

## The Three Pillars of 'Corporate Web 2.0': A Model for Definition

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**Abstract:** There is plenty of hype around the term *Web 2.0*. While the change of the web has gathered increased attention from the Web 2.0 community itself, it seems that the corporate world feels unconfident how to apply the principles of the Web 2.0 to their businesses. Due to the ambiguity and fuzziness of the concepts describing Web 2.0 there is a lot of uncertainty. Highly affected industry branches like the media industry show interest but their fears of losing their competitiveness because of not knowing how to handle the phenomenon Web 2.0 are evenly strong. Nevertheless, little academic work has been conducted on the implication of Web 2.0 to the business domain. This paper bridges the gap in having a deeper look into the phenomena of Web 2.0 leading to the development of a more graspable model for corporate use of Web 2.0 encapsulating a business focus and hence defining the term *Corporate Web 2.0*. By showing how the introduced model is applied, it helps companies including the media and other businesses to derive a business value from the new Internet.

**Keywords:** Web, Web 2.0, Corporate Web 2.0, Business Model, Business Processes, Social Aspects of Web, Technological Aspects of Web, Business Aspects of Web

**Categories:** A.0., A.1., J.4.

### 1 Introduction

In the year 2004 the term *Web 2.0* was first introduced by Tim O'Reilly to summarize a set of principles and practices attracting attention. Three years later, a vast number of corresponding applications and more than 1400 Web 2.0 start-ups [web2slides, 07], [MapofWeb2.0, 07] considerably signalize that Web 2.0 is throughout the land.

The Web 2.0 – circumscribed by eight principles [O'Reilly, 04], however not concretely defined – has emerged as the new powerful and dynamic user centred web, by default equipped with social features. The majority of Web 2.0 applications including podcasts, blogs and wikis are designed according to the principle of user generated content. These facets of Web 2.0 making the users the masters of the

dynamics created hype on the web. In the Web 2.0 world users and their interactions (connect, communicate and collaborate) are the sources of information shaping a kind of collective intelligence. Companies naively tried to copy the success of companies like Amazon ([www.amazon.com](http://www.amazon.com)) and Spreadshirt ([www.spreadshirt.com](http://www.spreadshirt.com)) which have entirely based their business on Web 2.0.

The McKinsey Global Survey How businesses are using Web 2.0 presented a widespread but careful interest in Web 2.0 technologies by companies around the globe [McKinsey, 06]. Companies want to adopt Web 2.0 for being more successful in their business, but the ambiguity surrounding the business perspective as regards Web 2.0 seems to hinder high adoption rates in the corporate environment.

Analysis of the discussion on the web and the results of related surveys [McKinsey 06], [ArthurD.Little, 06], [BoozAllenHamilton, 06] revealed the demand for a clear concept for Web 2.0 in the business context: Three main observations have been levied: (1) People talk about Web 2.0 in the company with different concepts and definitions in mind. (2) The internet showed some tendency towards monopolization: principles and patterns of Web 2.0 have been partly derived from the large web-companies surviving the 2001 dot-com bubble, but nevertheless these companies were founded without having knowledge of these principles. From the perspective of the authors, those principles cannot be simply applied to the large number of SMEs trying to get some business value from the Web 2.0. (3) To the best knowledge of the authors, there are very few scientific publications outlining the organizational impact of Web 2.0.

For that reasons, the authors try to define the term Corporate Web 2.0 by introducing a more general model as an effort to remove the ambiguity of the concepts of Web 2.0 in the business context. The paper proceeds with Section 2 discussing the special demand of clearer concepts to the media industry which is highly affected from the new trends on the internet. Section 3 takes a deeper look into the phenomenon Web 2.0 and tries to spot generic new elements of Web 2.0, finally leading over to the presentation of a model for Corporate Web 2.0. Section 4 addresses the ability of Web 2.0 of reshaping companies with respect to the predefined model. The paper closes with a conclusion and refers to future work in section 6.

