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Introduction

If there is one thing that experts, pundits, analysts and bloggers are good at it is giving you their opinions. Through a year of acquisitions, product releases and announcements opinions grow and mature into predictions for what is coming. Fed on a steady diet of influence and no small amount of hot air, the last few weeks of December are when these fruits of industry thought ripen. They are plucked, packaged and provided to the rest of us; the users, the curious.

Despite corporate fiscal years that run May through June, development cycles that span years (or merely months) and buying cycles that ebb and flow with local and global concerns we stop, we listen and we consider what is likely in the next year. We think about what we need to plan for in the next year. We seek guidance from those experts to help guide our decisions corporate technology seeds to plant, what to let grow a while longer for and what is ready for the picking.

Invariably there are powerful echo chambers at work just as there are predictions way out on the limbs of possibility. This is, after all, the age of the content creator. Publishing opinions is easy work. That leaves the rest of us swimming in a sea of overlapping and sometimes conflicting predictions. We douse for truth in a fen of thought leadership.

Thankfully, we can tap the power of the new 2.0 technologies and social practices to chart a path through that swamp and across that sea.

Crowd sourcing tells us that many of us are usually smarter than one of us; especially when it comes to predictions. This is what makes wikis - collaborative content creation - so powerful. Blogging lets us share our thoughts and facilitates the aggregation of many blogs into a coterie of blogs aligned along a theme. Index, sentiment and semantic text analysis helps to sort the key concepts from grammatical chaff.

What we are left with then is a distillation, a precipitate of concepts and themes that pervade the group and transcend individual opinions. This is especially useful for business when dealing with industry wide predictions. It used to be called "market research." It used to be hard. It used to be laborious.

We can now aggregate the opinion and prediction containing blog posts across an entire industry and technology sector, analyze them and distill the key concepts that will drive the market in the next year. We can do this in a matter of hours rather than weeks.

What follows is a predictive report on 2011 Enterprise 2.0, ECM and Information Management areas of conceptual strength if not consensus. As with all predictions, you are responsible for your own research and the decisions to act or not act on the basis of what you find.

Methodology

Instead of throwing one more set of similar (but not too similar) predictions into the ring we at Fishbowl Solutions have done something much more useful. We researched all the IT, Enterprise Content Management, Information Management, Knowledge Management and Computing Market trends articles we could find. Industry analyst reports were consumed. Blogs were read. Google trends was leveraged as was Indeed.com's hiring trends reporting. Pew Internet and McKinsey Quarterly research was consulted and mainstream media was consumed.

We distilled the ECM, E20 and Information Management literature group down to 17 key trend and prediction articles. We then ran these articles through a regex filter to scrub diluting terms (e.g. "a", "and", "the") and then a manual filter to scrub adjectives, adverbs and other terms (e.g. URLs etc) that did not modify concepts. We took the raw text and fed it through Wordle.net to create a cloud of the critical concepts that precipitated out of the aggregate. This word cloud is presented above and is explained in detail below. Clouding in this way is a very strong way of creating a snapshot view of the relative strength and therefore importance of concepts.

Additional reports, charts and graphs are included from additional sources as cited.

We hope you find this a useful guide for your own business intelligence and planning activities.

Special Thanks

Special thanks to all who reviewed this work including the Fishbowl Solutions Marketing team of Jason Lamon and Kim Negaard, Tom Motzel of <http://www.ttsecm.com/> and Cheryl Lesser of <http://workflowpeople.tumblr.com/>. A very special thanks to all the analysts, bloggers and reporters whose work this report relies upon and synthesizes. All credit for their work and analysis goes to and belongs with them.

http://esj.com/Articles/2009/01/06/Demystifying-Enterprise-2.0-Its-About-Sharing--Not-Technology.aspx?sc_lang=en&Page=1

In other words, Enterprise 2.0 is the technological enablement of people collaborating with information and processes and business systems to create a better, faster, higher quality result than ever before.

While this is not a new sentiment, it has been rephrased and reiterated by others. In his September 2010 article, "Will the Future of Enterprise 2.0 Follow That of Web Content Management?", Robert Rose suggests that "traditional content management systems are being subsumed and incorporated into the DNA of other suites of applications. (<http://www.cmswire.com/cms/enterprise-2.0/will-the-future-of-enterprise-2.0-follow-that-of-web-content-management-008595.php?pageNum=2>)". Where Rose sees CMS splitting apart and embedding in apps, we see apps combining and leveraging a shared CMS. Both are part of organizational DNA as he points out. However, his next statement in the same article provides better context. Rose says, "If E2.0 survives as a concept...Social tools will not become more enterprise-like. Enterprise tools will become more social friendly." This is a better description of what we see happening in the industry. Enterprise tools are becoming more socially friendly.

The only way this makes sense is if they are combining and integrating process and experience. One cannot say the tools are more socially friendly when each has its own walled garden of content, social interaction and integration. The result is a shared experience layer (aka portal - writ small) that aggregates the information, people and process systems into a shared (or at least overlapping) whole.

Social software vendors like Jive make similar arguments - that business is going social and leaving traditional ECM systems (<http://www.jivesoftware.com/news/releases/2009/10/jive-to-socialize-content-across-the-enterprise>). They do this in an effort to position themselves over and above the more traditional CMS systems. However, while there is some truth to their arguments, their bark is worse than their bite. We largely see these as "Reese's peanut butter cups arguments". They are the equivalent of the social computing vendor saying "your peanut butter doesn't have our chocolate" with CMS's retorting with, "yeah, but your chocolate doesn't have our peanut butter!". They are both true but both kinds of software (and vendors) need each other in order to become something vastly superior to what either one has on their own.

Ergo, an aggregation layer for user experience is needed. This is one that includes both the information management capabilities of CMS's with the social interaction capabilities of social computing platforms.

Impact: In 2011 we will see a much accelerated socializing of business processes. Tools and practice will continue to evolve to engage the power of the ad hoc communities that exist inside the workplace. Portal platforms and CMS systems will form the core of the social engagement systems. This is because portal platforms are uniquely suited to the combination of information- and-process-systems while CMSs are suited to managing and tracking interactions between people and content. Collaborative software, woven into the fabric of business systems will enable the person responsible for a task to engage his or her peers to improve the outcomes of that action or task. However, the visibility of these implementations will be obscured. This is because many business processes are buried at lower levels of the organization. Policies and procedures management is a low level activity when the individual procedure is considered. However, new social technology and collaborative practices engage the primary, secondary and even tertiary stakeholders to participate in new atomic ways that not only achieve but also accelerate the goals and purpose of a process. Business intelligence based metrics dashboards will provide roll-up visibility to these lower level process-centric activities to higher level stakeholders. Vendors and service implementers that provide socially-enabled solutions should look to tap this shift in 2011.

Cloud is the next notable term to emerge. Indeed, there has been more buzz around all things cloud related lately than many other trend terms. This has given rise to a derogatory term “cloud-washing” as organizations peg their offerings to the cloud. From consumer photography software “in the cloud” to very large racks of servers (that might have been called ‘mainframes’ in other ages but are now “private clouds”), everyone is scrambling to jump on the cloud bandwagon. There is also an undercurrent of unease related to the cloud. While the benefits seem clear, the costs associated with moving data and computing to the cloud are not fully understood. This has many wondering if there is more hype than reality around the cloud. Upon closer inspection of the word cloud mashup, there are a number of technology related terms of which *cloud* is the chief. These are terms like; “services”, “platforms”, “providers”, “tools” and “software”.

Across the literature, *cloud* is closely related with service providers, data storage, off site hosting, multi-tenancy, expedited innovation, lower total cost of ownership, increased emphasis on security, service level agreements and virtualization.

The impact of SaaS and cloud based offerings on emerging countries is profound. These offerings allow the businesses in emerging geographies to enjoy the benefits of mature technology without the costs of their own incremental and organic development. This will also allow businesses in these geographies to quickly leapfrog development cycles as they create next-generation software based on what they learned through use of current cloud offerings. This domestically developed (and localized) software, standing on the shoulders of cloud offerings, will enjoy accelerated uptake in its own geography. This is because many of the developing and emerging economies still have a lower barrier to entry for domestically developed technology. Whether through imposed economic structures such as tariffs, taxes or immigration duties or the natural preference of doing business with one’s neighbors rather than a stranger, the lowered bar for comparable technology is real. Due to the size of these emerging markets, the IT savvy and rapidly increasing discretionary income already present there, there is a diminished business necessity for businesses in those regions to globalize their software and try to compete overseas. They could, however, prove a ripe target for acquisition by global corporations looking to create or increase a footprint in those geographies.

There is an interesting correlation with cloud related terms and another notable term, “mobility”. In North America, new Net Neutrality regulations have a potential large impact on cloud based offerings. Net Neutrality seeks to prevent preferential data flow through ISPs. This has a dual impact of subjecting ISP bandwidth allocation to normalizing regulations while possibly introducing a tiered fee structure for greater or higher quality bandwidth consumption. This risks a race to the lowest common denominator in terms of bandwidth which can bottleneck large data-centric cloud services. Alternately, if higher fee-structures for bandwidth are introduced SMBs and emerging businesses may be priced out of the SaaS and Cloud advantages. However, Net Neutrality rules treat wireless service providers much more lightly than broadband providers. This means that cloud based and successfully cloud-washed services for mobility may have a competitive advantage over ground based services that tap into the cloud. Additionally, Net Neutrality rules will likely also encourage large organizations to invest in their own private or hybrid cloud infrastructure. As such, the large cloud-in-a-rack offerings like Oracle’s Exalogic and Exadata may become more acceptable cloud alternatives in 2011 and beyond. This is an extremely dynamic area of regulation and one that is highly factionalized. Special attention should be paid to FCC Net Neutrality regulations in the USA and similar governing bodies’ regulations abroad. These regulations have the potential to rapidly change the data transfer environment in either direction in the near and medium term time frame.

