

WHITE PAPER

ENTERPRISE SOCIAL OFFICE PORTALS
AND THE BATTLE FOR COMMUNITIES

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Overview



SOCIAL NETWORKING and the always on digital society change the business world. Organizations can no longer hope to chaperone all of the information workers require or by themselves resource the many business processes necessary to achieve strategic goals. The business world has become about collaboration, social networking, earning the trust of customers and business partners by opening up and sharing information. It's a battle for hearts and minds; a battle for communities.

This new era redefines the role of corporate IT as a technology adviser, information contributor and guardian of trusted computing platforms. System must extend networks and processes beyond the boundaries of the enterprise enabling users to serve their own information and collaborative needs and possess the tools necessary to work from anywhere at any time.

This paper examines the emerging 'social office' and its hybrid blend of communications tools that are transforming business and IT.

"THE SOCIAL OFFICE ... a single point of information services delivery for a new generation of nomadic web workers."

THE SOCIAL OFFICE is an emerging form of enterprise computing technology designed as a single point of information services delivery for a new generation of *nomadic web workers*; people who deliver their value by contributing to business processes with their activities and knowledge from a virtual portal accessed from anywhere. A new generation of enterprise portal technologies is combining social networking tools with a move towards self-service computing to create a paradigm shift in web worker productivity enablement.

For decades IT leaders have identified ENTERPRISE PORTALS as the holy grail integrated user interface – the point of consumption - for users requiring access to business applications and the various collaborative tools, content and information services proffered by corporate computing. But the notion that IT teams can service all of the business information needs of users is now seen to be outdated. In a self-service information economy, web workers today want the ability to serve themselves. They demand access to rich user experiences tailored *by them* to *serve themselves* with very individual and specific information needs. They also expect to have access to social networking and collaborative communications technologies to feel engaged and 'online' no matter where they are – office, home office or the local Starbucks.

Social office portals differ to their enterprise predecessors in the following ways:

Ego-centric	Social office portals focus on the delivery of value to individuals through unique information experiences; adopting the belief that information enabled users who are able to collaborate more effectively with colleagues, are more productive, and bring more value to the enterprise.
Social network enabling	Social office portals embed social networking tools to enable web workers to develop and harness their social networks. A host of collaborative tools are provided to facilitate the propagation and management of social networks – instant messaging, file and desk sharing, wikis, notices boards, opinion polls, crowdsourcing etc.
Self-service	Social office portals are engineered for web workers to do more for themselves through the use of point-and-click application design interfaces and 'mashup' tools (based on the assumption that corporate IT systems will serve up <i>web services</i> that social office portals can consume).
Cloud borne	Social office portals adopt modern web-based technology platforms engineered for cloud computing deployment so users only need a web browser to access applications on their local computing device (PC, laptop, mobile or television).

Background to enterprise social office portals – perspectives on a new community-based business world

THE SOCIAL NETWORKING PARADIGM

"...commercial organizations able to foster communities and harness their potential can create an unrivalled competitive advantage in the new economy."

Technologies like *Facebook*, *LinkedIn* and *Twitter* demonstrate how community enablement can carry messages, influence buying behaviors and change perspectives. These social networking tools enable individuals to assert their personality on others through digital communications powered by the Web. It's not been lost on business leaders that this influence has the potential to be used to achieve business outcomes as much as social outcomes. Commercial organizations able to foster communities and harness their potential can steal a march on competitors in the new economy.

Another *awakening* for business leaders is that, underpinning the formal business processes and organogram charts of business organizations, there lies a social fabric made of consenting cooperation between individuals; of untapped relationship ties, knowledge and talent; of 'who knows who' and a faint *pulse* that reveals the true level of heart (enthusiasm) of a group of people bound within the artificial frame of 'the organization'. Business management experts register the potential of *enterprise social networks* to enable a more adaptive, ego-centric model of cooperation between individuals; where the knowledge, skills and interests of individuals become more visible to others. Exposing the broader talents and relationships of individuals must somehow have the capacity to serve the purposes of businesses. But how?

"...consumer social networking fails to register the important of key business issues such as the creation and protection of intellectual property..."

The term 'social' is not a comfortable word to describe anything in business. Many see the clear line of distinction between 'work and play'. They have grown up with the notion that work shouldn't be fun or enjoyable. Indeed, for the majority, work still means serving as a cog in the corporate machine with little potential for creativity or free thinking. And consumer social networking fails to register the important of key business issues such as the creation and protection of intellectual property, the need for security, adherence to formal processes and the importance of compliance.

Social networking may have huge potential to harness talent; talent that organizations today depend on for their competitiveness. In the early 21st century, we see computers automating office processes and start to make a difference to productivity in a similar way that steam power supported the automation of manufacturing in the 19th century.

If a process can be automated by computers, why have a person tapping at keys? So, the role of office workers is transitioning from mundane roles of data entry, filing and physical document distribution to creative roles in research and development, service and maintenance, customer relationship management and the leveraging of customer insights to innovate new products, service and better processes. It is in these areas where the battle for

competitiveness is found and increasingly, the talented people demanded to fulfil these business roles lies beyond the boundaries of the enterprise.

“Business leaders are coming to realize that leveraging business social relationships might hold the ticket to realizing the true talents of a workforce, boosting productivity, being competitive.”

Currently, for business leaders, the realization that communities are important is raising more questions than answers. It promotes thoughts such as ‘How do I as a business leader influence the communities important to me to drive profitability, productivity, market intelligence?’ What business leaders do know is that the office environment is becoming more social. The line between work and home life is becoming increasingly blurred. Business leaders are coming to realize that leveraging business social relationships might hold the ticket to *realizing the true talents of a workforce, boosting productivity, being competitive.*

THE GROWING IMPORTANCE OF COMMUNITIES IN THE BUSINESS WORLD

All organizations have communities that will ultimately determine their success, the most common being:

- ‘Workforce communities’ of employees, contractors and agencies supporting the processes that produce customer value.
- ‘Partner communities’ of industry sector partners, professional organizations, research, knowledge and content providers.
- ‘Customer communities’ who pay for products and services.

For several reasons, communities have become more important to business:

Harvesting the ideas and talents of employees

“Organizations are pressured to source innovation and creativity by tapping into the talents of their workforce.”

Organizations are pressured to source innovation and creativity (to improve business processes and develop new products and services) by tapping into the talents of their workforce. Unfortunately, job descriptions often disguise the full breadth of knowledge and relationships an individual possesses. Such information usually needs to be volunteered which requires individuals to willingly promote their expertise to the organization they serve.

Prospecting for business

“People are more reluctant than ever to accept cold calls from people or organizations they don’t know.”

People are more reluctant than ever to accept cold calls from people or organizations they don’t know – and with voice-mail and spam filters it’s become much easier to prevent unsolicited approaches. Therefore, businesses rely increasingly on personal endorsements and recommendations. Social networks provide a rich pool of relationship ties that organizations realize they have the potential to tap into. But these communities need to be encouraged and harvested; it’s not possible to simply OWN them, organizations must seek voluntary endorsements from communities. You have to ‘give’ to ‘get’.

