Web 2.0 is currently the subject of much debate in (expert) public circles – with one of the driving factors being the increasing private use of social media. The growing popularity of the phenomenon – not only among young people – confronts decision-makers with the question of whether they want to deploy Web 2.0 tools actively in their own company. Companies can no longer ignore Web 2.0: the fact that the young generation is making a habit of Web 2.0 indicates that its importance will increase in future.

Today, 20% of the companies in the US and Europe use blogs, forums or wikis for internal or external purposes. Web 2.0 applications offer the opportunity to develop networked exchanges and consolidate knowledge. Web 2.0 builds on the input of the participants. In this way, Web 2.0 tools offer recognisable advantages over Web 1.0 communication and traditional knowledge management.

Web 2.0 use is predicated on a corporate culture that is big on openness and transparency. Companies must ask themselves the basic question of whether they are ready for this. Clear targets and supportive management are key to the success of Web 2.0 projects.

Sequencing: first in-house, then externally – first light-touch, then process-oriented. Companies often start to experiment in-house with Web 2.0 tools before they actively involve their customers or suppliers. Communication and marketing are still the primary objectives linked with Web 2.0 today – but there is also potential to be tapped in the areas of innovation and collaboration.

External use: experiments with social networks and microblogging. Frequently, companies recycle information produced for traditional corporate communication on these platforms. But this has little impact on corporate processes and their communication culture. This contrasts, for example, with a corporate blog that opens the door to the critics and their issues, demanding an open exchange of views.

Wikis, forums and blogs have popular appeal

“What are your firm’s plans to officially support or adopt the following Web 2.0 technologies, whether for internal or external purposes?”

![Source: Forrester Research Inc., 2010]
Web 2.0 – many variants
The term Web 2.0 is used very unspecifically. Forrester Research defines Web 2.0 as a set of technologies and applications that enable efficient interaction between people, content and data for the purpose of jointly developing new business fields, technologies and social structures. The term “social media” is usually used at the application level and particularly emphasises the meaning of the input and content submitted by users (user-generated content). Since our arguments in this paper are based on the application level, we use the terms Web 2.0 and social media largely synonymously.

Social media comprise, for example, blogs, wikis, microblogs and social networks. Social networks are playing a growing role in public debate (see chart 1). The focus here is on network communities that serve to link up members with the aid of profiles and contact lists.

* See Young, Oliver G. (2008). Global Enterprise Web 2.0

Web 2.0 has been all over the front pages of news media everywhere—at the latest since Time Magazine selected “You” as Person of the Year in December 2006. Numerous Web 2.0 applications have attained great popularity over the past few years: for example, the social network Facebook has advanced in many countries of the world to become the Web 2.0 platform with the largest number of unique users. However, social media are no longer just a preserve of the young generation, who communicate with their friends via StudiVZ, for instance. Wikipedia and numerous other consumer platforms are examples of applications that are gaining popularity also with middle-aged people.

For companies, though, considerable uncertainty continues to surround the meaning of Web 2.0 in the business environment (see box for definition). For this reason, many companies have not yet gone beyond experimenting with individual applications. This reluctance is partly fuelled by the fear that Web 2.0 might prove to be the latest hype that will dash hopes just as rapidly as was the case, for instance, when the bubble burst in the days of the new economy.

The aim of this paper is to analyse what scope there is for companies in conventional industries to deploy Web 2.0 technologies. Our analysis deliberately excludes the sectors heavily shaped by information and communications technologies (ICT) such as the media industry, since Web 2.0 is changing the business model of such sectors and in this respect assumes a special role there.

The environment: Web 2.0 on the advance
Web 2.0 offers have enjoyed growing popularity for a number of years. More than 25% of Germany’s web surfers over 14 years of age visit the online encyclopaedia Wikipedia regularly, i.e. at least once a week (see chart 2). A slightly smaller share of these users has registered a profile in a private social network or watches films on video portals. These three applications are the “top attractions” in the Web 2.0 world in Germany. Their use is still being driven by the cohort of people up to 29 years of age. Approximately 60% of this age group use video portals or private social networks weekly (see chart 3). Among older citizens the share of users declines, but the drop-off rate differs considerably depending on the various offers. No less than 45% of the 40-49 cohort occasionally visit video portals and some 20% of 30-59 year-olds visit photo communities. So some Web 2.0 offers are increasingly finding their way into people’s everyday lives. By contrast, blogs and professionally used social networks are not very popular among Germans.

