Executive Summary

The term 'Enterprise 2.0' was coined by MIT Professor Andrew McAfee, who became widely known for the topic following his MIT white paper 'the Dawn of Emergent Collaboration'.

This described how organizations could greatly improve their knowledge management capabilities through adopting the Web 2.0 social software that powers sites like Facebook, Linkedin, Twitter et al, and applying it internally.

The equally new and equally exciting market of Cloud Computing further accelerates this trend, making the software more accessible via SaaS models and also better integrated, through 'Inter-Cloud' API integrations.

Enterprise Social Media – Next generation knowledge process management

In 2003 McKinsey asked “Do you know who your experts are?”

They were highlighting that many organizations don't have systems for organizing and utilizing their intellectual knowledge, the catalogue of their 'Human Capital'. Given we are now in the age of the Knowledge Economy this is therefore obviously a major strategic shortfall.

Then in 2010 they were reporting how much this field had evolved to address the matter. In 'Harnessing Your Staff's Informal Networks' they described how 'Communities of Practice', an expertise-centric grouping together of staff from across multiple organizational units, have matured from entirely unofficial, ad-hoc phenomena to a strategic toolset used by progressive businesses to augment their functional matrix structures.

It is the ability to enable this type of dynamic and knowledge-intensive collaboration where Enterprise 2.0 technologies offer the most maximum business value, especially when combined with other technologies to enable 'KPM' – Knowledge Process Management.

Through an enterprise social media strategy this blends together the previously distinct domains of BPM – Business Process Management, and KM – Knowledge Management.

Organizations can equip their staff with the tools to create and operate online professional communities, and via Cloud API integrations can link these up with new and legacy process systems.
Human Capital 2.0 – Social knowledge management

As highlighted, despite considerable investments many organizations have failed to utilize technology effectively to address their knowledge management needs.

This is mainly because of the nature of this type of information. Expertise about products, technologies and various other skillsets is hard to record in 'structured' database type applications in the same way it is achieved for stock control ERP type applications.

Software like Document Management offer a plethora of Information Management features for categorizing and storing organizational knowledge, but these are mostly ignored in preference of fast and furious email collaboration methods. These applications are simply too slow and cumbersome to prove practical in the demanding corporate world.

In contrast 'social media', tools like blogs, wikis, online communities, Twitter et al, are ideal for doing so, they are so popular because of this natural fit for how people communicate and share knowledge.

Their most notably feature is the user-centricity. They make sharing knowledge quick and easy, where it's simple and convenient to not only publish useful information for others to share, but also to easily index it with complex taxonomy data so that it's easy to find too.

In essence Enterprise 2.0 represents "People ware" for providing this functionality. It's automating the work of people, including their social exchanges, in the same way ERP systems automate warehouse logistics. It enables users to rapidly create and share rich information, which via tagging and other indexing methods can be permanently structured into knowledge base material.

This same strategic approach is also communicated through much earlier work by Douglas Englebart (inventor of the mouse and GUI), Towards High Performance Organization, a Strategic Role for Groupware, where long before Facebook or even the web he envisaged the same environment and the collaborative models it would enable.

He described an OHS – Open Hyperdocument System, online file sharing, a hyper-linked journaling system, personal signature encryption and more, that later became the Web 2.0 environment that McAfee described.

Englebarths core idea was that this would augment the capabilities of the people using it in such a way as to improve the overall Organizational Intelligence, via a ‘CODIAK’ framework: The concurrent development, integration and application of knowledge. Ie. Users would be much more enabled to learn, share and act on a collective knowledge, to better achieve the organizations goals.

Best practice communities – Enabling an EOS : Expert Operating System

McAfee described a number of points about improving communications, like 'signaling' through RSS feeds, and as well as the technology also talks about how this enables entirely new forms of organization. Social networks that aren't structured in a hierarchical, 'command and control' form but rather as more free-flowing, 'emergent' patterns of self-organization.
These have come to be known as 'Virtual Organizations', referring to the effect of using online collaboration tools to create new organizational groups. In the context of this paper these are called Enterprise 2.0 Networks, due to the role of enabling role of social media technologies.

The ability of these platforms to easily and dynamically create and populate these new structures is what makes the technology so powerful, as users can achieve a very powerful framework for sharing best practices across their business networks.

As McKinsey highlights in their 'Harnessing Your Staff's Informal Networks' article these Professional Communities can be overlaid across the organizations traditional functional structures to augment their abilities to define and share valuable knowledge relevant to their goals and project needs, creating the organizations “Expert Operating System”.

These Best Practice Communities can be achieved through E2.0 functionality such as:

- Blogs and RSS feeds for live sharing of real-time information
- Wikis for equally quick but more permanent knowledge base material
- Community membership features and app tools like e-learning schedule management

In short they offer the same powerful tools as traditional corporate e-learning software systems, but where these were typically monolithic and centralized, only the HR teams could afford to use them, in contrast social media empowers all staff with the same capabilities via lightweight, low-cost software.