Business-to-consumer markets

Research into online buying behaviors suggests consumers are choosing to make more informed buying decisions based on recommendations and reviews presented on websites. The power of social networks here is to create a willing community of people ready to endorse a product or service to like minded individuals with similar interests and hobbies.

“C-level executives today know their organizations aren’t as good at harnessing knowledge of communities as they need to be.”

Business-to-business markets

In business-to-business markets, buyers today seek ‘expert’ supplier organizations prepared to take more accountability over business problems. They seek additional value by working with partners who are prepared to take more ownership of problems, simplify procurement, administer processes and minimize management overheads. This has led to the proliferation of sales channel networks.

Collaborating with industry partners

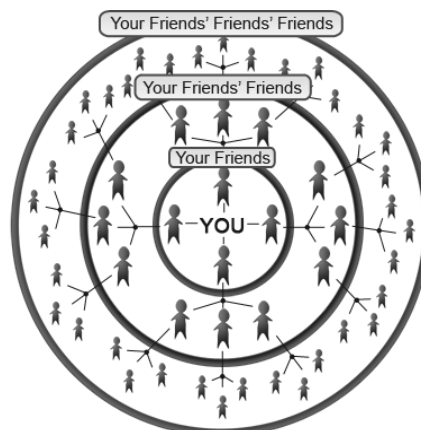
More specialization and increased market regulation, means that many organizations can only hope to achieve their strategic objectives through cooperation with partnering organizations. For example, in the utilities sector, providers of gas, electricity and telecommunications infrastructure rely on the skills and resources of sub-contractors to install and maintain assets; transport authorities depend on the cooperation of streetworks undertakers (the people who dig up the roads) to work in close cooperation to prevent traffic congestion); while in child protection, healthcare, social services and police authorities must work together to ensure every child is protected and does not fall through the welfare net designed to protect them. Without close cooperation, the individual organizations cannot hope to succeed.

COMMUNITIES AND ORGANIZATIONAL DESIGN

C-level executives today know their organizations aren’t as good at growing and harnessing communities as they need to be. Keeping tabs on customer contacts and relationships to understand what matters most to customers and which factors can influence buying decisions, exposing the skills of a workforce, managing and sharing knowledge with industry partners – all of these business critical disciplines are in their infancy. It’s become quite normal for sales reps to leave an organization and take their little black book of contacts with them.

“**Theory of six degrees of separation:** ‘If a person is one step away from each person they know and two steps away from each person who is known by one of the people they know, then everyone is on average six “steps” away from each person on Earth.’”

In 1929, Hungarian author Frigyes Karinthy published a short story titled ‘Chain-Links’, suggesting that, with a population explosion and better communications, the world would become a smaller place.



Karinthy's work encouraged a debate in social science leading to a popular theory – now called six degrees of separation – that states: 'If a person is one step away from each person they know and two steps away from each person who is known by one of the people they know, then everyone is on average six "steps" away from each person on Earth.' And if we believe that it's possible to contact almost anyone in the world in six steps then few organizations could be comfortable that they are leveraging the potential of their addressable relationship ties.

How businesses are organized and the way they think (i.e. what management consultants call 'enterprise logic') hasn't changed significantly for years. Most adopt a hierarchical command and control model, where leaders at the top of the organization make decisions followed by the drones expected to follow instructions and perform their role as a cog in the corporate machine.

"The science of '**emergence**' attempts to explain complex patterns and behaviours that occur in nature."

But new thinking around organizational design is emerging. The science of 'emergence' attempts to explain complex patterns and behaviours that occur in nature like how a flock of birds or school of fish seem to move as one. Usually when there's order we expect to see a leader or a general to create it; we can easily make sense of top down command and control systems where one brain controls the functions of the entire group because it's what we expect. But what about the way a flock of birds or a shoal of fish moves in unison? In these examples no clever fish or bird is making decisions on behalf of every other bird or fish. What we see happening is a group that has order but where decisions are shared. In the case of a shoal of fish, the fish seem to portray common decision making processes: They never move to far away from the fish they're next to, and when they see danger they change direction. A small set of engrained instructions and behaviours order the behaviours of the group.

"Business management practitioners are today applying the concept of emergence to the way social networks operate."

Business management practitioners are today applying the concept of emergence to the way social networks operate; ingesting new ideas and adopting common reactions and new norms of behaviour that spread throughout a community. Rather than seeing organizations as orchestras led by a conductor, management practitioners are suggested models more akin to the jazz band where every person knows their role and has scope to show what they're capable of.

Organizational design is responding to the demands of a business world becoming ever more specialized. The potential of social networks is to create a market for talent that taps into specialist skills as they are needed. It begs the question, if social networks can create a market for talent then is it possible that organizations in future will only employ workers when they need their specific skills? Are we entering a new period of on-demand human resourcing?

A new era in business information systems – cloud computing and the self-service oriented computing world

THE GROWING DISCONTINUITY BETWEEN ENTERPRISE IT AND THE BUSINESS

Traditional perspectives on corporate computing architectures place core data sources – like enterprise resource planning databases – at the base of an inverted pyramid above which layers of computing software are mounted until the final layer (the enterprise portal) serves-up information to the waiting users. Yet, in most organizations, less than 50% of corporate IP is held within these core systems; significantly more is to be found on laptop hard-drives, USB sticks, in documents, or is maintained by partners and providers, while still more exists in the heads of employees.

Millions of dollars in IT investments by corporations has done little to improve the productivity of most business professionals and overcome risks resulting from data breaches, loss of corporate IP and non compliance (often owing to user self-authored 'shadow systems' built using inappropriate tools such as spreadsheets and word processors). No matter how many systems IT teams might try to design and deploy, they stand little hope of keeping up with the pace of information demands today coming from business professionals and their forever changing landscape of information needs.

"No matter how many systems IT teams might try to design and deploy, they stand little hope of keeping up with the pace of information demands today coming from business professionals."