Today, the passive reception of Web 2.0 content continues to prevail. According to the ARD/ZDF-Onlinestudie 2009, a report commissioned by Germany’s two main public broadcasters, a good 30% no less of the respondents are fundamentally interested in composing their own contributions and posting them on the internet. In actual fact, though, for most applications the share of online users producing so-called user-generated content ranges in the single digits. Even Wikipedia and YouTube are consumed largely passively in the majority of cases (see chart 4). The exception is the private networks, as they cannot be used sensibly without registering a

profile of one’s own. The platforms visited less in absolute terms, such as photo communities or blogs, have much more active participants from a relative point of view (see chart 5). The frequent claim that Web 2.0 is a real, broadly-based “participatory web” is thus only partly correct. The fact is that only a small circle of internet users are active participants.

Last year, the microblogging service Twitter attracted a particularly great deal of attention. This was driven partially by the scoops delivered via Twitter – such as the emergency landing of an Airbus on the Hudson River. Twitter users post “tweets” to inform so-called followers about their own opinions, news and experiences in real time, or else to obtain information themselves. This boosts the speed of the information flow, which results in a rapid dissemination of important news in particular. Studies show that this microblogging service is posting robust user growth. According to a survey by Nielsen, the market researchers, Twitter had 2.3 million unique users in Germany in March 2010 (+123% yoy). This underlines the growing significance of social networks in a mobile context. One qualification that ought to be made, however, is that many people tend to use Twitter sporadically.3

Web 2.0 is of relevance to companies

The rapid dissemination of Web 2.0 technologies, among young people in particular, has changed the form of media consumption and the way media are used generally. What does this mean for companies?

— At present, it is probably easier for companies to reach young people via Web 2.0 applications than the 40- plus cohort. The internet in general and Web 2.0 tools in particular will increasingly become established as important communication channels for businesses to make contact with minors and young adults. This holds particularly because this young generation is making less and less use of traditional media such as newspapers and is therefore increasingly difficult to reach via companies’ conventional press releases or newspaper advertisements. Social media can play a major role, for example, in recruiting or in the marketing of products typically purchased by this generation.

— The so-called cohort effect, i.e. the ageing of young intensive users, will foster increasing diffusion of Web 2.0 solutions and a growing perception of the internet as an entertainment medium in the public at large. This is likely to be valid even when it is taken into account that as young people join the labour force they will have less time for networking activities. This generation has already made Web 2.0 a habit.

— The choice of tools is important: video portals and social networks are visited more frequently than blogs, i.e. communication via these platforms generally has a broader impact. Today, a corporate blog can reach only a limited potential user base. Nevertheless, this (small) community may be valuable to the company and help to effectively seal customer ties.

— From a business point of view, moreover, it is significant that consumers have great faith in the ratings and recommendations of other consumers (see chart 6). The opinions expressed on the

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2 http://www.nielsen-media.de/pages/download.aspx?mode=0&doc=690/NO_Social_Networks_05-2010.pdf
internet thus influence the reputation of products and services as well as of the company as a whole and impact the purchase decisions of potential customers accordingly.

**Consumer trust recommendations**

User motivation within social networks

"Do you tend to agree fully or partially with the following statement?", % of respondents

<table>
<thead>
<tr>
<th>Statement</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>When members recommend products I look at these offers</td>
<td>50.5</td>
</tr>
<tr>
<td>When I am convinced by a product I recommend it to other members</td>
<td>60.1</td>
</tr>
<tr>
<td>One quickly learns a lot about other members</td>
<td>69.1</td>
</tr>
</tbody>
</table>

*Sources: Digitalbarometer, TNS Emnid, 2008*

**What is Enterprise 2.0?**

Companies interested in Web 2.0 can become engaged in existing online platforms and/or go about investing in in-house Web 2.0 platforms for internal or external use. The latter is usually referred to as Enterprise 2.0. In the corporate context, Andrew McAfee defines Enterprise 2.0 as self-organising (emergent) social software platforms that are used in-house or between companies and their partners or customers. The decisive innovative element is that this spontaneous networked communication between users via Web 2.0 applications causes new, unplanned structures to appear over time. This decentralised, interactive knowledge production is predicated on the participation of users and the production of content by the users (so-called user-generated content). O’Reilly calls the underlying principle “harnessing collective intelligence”.

