

Web 2.0 Communities and Mesh Collaboration

Adapting Web 2.0 to build new internal and external
business tools

A Discussion Document

1 Summary

Web 2.0 has, over a short period of time, become a topic of enormous interest. Naturally, it has suffered from its fair share of hype, but beyond this a wide range of business managers recognize that Web 2.0 is a significant force that must change business. This white paper is about the impact, both from the perspective of the creation of new market opportunities and on the role Web 2.0 can play inside an organization to bring people and expertise together, with events to optimize opportunities or address new issues.

Overall the potential impact is huge, and the background to the breadth of the topic needs to be addressed, before taking a more focused look at Web 2.0 and its role in a business setting. As a starting point the term “social” applied to terms such as “social networking” should be understood to mean nothing more than “people” and “interaction” centric as opposed to “technology”, i.e. as in server, and “transaction” centric as in other forms of “networks”. And this is indeed a change in working and consumer habits that is being driven by “people”, just as in their times PCs, PDAs and Cell Phones, were introduced into business use by employees seeking to improve their working capabilities, before Enterprise wide understanding of cost benefits dictated deployment.

A significant proportion of the population in most western countries has both acquired technology literacy, and changed their habits as consumers, citizens or workers, as a direct consequence of the Internet and World Wide Web. As consumers they have become more demanding and inclined to want their purchases tailored more specifically to fit their own demands, a move that has created new market opportunities for many businesses. Whilst as citizens they believe that the state has to become more responsive to their requirements and service level expectations.

However it is as colleagues and co-workers that further change is introduced as they abandon the constraints, as they see them, of traditional IT and start to introduce so called personal, or web based solutions. They feel familiar and comfortable with Web 2.0 technologies, and as the pressures at work for resolving an ever increasing amount of change continue to build then, individuals and workgroups, decide to use the same approaches as they are using outside work to organize their complex lives.

2 Introduction: The scale of the change

Intel CEO Paul Otellini told the audience at Oracle OpenWorld in November 2007 that two-thirds of Intel's production now goes into devices purchased by consumers. Bill Gates told the audience at the Consumer Electronics Show in January 2008 that we were entering the second decade of the digital consumer markets, and it had shifted from convergence of devices in the first decade (PCs and TVs, smart phones and PDAs) to technology converging around people. Similar remarks can be attributed to the CEOs of IBM, HP, Cisco, SAP, Oracle, etc., and in all cases they emphasize an immense shift in focus from Information Technology as we know it to..., well that is the subject of this white paper.

There are parallels when a technology has, after an initial phase, grown to become a generic part of everyday life, but not in a passive manner as with say the radio or television, but as an active and proactive change across every aspect of society. When an entire generation was able to both afford and drive motor cars, the impact on society and business was immense, transforming both government provisioning of infrastructure as well as the creation of whole new business activities and markets. In parallel, the concept of location was equally changed. Rural beauty spots became accessible, ribbon development along important routes occurred and traditional locations were challenged as to their role.

Ownership of a car once meant the purchase of an expensive asset with supporting staff to drive and maintain it, together with relatively localized use due to the lack of an external supporting infrastructure. Today, cars are cheap in comparison to their complexity; the ability to drive has become a fundamental life skill based on improvements in simplicity and reliability, and extensive public infrastructure and private service facilities have made universal daily use the norm. But all this rests on some other less obvious changes—the globalization of manufacturing changing the cost and competitive business model; manufacturer consolidation with traditional manufacturers making more money from financial and support services than from the product; and most interesting of all, the difference in choices made between company owned cars and privately owned cars. Companies buy cars based on function and cost, whereas private buyers use many other factors that create the models and specifications for the entire market.

The parallel in this, and other examples, such as affordable air travel, is that maturity can radically shift a market from being a specialist closed market of definable proportions and elements, into becoming a huge open market creating whole new business areas as its overall size increases through general use. Citizens of developed nations now regard a host of technologies that were previously branded as “business-only” tools as an important part of their everyday lives. They choose to have better specification PCs at home than their employer provides at work, and as the consumer market is now bigger than the Business market (some claim this as the reason why HP—which follows a specification and online service centric model—has overtaken Dell, which follows a cost and offline service centric model). They also choose better phones and Internet broadband connection speeds, and they make good use of all these technologies to change their habits as consumers, and increasingly their expectations at work. The

“relative” failure of the Internet hype or bubble, as the moment when change would occur, can now be traced back to these conditions not being present in enough volume to change the market. Perhaps most crucially was the need for Web 2.0 technology to provide the capability for individuals to move from being passive consumers of content, to active creators of lifestyles.

The defining point of Web 2.0 is the sheer number of people involved in interactive activities with other people, and the freedom that this introduces to “do it my way”. In a business environment, this has strong echoes of the introduction of the PC and the spreadsheet application by informed users recognizing their capabilities to improve their own work.

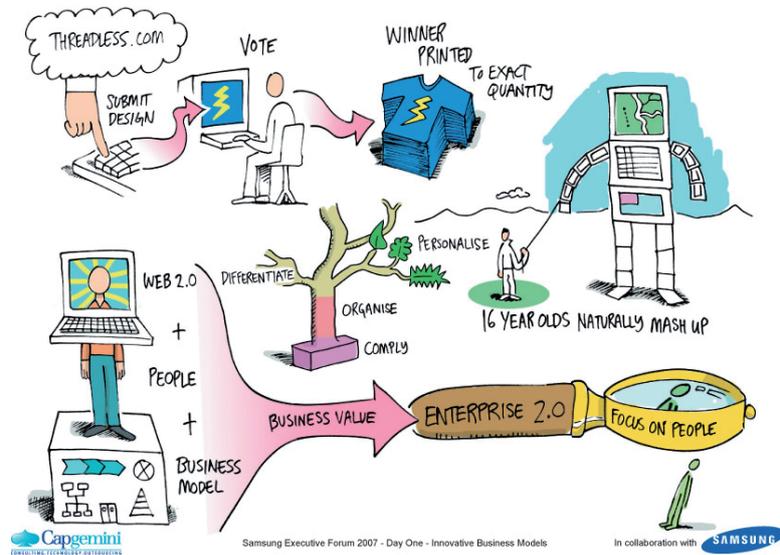
The World Economic Forum, after the 2008 DAVOS event, published a report of the proceedings stating, “User-centric technologies, crowd-sourcing, shared working practices: next-generation collaboration tools such as these may be in their infancy, but they will change the business of business forever”.