THE 'LONG-TAIL' OF APPLICATIONS DEVELOPMENT

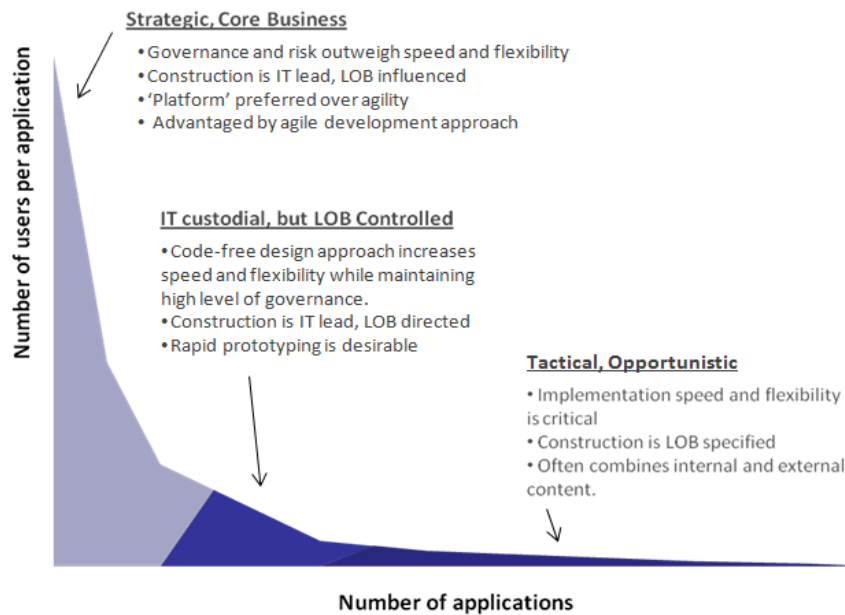
The people responsible for innovation, sales growth and the empowerment of cross-organizational teams represent a proportionately small group of users as a proportion of the total enterprise community, yet their demands for applications are disproportionately high creating what has become known as the 'long-tail of applications' (see how the diagram below stretches out to the right because of small numbers of users demanding a larger number of applications to serve their needs).

"The 'long-tail' of applications development:
Small numbers of business professionals demanding large numbers of applications..."

"An unsupportable level of demand for information is causing IT leaders to consider methods of bringing more 'self-serviceability' of applications to the enterprise."

An unsupportable level of demand for information is causing IT leaders to consider methods of bringing more 'self-serviceability' of applications to the enterprise. The risk for IT teams is a free-for-all that results in unmanageable data structures and risks of data corruption, security breaches and accounting errors owing to users looking at the wrong data. In response to these demands IT leaders are increasingly adopting a services-oriented information management architecture whereby IT teams forge 'agile' links to core data sources and expose 'information services' to business users in a form that can be re-used time and again by users for different purposes without creating a mishmash of data structures and connections to systems that would be impossible to regulate or sustain.

The long-tail of applications; a driver for service-oriented architectures



CLOUD COMPUTING

The cost of maintaining in-house systems and supporting demands for change is also encouraging IT leaders to think about moving their systems to 'the clouds'. Cloud computing is a computing model by which users can gain access to their preferred portfolio of information services from anywhere, through any connected device that uses an Internet browser.

"Analysts IDC suggest: One third of all new IT investment will go on cloud-based technologies by 2013."

Market analysts IDC suggest that 'One third of all new IT investment will go on cloud-based technologies by 2013'. By 2012, they predict, customer spending on IT cloud services will grow almost threefold to \$42 billion. The growth rate of cloud computing is expected to be over five times that of on-premise IT delivery and consumption models. The term cloud is used as a metaphor for the Internet to suggest a 'digital cloud' that's everywhere that can provide information services to web-connected users who are able to access their information resources from anywhere at any time of the day. The reality is far less nebulous. If you were to examine the computing platform that sits beneath the 'the cloud' and makes it possible, you would see a cluster of buildings the size of aircraft hangers brimming with air conditioning, security, and housing row upon row of computer servers whose resources can be dynamically provisioned and shared.

The combination of cloud computing and a service-oriented architecture allows IT departments to respond to emerging information demands from business professionals by giving users self-service access to data held in core systems. Debate in the IT industry is now turning to what platform business users will use to consume these new found resources.

THE RISE OF 'MASHUPS' AND THE DEATH OF ENTERPRISE PORTALS

"For over a decade, the 'enterprise portal' has been the accepted place where applications should serve up their content to be consumed by users."

For over a decade, the 'enterprise portal' has been the accepted place where applications should serve up their content to be consumed by users. The idea behind enterprise portals, like IBM WebSphere, SAP Portals, Microsoft SharePoint and Oracle Fusion, is that IT people can engineer 'spaces' where different groups of information consumers can go to find all of the content (and collaborative tools) they need. In this model, the user workspace (portal) is created and served up by the IT department and its analysts.

But for several years, the effectiveness of enterprise portals has been under dispute for the following reasons:

"It's difficult to create a data taxonomy that everyone can agree on..."

Knowing where to look

It's difficult to create a data taxonomy that everyone can agree on and people can relate to. This means that individuals often find it difficult to know where to look for content no matter how much effort has gone into the taxonomy design. This can mean users elect to search on Google for information about their own products, competitors etc. on the Internet because it's easier and more effective than trying to source data from internal systems!

Doing IT to people, not for them

Case studies have shown that users are reluctant to share their content and publish it to group workspaces when they take little value from them. When IT people build portals for end users, rarely does the end product 'fit' end user expectations and unless users see quick rewards they are reluctant to put effort into maintaining content.

Serving the lowest denomination of user

Today, when IT teams deploy portal applications, they have to design them so that everyone in a department or workgroup has the ability to use them. It means developers have to use the lowest common denominator of usability and information services within portal sites in an attempt to please everyone.

"Enterprise portals:

Information difficult to find, portals hard to navigate, user interfaces confusing and the inability to personalize or tailor information services in practise frustrating."

Ownership of workspaces

When portals are produced by IT teams and there's no specific Line-of-Business individual to take ownership, it's common for content to fall out of use and become irrelevant. Maintaining the workspace becomes another overhead that nobody wants to take accountability for. Busy business professionals find the secondary task of updating a workspace time consuming and ineffective.

User access, identity management and privileges

For IT teams, getting the balance right between effective governance (i.e. data management and systems security) and easy access for users is made even more difficult by the complex user identity management administrative tools provided by enterprise portal providers.

This combination of these factors means workers find using enterprise portals less than satisfactory: Information is difficult to find, portals hard to navigate, user interfaces confusing and the inability to personalize or tailor information services in practise frustrating. For this reason, IT pundits suggest that enterprise portals will eventually be displaced by the social office portal with its mashup self-service features and its intuitive user and group architecture.

The new place of work

A SOCIAL OFFICE PORTAL

"The social office:

A web-based virtual working environment where individuals discharge their roles are empowered by an information rich virtual workspace."

The term 'social office portal' describes a form of web-based virtual working environment where individuals discharge their roles are empowered by an information rich virtual workspace; a web-based portal that provides them with always online access to their social networks, content and information services. Social office portals are characterized by their rich collaborative features– wikis, crowdsourcing, chat, blogs, voting and opinion panels, bulletin boards, virtual meeting room and desk sharing etc. – producing a real-time online community that creates a genuine feeling of deep emotional support and closeness to fellow participants. The result is that no matter which company individuals work for, or where they might be, they are able to collaborate on projects, pool ideas and share activities and information without the traditional constraints of geography and organizational siloism.

TECHNOLOGY COMPONENTS OF THE SOCIAL OFFICE

The make-up of a social office workspace is in its infancy but some common features (and technical challenges) are emerging:

Ego-centricity

"The essence of the social office is a system designed to bring value to users first."

