

What is Web 2.0?

Classnotes for e-business

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There are several views of what is Web 2.0. These are not opposing views but complementary views. Each view highlights something that may have been overlooked by the other views.

View # 1: It is technology for knowledge-based organizations

One view: It is technology that overcomes the limitations of older/dominant technologies employed in knowledge-based organizations. Today's organizations are knowledge-based organizations. They add value not by transforming raw materials but by applying knowledge to transform information inputs (e.g., a problem) into outputs (e.g., a solution). The Big 4 accounting firms can be thought of as knowledge-based organizations. IBM is another company that can be seen as a knowledge-based organization. Though it manufactures computers and computer products, its strength lies more in the design of computers and solutions to industrial problems than in the manufacturing company. More than a decade ago, IBM stopped listing itself as a computer hardware company and started listing itself as a services company.

Web 2.0 is something that helps such organizations. Web 2.0 helps knowledge organizations in a way that older technologies could not.

[McAfee](#) discusses two kinds of technologies as precursors to Web 2.0/Enterprise 2.0 in knowledge organizations.

- Channels - email, IM - very focused from person to person.
- Platforms - intranets (internet), corporate websites, corporate databases (these are repositories), portals.
 - Blackboard is a very good example of what is meant by a platform.

These 'precursor' technologies have limitations.

- Most of the users feel that existing Channels and Platforms are reducing their productivity and they are not happy with Channels and Platforms available.
 - Davenport survey (cited in [McAfee](#)):
 - Users report: email is overused and overwhelms them
 - Majority cannot find what they are looking for on their intranet
 - Channels and platforms are not doing a good job of capturing relevant/useful knowledge of knowledge workers

How are Web 2.0 technologies better than channels and platforms. For us to understand that, let us compare all three technologies on the basis of the dimensions of sharing, precision, and production.

- Sharing captures the level of availability of knowledge. Is it available to many?
- Precision deals with the right information going to the right person at the right time.
- Production refers to authorship rights or authority to publish.

In a knowledge firm, you need high level of sharing, high level of precision, and decentralized production. Why?

- High level of sharing - prevents rework, also enables emergent collaboration.
- High level of precision - avoids information overload and enables the right person to be connected/contacted at the right time.
- Decentralized production - you never know where the good ideas will come from.

Web 2.0 is seen as something that overcomes the limitations of channels and platforms.

	Sharing enabled (high/low)	Precision enabled (high/low)	Production (centralized/decentralized)
Channels	Low	High (maybe moderate because information may not reach at the time when it is needed but may even reach sooner and get lost)	Decentralized
Platforms	High	Low (search is often very poor)	Centralized - decentralized (e.g., bboard is largely centralized but discussion board is decentralized)
Web 2.0	High	Moderate to high (e.g., better search than platforms; people who are interested can subscribe to alerts thereby reducing the overload problem that you would inflict on others if you send your stuff to everyone)	Decentralized

View # 2: It is technology for emergent collaboration

Second view: It is technology that

- enables widespread collaboration, including emergent or spontaneous collaboration, and
- puts a human face on organizations, its workers, and their work.

What is emergent collaboration?

- It is collaboration that cannot be planned.
 - Example:
 - <http://hbswk.hbs.edu/archive/4928>
 - LeadingVirtually.com says the following about the emergent collaboration example at <http://hbswk.hbs.edu/archive/4928>:
 - *While the goal of collaboration was known from the beginning, there was no prior determination of who the collaborators will be or the collaboration process itself. Nor was there a leader who guided the whole process. The collaboration evolved from a single person's problem and relevant individuals were engaged when their expertise was needed. The next steps were determined just prior to their execution, taking into account whatever that had happened till then.*

Third view

: It is technology that puts a human face on an organization.

What does putting a human face on an organization mean?

Prior internet technologies projected organizations as mechanistic system, i.e., systems that produced something (a service or product) without highlighting the human element in the organization.