All of this masks the underlying change to those involved in the provision and support of Business IT systems, and exposes the opportunities to those who are responsible for finding new markets for their company’s products. The shift that the CEOs of many large technology vendors wanted to comment upon is the same shift that professors in Business schools are also drawing attention to when they speak of the need for “Business Model Innovation”. The technology vendors speak of a new phase in technology models, moving beyond the business-admin-centric client-server application model of the PC Network that has dominated the last 15 to 20 years—responsible for bringing the term “IT” into existence (unknown in general use before 1990 at the earliest). Prior to this, departmental mini computers had ruled, taking over from computer center mainframes.

Just as it took a while for the common definition of “IT” to emerge, covering all the changes that PCs introduced into both business (Matrix Working, Business Process Re-engineering, etc.) and into computing (Personal Information, Enterprise Resource Planning (ERP), and the need for the role of a CIO), it is taking time for a common term to emerge to define what is happening now. Web 2.0 is the most popular name—just as IT covers many different aspects of technology and business use, so does the term Web 2.0. However, what is not in dispute is the fundamental single change point, i.e. “people” and “web centrality”, of Web 2.0 rather than the PC and server centrality of the IT phase. The difference in designing solutions around people to allow them to use it flexibly as “services” is as fundamentally powerful as the shift to designing information-based client-server systems around PCs and servers after mini computer based applications.

The era of IT revolutionized the administration of business by redesigning the “back office”, initially to bring significant improvements in operational efficiency for early adopters, but becoming the norm for all enterprises over time. When ERP and similar enterprise applications had become ubiquitous, the only advantage that could be found was cost reduction. Today, IT is seen primarily as a cost-driven element with a constant battle to reduce both the cost of providing IT and the cost of operating back office procedures. 'This is a result of the maturity of the technology with its ubiquitous uptake changing its role from competitive differentiator to a standard capability with the only difference being the cost of provisioning.

Figure 1: Web 2.0 Process



But Web 2.0 has already shown itself to be different. Firstly, it is a tool for the “front office” or edge of enterprise to revolutionize go-to-market capabilities, and most of all, the ability to participate in new markets that consumers themselves are creating around their changing behavior. As [Threadless.com](#)—a well referenced and highly successful enterprise selling clothes in a Web 2.0 manner—says to its loyal community of customers and partners, “without you there is no us”. In contrast to this is the traditional website of clothes retailer [Zara.com](#), is a stark lesson in what is meant by the term “Business Model Innovation”.

Secondly, Web 2.0 is not IT as we presently define the term. More importantly, perhaps it doesn’t quite agree with the current role of the IT department, which has led to much of the current debate as to the future of the CIO—a role created to manage the IT wave of business process automation. Just as some data center managers moved up to grasp the opportunities afforded by becoming CIO, some CIOs have already moved up to become the leader of business transformation around Web 2.0. In this case, the argument for the increasing importance of the CIO is not based on their existing role. Rather, it is based on the individual acquiring new skills and playing a new and different role in the enterprise. For others, the role will stay the same and move down the hierarchy, as did the role of data center managers who still exist in many enterprises operating the same technologies that remain in use from previous phases.

All of this leads to a question that is still causing confusion: Where does Service-Oriented Architecture (SOA) fit into the enterprise? A not dissimilar question when compared to the role of client-server technology in the late 1980s, this was answered by its role in ERP suites. SOA is in a similar position; seen from the direction of traditional IT, it’s a new form of technology for integration purposes and cost management; seen from the direction of Business managers and Web 2.0, it’s a crucial enabling capability to redesign business processes. The true role of SOA is to link the very different, relatively unstructured environment of the Web 2.0 Front Office built around people, events, communication, standards, new style collaboration, etc., with the traditional IT Back Office need for procedural structure and data integrity. It can be summarized as the challenge of “Interactions” to determine optimal responses to business opportunities and events, versus the compliance requirements of formalized “transactions” to produce data integrity.

But what about the term “Mesh Working”—in itself a derivative of the technology term Mesh Networks? The term Matrix Working is well understood and was one of the business organizational shifts that the PC introduced. However, it is limited to point-to-point internal use. Successful enterprises are those that learn to tie their external and internal activities together. Mesh Working is the expansion of the internal matrix to embrace people and expertise externally, making use of the infinite “mesh network” of connectivity provided by the Internet to which a whole new range of functions have been added by Web 2.0. Mastering these functions is the key to adding a whole new range of business market places, Customer Relationship Management (CRM) capabilities, as well as creating supply networks and adopting new business models that add increased revenues.

When IT represented the new wave and had—certainly in its early phase—the power to make or break enterprises in terms of their capabilities to compete, it produced leaders and losers. Web 2.0 is already producing leaders, but currently remains a puzzling concept for many senior managers in much the same way as the PC did at first. Today, the idea of e-mails being printed and replies handwritten for secretaries to type as if they were traditional memos is the stuff of past office jokes. Many senior business managers are unknowingly in the same situation today as their staff use messaging and Web 2.0 services to carry out their daily work. But these are the visible elements of individuals using Web 2.0 based tools, the real change underlying all of this is the phenomena of “Social Networks”—i.e. the millions of people who now participate in the rich and varied communities built around common interests spanning every imaginable topic, including business and even individual enterprises.

In fact, many senior managers will be surprised to discover that their enterprise already has multiple Web 2.0 communities established by their own managers and staff to operate more efficiently. The names of some of the leading Social Networking sites such as Facebook, Bebo, etc., may be known to them, but not as business tools and certainly not as providers of a hosted private community for their own business. Much of the online Web 2.0 world of business is hidden from them, and amidst their pile of business magazines it largely remains so, as the editors of print magazines cater to their readership in an “offline” and non-interactive manner. The same business magazines publish online versions where a very different audience is addressed and the development of Web 2.0, business services, new markets, etc., are hot topics.

The challenge is well summed up by two remarks, the first “because you can’t see it, don’t assume it isn’t happening”. Too many companies have vanished in recent years because they didn’t see or realize the change until it was too late. The second is a widely quoted remark by the CIO of Nokia in respect of the changes Nokia has made to its business model by starting a third division to build its “services” market alongside its two product divisions - handsets and transmission systems:

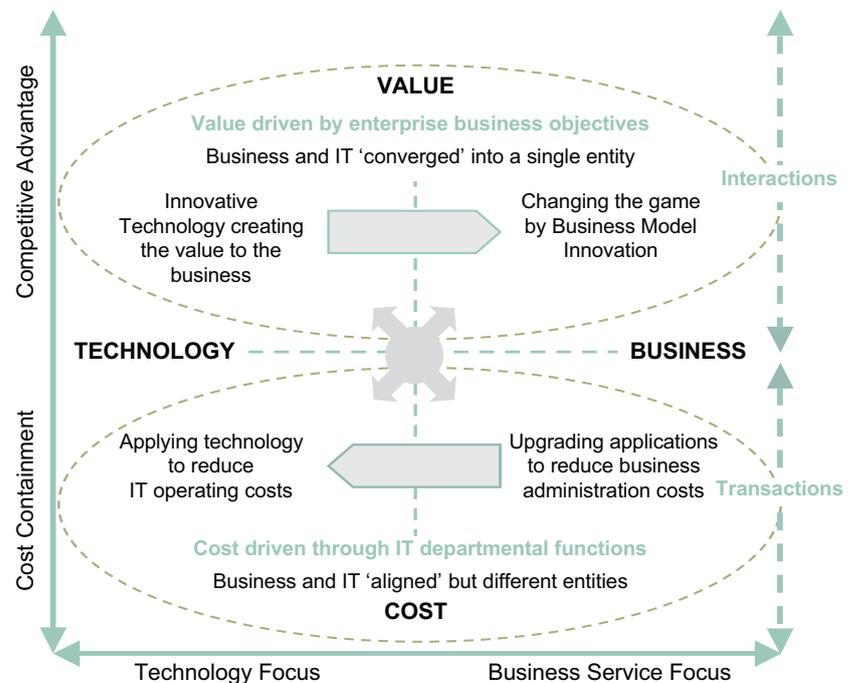
“Companies don’t fail because they do the wrong things; they fail because they continue to do what used to be the right things for too long.”

3 Where does this change fit into the Enterprise?

The potential impact of Web 2.0 on business—driven by millions of current users—is therefore high, and is playing a different role in the enterprise from existing IT. This makes establishing who should be playing what role in evaluating the technology, how it can help the enterprise, and what type of business cases should be used, a necessary first step in a managed adoption scenario. Clearly the starting point must be based on its role in addressing business goals.

Most CEOs would recognize themselves as currently being challenged by three statements: After five years of cost cutting there is little further improvement to their operating margins from this direction. If it were possible to dramatically increase revenues and margins from their current business activities, then they would have done this already; the way forward lies in finding and developing new markets and revenue streams at good margins, often referred to as the shift to smart services from commoditized products. The question is how to use Web 2.0 and its communities as an element in achieving this, and moving beyond the simple use of the Web as an additional channel for the current business.

Figure 2: Different Decision Makers and Different Reasons for Decisions



To start, the first challenge is to understand targets and responsibilities at a macro level within the Enterprise. This simple two-by-two matrix can be used to visualize this. Looking towards the bottom left, the focuses are cost control of

technology deployed by the IT department, with the responsibilities and payback calculations well defined.

The bottom right is driven by business managers seeking to use IT to reduce the cost of administering their business. The traditional IT model sees the pressure for change coming from the business managers and going towards the IT department to find how to implement and meet the payback targets. The better this is achieved, the better the alignment of IT to the business. In fact, this is a classic back office model based on cost.

The top two boxes are about the new world of Web 2.0 technologies, with the goal to change the business model to access new markets, gaining business value—represented in the top right area—by building on the “interaction” capabilities of Web 2.0 with customers and suppliers to win business. This is distinctly different in every way from the “transaction” recording capabilities of IT systems in the bottom two boxes. This new and valuable activity depends on new innovative technologies and products, ones that many people have little to no experience of; and this is where the activity—represented at the top left—to identify technology that has business value is required.

Deciding on who is responsible for these two new activities and how decisions will be made around “value” in terms of additional revenues, market share, etc., is the first challenge to be addressed. Automatically assuming that the model in the bottom two boxes around cost managed back office deployment will work in the top two boxes is a dangerously limiting assumption.

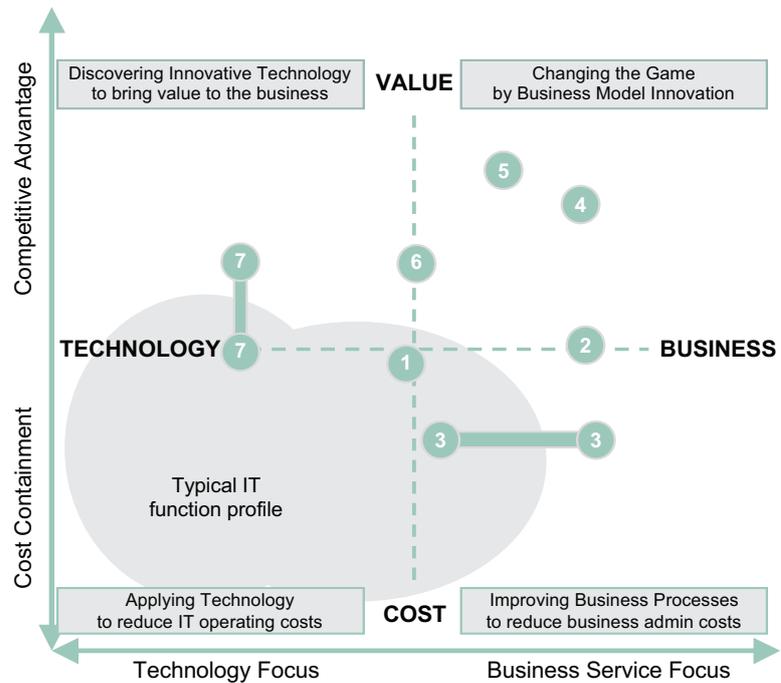
Taking this one stage further, the issue of how to innovate is also connected to this. Peter Drucker, a widely acknowledged management guru, at the time when the PC was challenging business managers to rethink their business models and processes, introduced the concept of seven fundamental forces of innovation. Each could prove a disruptive force breaking evolutionary change and refocusing business development. The forces are as appropriate to the current situation as they were when Drucker first introduced them. Applying the seven forces to the two-by-two matrix makes it very clear why breaking through into new business models means adopting a wholly different approach than the roles and responsibilities currently defined for the CIO and the IT department.

Please see Figure 3, page 8.

1. *The Unexpected* – An unexpected success, an unexpected failure or an unexpected outside event can be a symptom of a unique opportunity.
2. *The Incongruity* – A discrepancy between reality and what everyone assumes it to be, or between what is and what ought to be, can create an innovative opportunity.
3. *Innovation based on process need* – When a weak link is evident in a particular process, but people work around it instead of doing something about it, an opportunity is present to the person or company willing to supply the “missing link”.
4. *Changes in industry or market structure* – The opportunity for an innovative product, service or business approach occurs when the underlying foundation of the industry or market shifts.
5. *Demographics* – Changes in the population’s size, age structure, composition, employment, level of education and income can create innovative opportunities.

6. *Changes in perception, mood and meaning* – Innovative opportunities can develop when a society's general assumptions, attitudes and beliefs change.
7. *New Knowledge* – Advances in scientific and non-scientific knowledge can create new products and new markets.