The essence of the social office is a system designed to bring value to users first, and the organizations they serve by inheritance; the thinking being that happy, engaged, productive business professionals are more useful and effective and thereby contribute more effectively to business processes and the pursuit of innovation. There is a near-limitless supply of evidence to suggest that this logic makes sense. The vast majority of IT systems failures can be traced back to design approaches where project teams have attempted to second guess the needs of users (and how they benefit from use of a system) and blatantly failed.

The egocentric model is essential to the ownership and management of groups.

This egocentric model of workgroup behavior is essential to the ownership and management of groups. For any group or forum created within the social office, there has to be a creator and owner. Whilst ownership can be transferred, the reason why the system stays relevant and up-to-date is that every group has a clearly defined ownership structure where 'value-to-the-individual' is prized over value to the enterprise. Even so, organizations benefit from this ego-centric approach. People are more prepared to invest time in developing their own profiles and knowledge environments. This knowledge when captured and aggregated provides a rich reservoir of knowledge that

organizations can leverage to make the most of the talent, relationship ties and knowledge of their addressable social networks.

"In 1949, Eric Trist of the Tavistock Institute for Social Research found work teams that organized themselves would take ownership of the shared outcomes of the team, they would have more relationships, deeper emotional ties and they would discharge more tasks."

There is strong evidence to suggest that shared ownership of workgroup outcomes is essential if organizations are to maximize workforce productivity. This is something social office portals have the potential to deliver. In 1949, Eric Trist of the Tavistock Institute for Social Research (the Tavvy) spent his time at the Haighmoor seam in Durham analyzing the team working behaviours of coal miners. Trisk identified that when imposed team structures (organized by managers) were adopted miners would commit only to their allocated task and would consequently only enter into a few very limited social relationships sharply divided between those within his task group and those outside. With 'outsiders' these task- constrained miners shared no sense of belongingness and neither would they feel any responsibility to them for the consequences of their actions. In contrast, work teams that organized themselves would take ownership of the shared outcomes of the team, they would have more relationships, deeper emotional ties and they would discharge more tasks. Of most interest, workers operating within these informal work-team structures were more productive than those who discharged specific tasks as part of the conventional model.

"There are sound business reasons for investing in mobility-enabled solutions: the UK telecoms company British Telecom, claims that it saved £52m in overheads in a year by increasing home working and it calculated an annual saving of £10m in fuel costs"

Always accessible

Users today expect to have access to their networks, processes, systems and knowledge sources at any time of the day, from anywhere. Technologies including mobile phones, broadband and the web browser provide the essential fabric to make this aspiration a plausible reality. There are sound business reasons for investing in mobility-enabled solutions: the UK telecoms company British Telecom, claims that it saved £52m in overheads in a year by increasing home working and it calculated an annual saving of £10m in fuel costs alone, and capturing data at the point of service delivery or parcel receipt can improve the quality of customer service and reduce data capture processes. In support of quality assurance processes, mobile data capture has proven to be valuable to make on-the-spot assessments. So major mobility projects have become a trend: IBM announced an objective to have 75% of all employees mobile to reduce office space by 25%, while AT&T already has over 70% of its employees frequently out of the office. And it's not just the technology sector that benefits; Europe's largest utilities company expects up to 40% of its employees will be 'nomadic workers' by 2011.

"It's expected that something like a quarter of employees in the UK will be flexi-working by 2012."

As governments introduce more flexi-working in the workplace, more pressure is being exerted on IT teams to extend access to business systems. In the European Union, parents with children under 16 have the legal right to request flexi-working from their employer. This has been extended in 2009 from the original flexi-working legislation enacted in 2003 that covered parents having children under six. To example this; in the UK, around 6 million employees have the legal right to request flexible working arrangements but over 14 million employees, including part-time workers, actually work flexibly. It's expected that something like a quarter of employees in the UK will be flexi-working by 2012.

"The social office supports social processes and makes the experience of working with colleagues across the web more intimate and involving."

Live and collaborative

For most business people the limits of collaboration today are bound by the capabilities of email to send and receive messages to contacts or instant messaging systems that aren't secure. But new generations are accustomed to SMS and web chat tools that offer instant communications and a more relaxed tone of voice. The expectation is for new social office technologies to embrace this philosophy. New social office portals are more supportive of social processes - activities that take place over time that increase the strength of ties between people. They contribute enormously to the effectiveness of an enterprise. Failing to support social processes leads to breakdowns in communications and poor work-group productivity. The social office supports social processes and makes the experience of working with colleagues across the web more intimate and involving.

Easy to use, personalized and 'self-serviceable'

The social office is intuitive – users don't expect to need to read a user manual. Platforms are highly configurable so users can create their own experience and make their portals their own. A key characteristic of the social office is its self-service nature. Rather than relying on internal IT professionals with specialist programming and scripting skills, new social office applications are deployed on technology platforms that give users the ability to create for themselves portal experiences for themselves and their teams. Many such platforms provide point-and-click design environments to simplify the design of portal user interfaces and the selection and tailoring of information services. Examples include Google Wave's coming platform, and Encanvas Secure&Live ES which supports the deployment of Encanvas Squork. Other technology providers like Amazon, IBM and Microsoft offer programmable environments designed to make it easier for IT people to serve end users with new social office portal environments.

Mashable

Social office portals exploit the use of mashup technologies. 'Mashups' are aggregations of applications and information services that can be created and deployed by users themselves. There aren't specific standards for the components that may be 'mashed' – so platforms have to support many different types of data structures. The outcome is that users are able to exploit 'point-and-clickable' information services provided by third parties or made available by internal IT departments as a web service. Technologies like RSS feeds and widgets are common examples of Mashable components as are pre-built applications like Google Maps, Facebook and Twitter that can be integrated into portals. Examples of mashup applications include Encanvas Enterprise Mashups, JackBe Presto, Kapow, Corizon, Serena Business Mashups, MindTouch and Microsoft Popfly. Increasingly, portal platforms include embedded mashup features as standard, often providing richer data integration and business features than stand-alone mashup tools. Examples include Encanvas Secure&Live (Create), IBM WebSphere (IBM Mashup Center) and Google (Google Mashup Editor).

"Increasingly, portal platforms include embedded mashup features as standard..."

Affordable

One of the main reasons for the growing interest in the social office lies in its affordability. Compared to traditional enterprise portal platforms, social office portals are a fraction of the cost and yet provide a broader range of self-service functionality and collaborative tools. Deployed via web-based platforms and charged on a usage basis (so called 'Software-as-a-Service') means that social office portals are accessible to all sizes of organization and remove the implementation and support overheads of traditional enterprise portals.

Ultra-secure

To be treated seriously by business organizations, social office portals must provide a higher standard of security than in-house deployed portal systems. It's no longer possible for organizations to protect their outer boundaries; with the advent of collaborative working practises sub-contractors, industry partners and customers all expecting to have rich access to information that has traditionally been held inside the Firewall of the enterprise. For this reason the computing industry has moved towards inclusive security models that govern identity management and access to systems, data governance, system security and intellectual property rights management.