In this narrow definition that ultimately focuses on corporate investment in Web 2.0 tools, Enterprise 2.0 has an internal and an external dimension. Web 2.0 platforms may be deployed within the company to improve processes, foster collaboration and generally encourage knowledge exchanges. Outside the company, relevant functions include, for example, marketing, reputation and issue management, image building, recruiting, and collaboration with experts or suppliers, e.g. on product development.

Going by this narrow definition, the use of platforms such as YouTube or Facebook for marketing purposes would not fall under the heading Enterprise 2.0. However, the presentation of videos on filesharing platforms and/or a profile in Facebook, for example, represent new communication channels and new ways of addressing customers. An increasing number of companies are attempting to use these media to establish contact with customers and introduce them to their products, services or other activities. These platforms are also gaining considerable significance in terms of public relations work, since journalists are increasingly turning to them as research tools.

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Meaning of Web 2.0 goes beyond Enterprise 2.0

Moreover, it is important for corporates in the context of reputation management that they hear the many voices of customers and the broader public on matters such as a company’s products, services and advertising campaigns. So the relevance of Web 2.0 for companies extends beyond Enterprise 2.0 and thus beyond the platforms or tools in which a company itself invests. In what follows, though, we shall concentrate initially on Enterprise 2.0 tools.

Established communication channels have weak spots

What objectives do company officials pursue by using Web 2.0 tools in-house or externally, e.g. with customers or suppliers? The starting point is the realisation that the communication channels used to date have shortcomings and that in the past most knowledge-management systems only functioned inadequately. But today, efficient knowledge-management systems are of major significance: the global division of production in many sectors, an often only short period in which employees remain with a company and the increasing complexity of products and processes are only a few of the relevant driving forces. Therefore, numerous companies are seeking to replace existing systems or supplement them. The weaknesses of “Communication 1.0” include the following aspects:

- E-mail allows bilateral or multilateral exchanges of ideas only in closed groups. Information is made available to a limited circle of addressees. This information cannot be viewed by other users or examined in detail.
- It is not uncommon that employees and customers perceive communication via e-mail to be a deluge of information that can only be handled with difficulty.
- Company platforms (intranet, company websites, information portals) only contain content produced, selected and authorised by selected employees or editors. They deliberately refrain from communicating with the reader. The reader cannot “leave any traces”.
- On company platforms only a small percentage of the employees produce content or documents or are even represented at all.
- At big companies, information is frequently exchanged mainly within corporate divisions or departments.
- Data are saved locally and are thus only accessible to a limited circle of users. These systems are therefore often intransparent.
- Business partners and customers cannot be enabled to participate (e.g. on product development or for feedback), or only at extra expense.
- Knowledge is usually not consolidated effectively.

Weaknesses of Communication 1.0:

From deluge of information ...

- ... and monologues ...

... right up to silo communication

Web 2.0 is not a panacea

The shortcomings of traditional Communication 1.0 discussed here are found at different levels. They do not apply equally to the various communication channels and platforms. Therefore, it would be wrong to raise the impression that there is the “one” Web 2.0 tool that could be deployed as a panacea to handle all of the problems mentioned.

Enterprise 2.0 applications have clear advantages

SLATES puts characteristics in a nutshell ...

- **Search**: simple search for content via the search function; 
- **Links**: refers to additional relevant content, with the pages considered by users to be particularly worthwhile being linked in most frequently; 
- **Authoring**: simple publication or editing of content; it is possible to differentiate between individual authorship with cumulative content (i.e. individual posts and responses to them accumulate over time in blogs, for instance) and author groups with iterative content (i.e. individual contributions are continually supplemented and changed); 
- **Tags**: users assign keywords, giving rise over time to a user-driven categorisation and prioritisation of pages used (so-called folksonomy); 
- **Extensions**: extrapolation of behaviour observed online to derive recommendations for future behaviour; 
- **Signals**: subscription functions make users aware of new content (e.g. via RSS feeds).