Figure 3: What Innovation Force is Attacking your Business, and Where?



A combination of using the top left requirement to find technology that offers business value, with the Drucker forces of innovation, usually provides a clear, well focused path towards making business decisions around business value in the top right quadrant. However, by its very definition, it will be disruptive and possibly threatening to the existing business units, markets and products. So, appointing an appropriate person to evaluate and drive the transformation of the business model is a crucial move.

The introduction of Web 2.0 communities into an enterprise is in itself also both innovative and disruptive. Therefore, its successful introduction into chosen business areas should be viewed as a transformation of working practice in much the same way as the introduction of the PC and the Network. As the primary role of Web 2.0 communities is to improve interactions, one of the most likely areas for adoption will be in CRM (see the following section), or as a deployment mechanism for a new generation of “Smart Services” to add value to existing products. Both will require “business value” management, as success is in the ongoing operation of a dynamic and continuous interaction between external (actual or potential) customers and internal staff—a very different proposition from a static administrative application for cost reduction in the “Back Office”.

4 People Centric: Interactions and Mesh Collaboration

The terms “interaction” and “transaction” are key to understanding the nature of, and use for the new generation of technologies, whether defined as Web 2.0 or Web Services, or even as to the role of Service-Oriented Architecture. Put simply, computers transact data and people interact through communications. The challenge for Back Office IT has been to try to align the role of the computer in capturing and recording transactions with the demands of the users and business managers for information in a manner that they can understand and use.

Web 2.0 is entirely different, putting people first and using a variety of capabilities to both duplicate existing ways in which people meet, communicate, share and collaborate, and to enhance them with extra capabilities including scale. In one sense, this is why Web 2.0 defies precise descriptions, being built instead on a set of loose definitions established by O'Reilly (2005). It is a further reinforcement of the difference between the necessary exactness of computers and the flexibility of people. Another way of looking at it would be to think of it as a set of relationships that grow in maturity and range through increasing interactions over time.

Figure 4: The O'Reilly Definition

- The Web as a platform
 - A technology platform to support new functionality
- Harnessing collective intelligence
 - The concept of 'contacts'
- Data as the next 'Intel Inside'
 - Data becomes the basis for standardization and not the processor design
- End of the software release cycle
 - Continuous editing, extending and experimenting
- Lightweight programming models
 - Everyone can take part
- Software above the level of a single device
 - Community-centric
- Rich user experiences
 - The way I want to see things

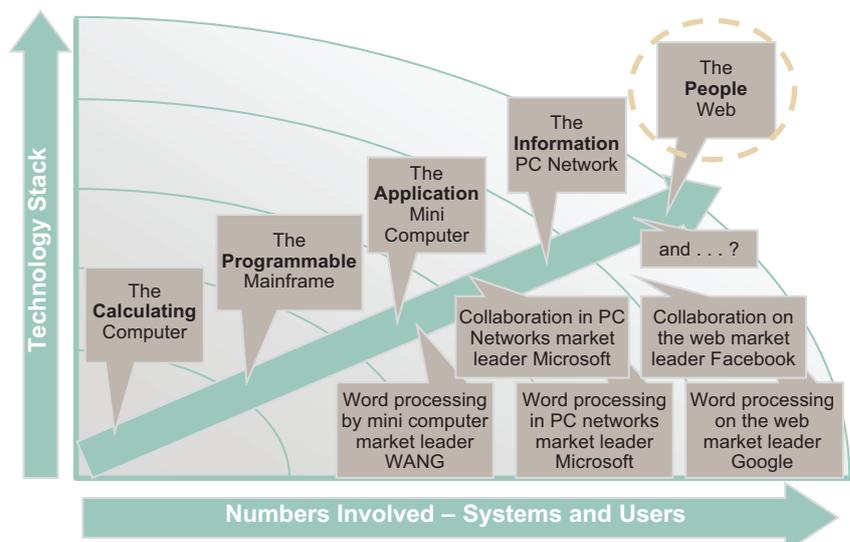
However, it is the people-centricity as opposed to the PC-centricity that qualifies this to be described as the next era of the development of computing. In each era there has been a central technology theme, and this has defined how solutions are designed and how business gains value. The computer first appeared as a super calculator for a handful of mathematically intensive applications such as payroll.

This was followed by the programmable mainframe computer whose broader range of abilities gave rise to the widespread commercial use of computing. Sitting in the corporate data center, this expensive asset was at this stage still remote from direct operations, a situation that the introduction of the mini computer adaptable as a departmental computer sought to overcome. Mini computer applications sought to capture the existing departmental functionality, e.g. purchasing, and provide a much improved boost to the existing procedures and the capture of commercial transactions such as purchase orders placed, goods received, etc. It took the PC and the Network to move this to the next stage of producing more usable information for people to work more effectively on their individual tasks.

As more people could work individually to deploy their specialized contributions, the organization structure of an enterprise began to move away from a rigid hierarchy comprising departments and procedures towards a more flexible allocation of roles and responsibilities, i.e. Matrix Working, and stronger control—through ERP—of the overall enterprise achieved by amalgamating these efforts. The challenge that these changes bring is that trying to understand the “new” in terms of capabilities or applications, means having to appreciate the “whole” of the new environment. Otherwise, any individual aspect of the new may look inferior to the old notionally similar aspect.

It is easiest to understand this by examining what has happened, and is happening currently. In the late ‘80s, Wang was the unchallenged leader in “Office Automation”, i.e. word processing. The functionality of this centrally hosted application was high, and yet within two years, Wang had lost the market to (at that point of time) the functionally worse Microsoft Word Application. The reason was that users wanted to work in the new PC Network environment in order to gain its other benefits around “information”, and therefore the technology environment of Wang, built on the mini computer, was inappropriate. Today, Microsoft delivers rich functionality to touch and address all the aspects of working in a PC Network environment and is moving to address the challenge of Web-based working.

