprise search area, where many incumbent solutions already exist.

Since launching Google Enterprise a year ago, it unveiled the Mini program, announced a partnership program that invites business intelligence vendors and consultants to integrate Google tools into their work and most recently announced a partnership with IBM (NYSE: IBM) through which Google Desktop for Enterprise can be used to search stacks of data captured within IBM applications.

**All About the Web**

Some analysts believe the biggest benefit that Google stands to gain from its enterprise efforts will be additional users of its Web search. After all, the company's traditional model of monetizing search by using carefully placed ads probably won't translate to the corporate network setting.

But much of its recent effort, especially the IBM deal and the partnership program, has been aimed at getting Google's tools to reach deep inside enterprises to get at various types of so-called unstructured data, such as e-mails, documents and presentations, as well as more structured data such as that found within databases.

Google and other search companies have long made free giveaways of tools part of their strategy to drive more traffic to their Web search sites. Google and Yahoo (Nasdaq: YHOO) both offer browser plug-ins, desktop search tools and other accessories meant to encourage use of their Web search.

And using enticements to convince potential customers to make a switch is also a tried-and-true approach in the tech field, one that software companies, database companies and others have used with varying degrees of success in the past. Such programs are usually a nod to the fact that switching represents an upheaval for an enterprise as well as additional cost, which makes such moves harder for companies to justify.

Forrester analyst Matthew Brown said the difficulty of finding specific data hidden among the 80 percent of corporate information that is unstructured leaves room for competition and improvement within enterprise search, even though some vendors have several years' head start on newcomers such as Google.

**Discussion**

This is an interesting article that talks about Google’s marketing strategies. The standard Google Search Appliance costs around $30,000 and can search up to 500,000 documents. Google has primarily targeted the big organizations to market its search appliance. However in 2005, Google has finally turned its sights towards the small and medium size organizations by offering a lower cost search appliance called Google Mini.
Google has started what it calls the “Search Replacement Program” to promote its Search Appliances. The company is offering various product and pricing models and is trying to push consumers to switch from their current search engines to google's products by giving a mini version of the appliance for free to those consumers who switch to the Google Appliances before the end of this year. Google Mini costs $2995 and searches up to 100,000 documents. It is sized to work well in branch offices or other locations that have limited amounts of data that need to be indexed and searched.

The interesting points about Google’s marketing and business strategies are as follows

- **Google is targeting the Enterprise Search market** where there are very few players and hence there is not much competition.

- Google announced a **partnership program** that invites business intelligence vendors and consultants to integrate Google tools into their work.

- Google announced a **partnership with IBM** through which Google Desktop for Enterprise can be used to search stacks of data captured within IBM applications.

- Google is aiming to be a **data-format independent search engine** by providing enterprise level search facilities to free text, semi-structured and structured data.

These strategies tie up to a number of strategies that we discussed in class like:

- **Versioning**: Google has released different versions of the same Search Appliance and has created a **price differentiation** based on search capability. This ensures that it can penetrate all the markets by customizing its search appliance accordingly.

- **Partnerships**: Google Enterprise Professional partners can provide customers a variety of professional services including enterprise integration, installation, customization and training as long as they are relevant to Google’s products. This is a very smart move of utilizing the expertise outside google to promote google’s products and enhance their capabilities.

- **Bundling of Services**: Through its partnerships, Google provides its clients a whole bundle of service that includes installation, training and maintenance of its products. This is a value add that will be very hard to emulate by its competitors.