Displacing middleware

Enterprise social office portal architectures typically include embedded data connectors and workflow tools to enable data to be acquired from disparate sources, transformed and uploaded to serve new information views.

THE RISE AND RISE OF WEB 2.0

Emerging technologies of the social office often fall under the heading of 'Web 2.0', a term popularized by technologists to describe a growing collection of software applications built and made available on modern Web-born platforms that offer a friendly user experience comparable to (if not better than) desktop software and internally hosted applications. Naturally, many of these new 'Rich Internet Applications' (RIA's) innovate in areas where useful capabilities don't already exist. Deploying applications over the Web enables smaller software companies to rapidly bring new applications to-market and overcome the stringent IT hygiene list of corporations who - faced with huge internal software application portfolios and growing security concerns - are increasingly reluctant to take on new software products internally.

The pace of adoption of Web 2.0 tools is too significant to ignore it as a fad.

In 2007, management consultancy McKinsey&Co began surveying companies on their use of Web 2.0 technologies. In three years, McKinsey found the use of Web 2.0 technologies by employees for internal purposes increased from 53% in 2007 to 65% of respondents in 2009. The largest components of growth have come from using Web 2.0 to develop new products / services internally, to manage internal knowledge and to reinforce the company culture via tools such as internal social networking applications. The companies who have embedded these tools in their day-to-day activities and processes have

"It's no longer possible for organizations to protect their outer boundaries: For this reason the computing industry has moved towards inclusive security models."

"**Web 2.0:** Describes a growing collection of software applications built and made available on modern Web-born platforms that offer a friendly user experience comparable to desktop software and internally hosted applications."

"McKinsey: Use of Web 2.0 technologies by employees for internal purposes increased from 53% in 2007 to 65% of survey respondents in 2009."

seen the largest impact by improving communication across silos to reduce duplicate work and leverage experts in other areas. Another major goal of Web 2.0 tools has been to improve customer interactions with 48% of respondents claiming to use Web 2.0 tools for this purpose in 2007 and 58% this year.

The changing landscape of business communications

NEW MEDIUMS FOR BUSINESS COMMUNICATION

When email came into the office its impact was immediate and far reaching. From an era of letter-post, memoranda and internal mail, the office landscape was transformed by inboxes, back-covering 'CC' messages and a more relaxed tone of voice. But the days when sharing information meant sending an email message to someone who may or may not be around and waiting for hours, maybe even days, for a response are disappearing.

Generation Y is leading the march for instant communications. Children born into an era of computing expect to be able to communicate with friends and colleagues in near-real-time using instant messaging 'chat' technologies. Children equipped with the latest mobile phone technologies make hardly any voice calls at all. Once seen as being somehow inferior to voice conversations and its more formal email predecessor, text-based chat is today king of communications mediums for business in an always-online 21st century world.

Innovative communications hybrids are emerging, products like Encanvas Squork and Google Wave, are creating a new dynamic in the modern social office that enable business people to securely engage in textual conversations and share ideas and content in their 'spaces' whilst online. Users experience a feeling of being instantly connected; of being close to other conversation participants even when they're miles away. With products like Squork, users can create their own private communities and, bring together their own information services and business applications to create a secure and live online portal environment. And like the move from letter-post to email, newer generations are entering the work environment with heightened expectations of the technologies accessible to them.

Two examples of hybrid social office communications platforms

THE THIRD WAY

The Internet has become a critical point of interaction. But still today, many of the communications processes that really make a difference to commercial success are 'peer-to-peer' and 'peer-to-team' communications. Email today is the accepted medium for these communications. But email isn't instant – and that's a problem because people today expect to share information instantly.

"Once seen as being somehow inferior to voice and email, text-based chat is today king of the communications mediums for business."

“Innovative communications hybrids are emerging: Users experience a feeling of being instantly connected; of being close to other conversation participants even when they’re miles away.”

New communications are emerging that blend the valued attributes of email messaging with instant messaging to create a new type of hybrid. The most advanced of these are Google’s ‘Wave’ technology and Encanvas’s ‘Squork’. Both companies have designed communications architectures that bring people together on *the same page*. These web platforms serve on-demand ‘secure web space sessions’ within which invited participant can join in a live collaborative experience. Once connected, the collaborative space supports the social processes that people take for granted with face-to-face meetings such as being able to present documents, schedule activities, agree action points and know the faces of the people in the groups they’re communicating with.

‘Hybrid’ social office communications technologies bring people together on the same page no matter where they are and support collaboration and social processes



Unlike email this new variant of communications creates an interim ‘secure and live’ *situational workspace* that lives for the duration of the collaborative experience. When a conversation is opened, participants have the opportunity to engage in a rich media sharing space where they can exchange ideas, opinions, share files and knowledge. Having concluded a conversation the workspace is archived.

For businesses and business users there are a number of perceived advantages of these new hybrids compared to traditional communications forms:

Security

Email messaging is fraught with security issues; most notably messages can be intercepted when not appropriately secured. In contrast, new hybrids provide increased messaging security by leveraging web security protocols like Single-Socket-Layer (SSL) and data security and encryption provided by Internet Protocol Security (IPSEC). In addition, hybrids contain rich identity management and group security to restrict user access privileges to content.

Live experience

Hybrids enable users to identify when others are online and available for contact through the use of on-screen notifications. With the ability to communicate in near-real-time with individuals or groups of individuals at the

same time creates an engaging collaborative environment that surpasses the user experience of 'off-line' email messaging (where knowledge of the whereabouts and status of the parties receiving the email is unknown).

Message management

Email has for decades been the primary means of business communications primarily because of its strengths in retaining a record of dialogue and message interchange. Hybrids embrace these advantages with the added benefits of conversation theming and management.

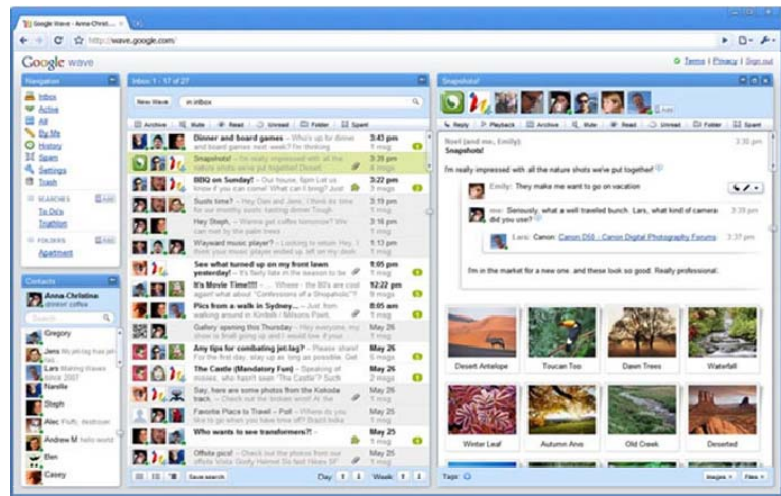
Affordability

Email servers are not inexpensive to purchase or deploy while new web based hybrids are inexpensive to procure (often made available on a pay-per-use contract) and require little or no installation.