Figure 5: A New Era of Technology leads to New Products



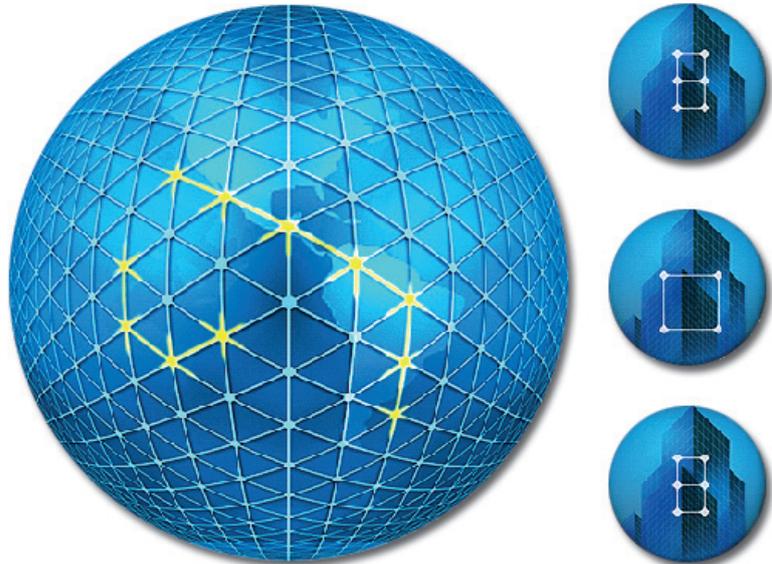
The challenge today is that as more users embrace the environment of the Web, a similar effect is taking place, and they are looking for word processing or other functions to be delivered in the environment that they are working in, i.e. Web 2.0. The environment is now “interactive” and lies between many users in many different enterprises who want to jointly collaborate in producing notes, writing reports, etc. An internal application inside an enterprise is simply not suitable. A similar effect lies in other areas – internally designated data taxonomies for databases and applications cannot be adopted externally, though XML may try to overcome this in areas where data can be structured, such as invoicing. The result is a shift to social tagging. Even collaboration itself suffers from the same problem, as the functionality of proprietary products cannot be made available on an ad hoc basis for external use, hence the rise in the use of Social Networks.

But why are users once again driving the change and adoption of the next wave? What is their personal value case for Web 2.0? The answer lies in two major areas: first, the extent to which the Internet and the browser have already changed and externalized the working world, and the second the speed and frequency of change. Of course the two are connected, but the effect can be described by drawing on some research that summarized it so. Twenty years ago, eighty percent of the knowledge required to do your job was in your head. Today, it is only twenty percent. How do we find the other eighty percent? If change was not as rapid, the answer would be easy. It would be captured into our Enterprise systems and Knowledge Management. Unfortunately, much of the change is both external and is caused by “events”, meaning some indefinable combination of circumstances, and in the absence of answers for this situation, we need to ask our colleagues.

Asking our colleagues is not really that simple. Firstly, our immediate colleagues may not have any greater experience than we do. Secondly, does our personal network of colleagues extend widely enough or is it categorized well enough to be able to pinpoint the person who will know the answer? Frequently, the answer will in fact need the input of several people, which leads to rising amounts of emails exchanged as individuals “broadcast” their questions to anyone that they think might be able to offer a solution. What is needed is the ability to locate people, expertise, experience and content, in that order, to address the issue. Web 2.0 is about attacking this problem whereas Web 1.0 was about attacking the problem in the reverse direction from content through Search Engine technology.

The term Mesh Networks is used to describe technical characteristics, but it is easier to visualize the concept by thinking of the Internet and Web as providing an almost infinite mesh of connections and services not only within our own enterprise, but extending externally to link people, content, services, enterprises and just about everything else that could be of value. Whereas Search engines help us to find the content published on websites in this huge mesh of resources, it is Web 2.0 and its people-centric model that helps find and link the people on the Mesh. The role of Social Networking communities is to create and maintain the relationship around people and their interests or expertise, or any other people-centric activity. The challenge for business is to understand how to use the community model internally and externally, whilst remembering the name “social networking” applies to a definition of human interaction, and not necessarily to non-business related recreational activities.

Figure 6: A Global “Mesh” not an Internal “Matrix”



This brings in the use of a wide variety of forms of interaction and content sharing. The ability to identify and create new conjunctions of people with content to match the consistently changing flow of events is to be able to succeed in providing a business with the consistent ability to optimize situations. To deriving maximum benefit from Web 2.0 means consciously adopting a shift from closed point to point matrix working towards creating an open environment to exploit the capabilities of mesh working. This is a change that can be likened to moving from hierarchical structures to matrix working to maximize benefits from the PC generation in the late eighties and early nineties.

5 Putting Web 2.0 to Work

5.1 Communities: Defining Roles and Purposes

There has been a view that Business will get Web 2.0 to work by the simple provision of Web 2.0 tools such as the creation of a Wiki. This approach will generally fail for two reasons: First, all successful communities are built around common interests, which are increased by the act of sharing something, and second because business requires 'structure' that aligns to its goals in a way that will address specific issues with a clear outcome at the end. To achieve this requires a positive move to define the role of a community in terms of its activities and business alignment, followed by education in the use of the tools to funnel the previously untapped and unstructured expertise into the structured activities of the enterprise.

There are two major reasons for a community to exist: What do members want to share in order to achieve (the "reason") and how will they achieve this ("the tools"). In this description, a community sounds no different from a group of users sharing a traditional application. They have a "reason" for the requirement, and they need "tools" to be able to achieve this. However, when an attempt is made to develop a requirement specification for a community, as if it were an application, the differences become clear.

An application is a "frozen" monolithic capability set designed to be produced and operated in an unchanged manner for as long as possible, before some degree of change is carried out in a, usually, expensive process. Users are required to conform to the procedures of the application in order to ensure the integrity and coherence of the data. A community, in contrast, is about continuous change, with users dictating how and when changes will be made to suit themselves. Indeed very reasons for the community can change over a period of time. Equally, communities can be created, merged, and die in very short periods of time to suit events; and finally, there can be no conventional administration structure for rights management. This continuously dynamic environment has only one constant: A set of membership management capabilities. The basis for Social Networks such as Facebook, www.facebook.com, (used to provide the following examples), is to provide this capability, together with a further set of capabilities, to allow individuals to navigate and find different people and communities. However, there is a further role that is increasingly becoming the most important element—to act as a generic platform with a common set of Application Programming Interfaces (APIs) to allow developers to create hundreds of mini applications that can be selected as "tools" by individuals.

These APIs are published by Facebook and similar Social Networks to encourage developers into creating an environment that is increasingly rich in capabilities, thus drawing in more users. There is also a standard for Social Network APIs, <http://code.google.com/apis/opensocial>, which is intended to allow any program to work in any Social Network, and this has encouraged big commercial software vendors such as SAP and Oracle to make use of Social Networks as business tools.

Some of these "tools" are distinctly personal, allowing a user to track something specific such as blog entries made by selected "friends" (users that have agreed to

a relationship). Others can create their own mini communities around a specific activity such as travel, http://apps.facebook.com/dopplr_whereNEXT. These tools can also be used in a concerted manner with Facebook communities, which are known as “Groups”. Some are topic-based such as the 30,000 people plus who belong to “Web 2.0 Entrepreneurs”, <http://www.facebook.com/group.php?gid=2208499259>, whilst others are role-based, such as <http://www.facebook.com/group.php?gid=20265537392>, a group that allows Press Relationship (PR) managers to interact directly with journalists.