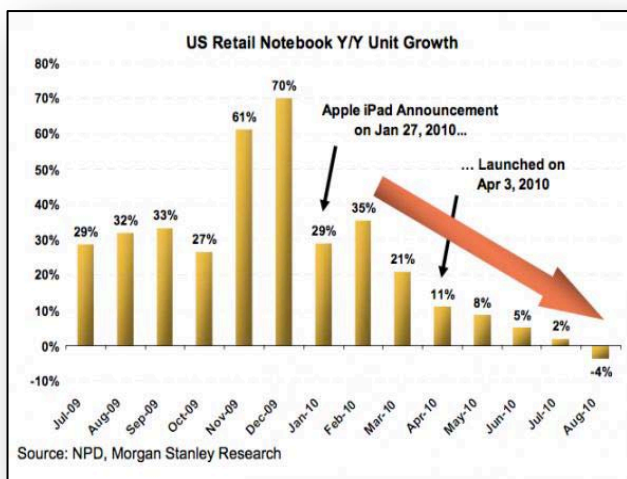
Impact: In 2011 we will see increasing cloud related buzz and “cloud washing”. We will see the beginnings of the cloud related shake out as businesses, through trial and error, figure out where the cloud capabilities work best. Cloud related technologies will continue to be a trend for several years. As Net Neutrality regulation in the USA takes shape, look for impacts on cloud offerings and a shift to cloud offerings and services for mobile data providers. Private cloud infrastructure - large elastic computing capacity owned by one organization and provisioned only for divisions of that organization - will prove attractive for very large companies that can front the investment and gain the ROI from the incremental savings that only become substantial at scale. Data capacity and virtualization will matter for these businesses. New enterprise-centric cloud based applications will limp along in 2011 with a few notable exceptions at the top. Consumer-centric cloud applications will thrive due to the relatively low development overhead and low price point for subscription based services.

Mobility is the next notable term to emerge. For E2.0 and ECM trends, mobility was as large as social and with arguably more impacts. Cloud and related technologies only emerged as bigger when general IT was factored into our word cloud. Terms that were also conceptually near to mobility in the word cloud are: “applications”, “apps”, “Apple”, “tablets”, “devices”, “iPad”, “workers”, “location” and rich content terms like “video” and “content”.

2010 was the year that information mobility came into its own. While mobile email and the RIM Blackberry have been staples of the mobile business person for years, the ability to deliver rich content in a convenient format was realized with the mobile broadband, the Apple iPad, and a massive uptake in data-enabled smart phones including iPhone, Android phones and the Blackberry. A comparison of the raw numbers of land line subscriptions vs. cell subscriptions between the year 2000 and 2010 shows the magnitude of this growth. Several historic IT trends have combined to create the perfect foundation for a fast launch of this mobility trend. These include using the web as a platform for application and business process development, IT allowing more open access to business applications for employees and partners, corporate intranets architected in DMZs allowing for mobile browser access and a huge increase in mobile web browsing. The migration of business information off the desktop and onto the mobile device has started in earnest (figure 3).

It is important to note that mobile devices are still primarily consumption devices. With the general

availability of greater bandwidth, more powerful devices and larger form factors, rich content including image and video is now a primary content destination. As the expectations for rich content delivered anywhere continue to increase from the consumer space, businesses will also see an increased pressure to both create richer content and to deliver it to their employees anywhere they happen to be. This gives rise to a “Users Everywhere, Information Anywhere” theme for business that will continue through the next several years.



User consumption is directed through two main channels: mobile apps and mobile web. Mobile Web is the slimming down and/or reformatting of web sites for mobile consumption.

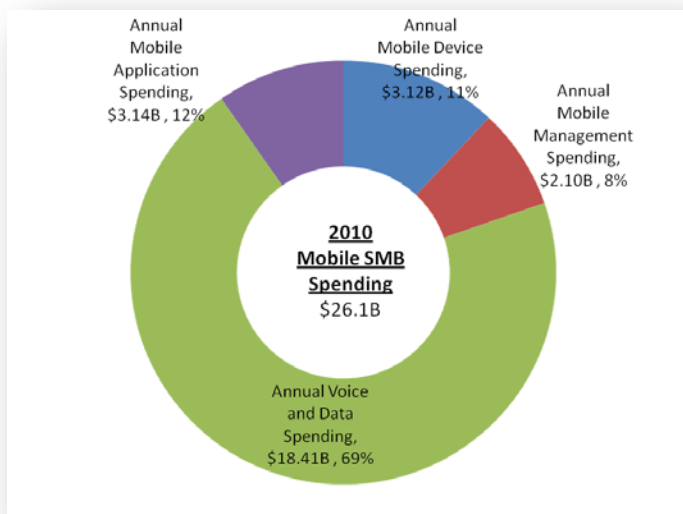
<http://tech.fortune.cnn.com/2010/09/17/notebook-sales-growth-goes-negative-can-we-blame-the-ipad-yet/>

mobile based applications and information. In many ways this is just another extension of the JIT (just in time) trend that swept ERP, MRP, supply chain and inventory systems in the early parts of the last decade. Then, large organizations such as Dell Computers were able to streamline operations and decrease cost by incorporating JIT inventory management and assembly into their business processes. This, in turn, gave birth to new services offered to consumers such as the ability have a tailor made Dell computer shipped directly to you in the same time that a factory standard one would be. Now, with JIT principles applied to information rather than hardware components, the consumers of information in any organization can obtain the necessary content when just when they need it. From mobile sales force enablement to shop-floor workers to auditors to field workers, the ability to access and interact with information that was once restricted to a desktop in the home office or a laptop in the hotel is now replaced with the ability to get at it right then and there.

An interesting note with regard to the mobility trend is that businesses seem to be lifting some restrictions on letting employees use their personal devices to access secure work information systems. This poses a benefit and a problem. On the one hand business can be perceived as “giving” employees a benefit to make their lives easier while keeping the cost of the device (if not the data service) with the employee. On the other hand these practices open up a wide range of potential compliance and information security issues. Nevertheless, with mobile email having already paved the way, the information security standards that today govern mobile access of corporate email are being taken as models for governing access to other mobile-enabled corporate information. This approach is likely to be the norm for each organization until a breach or abuse is detected.

Impact: In 2011 we will see a wealth of “app-ified” back office information systems and functions. Many of these will be created simply to attach to the mobility band-wagon. They will be of limited value though they may be initially rolled out with much hubbub. The most valuable mobile apps and mobile web experiences will be those that attach to specific business processes that require or allow workers to be out and about. Anything that currently requires a worker to take notes then return to a computer at some later time and transcribe those notes into “the system” (whatever that system may be) are ripe candidates for the mobile transformation. This is because there are clear benefits that can be measured

by taking time and steps out of a manual process. Look for health care apps for nurses and doctors. Look for sales enablement apps for field sales. Look for insurance apps for mobile claims adjudicators. Look for state and local government departments to equip mobile employees such as police, city maintenance, inspectors and auditors with mobile apps.



<http://sanjeevagarwal.files.wordpress.com/2010/12/mobile-spending.png>

Analytics is the next notable theme to emerge. While the term “analytics” is quite small in the word cloud, the preponderance of related terms requires that it be considered here. The terms that surround this concept include: “trend”, “prediction”, “intelligence”, “model”,

“term”, “find”, “research”, “potential”, “focus” and “study”. These terms are also closely associated with “marketing” and “market” in the literature. It is interesting to note that “search” as a term did not rise up to the level of appearing in the word cloud. This is not to suggest that search, as such, is not important in 2011. Rather, concepts around information location and delivery have expanded out beyond the bounds of traditional enterprise search. There is an emerging recognition that search is a means to an end. That end is the availability of relevant information. As such, there is growing interest around capabilities and concepts that can boost delivery of relevant information from within an ever-increasing information density. Consequently, the world of analytics, predictions, reasoners and traditional BI (business intelligence) applied to unstructured information is on the rise while search and SEO concepts are subsumed by the broader “analytics”.

The estimates of unstructured and semi-structured information in the enterprise run the gamut from 53% to 85% (Seth Grimes, “Unstructured Data and the 80 Percent Rule”, 2008, <http://clarabridge.com/default.aspx?tabid=137&ModuleID=635&ArticleID=551>). There is a consensus that this number is increasing as content creation is easier than ever. The result for business is that there is a wealth of organizational knowledge contained in unstructured and semi-structured content. But what separates structured from unstructured content is that the former is easier for computers to process while the latter is much more difficult. This delta has driven the last decade’s growth of enterprise search, SEO and the like. Still, there is recognition that richer organizational knowledge is available beneath the surface. While search can deliver content items like documents and web pages, the hope is that analytics systems that combine human markup (e.g. tagging and folksonomy), sentiment and semantic analysis and self-learning can deliver concepts and knowledge that are culled from across a variety of sources.

Indeed, the slow though deliberate rise of DITA (Darwin Information Typing Architecture) standards and XML authoring capabilities slipping in the back door of many ECM technologies suggests that we are close to a BI tipping point with regard to unstructured information. As content is increasingly annotated with machine-readable metadata the barrier to obtaining actionable BI from these historically opaque items is being steadily lowered. Additional evidence for this trend shows up in the relatively strong [hiring trends](#) for technical writers in 2010 (below).

Impact: In 2011 business will place a larger premium on quickly and consistently discovering what it already knows, but does not know that it knows. While this is not a new trend, the M&A activity in the last several years where large organizations such as Oracle, IBM, Microsoft and Google acquired advanced analytics firms and talent predicts that deeper analytics capabilities will be baked into core software offerings. Additionally, bespoke integration projects between heterogeneous systems will rise as organizations seek to operationalize investments they made in analytics software by tying them to core business processes and systems. This is a key way in which the E2.0 concept of the mashup is being realized. Businesses seek system/project health, demographic, uptake, activity and social analytics around business processes, products, web properties and marketing campaigns. Tapping analytics systems for data crunching power and feeding them content from a variety of sources rather than just a data warehouse will be a trend in 2011. Furthermore, these mashup applications will be built on portal platform infrastructure and architecture. While core business systems will incorporate some analytics capabilities, these will represent only the common denominator feature sets. Portal platforms are best suited to combining disparate information sources and presenting the results in a user friendly way. Organizations who are successful here will have a dramatic competitive advantage over others who either ignore or fail in this area.