## 2 Relevance of Corporate Web 2.0 to the media industry

There are three ways to look at how a society is informed: The first is that people are trusting and will read, listen to and watch what is provided to them. Second, people seek out for an informed broker to tell them what is important for them. Third, people can, because of their smartness, sort out relevant things for themselves and may find their own vision of the truth [Bowman, 03]. Already in 1995, Nicolas Negroponte [Negroponte, 95] predicted that readers of online news would be given the ability to choose only topics and sources of interest to them. He called it the *Daily Me*. Guardians of traditional journalism were grumbling but nevertheless the portals of online media industry showed a huge tendency towards enabling personalization for their customers. What Negroponte was not able to predict in 1995 is the fact that in the future people will not only refer to the personalization of media-content delivered to them by means of personal filtering. In addition, collective filtering will be done by

the internet-audience to separate the subjectively interesting material from junk. So Web 2.0 has introduced a fourth way on how the society is informed – a user driven way. With regard to Web 2.0 the media industry is perpetually losing its traditional role as an intermediary and gatekeeper to the world of content.

As outlined above, the media industry is one of the industries that as a result of the relationship to content and media-channels is highly affected by what is summarized under Web 2.0. The huge participation of the users combined with the enormous quantity of content created by them has sent an alert to almost all the business divisions. Its implications to the content or media related businesses including music companies, news agencies, publishing companies and television companies led to an evolution of innovative business start-ups handling this type of content. Traditional media companies belonged to the forerunners, showing interest in the challenges and opportunities arising from the new internet. Nevertheless, due to the lack of concrete concepts and models they started to fear for their competitiveness because of expecting market segment loss on the battlefield internet.

The new internet era of content creating users ([www.flickr.com](http://www.flickr.com), [www.digg.com](http://www.digg.com), [www.youtube.com](http://www.youtube.com), [www.slashdot.com](http://www.slashdot.com), ..) together with the visible growth of users favouring the consumption of user created content over the content created by the media industry is deemed to show a huge impact on the traditional media business. The ease of use in transparent, collaborative and participatory environments together with networking constitute the pillars of the new media paradigm. The relevance of this topic for the media business is pictured by a number of activities carried out by media business. A German example is the buy-in of Pro7-Sat1 Consortium, purchasing a 30% share on myvideo ([www.myvideo.de](http://www.myvideo.de) interweaving user created content from myvideo with traditional television broadcast).

The explanation of the phenomenon Web 2.0 by referring to a more concrete model will serve as the foundation for media companies gaining benefit from Corporate Web 2.0. Though knowledge of such a model is fundamental, it is not limited to the media industry. The work provided in this paper will remove the ambiguity from Web 2.0 in the corporate context and will be the basis for the development of more conceptual business strategies based on Corporate Web 2.0 by the companies.

### **3 Towards a definition of Corporate Web 2.0**

#### **3.1 A deeper look into the phenomena of Web 2.0**

The term Web 2.0 is understood in different ways by different people, depending on the domain of the community they belong to. Depending on the discipline its focus is set to (1) a set of helpful technologies that support in different ways including the support of social interactions on the web (e.g. Computer Science), (2) a social phenomenon resulting in the creation of communities and social-networks by using technology (e.g. Sociology) or (3) a creator of business value derived from technological and social structures of the new web (e.g. Business Administration).

From the perspective of the authors of this paper, Web 2.0 is a natural evolution of the web, not driven by a particular social or technological change. From a more generic view, the new elements of the Web 2.0 compared to what is generally

understood by the old web can be reduced to (1) the technical simplification of tools for content creation, social interaction and community building due to the rapid technological evolution of the web and (2) the need of humans for social interaction with like-minded people which they more often locate on the web and (3) the fact, that the web became an important part of knowledge societies. To sum up, the web became more interesting, gaining the attraction of a lot more users, hence moving itself away from the web of the big institutionalized content creators and technocrats towards the web for everybody. To the business perspective, this implies that (1) more valuable data is automatically created by the users bottom-up leading to the opportunity of transforming this data into a business value by using currently developed methods [Fueller et al, 04] and (2) more users on the web imply more consumers since the web is seen as global marketplace from the perspective of the companies.

The adoption of Web 2.0 from the perspective of the companies encapsulates a strong business focus. Companies will grab the social and technological aspects inherited by the Web 2.0 in order to gain more efficiency and effectiveness in reaching the business goals leading to the *business aspects*. From the perspective of the authors of this paper, corporate usage of Web 2.0 (referred to as: Corporate Web 2.0) encompasses three different aspects: *Technological aspects* make up all the well known technologies and tools such as blogs, wikis, content syndication tools, ajax, dhtml and more. *Social aspects* reflect a mind-shift of the users who are encouraged taking part in the development of new social structures and content. This leads to the creation of virtual communities and social networks all over the web making the knowledge of the users explicit and helping a collective intelligence to develop [Kolbitsch, 06].