A very large number of groups on Facebook and other Social Networks are private and secure, belonging to business users. Popular examples are the management of the process of on-boarding new staff members, project groups, specialized knowledge and expertise groups that embrace more than one enterprise, standards development groups, etc. This is the fastest growing area of Social Networks, as enterprise users discover how easy it is for them to avoid complicated internal issues with the IT Department whose rules are based on applications for “transactions”, and not on lightweight Web 2.0 “interactions”. Most CIOs now openly acknowledge that this is the case, and have opened Firewalls to some of the bigger Social Networking websites in response to pressure from users and business managers.

If the existing Social Network environment seems alive and well, it also seems at first glance to be a chaotic and unfocused environment for enterprises. In the Introduction section, the example of Threadless.com was used to show a sales community built outside any Social Networks, though with users, or customers finding out about their products from a wide variety of Social Network communities on fashion and design. This is obviously a well focused use, offering a “reason” for membership, and a range of “tools” that bring customers into a very different, interactive and intimate relationship with Threadless. Some experts would label this as CRM 2.0 creating ‘intimacy’ between an enterprise and its customers.

To help develop useful, well focused communities, a pyramid of needs can be used to identify the four basic community types with different “reasons” for their existence, and from this, the “tools” that will support user interactions can be derived. There is potentially a fifth community type around location, but currently this is seen as an extension to the existing four in terms of providing an extra set of “tools”. The pyramid places the highest level of commitment at the top, and the lowest level of commitment at the bottom, though in many cases there will be links from the top reaching downward to the bottom. The four types are based upon:

- **Shared Values** – bound together by fundamental values that they wish to research, discuss, develop and bring to others. Possibly will set up and share users with the Shared Goals community as the means to achieve this.
- **Shared Goals** – directly interested in defining and delivering programs or individual activities that will make a difference. There may be a few common members from the Shared Values community whose role is to drive the implementation of activities.
- **Shared Interests** – a large and more casual community that is literally interested in the topic in a relatively passive role, drawing much of their benefits by following the interactions of others. The community will be led by one or more members of the Shared Goals community who will use the community of interests to realize their goals and will find the majority of its members from the Shared Fun community.

- **Shared Fun** – a public Social Networking community that exists to gain as many users as possible by providing a common platform for community management.

Figure 9: Communities Types to Satisfy the Hierarchy of Needs



A broader use for an existing enterprise would be to establish a “user group” to drive increased “intimacy” with their existing customers, with the expectation that this will help in product design and upgrades as well as provide references for prospective customers. In the following example, it is assumed that the enterprise in question is a large software vendor, and the example applies to them either taking their existing user group into communities or in starting their first user group.

At the highest level is the User Group committee, probably working closely with, and supported by the vendor. This group can be said to share “values”, which is to say that their mutual commitment to the products and vendor is a given, and that their community is built around how to “convert” others, but are physically unlikely to be able to meet very often. The software vendor knows that these people are great advocates for the company, as well as a channel to reach existing customers, to prospect for upgrades, or to provide references to potential customers. In the past, vendors will have offered various forms of support for their user group and increasingly have moved to using a website for communication, but this only supports one-way communication, whereas adding communities allows interactive discussions, which is an important point if the user group is really going to be able to communicate with, and encourage potential customers.

Frequently, a broad product range, or even different industry sectors, call for more specialist communities. Often these are already established as subgroups or “birds of a feather” sessions at user group meetings. As an example, consider “databases”—a community of deep interest, where the focus and expertise creates value to those involved. It is more than a mere interest or the need to find a document on the topic. Rather, it is a commitment to excellence in the chosen topic that drives this community and sees it setting goals. These shared goals include product development for new features, maximizing performance, and exploring wider ways to use the products. They will want tools to support a more technology-oriented community, including the ability to work on, test, and record new code with the vendor’s own staff.

The third level is for those who share an “interest”, albeit on a periodic basis, and are certainly not as committed as the focused members of the “values” and “goals” communities above them. However, this is the community where the maximum opportunity lies for everyone. Remarkably it is also where opportunity lies for the user group and its “birds of a feather” specialist communities. Why? Because both the vendor and the user group share common goals in wanting to increase interest as well as use in the products; one to get product sales, and the other to attract members or subscriptions too. This entire community is about vibrant and lively content, comprising notice boards, discussions, case studies, tutorials, in fact anything that will attract attention from search engines, blogs, RSS feeds, etc., to get as many people as possible involved. A requirements definition for this community is more of a marketing, corporate communications or publishing specification on how to create and display content for maximizing interest.

It is the level of interest and involvement that both allow search engines to readily help find the communities and which encourages potential new customers to visit them. A search engine is almost always the first stage in researching a purchase today; but again, the challenge is to move to the mutually more valuable interaction as smoothly as possible. The ability to dig deeper into the questions that are most relevant to an individual prospective customer will usually mean connecting to the specialist communities to “discuss”. The value of “people finding and interacting with people” offers a very different experience than Frequently Asked Questions, or downloading general purpose documents.

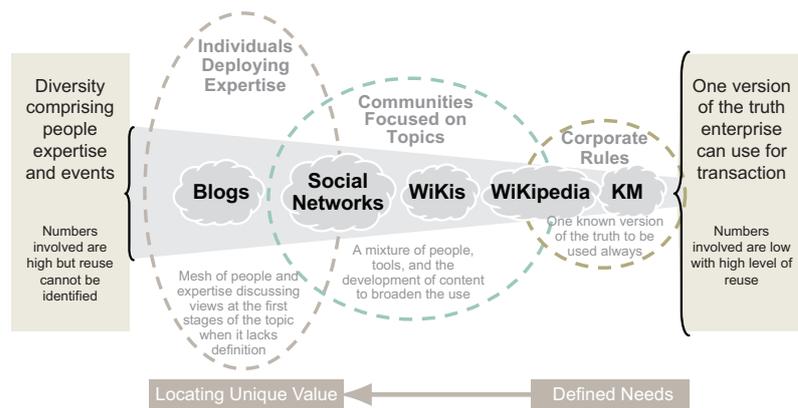
5.2 Aligning Communities to Business Goals

Understanding types of communities around “reasons” for existence makes it easier to define the selection of “tools.” There is a huge and increasing range of specialized applications for use in Social Networking communities, but all of these rely upon a basic structure in using the main technology elements of Web 2.0 for establishing people-to-people collaboration. Each of the major technologies offer different capabilities to support different requirements. For example, blogs can be used either to promote individual contributions before the start of a community, or to create interest in new topics when the community has already become established. Wikis can be used to collaborate and develop joint thinking with the support of Social Tagging for storing and retrieving content as it is built. Some of this content will eventually cease to be dynamically changing and will only be subject to a certain degree of updating. Indeed, there may come a point that a final fixed version of the “truth” may occur and be transferred to more conventional enterprise knowledge management. An installation procedure might move through this process to define the need, develop the detail, and then become the standard downloadable document. An apparent omission from the Web 2.0 technology list is the Mashup, and that is because either it represents a personal way of presenting the information from communities, or a corporate way to present the output from communities on the main websites, neither of which is directly part of the community process defined here.