In 1992 when Englebart first wrote on these concepts the technology was entirely futuristic, rare and inaccessible. Now as we enter the Cloud age they are readily available on a utility basis from the Internet. Any organization can access these powerful capabilities and repeat the same organizational dynamics, applying High Performance models to activities such as sales, healthcare or consulting, realizing the same benefits.

Microsoft Cloud Solutions

Microsoft is one vendor who offers a software suite for these capabilities, and these can be Cloud hosted and delivered. Out of the box Sharepoint provides features for these new ways of working, like blogs and wikis.

It can then be further extended by other relevant enterprise applications. For example SocialText offers products to enable Twitter-like messaging with options to plug in to Sharepoint (and Lotus Notes).

The key strength of the Microsoft approach is that they offer an integrated software suite. Sharepoint integrates with other products like Office and the Unified Communications product set, which are designed to interoperate across desktop computers, laptops, cell phones and other collaboration tools in a manner that can greatly boost the productivity of what they call 'Information Workers', aka knowledge workers.

In their white paper People working together (13-page PDF) Microsoft describe how their 'Information Worker' product set (Office, Sharepoint, Unified Comms etc.) is ideal for tackling this subject expertise challenge and how it can help deliver other Business Value drivers such as:

- Increase the revenue yield per employee
- Reduce the time taken to respond to customer enquiries
- Capture employee knowledge to eliminate 'brain drain'
• Enable more global dynamism
• Attract and retain top talent
• Increase employee engagement

Unified Cloud Collaboration

As the term 'Unified Communications' suggests these tools are most powerful when combined into a suite, and within an overall context of Cloud Computing this can be quantified in terms of a simple three-stage maturity model:

1. **Unified Communications** – Software-based telecomms which provides VoIP (Voice over IP) that is linked into the desktop toolset.

2. **Unified Collaboration** – This capability is then further integrated with a collaboration application like Sharepoint.

3. **Unified Cloud Collaboration** – Sharepoint itself is then further integrated with the broader Cloud 2.0 ecosystem.

This technology set offers a hugely powerful new paradigm for enabling and unleashing human capital productivity, addressing how quickly and effectively staff can generate, find and act on organizational knowledge.

Sharepoint offers various Enterprise 2.0 features that enable staff to self-describe what organizational expertise they have, and the Lync client can be used as a quick ‘find and contact’ tool.

Critically it can overcome the most ingrained of technology resistance factors. Andrew McAfeedescribed in this older post the ‘9X challenge’, which explains that users won't budge from their preferred email methods, and so tools like the Outlook Social Connector offer a simple but powerful tool to address this issue: Don’t ask users to give up email to use social media, integrate social media into their email.

As this diagram highlights the tool offers a very powerful model where social media updates from across multiple networks can be incorporated directly into the Outlook email client.
This combination also highlights the different aspects of the overlap with Cloud Computing, as these social exchanges are occurring across both internal and external communities.

One of the first steps of an Enterprise 2.0 strategy is establishing a private, intranet version of a social network. This can be achieved with via an application like Sharepoint, which offers the required blogs, wikis, RSS feeds et al.

Then, as the diagram below highlights, there is the question of the security controls architecture.

There are two main factors to this security design:

1. **Cloud VPN** – Using an external Cloud provider to host the Sharepoint site is ideal, however the actual service would be a managed 'Hybrid Cloud' implementation. This extends the current IT environment out into the Cloud provider, in that it creates a virtual bridge between the two, keeping intact the in-house security protocols, like user authentication and encryption. I.e. It uses a public Cloud to operate an entirely private environment.

2. **Cloud API** – Then via integrations this environment can then be connected to the broader outside world, so that users can also maximize their productivity through interactions with popular social networks like Linkedin and Windows Live. This offers productivity-boosting features like synchronizing their local address book with their Linkedin contacts.

This provides the user the ideal collaboration framework, reflecting the full scope of who they interact with and how, and that transparently manages the different levels of security permissions required to do so. Tools like the Social Connector will show their updates across both private and public communities.

These highly secure, outsourced Cloud services can include a variety of other value-add functionalities that leverage the same underlying security components, such as 'Secure Email' – A service that leverages encryption and authentication to protect highly confidential emails.
Salesforce 2.0 – Getting Things Done, Extreme!

To position these technologies within a meaningful business context we can map them to a number of functional and industry scenarios, where the benefits range from productivity improvements at the individual level up through project teams and ultimately to an overall organizational capability.

For example in one first scenario 'Salesforce 2.0' we can look at how they can be applied to achieve the following business benefits, which can be described as “Getting Things Done, Extreme!”

In another recent article 'Being More Productive' the Harvard Business Review analyzed the work of David Allen and his 'GTD' – Getting Things Done methodology, which is the type of working model that can be implemented via these tools.

This can deliver multi-dimensional productivity enhancements:

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<tr>
<th>Personal productivity</th>
<th>Salespeople have access to more streamlined tools for managing contacts, like integrating their contact books with popular sites like Linkedin. They can better manage their time and tasks, and work with teams in real-time.</th>
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<tr>
<td>Project agility</td>
<td>These better working practices can be component parts of equally more agile project management methods, like Extreme Management. The business can more easily incorporate new applications via SaaS models, such as tools for automating proposal generation, greatly speeding up this revenue-critical process.</td>
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<tr>
<td>Organizational maturity</td>
<td>The sales organization can advance its own maturity through utilizing professional communities in key areas like solution practices. This improves employee skills and drives more successful client solution design.</td>
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In short this combination can enhance the inherent abilities of the organization, enabling faster and better quality responses to client opportunities.