### 3.2 An approach for definition

*Corporate Web 2.0 can be defined as transformation of the social and technological aspects of the new internet into business, leading to a redesign of existing business processes or even to an evolution of new business models.*

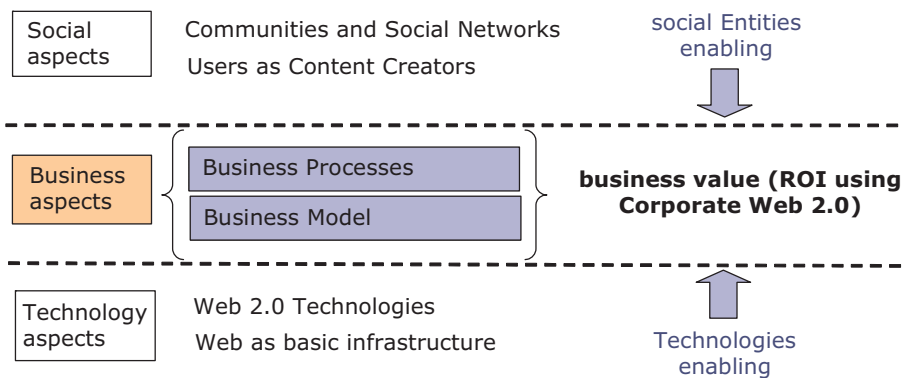


Figure 1: A model for Corporate Web 2.0

The business of a company can be defined by considering (1) the business model and (2) the business process model. While the term business process has achieved quite a good understanding of what it actually describes, the term business model is often interpreted in different ways. Hence the meaning of the term business model is explained by the authors with regards to the relevant literature.

The management of a company naturally derives its business strategy from the business vision in a first step. Second the business model, which can be seen in a nutshell as the logic of a company describing how to generate revenues, is shaped out of the business strategy. According to Timmers [Timmers, 98] the term 'business model' describes *'an architecture for the product, service and information flows, including a description of the various business actors and their roles; and a description of the sources of revenues'*. Osterwalder [Osterwalder 04] introduces a good explanation of what a business model actually does: *'A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money. It is a description of the value a company offers to one or several segments of customers and the architecture of the firm and its network of partners for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams.'* Bergholtz [Bergholtz, 02] define a business model as a model concerned with value exchanges among business partners describing the *'what a company does'*.

According to the ISO Standard ISO9000:2000, a process is a *'set of interrelated or interacting activities which transform inputs into outputs'*. A business process model focuses on operational and procedural aspects of business communication, describing *'how the company does its business'* [Bergholtz, 02]. A business process is related to a concrete business activity like innovation, marketing or service and support.

In the traditional web business was quite different: The content available on the web was either created by the companies themselves or commercial content like advertisements. Links to the business processes were very weak or not existent. Many talks were based upon the influence of the technological impact of the internet to consumer to consumer, business to consumer or business to business scenarios.

In brief, technological and social phenomena have to be embedded (1) in the business processes, reflecting a stronger interweavement of business processes with the web or (2) in the business model itself. In a Corporate Web 2.0 environment employees, customers and partners contribute value on the one hand and obtain value on the other hand in a win-win scenario. Going for Corporate Web 2.0 introduces new feasibilities of engaging the stakeholders in a way in which both sides benefit.

#### **4 Opportunities for Corporate Web 2.0**

Companies may gain a business advantage by applying the Corporate Web 2.0 at some or even all of its business processes if the business is strongly interwoven with the web. As well, Corporate Web 2.0 enables the conceptual design of new business models. Hence the opportunities for companies in generating a business value from Corporate Web 2.0 logically relate to the dependence of the companies' business on the web. Companies like Google or Yahoo are strongly interwoven with the web and therefore might gain the maximum business value from Corporate Web 2.0.

Production-oriented companies like Audi or Nokia can benefit from reshaping some of the business processes to adopt Corporate Web 2.0 according to their business strategy.

The figure below shows the causality of the opportunities of Corporate Web 2.0 to generate business value to the dependence of a business on the web.