... and results in benefits

These characteristics enable the derivation of crucial advantages for Web 2.0 applications, such as wikis and blogs, for knowledge management and communication: the content generated is openly accessible and permanently visible. The tools enable commenting, so that those people who might otherwise not have been able to participate can integrate their knowledge. At the same time, the interaction between the known partners and their output is documented. This means that the communication and production process may also be retraced by readers who were originally not involved. In this way, information is consolidated and made available company-wide or for the participating group. This is an advantage especially in large companies since the larger the company the more difficult it is for employees to obtain required information that is available inside the company but outside their immediate remit.

Empirical studies show in fact that companies with complex structures and several locations on different continents use Web 2.0 technologies more intensively than companies with a single location. Web 2.0 tools thus have the potential to overcome some of the weaknesses of the communication and knowledge-management systems currently in use.

Web 2.0 in the company: It’s all about culture!

Companies have to clarify their objectives and address various strategic issues to be able to make sensible use of Web 2.0 tools for their purposes. First of all, a very basic question must be asked. Are Web 2.0 tools, such as a corporate blog or a wiki, a good fit for a company and its corporate culture? Will potential adjustments to the format damage the credibility of the medium? As blogs can sometimes be rather provocative and the unvarnished communication

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and comments pretty blunt, they may not be compatible with a company's image. Web 2.0 tools generally reduce management’s ability to exercise control. They could also be used to depict negative developments within the company. Furthermore, the use of blogs or wikis within the company may lead to conflicts, since the contributions are produced on a decentralised basis and not released by the management. This form of communication is predicated on an open corporate culture that also allows hierarchies in the company to be circumvented. Practical experience shows that the culture issue is critical for the success of Web 2.0 technologies in companies.

Define further steps  Once the basic decision in favour of Web 2.0 tools has been taken, the next steps have to be defined:

— The targets to be achieved with the establishment of Web 2.0 tools have to be precisely defined and coordinated with the company's aims. If, for example, employees and external developers set up a corporate blog on the subject of software development, this gives rise to a knowledge pool that is of considerable use to a software company itself. This direct congruence of aims may not exist at companies from other sectors, though. The target definition also goes hand in hand with the target group.

— Are Web 2.0 tools to be used within the company or externally in order to communicate with customers, suppliers or experts? Numerous companies are initially experimenting with Web 2.0 tools on an internal basis before rolling them out for public relations purposes.

— The decision on what Web 2.0 tool to use is directly linked with the job of target definition. A wiki is a tool ideally suited to collecting and consolidating knowledge. The exchange of ideas in the framework of an innovation process or the discussion of possible solutions when implementing an IT tool is more appropriate, however, to a blog or a forum.

Limited transferability to companies  In addition, it needs to be taken into consideration that the way Web 2.0 functions on the internet cannot be directly transferred to the corporate context. The application conditions in the company are generally different from those on the internet. Currently, over 1 billion people send and receive information online. The lion’s share of the information is available to the public. The participants interact and network in a largely hierarchy-free environment and their actions are driven in most cases by their own interests.

Hierarchy may be a problem  The picture differs in the corporate environment. Companies are hierarchical formations that manage their corporate communication both internally and externally. In doing so they have to take account of the fact that sensitive information, e.g. on the firm’s business strategy or research activities, should not enter the public sphere in uncontrolled fashion. Furthermore, the way Web 2.0 platforms function in a company may be restricted in that the number of employees or relevant customers is generally limited. This can reduce the number of relevant contributions in a blog or the quality of a wiki. Further factors which have to be taken into consideration are the time needed by employees in their work environment as well as the incentives to actively participate in Web 2.0 media. If there are sizeable restrictions the success of Web 2.0 tools may fail to materialise.
Priority on participation and networking

The evaluation of numerous case studies on internal corporate Web 2.0 projects and surveys has shown that wikis, discussion forums and blogs are the tools used most frequently in internal collaboration. They are mainly found in the areas of knowledge management, education and training as well as generally to support communication and cooperation within the company. A large number of the initiatives we examined had the following targets in common:

- Employee participation via provision of content;
- Employee networking;
- Higher transparency, by making dialogue-style information flows visible and traceable;
- Structuring content and reducing complexity;
- Setting up a central search function;
- Archiving entries;
- Self-determined information management for employees.