User Experience comes next as a 2011 trend theme for E2.0, ECM and Information Management. Related terms in the literature are: “users”, “impact”, “video”, “look”, “experience”, “engagement”, “adoption”, “activity”, “environment”, “young”, “strong”, “consumer”, “help”, “brands”, “talking” and “personal”.

The incredible growth and adoption of sites like Facebook, mobile apps like Angry Birds and devices like the Apple iPad demonstrate that users are willing to overlook a host of inadequacies in favor of a compelling experience. The iPad is overwhelmingly a *consumption* device. Facebook has been lambasted for a host of security and privacy vulnerabilities. Angry Birds is a simple mobile game that apes many that came before it. Yet each of these can be taken as archetypes of user experience that generate astronomic business and attention. The reason is because, faults notwithstanding, they provide an easy, enjoyable, and enviable experience. The barriers to adoption and learning curves are low. They provide a unique and novel spin on something that is familiar and they carry with them a certain status and camaraderie with fellow users. While user experience fads may also carry the same characteristics, these examples have also proven able to keep that experience even as they go mainstream.

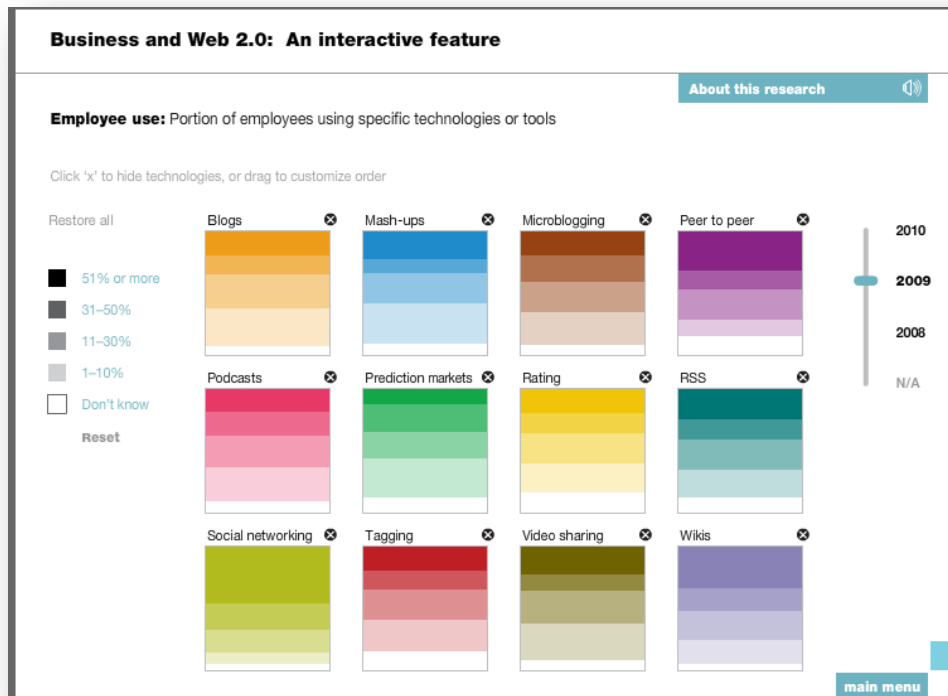
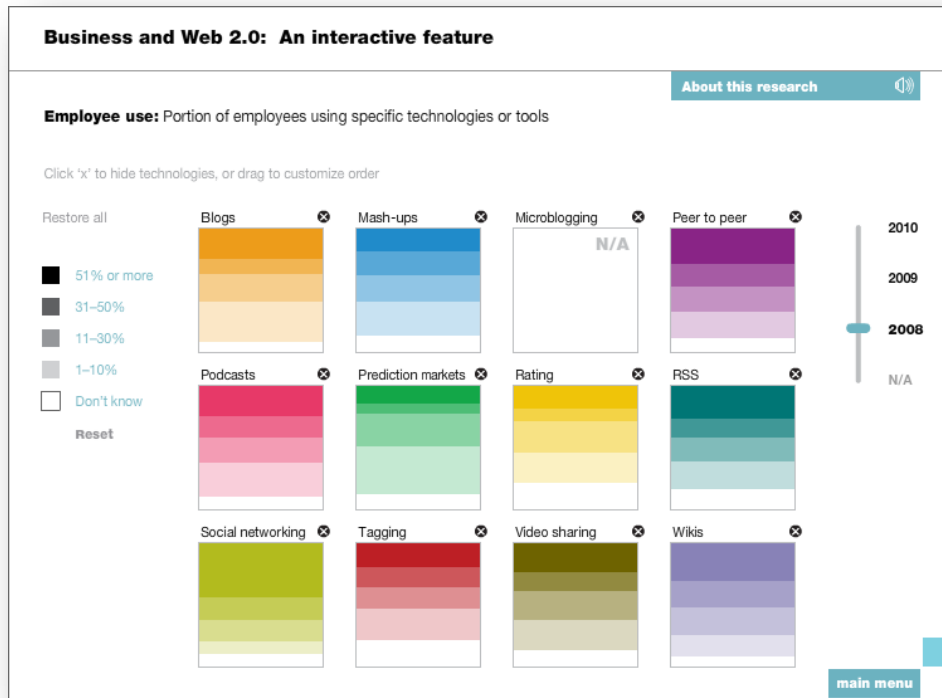
The examples are pulled from the consumer world with good reason. Where user experience is concerned, business has been sorely lacking when it comes to innovating UX for knowledge workers. Quite simply, investing in making systems look and feel sexy for internal users does not directly generate revenue. Consequently there has been a historic dearth of E2.0, ECM and EIM (enterprise information management) systems that *entice, seduce, and engage* users thereby spurring adoption and uptake. However, in the last decade younger workers acculturated to always-online and social systems have entered the workplace. Concurrently, older Generation X and Boomers have adopted consumer technology with aplomb. The result is a worker who craves and increasingly demands business information systems that look, feel, and perform in at least the same *way* if not to the same degree as similar consumer counterparts.

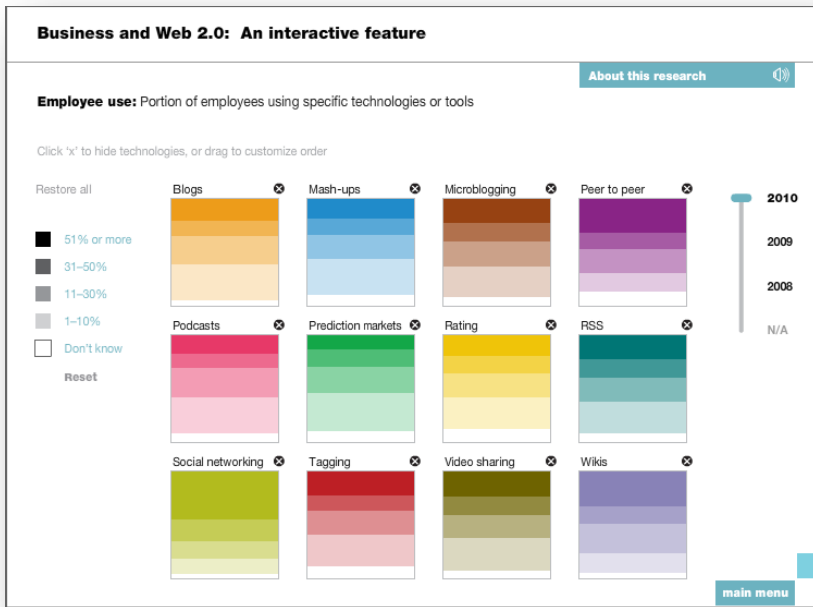
At the same time as the demand for consumer-like work experiences increases, similar requirements for rich content are increasing. The proliferation of internet video for business (whether internal or external) has spurred a requirement for business to incorporate rich multi-media experiences into its systems whether for help systems, CRM, web demonstrations, or employee education.

Similarly, rich interactivity as allowed for by advances in Flash, HTML5 and Javascript have also given rise to advanced capabilities for consumers. There is little technological barrier to location-aware business systems, interactive and smoothly animated reporting and analysis interfaces rather than spreadsheets, and project management systems that are integrated with FMS (financial management systems) and regulatory processes so that up-to-the-moment project status, budget and compliance can be viewed from an intuitive and engaging dashboard.

The rise in demand for and adoption of internal social business capabilities 2008 - 2010 is one such example. The McKinsey Quarterly Business and Web 2.0 interactive report clearly demonstrates these trends (source:

http://www.mckinseyquarterly.com/Interactive/Business_and_Web_2.0_An_interactive_feature_2431





When considering the technological hurdles presented by a demand for highly engaging business systems that incorporate key capabilities from the previously mentioned areas, it should become apparent that simply baking in E2.0 features into every back office business system will not make the grade from a UX perspective. Even if a CRM system, ERP system, CMS, HRMS and FMS system all have an internal wiki or forum or place to “connect” with other users, most businesses would still be left with 5 separate wikis and “social systems”. When users consider good UX design, needing to interact

with colleagues through 5 separate “social” systems is the exact opposite of what they actually desire. However, all too often, this is the exact situation that businesses are faced with as they make separate purchasing and upgrade decisions that include some baked in feature like these.

What is required to overcome this technological balkanization of UX and the other themes are two key items:

1. A clear vision at the enterprise level for consolidation, UX and interaction that understands the organizational needs that precipitated the balkanization in the first place. This is typically the responsibility of the CIO, CEO or General Manager.
2. A consistent technological platform that can handle aggregation of heterogeneous systems and provide a compositing layer for user interaction and engagement. As it stands today this is a portal system.