Self-service and extensibility

Hybrids recognize the role of web portals as the defacto user interface of choice; where communications are an aspect of a 'workspace' that includes a broad portfolio of other tools to enable web workers to be productive even when working remotely. Hybrids are developed on technology platforms created for a world of information services where users are expected to serve themselves by harvesting data via pre-built building blocks of applications. They incorporate mashup tools that enable users to create their own portal environments to serve the information views and news services they require.

GOOGLE WAVE



Overview

Google describes Google Wave as “a new model for communication and collaboration on the web; a hybrid social office communications platform that blends email and instant messaging functionality in a new way”.

Concept and approach

Google Wave communicates and manages ‘waves’. The company describes a wave as ‘equal parts conversation and document’ where users communicate and work together with richly formatted text, photos, videos, maps, and other file types. Any participant can reply anywhere in the message, edit the content and add participants at any point in the process. Then a playback lets anyone rewind the wave to see who said what and when. As a live transmission participants on a wave can see text as participants type – so conversations take on more of a sense of concurrency. When users create a wave they can add people as they go along. Everyone ‘on the wave’ is able to use richly formatted text, photos, gadgets, and feeds from other sources on the web. They can author a reply or insert text into the body of the wave.

Messaging architecture

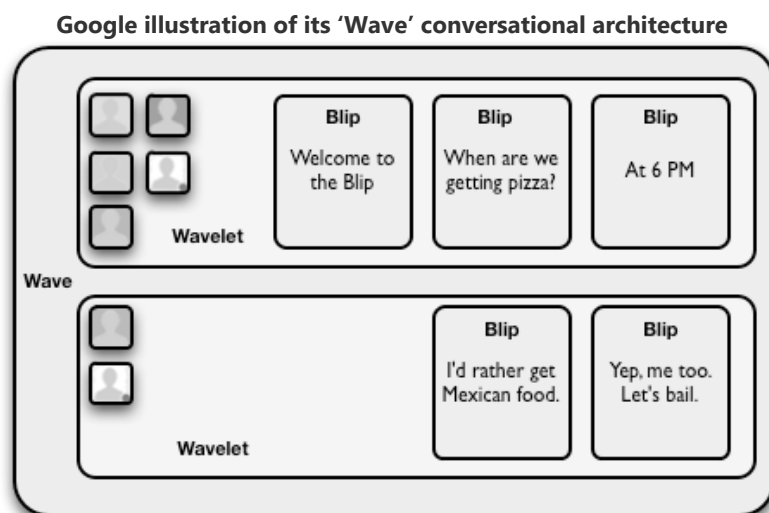
In its conversational hybrid, Google has created a hierarchy of ‘Waves’, ‘Wavelets’ and ‘Blips’ where:

A ‘wave’ is a conversation thread, consisting of one or more participants which may include both human participants and ‘robots’ (an automated participant on a wave that can read the contents of a wave in which it participates, modify the wave's contents, add or remove participants, and create new entities). A wave serves as a transient or permanent content container.

A ‘wavelet’ is a threaded conversation spawned from a wave (including the initial conversation). Wavelets serve as the container for one or more messages. The wavelet is the base unit of access control for data in the wave. All participants on a wavelet have full read/write access to all of the content within the wavelet. As well, all events that occur within the Google Wave APIs operate on wavelet level or lower.

'Wavelets' are conversation events spawned from waves. When a wavelet is created by a user it does not inherit any access permissions from the parent wavelet. A wave may spawn private conversations, which become separate wavelets, but are bundled together within the same "wave." Since events occur at the wavelet level or below, the context of an event is restricted to a single wavelet. A wavelet may be created and managed with a robot as its only participant. This allows the robot to use the wavelet effectively as a private data document. These data documents are never rendered or revealed to the user and may contain structured or unstructured data about the wavelet.

A 'blip' is the basic unit of conversation and consists of a single message that appears on a wavelet. Blips may either be drafts or published (by clicking "Done" within the Wave client). Blips manage their content through their document, defined below. Blips may also contain other blips as children, forming a blip hierarchy. Each wavelet always consists of at least one root blip. Google calls the content attached to a blip simply a 'document'. It consists of XML which can be retrieved, modified or added by the API.



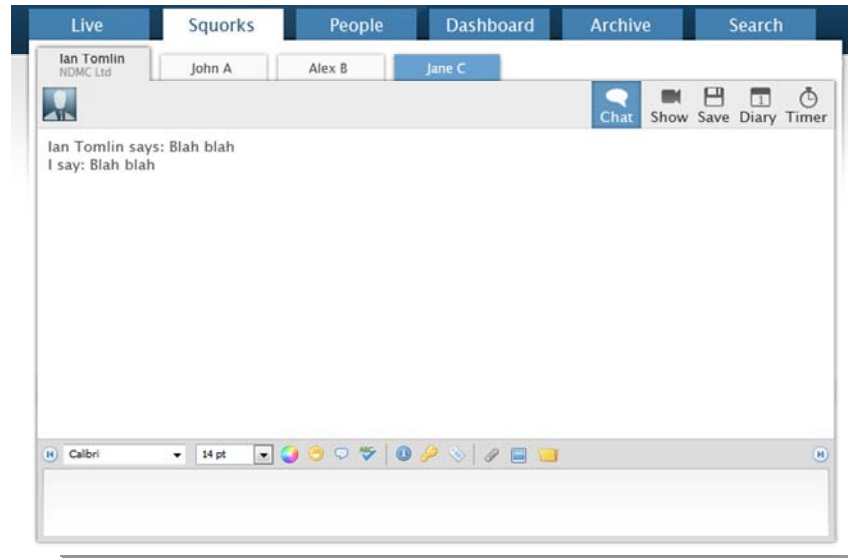
Development platform

Google Wave has three layers: the *product*, the *platform*, and the *protocol*:

1. The Google Wave product is the hybrid conversational application deployed on the web that users access to create, edit and view waves. It is an HTML 5 application built on Google Web Toolkit that includes a rich text editor and functions like desktop drag-and-drop
2. Google Wave can also be considered a platform with a rich set of open APIs that allow developers to embed waves in other web services, and to build new extensions that work inside waves.
3. The Google Wave protocol is the underlying format for storing and the means of sharing waves, and includes the "live" concurrency control, which allows edits to be reflected instantly across users and services

The Google Wave API allows developers to use and enhance Google Wave through two the creation of robot extensions to automate common tasks, build gadget extensions to provide a new way for users to interact or embed waves into their own collaborative website.