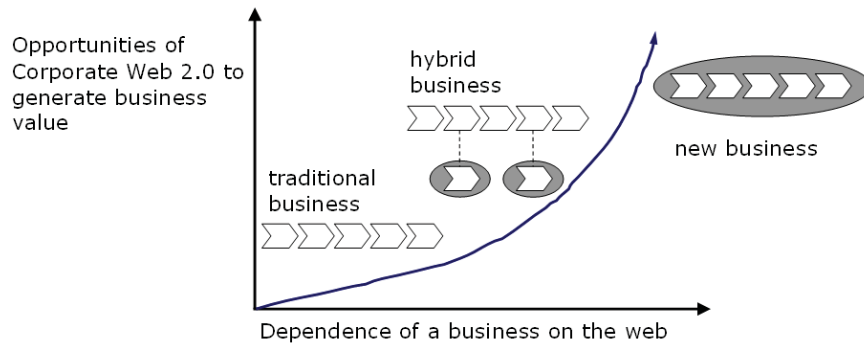


Figure 2: Corporate Web 2.0 and Dependence of Web for the business

First, the dependence of a business on the web can be measured in terms of number of business processes, which are interwoven with the web. The more business processes interwoven, the higher the number of opportunities for the companies in creating value from Corporate Web 2.0. Metcalf's Law and Reed's Law described the relationship of value and utility of a network with its size. Since Corporate Web 2.0 is about users such as employees, partners and consumers the non linear increase according to both laws is mapped to the factors on the two axes.

Five cases of companies considering the three pillars social, technological and business are presented in the next paragraphs. The corporate use of Web 2.0 (Corporate Web 2.0) focuses on the business perspective. Business processes showing more tendencies to the social structures of the web are more adequate to adopt Corporate Web 2.0: Innovation, product-development, marketing or service and support are empowered by the opportunity to benefit from the new knowledge structures on the web.

The development of the new infotainment console for Audi cars ([www.audi.com](http://www.audi.com)) was driven by the users, visiting the Audi web-site [Fueller et. al, 04]. By the use of an interactive product-configuration-tool, expectations, preferences and trends were spotted with the help of the Audi community. Community based innovation opened up the innovation process to the web leading to a more accepted product-design on behalf of Audi's customers.

Lego ([www.lego.com](http://www.lego.com)) introduced the concept of LEGO-Ambassadors, a community based program of LEGO hobbyists sharing their experience. Product development was opened to the Virtual LEGO-Communities gathering knowledge about preferences and wants, leading to the development of high price LEGO products such as the Imperial Star-Destroyer from Star-Wars which would not have been developed without the intervention of the community. These products became a huge business success.

Fender ([www.fender.com](http://www.fender.com)), a manufacturer of guitars and related equipment founded in 1946 adapted its marketing process when launching its new campaign grounded on the sharing for multimedia-content on the web. The primary goals to reach more customers in a more innovative way and to attract more users to the Fender website were definitely achieved.

Beside that, a series of companies with new business models according to Corporate Web 2.0 has emerged. Two examples of companies, with business models based on content created by the users are introduced.

Revver ([www.revver.com](http://www.revver.com)) provides a web-site for sharing user generated videos. Unlike Youtube Revver does not focus on social-network and community-building, but on marketing and value creation. Revver established a technology for the monetary valuation of user generated content by connecting users with potential companies acting as sponsors in a marketplace. The more views a video gets the more money the user can realize. The most popular video was viewed over 4 million times generating \$25,000 for the amateur producers [ZdNet, 07].

Ideawicket ([www.ideawicket.com](http://www.ideawicket.com)) provides an 'Open Innovation Portal' as an instrument for innovators to socialize their concepts and products as well as for companies to source innovation from customers. Users are able to post ideas of products or services of need which are not available on the market yet. The amateur inventors will be connected to companies seeking out for innovative ideas for product development. Innovators and Companies can connect by using this platform. Companies may achieve a fresh perspective on new prototypes saving costs for creativity, while innovators are given a chance to present their ideas and concepts plus realization of value.

## **5 Conclusion and Future Work**

In this paper the authors took a deeper look into the phenomenon Web 2.0. As a main contribution, a model of 'Corporate Web 2.0' focusing on the business perspective was developed. The predefined model highlighted the necessity of transferring social and technological aspects into business processes or the business model itself. Companies are enabled to act and find innovative ways using the model presented in the paper.

This paper established a foundation work which will be followed up by future contributions on the ascendancy of Web 2.0 on organizations. Future research will also include standard concepts for stake-holder engagement according to the Corporate Web 2.0 model, addressing the question to which extent social and technological aspects are valuable in this respect.

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