Impact: In 2011 business systems that incorporate experiential design principles into feature function rich technology will be at a competitive advantage over bare bones but feature-compliant systems. However, it is vital to note that the *expectation* of the market for engaging user experiences does not translate automatically into a demand that will support premium pricing. UX requirements and “app-lification” of business systems takes its demand cues from the mobile apps market where individual incremental costs are incredibly low but UX factors are high. Indeed, the average selling price for mobile apps is \$1.09 in North America and less in other parts of the world (Antone Gonslaves, March 2010, “Mobile Apps Get Top Dollar in US”, InformationWeek, http://www.informationweek.com/news/software/enterprise_apps/showArticle.jhtml?articleID=22400086).

In short, in 2011 vendors that provide compelling user experiences that will drive adoption and uptake of their solutions stand to make gains over those providing similar solutions but lacking new interaction modes and maintaining the status quo in user experiences.

Operations is the final thematic area that emerged of our study of 2011 trend themes. Related terms in the literature are: "growth", "organizational", "technologies", "capabilities", "strategy", "management", "increased", "deliver", "shift", "rise", "productivity", "change", "security", "industry" and "workplace".

Over the last two years there has been an increasing focus on operational efficiencies and excellence. With emphasis on business process management, vendors and managers alike have been searching for measurable gains that came through adoption of E2.0, ECM and EIM technologies. In the past 6 months there has been a notable resurgence of awareness around the venerable business process. Organizations have finally realized that simply rolling out new technology does not yield business benefits. At the same time, success stories for E2.0, ECM and EIM technologies are increasingly revolving around enhancing business processes. In many cases these processes are among the least interesting and most pedestrian processes in business. Processes such as human resources on-boarding, call center knowledge capture, manufacturing BOM processing, policies and procedures management, cross disciplinary project management and accounts payable processing have all seen boosts through application of E2.0, ECM and EIM technology (Jacob Morgan, 2010, "A Collection of 50+ Enterprise 2.0 Case Studies and Examples", <http://www.jmorganmarketing.com/collection-enterprise-2-0-case-studies-examples/>)

Impact: In 2011 there will be a surge of business process oriented solutions. The process solution centric model for E2.0, ECM and EIM deployment carries with it some increased risk for vendors and increased reward for service and value-add providers. Vendor risk will be characterized by the tension between the wide platform capabilities (and high pricing) and the relatively narrow requirements for any one process solution area. Customers looking for a narrow process solution are less willing to pay for superfluous features that attend to needs in other areas. However, purchasing decisions that focus on narrow solutions further balkanize internal technology environments which increases costs further down the road. Organizations must identify then tally this delayed opportunity cost for purchasing point solutions rather than leveraging existing platforms. Service and value-add provider rewards can be best characterized as the inverse of the vendor risk. Those providers who can extend the investments companies have already made in platforms like Microsoft SharePoint, Oracle WebCenter and IBM WebSphere stand to gain in 2011. Organizations who recently made big platform technology investments will be looking not only for "quick wins" but also measurable value that can be gained from their original platform. While this means an additional investment, the relative incremental amounts are small compared to the platform investments. Better still, they can be measured and vetted for success and ROI.

Overall

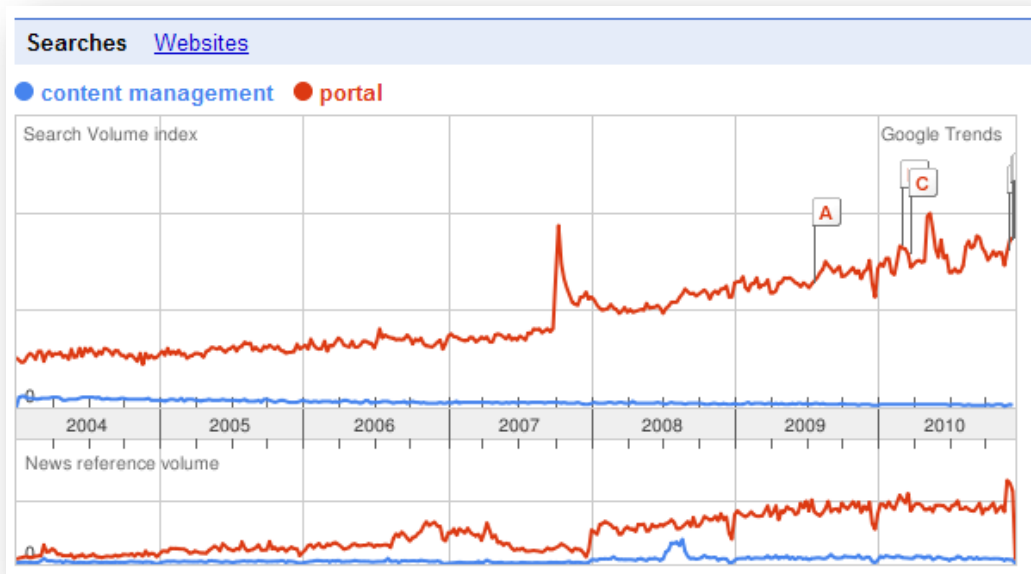
As we have already seen in the social, mobile, analytics and user experience themes it is the operationalizing of trend-enhanced process that stands to make real gains for business in 2011. Mobile-enabled (but not mobile-required), socially enhanced business processes that provide a better, smoother, more engaging user experience and can be measured and evaluated in real time with analytics is where the trends for 2011 are headed.

Google Search & Keyword Trends

While E2.0, ECM and EIM trend analysis is forward looking and predictive, it is also useful to look back and see the trends in what people were searching for via Google over the last several years. These meta trends can give us a high level understanding of the general direction of the market. They are an expression of interest.

Graphs below represent North America search and keywords trends only. Trend analysis was limited to computing and technology industry.

As mentioned above, portal has taken off over the last several years, especially when compared against content management. Developments in 2010 saw a further subsuming of content management technology by portal technology which helped bolster this trend.



Google Search Trends for Content Management and Portal Keywords

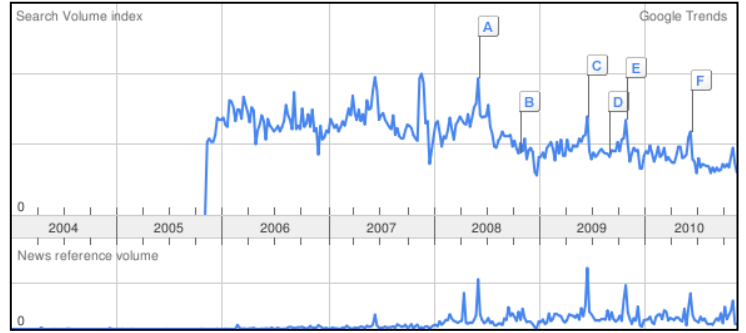
When considering the direction that the major portal vendors are taking with regard to feature / functionality roadmaps, this graph is no surprise. Oracle continues to bring their ECM suite further under the banner of their WebCenter Portal Suite. IBM continues to make similar design decisions for WebSphere and Lotus WCM and FileNet productized integrations. Similarly, Microsoft SharePoint promotes its capability as a portal as well as a content management system. Even open source portals like Liferay promote their ability to manage and publish content (<http://www.liferay.com/products/liferay-portal/features/cms>).

There is also a noted uptick in searches for specific features associated with Web 2.0 and Enterprise 2.0. This had the effect of making both "Web 2.0" and "Enterprise 2.0" into container terms for generally sets of features. However both of those "container" terms showed decreases from their peaks several years ago. Compare the graphs of "web 2.0" and "enterprise 2.0" to the graphs of "analytics", "blog", "wiki", "crowdsourcing", "mashup", "social media" and "social networking".

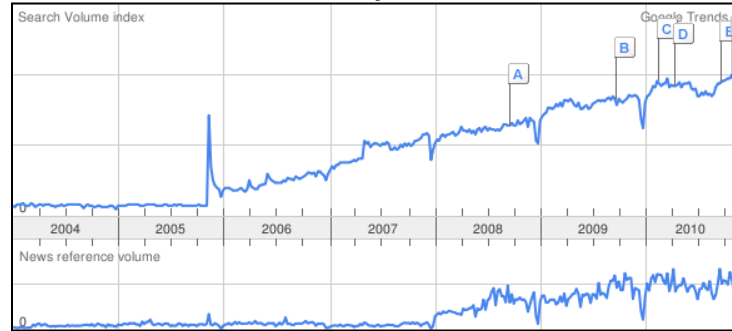
"Web 2.0"



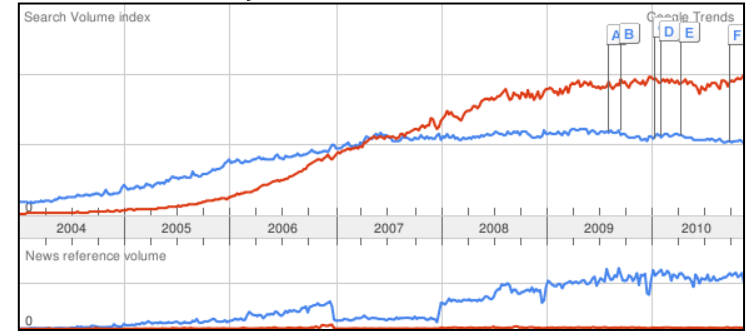
"Enterprise 2.0"



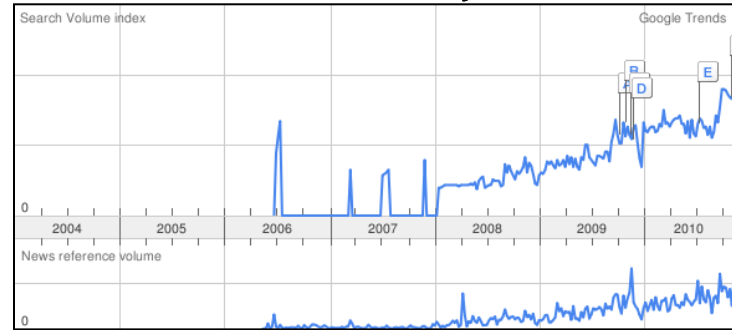
"Analytics"