Only few have an overarching strategy

Some companies have developed an overarching strategy and provide their employees with a package of Web 2.0 applications, in some cases also on a uniform user interface. But most of them have only launched targeted, decentralised initiatives. As a survey conducted by Forrester Research Inc. shows, a good 40% of the companies approached are using up to three Web 2.0 applications either internally or externally.

Wikis: Consolidate knowledge

Wikis are usually deployed in companies as information and coordination platforms. Several authors can join forces on the platform to work on a text. Wikis are helpful to consolidate the knowledge of various authors working, for example, around the globe for an internationally operating company, independently of the knowledge-bearers. If a large number of competent authors are involved, updates and corrections may be performed rapidly (so-called “wisdom of the crowds”, collective intelligence) so the individual articles can fundamentally possess a high degree of topicality.

Clear targets are important

Wikis are suitable, for example, to document corporate initiatives and/or to present groups. In the context of projects it is possible, for instance, to ease the job of project management by documenting in a wiki all the steps involved ranging from brainstorming and implementation right up to evaluation. Occasionally, wikis can also supplant the existing intranet.

Wikis are being used successfully both in teams and company-wide. For example, they can be used in an internal company information centre for the documentation of inquiries and research methods or as part of a research section to organise the R&D findings. The crucial factors for a wiki's success are clear targets, high relevance of contributions for the employees and a common interest in the team to wield the tool. Moreover, the wiki should be an attractive

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9 The expansion of standard software with Web 2.0 applications favours this trend. However, the introduction of Web 2.0 as a package solution does not make redundant the development of concepts on how to use the tools.

10 Forrester surveyed European and North American companies. 35% of them do not use Web 2.0 applications; 25% use 4 or more. See Keitt, TJ (2010). Business Web 2.0 Buyer Profile: 2010. Forrester Research Inc.
Corporate blogs
— Communication from management or individual employees.
— Important information may be communicated flexibly online and in real time; however, corporate blogs usually lack the personal touch.
— Thanks to topicality, suitable for raising transparency on processes of change.
— Scope for employee feedback and thus direct communication across hierarchy levels.

Group blogs
— Exchange of expertise, mutual support in handling problems.
— Supports informal learning processes, suitable for use in the context of education and further training.
— Supports traditional project work.

Individual blogs
— Individual participation.
— Helpful for spreading personal statements or individual information on company developments.
— Improve social integration and strengthen motivation, encourage feedback at personal level.

Microblogs do not solve information problem

Blogs: Spontaneous dialogues
Unlike wikis, blogs are a dialogue-style communication tool. They can potentially be deployed in companies in a multitude of ways ranging from management communication and networking between experts in groups right up to individual blogs in which personal opinions are voiced (see box). Case studies show that group blogs are most widely used. They are deployed, for example, to generate or to check ideas in the framework of innovation processes, to develop ad hoc teams or to discuss user problems in the framework of implementing IT projects. They help to reduce the information overload caused by e-mail and to replace it with an information flow documented, linked and tagged on the platform. Topicality, openness and interactivity of the communication process prove to be further advantages. Some companies also use blogs as part of their further education programmes or for training employees who are new on the job. By doing so they lend substantial support to the formation of employee networks in important subject areas in addition to promoting the transfer of know-how.

Similar to the case of wikis, the success of blogs depends on setting clear targets and on the relevance of the content for the participants. In this context, smaller groups are usually likely to have a more homogeneous set of objectives and interests, which boosts the degree of acceptance. Management’s support is the key prerequisite for employee acceptance and active participation.