- - Putting a human face on an organization implies that you don't just present a highly sanitized and mechanistic view of the organization.
 - You also present something that shows that those working in an organization are humans and are no different from others. They go through the same life events that the rest go through. They have the same differences in perspectives like the rest of us do and so on.
 - This implies that people from different corners should be allowed to participate in putting a human face on the organization.

View # 4: It is technology with SLATES features

Fourth view: This is a features based view provided by [McAfee](#) that describes the features of Web 2.0 technologies. These features are indicated by the acronym SLATES, which stands for:

S: *Search*

- users have the ability to find what they are looking for

e.g. indexes, sitemaps, keyword searches

Today, Google is not only searching "public" pages on the web, it can also be easily used to search the information (e.g., web pages, files) stored within your "intranet" with the help of [Google Mini Search Appliance](#).

L: Links - linking by people signals information or sites that they find to be relevant for a particular topic. e.g. When Google ranks any web page for a particular search phrase, it uses the information about how many other web pages (from other sites) have linked to that page. Greater the number of relevant links, the higher the rank. Note that this could be misused by people to influence the rank of their page (e.g., by setting up pages on other servers linking to their page of interest) or to associate something irrelevant with somebody's page. For instance, for a while during George W. Bush's presidency, the phrase 'miserable failure,' when entered in Google, returned whitehouse.gov because there were many people who had set up web pages that associated George W. Bush with miserable failure. This process of setting up links to influence the ranking of a page is known as Google bombing or Google washing. Google has modified its search algorithm to figure out the presence of Google bombing.

A: Authoring - refers to the ability of a broad set of individuals having the ability to author/ write and contribute knowledge, insights, experience, comment, and edits.

e.g. Blogs (Individual posts and responses) and wikis (people undo and redo each other's work)

T: Tags - categorization of content or simple, one word descriptions of content. There are two types of

categorization schemes: folksonomies and taxonomies. Web 2.0 technologies rely on folksonomies (remember: power to the masses).

folksonomy - a categorization system developed over time by ordinary "folks"

e.g. Delicious.com allowing you to tag your bookmarks and Amazon allowing users to tag items to buy

taxonomy - which is an up-front categorization scheme developed by one or more experts.

E: Extensions - these extend your knowledge by suggesting what may be relevant to you. They extend via automation of categorization and pattern matching (algorithms to say to users, "If you liked that, then by extension you'll like this.")

e.g., Amazon's recommendations were an early example of the use of extensions on the Web.

Additional examples

Articles related to this topic" of "Similar articles" feature of many news sites that direct you to other possibly useful and relevant articles.

Some discussion boards may also direct you to other posts that might be relevant when you are looking at a particular post.

S: Signals - technology to signal users when new content of interest are added

e.g. email alerts, RSS "really simple syndication" (headlines/short notes to alert of updates and might include a link to to the full content).

What is Enterprise 2.0?

Enterprise 2.0 are Web 2.0 technologies applied within a firm's firewall.

- Enterprise 2.0 comprises social software as used in "enterprise" (business/commercial) contexts. It includes social and networked modifications to corporate intranets and other classic software platforms used by large companies to organize their communication.
- In contrast to traditional enterprise software, which imposes structure prior to use, enterprise social software tends to encourage use prior to providing structure.

Potential problems with Enterprise 2.0

- Busy workers may not spend their time using the new technologies, regardless of training
- Enterprise 2.0 may not fulfill its intended purpose
- The material may be off-topic or inappropriate
- Managers will have a tough time determining their level of involvement
- Generation gap between older workers and younger workers will become more pronounced with the use of new technologies
- Enterprise 2.0 often requires changes in organizational structure and culture. It may also require

changes in leadership and how work is carried out. All of these changes can be challenging for managers to carry out or implement.

Examples of Web 2.0 technologies

- Email 2.0
- Blogs
- Microblogs
- RSS
- Podcasting
- Wikis
- Virtual worlds
- Mashups
- Social networking
- Video Sharing Sites