Open Government 2.0

For an alternate view of how the same capabilities can be applied in a different industry we can also look at the topic of 'Open Government 2.0'.

This is how the Enterprise 2.0 trend is manifesting itself in the public sector as 'Open Government', the approach to government organizational models that makes them inherently transparent and accountable to the public, and furthermore, involves the public directly in a highly collaborative manner through the use of Web 2.0 social media.

The technologies required to enable this are laid out in a road map plan from the Canadian Government, offering a repeatable blueprint for others to do the same. Their Road map presentation provides a “target architecture” for Business Transformation planning, providing a complete taxonomy for Enterprise Cloud design.

Slide 15 of, Gov2.0 Enterprise Collaboration, covers this area in detail. It describes a foundation of directory systems synchronization, collaboration software and private/public access architectures to enable this complete spectrum of Government 2.0 patterns.
In combination with the core virtualization that Cloud computing offers, it’s this framework that positions Cloud computing as the key technology for enabling Open Government, made up of three distinct tiers of technical architecture features:

- **Cloud VPN**: Via a common user identifier (eg. OpenID) with associated ‘shared access cards’ (eg. Infocards) the ‘GEDS2.0’ platform can enable staff and users to have a single sign-on and synchronized profile across multiple directories and applications. As these become available from hosted Cloud services they will need to federate with these remote environments too.

- **Collaboration apps**: This will provide them streamlined, secure access to multiple business and collaboration applications: A suite of Enterprise 2.0 tools like wikis, blogs and RSS feeds, complimented by those for Unified Communications: Presence, Chat, Conferencing. Enabled by the new Microsoft UC tools like Lync.

- **Open Public Architectures**: Predominately these applications are internal and private to staff, so the development area key to Open Government is how all these systems are opened up for public web access. ‘Open Public Architectures’ will encompass aspects such as Privacy legislations combined with Internet-centric Identity Access systems so that government processes can easily enable public collaboration, accelerated by using Cloud-based collaboration applications.

**Case study - Brevard County Court**

Brevard County Court is one example of a Government body using these new KPM systems via the Cloud, delivered by our vendor partner kloudtrack.

Read more in this three-page PDF about how:

- Transparency and auditability are the critical requirements that drove the project
- An automatic indexing system was set up to scan and archive thousands of documents to the Cloud
- The same screens of the previous legacy systems were maintained to ensure smooth user adoption
- The Cloud application was configured to query an Informix legacy system
- Each step along the way is instantly and permanently placed into an audit trail that can be made available to any stakeholder or citizen of the County.

This case study is a great example of 'Open Government Cloud Computing' - It highlights how there are two key capabilities that it provides:

1. The SaaS platform automates a business process. The agency can move from inefficient paper-based records and workflow, to an online version that is faster and more effective.
2. It also provides citizen access to the records involved in this workflow: "Each step along the way is instantly and permanently placed into an audit trail that can be made available to any stakeholder or citizen of the County."

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Conclusion

The Canadian Open Government Resolution defines that Government agencies should **proactively** take steps to make personal records available to citizens, rather than only reactively responding to Freedom of Information requests to do so.

So in the case of Brevard County they're achieving a double benefit that summarizes the core value of the Enterprise 2.0 KPM approach: They're improving a business process through electronic automation, **and** they're also meeting their Open Government obligations, through providing web 2.0 access to these processes.

Like in the Salesforce 2.0 example, this same double-whammy is available to any other industry or business function. Any organization can combine enterprise social media with improved business process enablement to achieve Knowledge Process Management and enjoy the associated benefits in both improved productivity and cost-savings through process efficiencies.

About the author

Neil McEvoy is the Founder and President of the Cloud Best Practices Network.

He has a track record of pioneering Cloud Computing solutions for over fifteen years, with a particular specialism in **SaaS**, founding one of Europe's first pure-play ASPs at aged 28. The App Tap, a **joint venture with Microsoft** was funded by the UK's leading Internet entrepreneurs including Cliff Stanfords **Redbus Interhouse**, the original founders of **Pipex** and others, and pioneered the first Content Management Portal via a SaaS architecture.

Neil has repeatedly brought a number of leading edge Cloud products to market, including the SaaS-based Microsoft Unified Comms suite for British Telecom, Europe's first enterprise web hosting product set for PSINet and the use of Open Source applications like Drupal for Web 2.0 portals On Demand. Recently he has also founded the **Cloud Ventures Network** to help other entrepreneurs launch new Cloud businesses.

Upon emigrating to Canada Neil has immersed himself in the Government sector, including working for management consulting firm PwC and specializing in developing and applying Open Government Maturity Models to the Canadian Government system. This includes launching the first Open Innovation e-procurement portal **OpenRFP.net**.

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