Microblogs: Venturing tentative steps
The hype about Twitter has led numerous companies to take tentative steps in the area of microblogging. The tool is mainly suited for spreading news and attracting attention to certain issues. In this way, companies are better able to integrate into their operations employees who, for instance, work in the field or are often away on company business. For external communication, Twitter is a suitable means of rapidly distributing short messages (“tweets”), e.g. about a new product or an additional service, to a large number of customers at once.

With microblogs – as with blogs – hopes are often pinned on the aim of reducing the deluge of information arriving by e-mail. However, microblogging is only suitable for short messages: Twitter has capacity for news with a length of 140 characters. Longer messages are sent by e-mail after all, so instead of achieving the hoped-for effect of making information flows leaner, it becomes necessary de facto for employees or customers to keep tabs on yet another information channel. Also, a further tool is simply unable to reduce the challenge of having to process considerable information. Moreover, using microblogs inside the company further compounds the difficulty of maintaining control over (external) communication. There is a higher risk that news that should not leave the company may become public after all.

“Xing” for companies
In the “Web 1.0 world”, the search for contacts and information on employees in the company was largely based on static, electronic
Contacts increasingly important today

Information. Such data make it difficult to get one’s bearings if the structures in the company and information on the employees’ job profiles are depicted inadequately. Employees who seek information or experts outside the corporate divisions they are familiar with then face a tedious, time-consuming research process. A Web 2.0 platform designed to encourage employee networking, by contrast, can hold user-generated information on their job profiles and interests and thus make it easier for the company’s entire staff to obtain a better overall picture. Furthermore, employee networking can be fostered through the integration of personal contacts. This enables the formation of spontaneous groups that cross departmental and divisional boundaries, so this can intensify their exchanges of information.

External relations enter new territory

Currently, only few firms implement Web 2.0 tools for Enterprise 2.0 purposes outside the company. What is meant here, for instance, is a corporate blog that invites customers to express their opinions or an innovation community that brings new ideas into the company in the shape of proposals for product improvements. The firms’ reluctance is partly attributable to the fear of those in charge that they could lose control of the messages broadcast in corporate communications. In fact, communication in Web 2.0 media changes from a one-way street to a dialogue in which the company takes an active role. In addition, Web 2.0 tools offer the possibility of directly extending internal innovation and customer-relationship-management processes to external partners, suppliers or customers themselves, i.e. building a bridge to the surrounding business environment.

Decisions even more complex than inside the company

Deciding on the deployment of Web 2.0 tools outside the company is even more complex than inside the company. The following aspects have to be borne in mind:

— Is the product or service offered by the company suitable for entering an online dialogue with customers, experts or developers? Criteria for a customer dialogue could include, for example, customer proximity, product complexity and the sector’s affinity for the internet.

— In the framework of what corporate function (e.g. marketing, CRM, research & development, recruiting) should Web 2.0 tools be used?

— Is the target group to be addressed internet or Web 2.0-savvy, i.e. can it be reached via Web 2.0 in the first place?

— Should related communication be conducted in open (public) or closed groups?

— Should a Web 2.0 tool be placed on the company’s website (Enterprise 2.0) in order, for example, to dialogue with customers on a proprietary platform? Or should a social network such as Facebook be used in order to address the putative target group in the virtual environment preferred by this target group?

Furthermore, as in internal relations, it is equally important to define clear targets and select proper tools. We will now look at examples from two application areas to highlight the benefits of Web 2.0 tools.

End-customer as addressee: Customer ties and service

Numerous companies use corporate blogs with the aim of cementing customer ties. The responsible company officers attempt to reach customers with reports from the company or with advice on
Blogs involve and strengthen customer ties

The example of a US bank shows that customers may be addressed via various topics surrounding the bank and its products. The focus may be on the history of the institution or on certain products, such as student loans, and the current issues pertaining to this target group. Even a merger with another bank may serve as the topic of a blog to be able to address customer inquiries related to this structural change. What these blogs have in common is that employees of the bank put forward their opinions, explanations and topics and depict them from their personal perspective.

A German industrial company uses its blog to transport topics that would not be represented in the media otherwise. These may include, for instance, reports on technical background knowledge, the daily work routines, social projects or advertising campaigns. The aim is to afford insights into the company and enter into dialogue with potential customers. The blog is written by company employees.