However, there is one very significant difference between people organizing social networks externally and a business using social networks or other Web 2.0 tools. In an external sense, the role of the community is for the personal gratification of its members, whereas in a business it must deliver defined and recognizable value. The business is seeking to draw upon the diversity of people, expertise and events

as a means of solving specific issues. The diagram illustrates the process as a flow from left to right, and in an external non-business world, the organization of the communities also moves in this direction, starting from blogs locating like-minded people. For business alignment, the deployment is reversed and should start with a 'Wikipedia'-like framework which provides a structure of pages and indexes which align to the business activities. A social network community is responsible for the page with a Wiki editor managing the building and transfer of expertise onto the assigned topic pages.

Figure 10: Using Web 2.0 Technologies in Communities



In addition it should be remembered that enterprises communities can, and often should, involve external people who join through 'relationships' to existing community members or topics bringing in additional valuable expertise.

As such, Web 2.0 communities offer a significant boost to traditional CRM applications, and can have a much wider applicability. This has led to the introduction of the concept of "Intimacy" and the definition of CRM 2.0 to link existing CRM systems to Web 2.0 environments. True advocates of Web 2.0 believe that it embraces a much wider scope and must connect to internal communities as well as external communities. They claim that it is not Customer Relationship Management at all; it is Customer Intimacy Management, or CIM.

6 CRM 2.0

"Classic" CRM is no longer viable - a one dimensional corporate interaction that provides processes, services and technology to the customer facing departments - sales, marketing and customer service. It is time to recognize that there is a customer ecosystem that provides empowered customers, who are increasingly interested in making their own choices, in how they interact with companies that they do business with. That means that not only does the company need to provide the goods and services, but the tools and culture to make the experience of that customer one of paramount and unparalleled value to that customer and thus to the company in return

The use of communities and Web 2.0 tools has an obvious immediate attraction for developing and improving CRM. In the last three months SAP, Oracle and Salesforce.com have all added Web 2.0 elements to their existing CRM offerings. CRM 2.0 has become recognizable, complete with new pure players emerging claiming specialization, and Wikipedia opening a Wiki that allows contributors to share a repository of data, documents, videos, audio and other sources of knowledge to support the discussion and definition of CRM 2.0 that is universally accepted by the CRM community— <http://crm20.pbwiki.com>. The rationale for CRM 2.0 from this new Wikipedia definition is given as:

A more detailed examination of the differences between “classic” CRM and the way of applying CRM using the collaboration tools of Web 2.0 to provide customers with the environment defined above identifies these differences.

Figure 11: Differences between “Classic” CRM and CRM 2.0

Classic CRM	CRM 2.0
▪ Customer has no direct access to CRM applications	▪ Full integration between customer community and CRM apps
▪ CRM is associated with automating internal functions	▪ Interactive environment for creating responses / opportunities
▪ Designs processes from company's point of view	▪ Responds to the customers' requirements through collaboration
▪ Resides in the traditional application environment	▪ Resides across the Web to cover Company & Customers
▪ Focused on managing customer opportunities	▪ Focused on interacting to create sales opportunities
▪ A push mechanism for marketing internally designed offers	▪ A pull mechanism for determining what is required
▪ Tactical and operationally driven	▪ Additionally adds Strategic views of markets and customers
A sales and marketing management tool	An environment for Customer Intimacy

It is easy to recognize the above traits by thinking of how airlines, and in particular low cost airlines, changed their processes some years ago to encourage potential travelers to change various parameters of their requirements and see if they could find combinations of destinations, flight times and costs that suited them individually. Today, that has moved even further into the alignment and supply of various additional elements that any traveler might want. Ryanair's Founder and Chairman states that the flight is not where Ryanair aims to make its money, but it is from a wide range of services and products that its customer community wants to buy. The vastly increased numbers of air travelers that Ryanair and other low cost airlines have brought into the market are largely lost to existing traditional airlines who they don't see as prepared to interact (negotiate) on their requirements.

In the words of one of the original pioneers who used Web 2.0 to sell clothes, [Threadless.com](#), “Participate! Without you baby, there is no us!” Its whole business has been built using Web 2.0 communities to drive products and designs. However, as with the low cost airlines, Threadless is now moving to take on traditional players with its first shop opening in Chicago using its CRM 2.0 customer community to constantly generate feedback on designs of new clothes. There are numerous other examples, not just in retail, but as the whole point is to embrace your own customers, most of those in other sectors will not be immediately visible without specifically searching on very specific topics of direct interest to the parties involved.

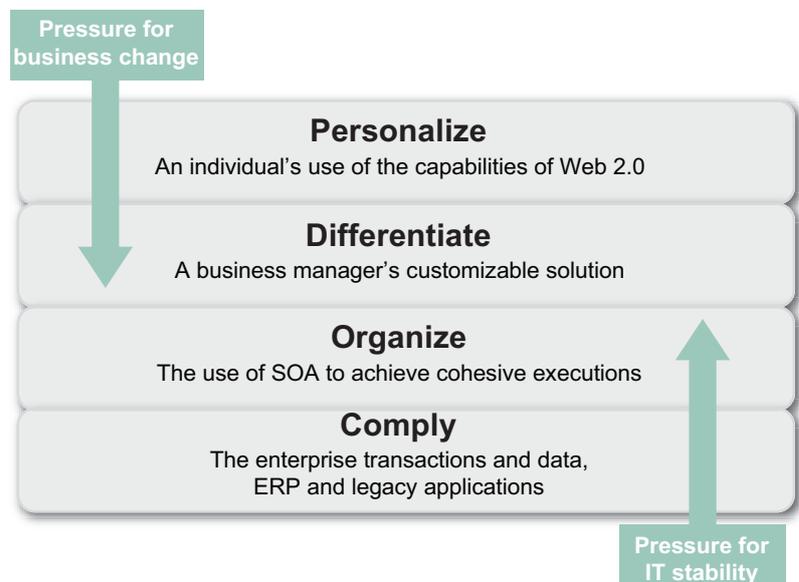
The term ‘intimacy’ when used in conjunction with CRM 2.0 means to ensure that the seller and buyer, (and others involved in aspects of the business) have a full shared and intimate understanding of all aspects of their mutual circumstances. The goal is to ensure that when matching the stated requirements all of the other aspects will also be taken into account as well, an example of this is the Capgemini ‘Collaborative Business Experience®’ with the explicit aim of ensuring all aspects of the relationship and not just those of the commercial agreement would be form the basis for a successful relationship.