ENCANVAS SQUORK



Overview

Like Google Wave, Encanvas Squork is a hybrid web instant messaging system that blends email-like functionality with social networking features. Unlike Google, Squork has been specifically designed for people who want to keep their conversations and content secure. It focuses on creating formalized and secure, gated communities that can be used to discharge projects, create collaborative spaces for social networking and collaboration with communities, customers and partners. Similarly to Google Wave, Squork supports multiple conversations at the same time and empowers users with the ability to serve themselves in the creation of groups and associations.

In contrast to the high pace of adoption of Web 2.0 technologies towards customer engagement and workforce collaboration, over the past 3 years, the adoption of Web 2.0 technologies for connecting with business partners and suppliers has stagnated. The management team of Encanvas believes the reason for this is the informal nature of many Web 2.0 technologies that run counter to the formal relationships between many suppliers and partners. Although some companies have broad collaborative relationships with each other, most have well structured points of interaction to manage specific business processes. In support of this argument, McKinsey&Co suggests, in its report into Web 2.0 adoption that, *"To drive increased usage for managing interactions with suppliers and partners, companies will need to find ways use these technologies to augment the formal relationships between business entities and not substitute formal interactions with more ad hoc ones"*.

Concept and approach

For web workers, Encanvas Squork combines many of their favorite aspects of web communications tools they'd like to use without compromising on security, performance or usability. It is a *closed system* which means anyone using the system must have an account or sign-on as a guest (with restricted permissions). Encanvas Squork creates a more formal social networking

environment than traditional tools designed to serve consumer markets. It communicates and manages conversational web sessions ('Squorks') that bring one or more people together on the same page in near-real-time. When people Squork they can communicate, share resources and knowledge.

As a technology designed expressly for business people, Encanvas Squork places emphasis on the preservation of corporate information assets. It offers web workers an ability to leverage and maintain their social networking activities and harvest shared content. To do so, it employs light-weight tag-based content management so users can easily tag conversations and files so they can be re-used later. Users can manage conversational history, understand social networking relationships, tap into knowledge sources and organize their activities. A personal archive of all system activities is accessed through an intuitively email client-styled user interface that's instantly familiar for business people and easy to work with. Its powerful search and discovery features empower business people to know what they've done, who they've spoken too and give access to deep insights into the talents and know-how of colleagues.

Encanvas takes the view that business people need always to know that they can be contacted *but on their terms*. For this reason it's tightly coupled with diary management, integrates schedules with MS Outlook and provides user configurable notification settings which means that users can always be contacted via Squork whether they're online or not. Close integration with SMS messaging and email means that users can establish their Encanvas Squork account as a central communications hub that unifies communications channels to their business social network contacts.

Encanvas Squork relies on the sophisticated use of identity management and formal group structures to control user access to the Encanvas Squork platform and Squork sessions. Encanvas Squork integrates with Active Directory and SSO. It enables administrators to partition the system and create User Groups. All of the data created and shared within Encanvas Squork is retained by account holding organizations. Access and authority to use Personally Identifiable Information (PII) is regulated in the system to the extent that users can set their own permissions during use of their Squork conversations. It is also possible for users to go 'off-the-record' to prohibit a log of conversations being created. Logged conversation records can be automatically transcribed as a meeting record where such a feature is appropriate. Users are also able to create their own secure environments and groups for communications and collaboration without needing to involve IT people. In addition to the social networking tools made available by Squork, users can access applications and build their own mashups using the built in features of the portal spaces created. The person who originates a group is assumed to be the 'owner'. Once created ownership of a group can be transferred with the permission of the originator (i.e. Imagine a marketing director setting up a marketing group and then changing roles. A requirement would exist to transfer ownership of the group to the new marketing director). Groups can be *visible* to other users or made *invisible*. Users can apply to join 'visible groups' if they wish to

participate or share a common interest. Because the ownership and access authorities to user groups are formalized it becomes possible for organizations to assign roles and responsibilities to groups. Users can share responsibility for the outcomes, these formal group structures become a useful building block for organizational engineering.

Messaging architecture

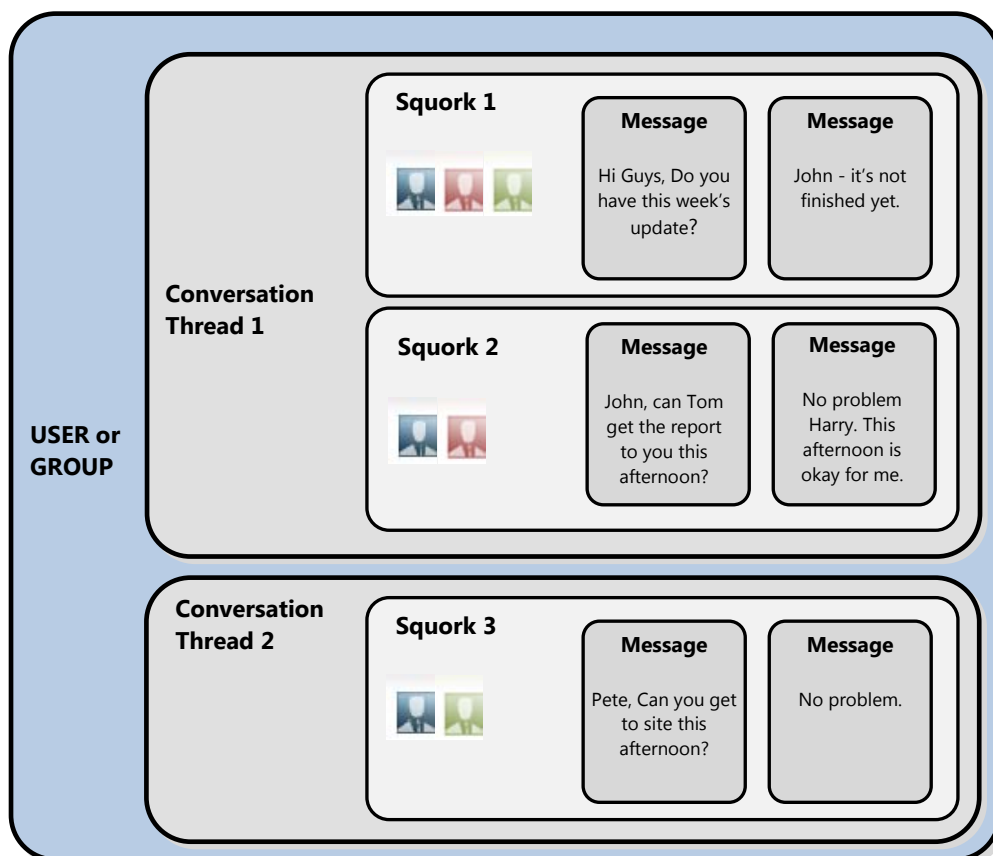
The Encanvas Squork architecture adopts a 3-tier conversation hierarchy of threads, squorks, and messages where:

A 'conversation thread' is a sustainable theme that enables users to organize conversations under a small number of topic headings likely to sustain for a number of days or weeks. These threads enable users to organize the archiving of their social networking activities under headings they can make sense of

A 'Squork' is a conversational and collaborative session that takes place during a conversation that might also include the transfer of knowledge, presentation of ideas and collaborative activities. All of these attributes of a Squork are captured in an XML file structure and archived in a relational database making it extremely easy for users to re-use intellectual capital. A conversation thread might contain a number of Squorks. At any time, users can create new Squorks or create private rooms to segregate discussions with one or two individuals.