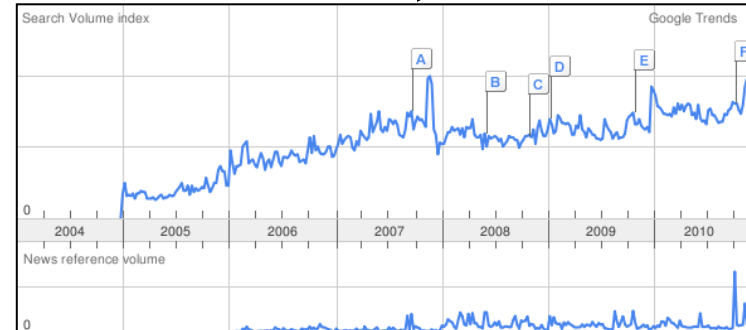
"Blog" (in blue) "Wiki" (in red)



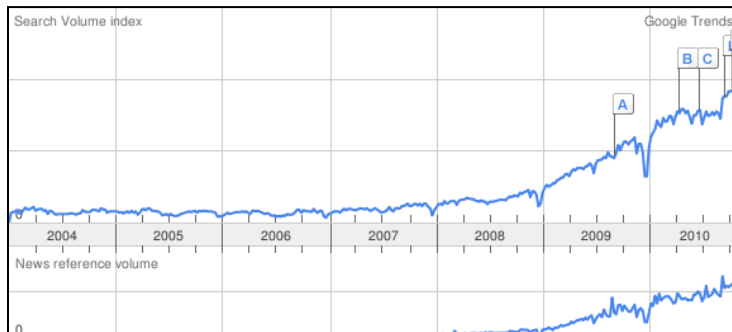
"Crowdsourcing"



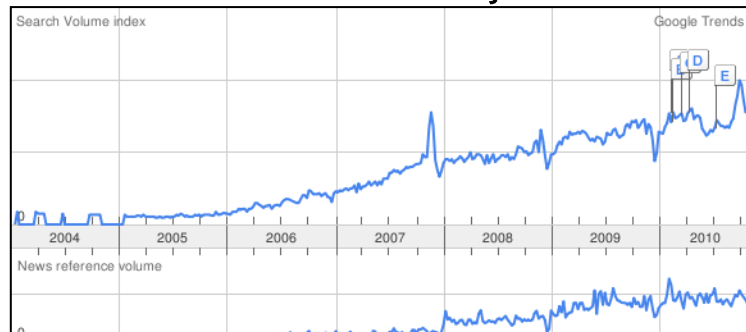
"Mashup"



"Social Media"



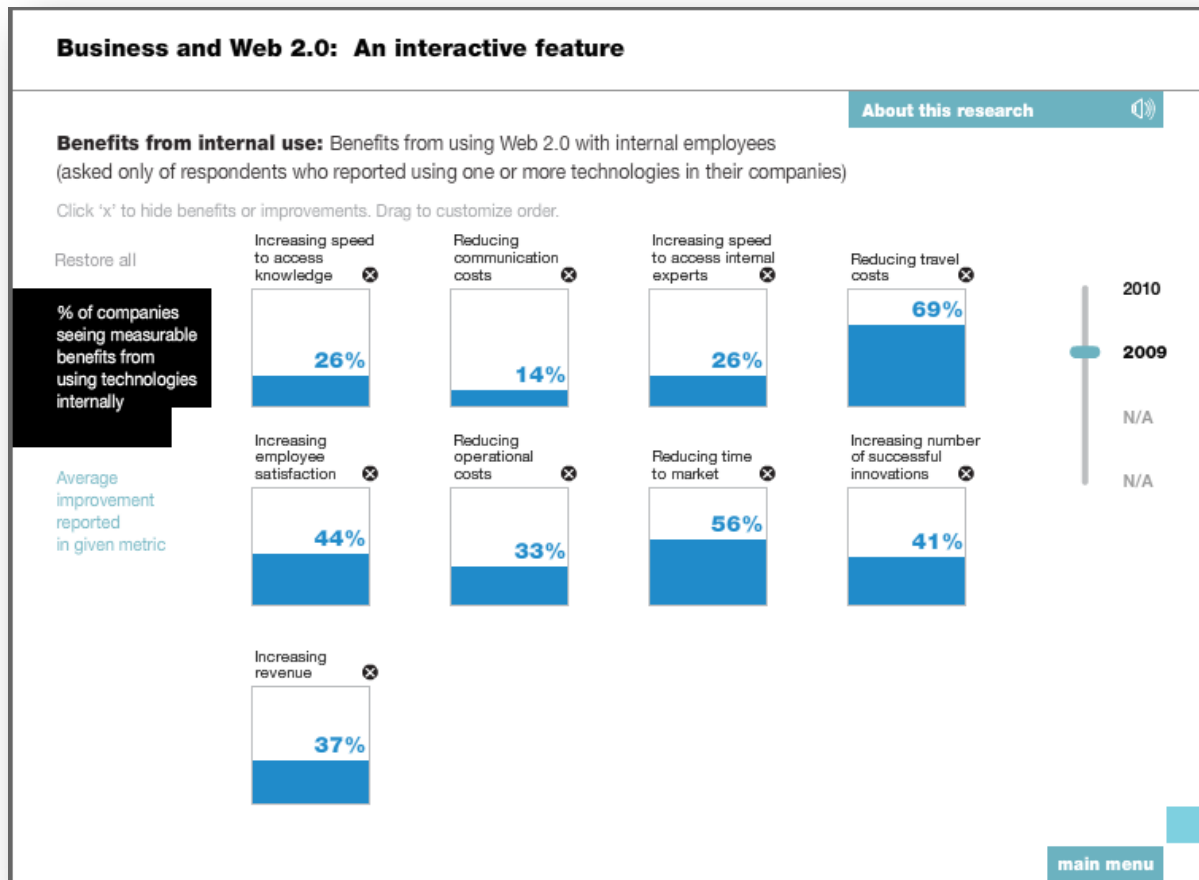
"Social Networking"



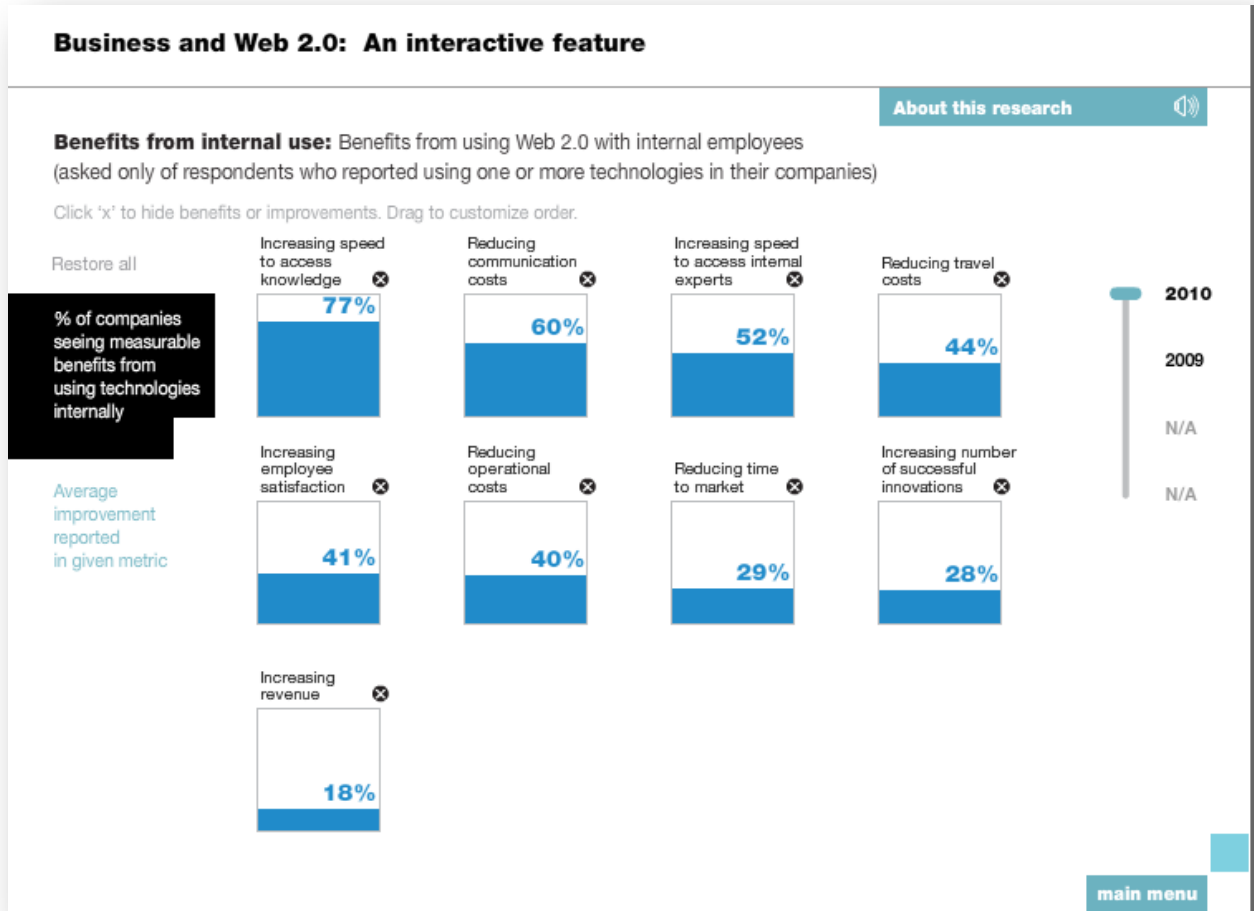
One conclusion that can be made from this cursory view is that consumers are more interested in specifics than general "roll up" concepts. This suggests a more highly educated consumer that is able to seek after

specific functionality rather than being introduced to terms through higher level container concepts. If this consumer approach holds true then it also suggests that vendors selling platform products will have a more difficult time tying the higher cost of the platform to the specific value of one or two desired features.