A wide range of articles and reports on CRM 2.0 can be found at [www.bnet.com](#), the management news and research aggregation site, and, specifically, CRM 2.0 listings can be found at:
<http://findarticles.com/p/search?tb=art&qta=1&qt=crm+2.0&qf=all&tb=art>.

7 A Conceptual Enterprise Governance Model

The Capgemini Point of View “Redefining Business Capabilities using Web 2.0 and SOA” defines a four layer governance model, and for an in depth understanding on the subject, it is recommended to read this paper. In outline, as shown in the diagram below there are four layers of different business activities. The top two layers are separate and different in what they need to do; in the bottom two layers the activities overlap. In the “Comply” layer at the base lies conventional IT, providing the services to administer the business and ensure compliance. At the top is the subject of this paper, namely how people collaborate and use technologies from Web 2.0 in a “Personalized” manner to work more effectively. Directly underneath this, and also part of this paper, is the “Differentiate” layer where business solutions are crafted. This is where the example of Threadless, www.threadless.com, belongs as a differentiated go-to-market model built around Web 2.0 communities. The final layer connects the existing IT systems to the Differentiate and Personalize layers using SOA to expose the existing IT applications as services that can be orchestrated to integrate with the services from the upper two layers.

Figure 7: A Conceptual Governance Model

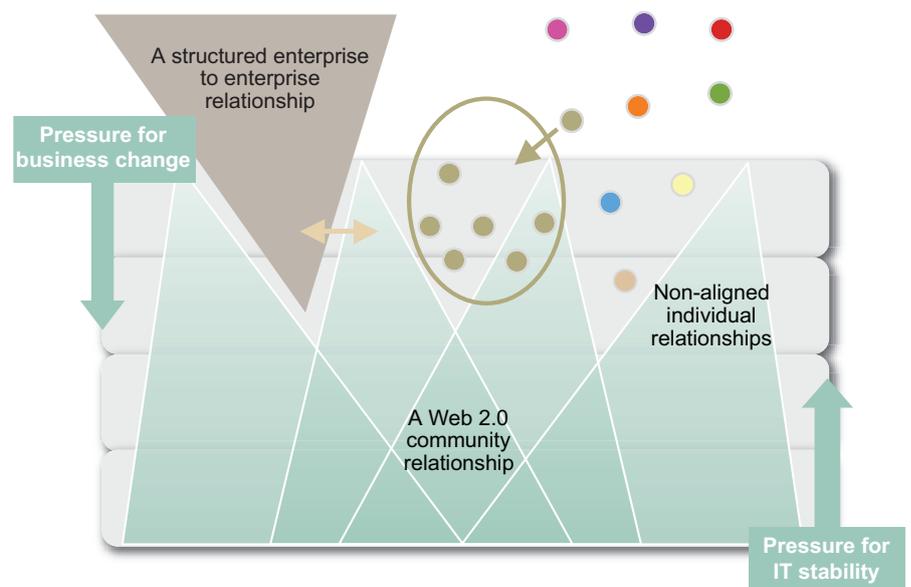


The value of this conceptual model is to define the difference between what is required to be provisioned in each layer, together with who should be managing the decisions and what type of business case is required. The lower two layers, unquestionably, are part of the role of the IT department and relate to the maintenance of the integrity of business “transactions”. In the upper layers where “Interactions” empower individuals or business communities by using Web 2.0 technology, the answer is less clear. The so-called “users” of the Personalize and

Differentiate layers are not only internal users. Its success is in fact its ability to attract and integrate a large number of external people with whom the enterprise wants to do business. But what if they are customers, ad hoc users of the enterprise's services to buy goods and smart services?

This is where the value of creating and managing these individuals through Social Networking Web 2.0 communities becomes a benefit, as most enterprises would like to create and maintain good relationships with customers and suppliers.

Figure 8: Three Different Forms of Relationships



Managing individuals accessing your website on a Web 1.0 basis leads to the use of Frequently Asked Questions (FAQs) to try to reduce the workload of contact management. Visualize the challenge with full interactivity and the requirement for constructing a manageable community becomes clear. However, not all users will align to a community—at least not on initial contact—and there will be a further requirement for structured relationships between enterprises for purposes such as managing commercial contracts. The role of the Open Group, www.opengroup.org, is to provide the standards for business to business commercial interaction, whilst the management of individuals accessing enterprises' websites for content will continue though with an increasing focus on standardization of issues such as Identity Management.

8 Conclusion

In a short period of time, the Internet, the first generation Web built around the accessibility and availability of content, and now the second generation Web 2.0, have been both the drivers and enablers of a huge change in people and society. The almost universal technology literacy that has resulted, coupled with changes in consumer behavior, creates new business challenges and opportunities. Some existing markets and associated business models will decline, but more and bigger markets with new business models are already arriving. There are three major factors to consider as the drivers of change:

1. Globalization introducing the challenges of with whom, where, and when shall an enterprise need to do business in markets that are increasingly open and therefore more competitive. These changes have introduced new competitors, new markets and new business models—all of which combine to offer new opportunities and threats.
2. People have changed their relationship with Technology; it is now an accepted part of many people's daily lives, and it is people as consumers that have driven the new generation of Web 2.0 technologies, and now expect to use these same capabilities in their workplace.
3. It can be recognized that it is Technology that has driven these two changes, but it is not the technology that is known as "Information Technology" or IT. Instead, it is a new generation of people-centric technology based around the architecture of the Web, mixing Information and Communication Technologies or ICT.

It is important to recognize the difference that these three factors introduce with the need to change the approach to define, implement and manage the deployment of technology for the new generation of business solutions accordingly:

1. The evaluation, decision-making and justification criteria for applying the new generation of technologies needs to be established, as it is unlikely that the current criteria established for the adoption of IT will be suitable.
2. One of the core changes is a shift to the next era of "computing" technologies, placing People rather than PC Networks at the center of solutions. Evaluation of the functionality of new technology "apps" must be made in terms of the new environment and not as a functional comparison with existing PC Network era products.
3. The IT governance and conceptual enterprise architecture models need to be redefined to embrace and enable the new technologies as an extension of the existing model.

4. People-centricity rather than technology-centricity calls for a new approach—an organizational structure which instead of relying on applications and data, gravitates to communities and roles.
5. CRM is an early business adoption area under term CRM 2.0, combining all the above summarized changes together with new products from major software vendors, with the aim of creating an “interactive” and “intimate” relationship between an enterprise and its customers.

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