A 'Message' is the basic unit of conversation and consists of a single message that appears in the Squork box.

Encanvas illustration of its 'Squork' conversational architecture



Development platform

Encanvas Squork has three layers: the *product*, the *platform*, and the *integrated design environment*:

1. The Encanvas Squork product is the web deployed secure business conversation application provided as a service to subscribers.
2. Encanvas Squork resides on a web deployed platform that supports a robust security model, manages version upgrades and orchestrates site maintenance, uploads and notifications.
3. Encanvas Squork is built on Encanvas Secure&Live ES™ portal platform and benefits from being fully customizable using code-free applications design. It also means that Encanvas Squork profits from the Rollback™ technology embedded into the Encanvas architecture that safeguards the platform from version control issues.

Encanvas Create design studio – Encanvas’s code-free design environment - allows developers to enhance every aspect of Encanvas Squork, or embed it into existing Enterprise Portal Suites.

Encanvas Squork has been created using Microsoft .NET technologies and is favored generally by organizations that have committed to a Microsoft corporate IT architecture. It is deployed as a Microsoft ASP.NET portal but can also be embedded into traditional Enterprise Portal Suites like Microsoft SharePoint, SAP Portals and IBM WebSphere using native APIs or iFrames.

Exposing the real organogram

Since the birth of corporations, how management teams understand their workforce and organize it has been guided by ‘organogram’ illustrations that bear no reflection to the real world.

Enterprise social office portals have the potential to harness social networks for a business context. Through the ability of such technology platforms to gather and make sense of the activities of communities – who speaks to who, who knows what, which groups a person belongs to, what news-feeds people are interested in. The ability to capture the interactions between ‘nodes’ (i.e. people within a social network), technology leads to the formation of new knowledge (through automated data capture) that has never existed before. This insight helps to expose the *real organization*; the hidden social networks that drive people behaviors and human information sharing and collaborative processes.

Knowledge work and knowledge worker productivity

The promise of enterprise social office portals is to make a step-change impression on the productivity of knowledge workers.

Enterprise social office portals promise to overcome three major hurdles that have so far hindered the ability of knowledge workers to become more productive. They can:

1. Harness social networks and provide access to specialist knowledge through skills markets formed through social networking
2. Form gated secure 'people networks' that can be organized by the enterprise, retain intellectual property and to solve problems and be accountable for outcomes
3. Support remote working and social processes
4. Measure the productivity and contributions of knowledge workers

Social networks create a market for specialized skills. How will this happen? The advent of cloud computing will inevitably have an impact on the affordability and access to computing. It provides entrepreneurs with an always-on environment for designing, deploying and scaling software applications like never before - enabling them to instantaneously tap into an online global market and enjoy huge economies in R&D and operational costs. The inevitability of cloud computing is that it will foster innovation in social networking platforms that will ultimately lead to individuals and companies being able to use social networking systems to search for people with appropriate competencies and qualifications without needing to go through recruitment agencies to do it. The ability to tap into such a vast knowledge market means that organizations will have the opportunity to harvest talent from within and beyond their organizational boundary without incurring traditional costs for acquiring such skills. The logical next step on this journey will be for organizations to serve their changing business requirements with an on-demand pool of human resources sourced from the accessible specialists found via social networking platforms.

When organizations employ social office portals to empower users to create their own 'gated and data secure' networks another stumbling block is overcome. For the first time in the history of business, individuals (who may or may not be working for the same organization) are able to come together - with almost no frictional cost - to create a make-shift temporary (yet secure) community equipped with the right skills and knowledge to solve a particular problem or achieve a given outcome. The social network provides the marketplace for specialist skills while gated social networks (created by social office portal platforms like Encanvas Secure&Live ES) enable energy and skills to be focused towards and outcome whilst protecting intellectual property seepage.

No longer do knowledge workers need to commute to an office in order to access the networks, processes and information services they need in order to be productive. The ability of social office portals to support *social processes*

empowers virtual teams more than ever before to share project outcomes, learn to value wisdom and harness social networks to promote the awareness of talent. In this way, Enterprise Social Office Portals provide the essential virtual workspace within which web workers can discharge their roles irrespective of where they are physically located in the world.

Social office portals have the potential to realign the efforts of knowledge workers towards the strategic goals of business and redefine the productivity of knowledge workers. Perhaps the most important hurdle yet far has been the absence of productivity measurement tools (resulting in a lack of accountability of knowledge workers towards the organizations they serve). But Enterprise Social Office Portals can log when workers log-in and when they log-out, capturing all activities and contributions that occur. In this way, the assimilation of performance data becomes a bi-product of computerization.

Through its ability to tackle the barriers to effective web working, the arrival of Enterprise social office portals heralds the arrival of a new era in knowledge worker productivity and business computing.

About Encanvas

Encanvas[®] software makes the workplace work better.

We bring added value to the Microsoft[®] enterprise platform by creating the technologies organizations need to spend less and receive more from their software investments.

We've created the world's first Integrated Software Platform; digital equivalent of the micro-chip. Our Secure&Live[™] platform enables the design, deployment and operation of applications without coding or scripting all made possible by a single tightly coupled architecture. It facilitates the massive scaling of portal architectures; so users can communicate, share information and their applications in real-time while operating in 'secure spaces' that protect systems, data, identity and intellectual property.

Similar to the influence of the micro-chip in electronics, our integrated software platform is creating a mushroom of innovation around the world as individuals and organizations realize they now have the tools to design and publish right-first-time software applications to cloud computing platforms at very low cost and risk – serving the long-tail of business applications needs.

Encanvas also creates Social Operating Systems (see Encanvas Squork[™]). In the digital era a network is a group of people tied by relationships, not a set of computer systems strung together by wires. User-centric computing enables web workers to 'work efficiently anywhere' while organizations can achieve a step-change in productivity by harnessing the enthusiasm, skills and collective intelligence of social networks.

Intellectual property

All information of whatever kind and which is contained in any documentation, drawings, specifications, diagrams, plans, notes, data, patterns, models, samples, software, software applications, computer outputs or other materials or records or other information whether written or oral of a business, financial or technical nature which is marked or otherwise indicated or known to be of a confidential or proprietary nature shall be called for the purposes of this project 'Confidential Information' and remains the property of Encanvas Inc.

Encanvas Inc.'s appointed data controller is Mr Nick Lawrie. Further information is available on request.

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