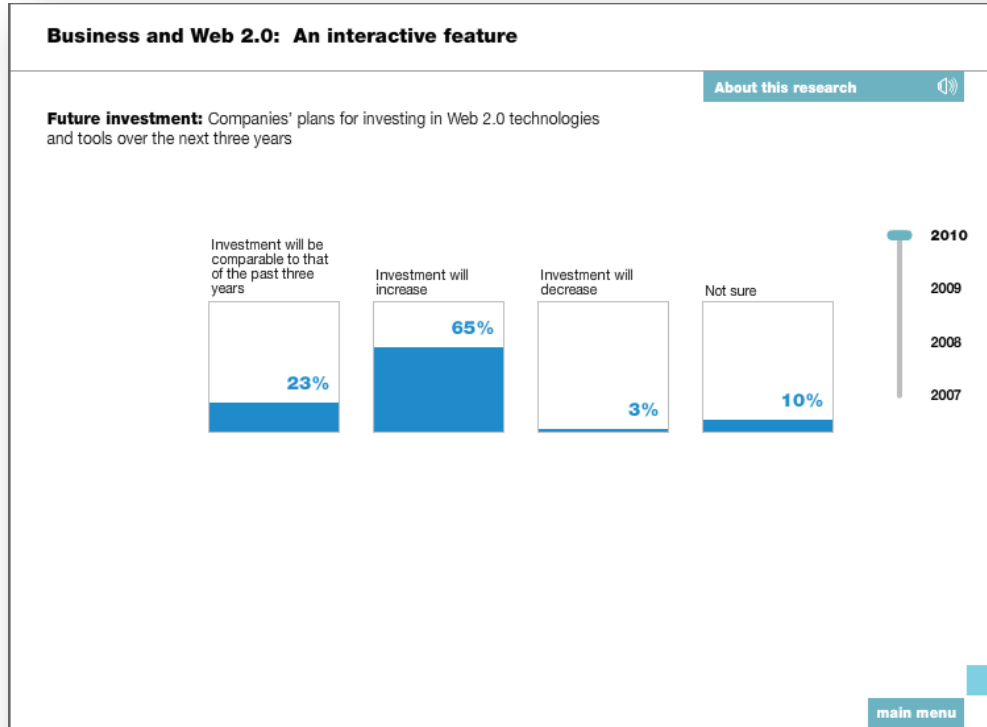
These search trend graphs are also supported by more targeted research. McKinsey Quarterly produces its annual Business and Web 2.0 interactive report (citation in appendix). Their results between 2009 and 2010 demonstrate a business consumer who becomes more educated about what the E2.0 technology can do for business. For instance, in 2009, businesses had high hopes for E2.0 technologies in speeding up time to market, reducing travel costs and spurring innovation.



In 2010 these benefits changed as businesses got a chance to put the technology to use. The benefits to employees accrued primarily in access to knowledge and expertise and internal communication. The 2009 hoped-for benefits of decreasing travel costs and time to market did not come to fruition nearly as often.

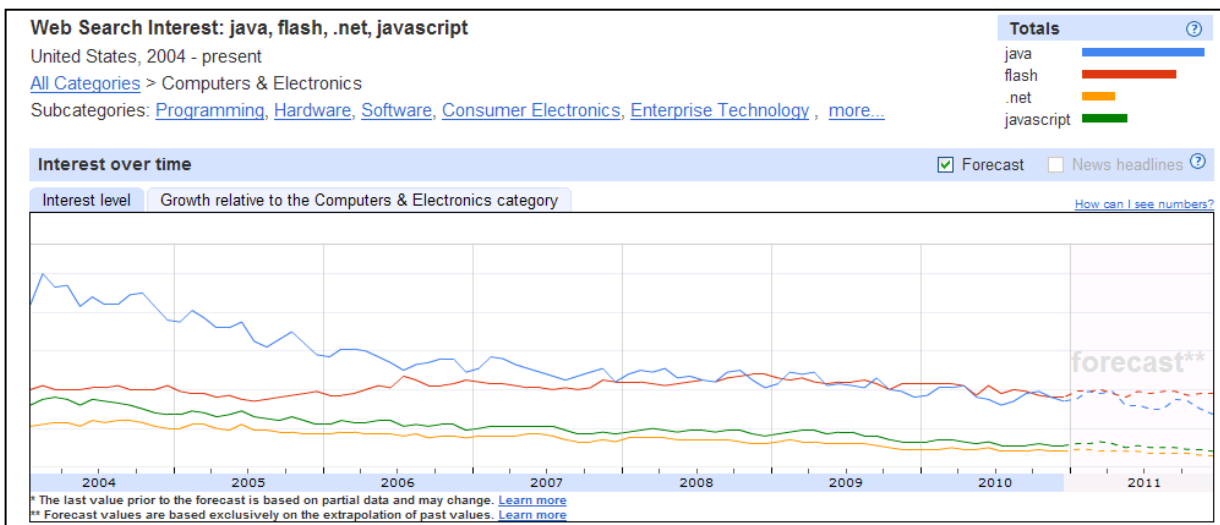


Even with such adjusted and refined expectations of technology, McKinsey surveys show that businesses are expected to increase their Enterprise 2.0 investments.



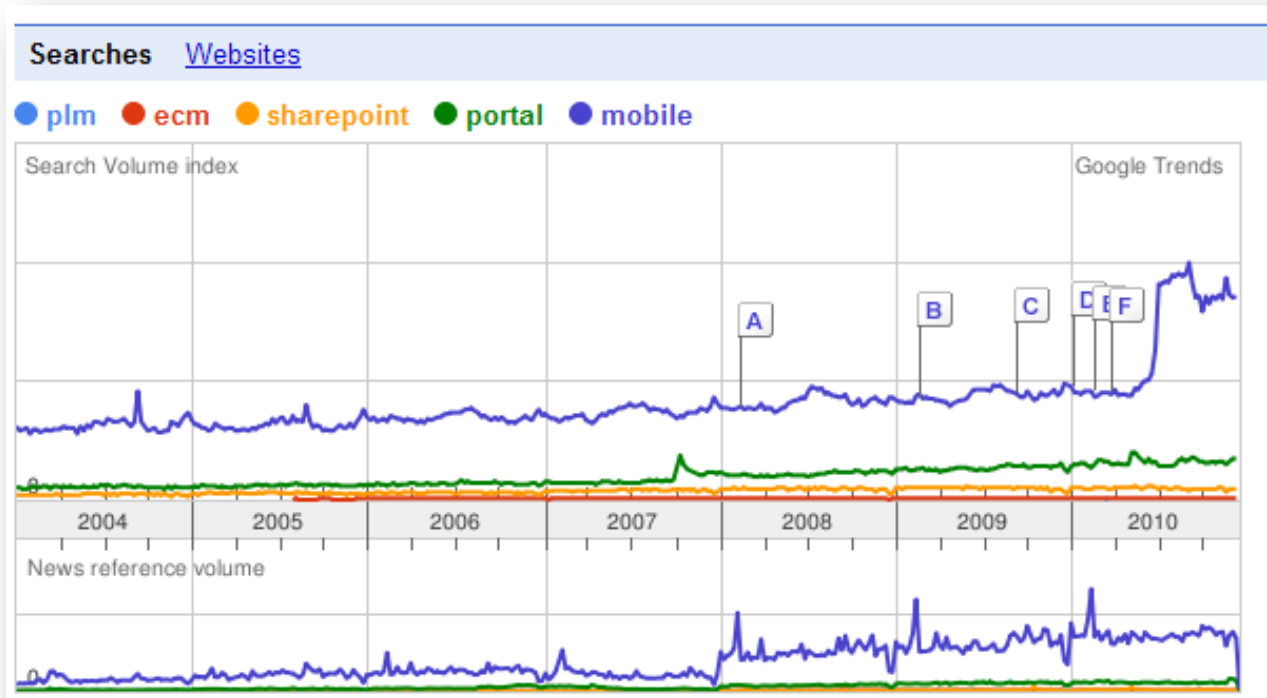
However, when combined with the Google search trend information, we predict that investment will be in more feature specific portions of the E2.0 capability sets such as social collaboration, mobility tooling, analytics capabilities, user experience features and process-centric solutions. These will all be underpinned with robust yet largely invisible content and information management systems.

On a final note, from a technology perspective, it is interesting to note that searches for "Java" and "Flash" continue to outpace Google searches for either "javascript" or ".net".



Java remains strong relative to other languages and looks to stay that way. The strength of flash even with the lack of support by Apple devices bolsters the user experience trend identified above.

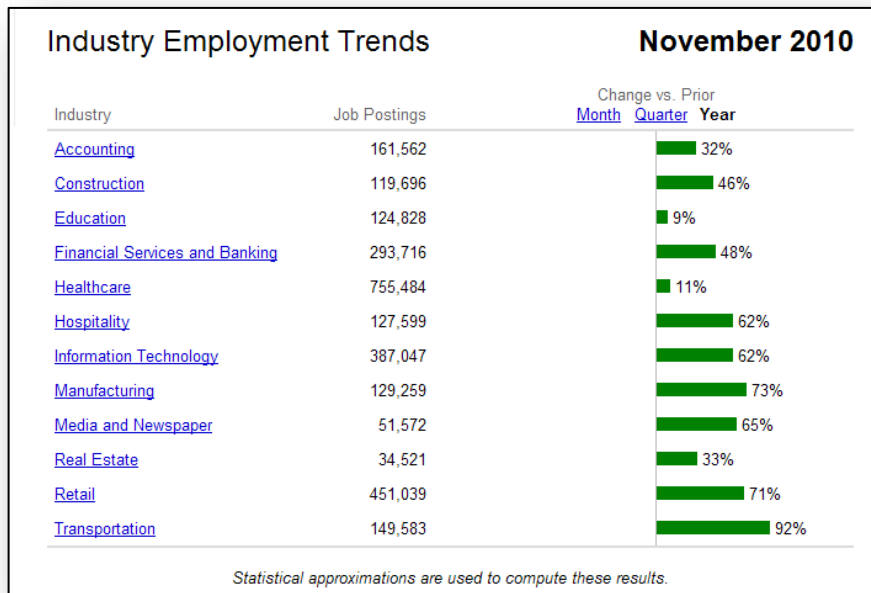
When considering the trends identified above, it is useful to compare associated technologies with each other from this search trend perspective. There is a very clear and strong northward trend in mobile searches. Portal comes in a comparatively distant second with SharePoint and ECM showing and PLM (product lifecycle management) not even making the graph in relative strength. In terms of an indication of what people are looking for on the web and combined with projected 2011 trends, mobility comes out as the clear leader. Portal has strong indicators when you consider historic interest as gauged by search and the requirement of portal as the platform for many of the projected 2011 trends.



Hiring Trends

While predicting trends and analyzing search keywords can provide a direction, a very clear picture emerges when hiring trend data is also considered. Hiring data represents real, ongoing investment in the affected areas. To this extent, Indeed.com's (link in appendix) job trends service is very useful for understanding what trends companies are serious about.

Overall industry trends



<http://www.indeed.com/jobtrends/industry>

For the Information Technology industry, hiring has focused most strongly around graphic design and related jobs. This supports the overarching trend identified above of a renewed focus on and design and experience for IT. The presence of “data analyst” on the list, though farther down, also bolsters the analytics trend identified above.

Information Technology Industry

December 2010

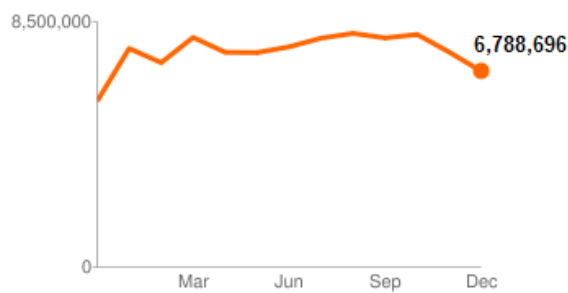
Job Postings



Information Technology job postings have increased 82% since December 2009.

Clicks on Information Technology jobs have increased 18% since December 2009.

Clicks



Top Job Titles



Top Keyword Searches

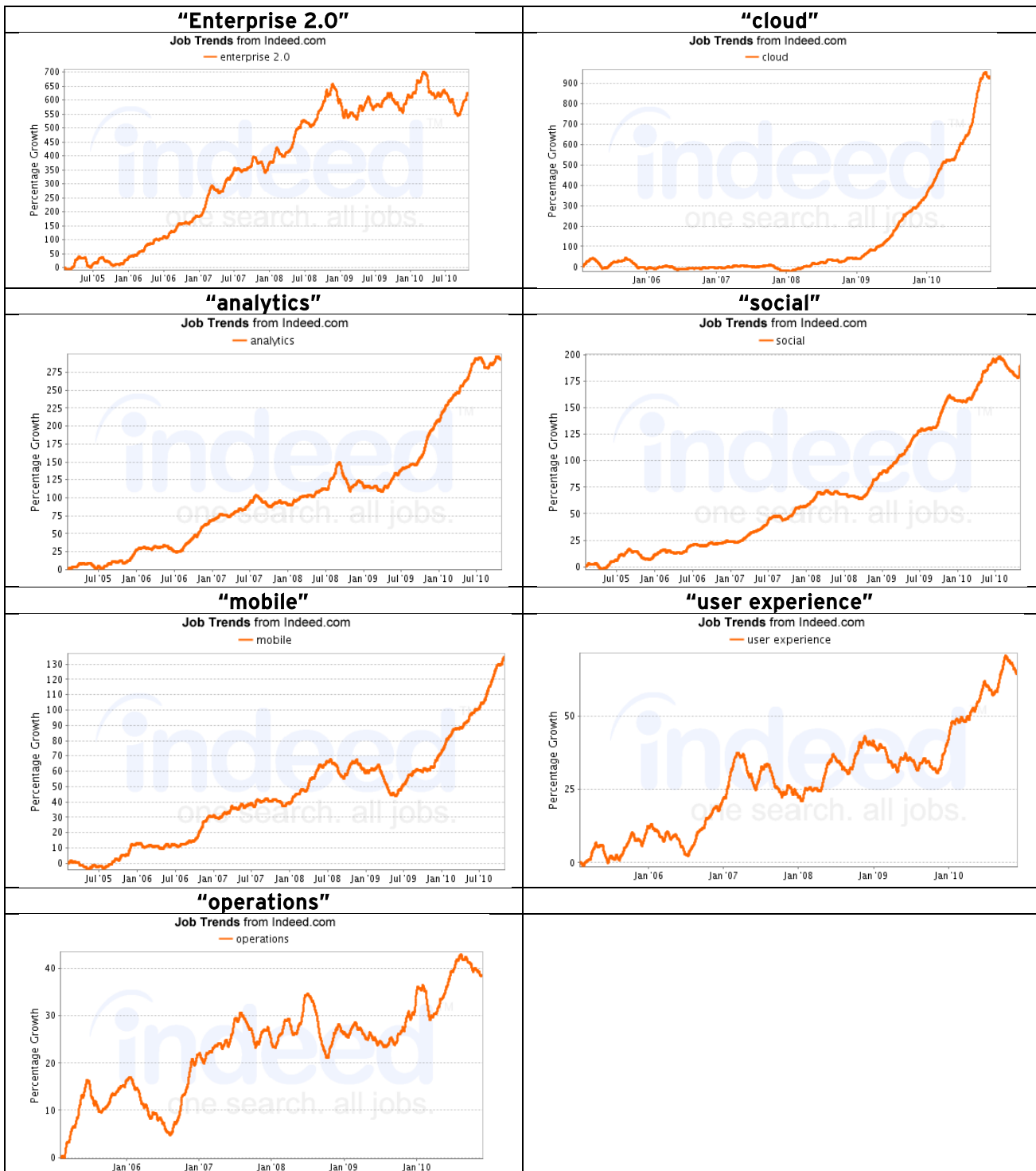


Top Locations

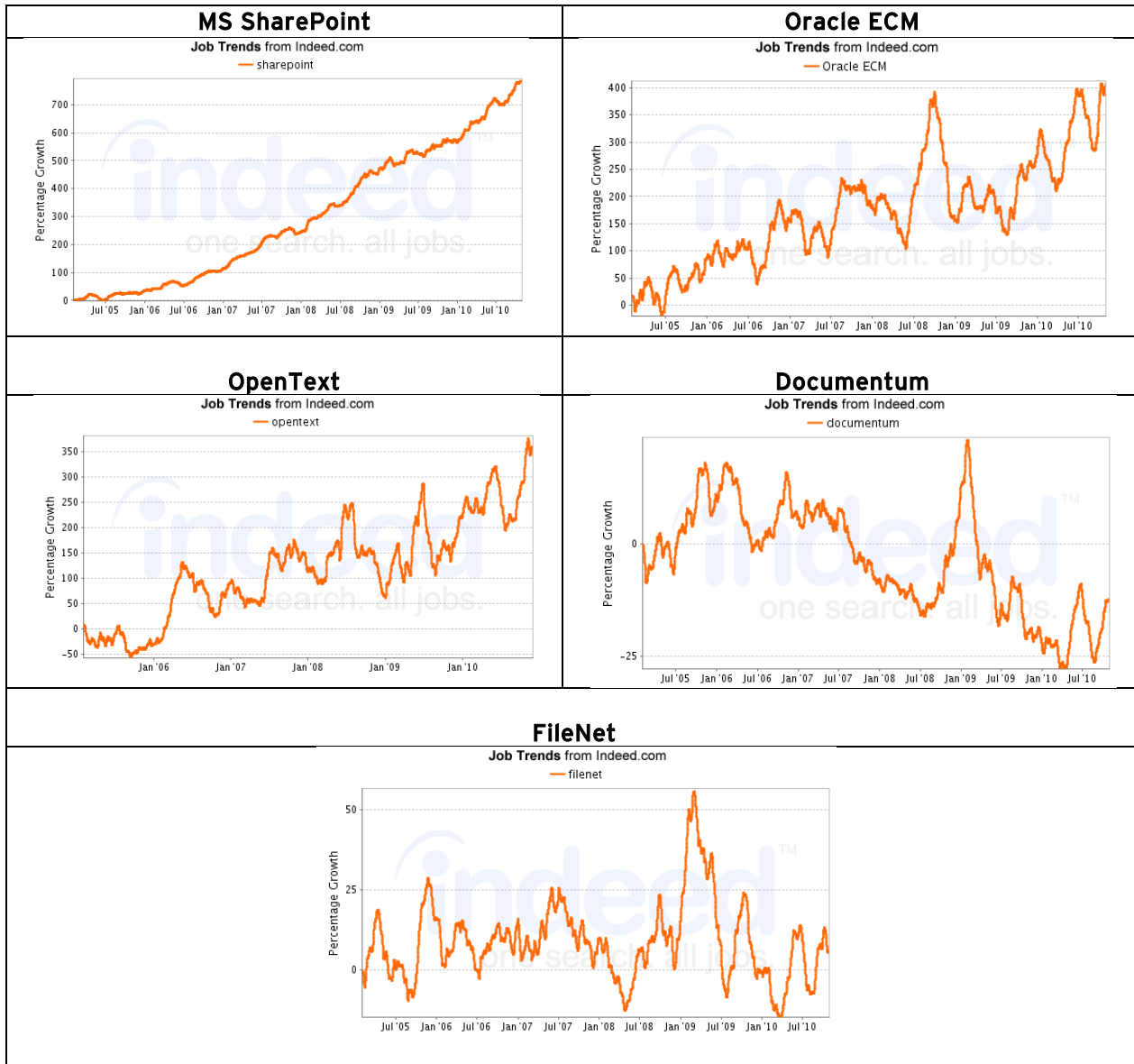


<http://www.indeed.com/jobtrends/information-technology-industry>

Comparing job description keywords we find growth in job postings for the container terms as well as in the major trend areas:

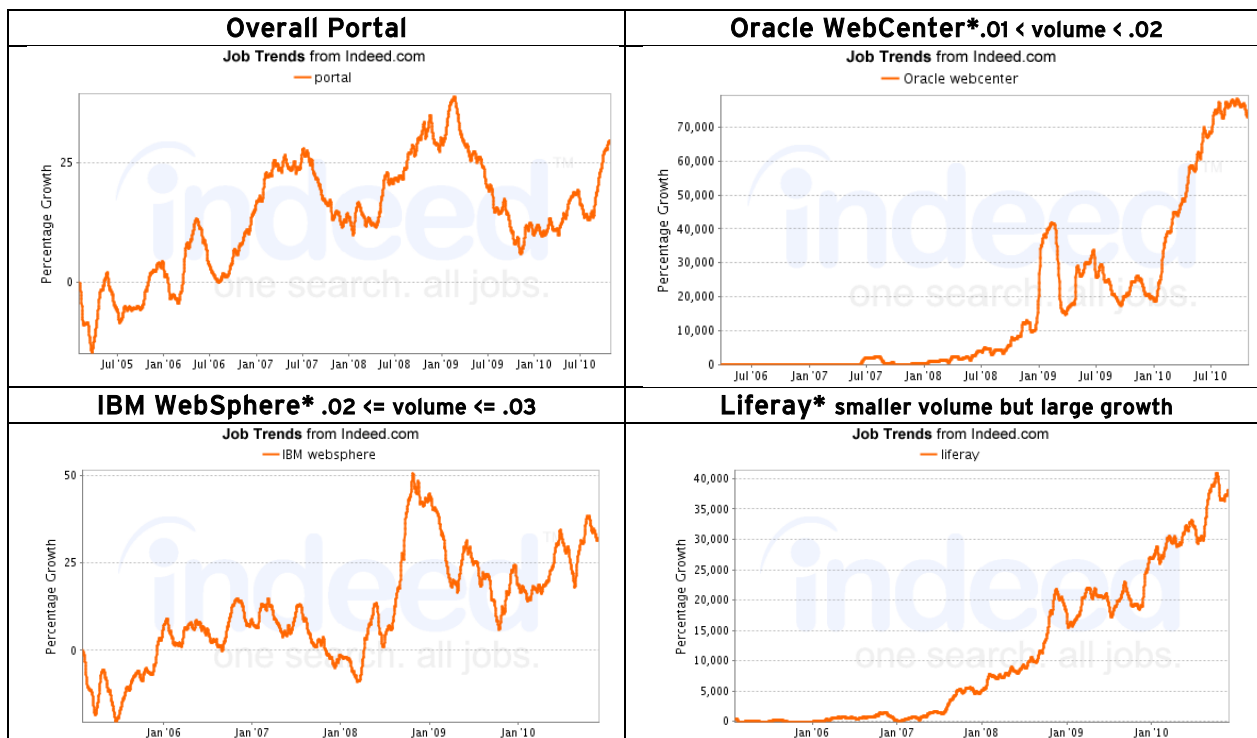


Comparing core ECM vendors growth trends emerge as well that show which technologies are gaining market share (inferred by organizations increasing hiring for them) and which are not.



SharePoint hiring is skyrocketing while Oracle ECM hiring is growing strongly along with OpenText. Former titans of ECM like Documentum and FileNet are showing shrinkage or zero growth in postings. This suggests that organizations are, if not moving away from these platforms, then not expanding them.

Because ECM is moving into the infrastructure, a look at portal hiring trends is an important factor to consider as well.



What is evident is that in late 2008 - early 2009 there was a surge of portal investment and consequent hiring for portal related jobs. These numbers fell off through 2009 as the economic downturn affected businesses. In 2010 these jobs started to come back. At this same time, Oracle completed the integration of the BEA portal acquisition into its WebCenter suite and released WebCenter 11g. While IBM's WebSphere still dominates the market, Oracle's WebCenter portal offering has seen dramatic growth through 2010 and their offering is poised to continue growth. In the open source market, Liferay portal has seen tremendous growth. It does not offer all of the sophistication of a WebSphere or WebCenter but many customers are finding that its capabilities are sufficient to their needs and the cost (including maintenance) is still attractive in an economic setting that is still cautious.

Conclusion

We at Fishbowl Solutions hope you found this report to be an unbiased information source to help you understand and monitor E2.0, ECM and Information Management trends in 2011. However, as stated in the introduction, these trends should be researched further by you and your colleagues so that you can make your own "buy/not buy, go/no go or agree/disagree decisions." We also trust that this report not only provides a launch pad for your next discussion but also that you were able to learn something new about the various technologies and trends.

Understandably, most technologies discussed in this report were probably not new to you either in name or understanding. While there is much writing about these technologies and trends it is safe to say that each of these is not yet fully understood, nor realized. Furthermore, each of us probably still has to toil

within an antiquated business application, a slow process or other throwback to the “legacy” days that leaves much to be desired from a user experience perspective. The key to remember with technology trends is to expect an evolution and not a revolution.

This is especially true for the most popular trend discussed – Social. The inclusion of social capabilities (forums, wikis, blogs, etc.) within enterprise software has been slow to come. The resistance seems to stem from upper management security and usability concerns. However, many of these concerns are unfounded since, when social software capabilities are integrated within business processes, those processes tend to speed up and become more accurate, benefiting from the real-time, shared knowledge of multiple people in an organization (internal crowdsourcing).

The benefits of Cloud computing, including reduced costs, increased storage, and enhanced flexibility, are all very attractive as well, but only the largest organizations will be able to afford the up-front costs of setting up a private cloud infrastructure. Nonetheless, those that do will benefit from providing development platforms, data storage, and software capabilities at scale to multiple divisions/departments across their enterprises.

Enterprise mobility was another trend we identified, and given the overall growth of the mobile market this was not surprising. What is surprising is the lack of mobile applications available for the enterprise and B2B environments in general. Providing corporate email capabilities from a mobile device was a good start, and given that workforces are becoming more and more mobile, they will want these same contribution capabilities to apply to content as well – taking pictures and applying metadata with a smart phone application for upload to an organization’s enterprise content management system, for example.

Managing content within an organization is more important than ever as we workers now have many more tools to create content. However, organizations are also looking to surface that next layer of information that combines data sources from a variety of applications and locations. This is where analytics and business intelligence comes in – another trend identified above. Analytics provides the data analysis power that companies are looking to integrate within business processes and systems, giving them an overall health synopsis of their web site, business processes, and marketing campaigns.

There is no denying that computers and computer software are more powerful than ever. This power and the included features has not necessarily translated to widespread adoption and use. As we noted with the User Experience section above, enterprise software systems typically lack engaging, easy-to-use interface for knowledge workers to do their jobs. The increasing popularity of mobile applications, and their “pick up and play (use)” interfaces will no doubt start to influence enterprise software development companies as well.

The last technology trend highlighted was operations. Organizations saw during the recent recession the importance of operational efficiency and optimized systems. Quite simply, they wanted to get the most out of the systems they had in place while discriminating against systems that they felt would not produce a quick and measurable ROI – systems like Enterprise 2.0 suites. 2011 brings with it renewed interest in Enterprise 2.0, and information management vendors, responding to customer requests, are delivering solutions that include Enterprise 2.0 capabilities. As we go forward, we should expect to see more organizations looking to implement true Enterprise 2.0 software platforms, which include content management, portal, and collaboration capabilities along with integrations with their enterprise applications, instead of point solutions that cannot be leveraged across the enterprise.

As you saw in the Google Search and Keyword section above, the technology trends identified were also quite popular search terms indicating a general interest supporting the trend. Those search and keywords trends also project into the future provide a valuable benchmark against which we may continue to measure and predict.

Finally, the Hiring Trends section pointed out Graphic Design was a strong focus. With the popularity of mobile devices, social systems like Facebook, and the easy learning curve of mobile devices, organizations are aware and want to ensure that their customers, prospects and partners are provided with a rich user experience (Enterprise 2.0).

Be sure to monitor this in 2011 and check back next year to see if we were able to validate this. Have a fantastic and profitable 2011.

About Us

Fishbowl Solutions is an E2O focused, ECM Specialized Oracle Gold Partner. Founded in 1999, Fishbowl has been delivering innovative solutions to costly and frustrating knowledge sharing problems on the Oracle E2.0 Fusion Middleware Stack. Our Enterprise 2.0 practice starts with understanding organizations' holistic information management strategy. This means understanding the information management lifecycle for your organization; from creation to consumption to archiving and destruction. From this wide foundation we are able to deliver and build specific solutions. We focus on information re-use so you get the most from your knowledge assets. We focus on multi-channel delivery like portals, web sites, micro-sites, intranets, knowledge libraries and mobile devices so users can access information anywhere. We focus on process automation so you can get out ahead of your business rather than reacting to the latest emergency. This is why we are able to help you manage information everywhere and deliver it to users anywhere.

Contact us

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Appendix & Selected Sources

Graphic and Analytics Sources

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Fishbowl Solutions E2.0 and ECM 2011 Trends Report

Jan 2011-

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