Communication gets top billing

Use of social networks by DAX-30 companies (%)*

Twitter | Facebook | YouTube | Xing | Flickr | VZ-Netzwerke | LinkedIn | MySpace | Other | None of above

| 40 | 30 | 20 | 10 | 5 | 2 | 2 | 1 | 1 | 0 |

Purpose of using social networks (%)*

Communication/PR | Marketing | Customer management | Recruiting | Sales | Customer service | Other

| 40 | 20 | 10 | 5 | 2 | 1 | 0 |

* Multiple responses possible

Source: WirtschaftsWoche, 2010

issues closely linked with the product. Some companies are currently also experimenting with Twitter in order to rapidly spread news about the company and its products to interested parties.

Exchanges of customer experiences on the company’s website help to encourage identification with the product. To this end, the company can also ask customers for their opinion about the company’s product and take account of customer wishes for its future development. The Web community would then have the character of a focus group that formed spontaneously. Nielsen’s Steve Hasker speaks optimistically about “the world’s biggest, fastest and most dynamic focus groups.”\(^{11}\) Moreover, some companies set up support forums or wikis to offer customers an online help function if they have questions on any product they may have purchased. This makes sense, for example, in the areas of software, hardware and consumer electronics. Directly measurable benefits accrue to the company as a result. The documented solutions proposed – which may be continually updated and improved in quality – reduce the costs of customer service.

Innovation communities help in product development

Web 2.0 tools make sense in external use also in the area of product development. For one thing, experts such as designers can be called upon to participate in closed groups on the development of different products. Nokia tested this approach with its Concept Lounge under the title “Exploring the future of mobile communications” back in 2005. Moreover, companies can provide scope for end-consumers to submit proposals towards developing or upgrading products or software via blogs or suggestion boxes. This enables users to tender ideas spontaneously, or else the company can initiate special, limited topic sessions at which suggestions can be collected. These proposals can indicate to the company how it should further develop its products or its strategies. Dell says that it has received about 14,000 suggestions on its IdeaStorm website since it was launched in 2007 and has implemented more than 400 of them.\(^{12}\)

Communication beyond Enterprise 2.0

Beyond the rather narrow confines of Enterprise 2.0, companies use Web 2.0 for, among other things, corporate communications and recruiting. Some companies have their own channel on YouTube or have set up a profile on Facebook, for example, and are posting already existing image or video material and press releases there. They consider this to be a first step on the road to Web 2.0 and are experimenting with the medium. However, they frequently lack the courage to engage in open discourse, so with this strategy the typical, dialogue character of the medium Web 2.0 is neglected. Nevertheless, a presence in social networks, e.g. with the purpose of attracting upcoming talent, offers the opportunity to collect young applicants in the virtual environment in which they are often found anyway. This holds equally for general communication with customers on the corporate pages of social networks or the corporate channels of microblogging services.

Empirical findings: Considerable buzz, limited implementation

Enterprise 2.0 is currently a hot topic in the media. This conveys the impression that companies in Germany are devoting a great deal of attention to this topic, or at least ought to be doing so. However, it remains difficult to complete a comprehensive assessment of the status quo on an empirical basis because in most cases the published surveys do not differentiate between whether Web 2.0 tools are used by companies in-house or externally. Furthermore, the studies frequently fail to differentiate clearly between Enterprise 2.0 in the narrower sense and the use of social networks or microblogs. In addition, this field is fast-moving, so statistics cannot capture anything more than one moment in time.

A recent survey in Germany shows that the DAX-30 companies are increasingly experimenting with Web 2.0 media for communication and marketing purposes. More than half of the companies are represented on Facebook or YouTube; 70% communicate messages on Twitter (see chart 7). These results probably far overstate the importance of social media in the German economy, though, since innovative ICT applications typically are introduced more quickly in large companies than in small and medium-sized enterprises. This is backed by empirical studies. A survey conducted by Forrester Research in 2010 among North American and European companies shows that only 14% of the companies use social networks; they found that microblogs play an even more minor role (see chart on cover page).

But just how willing are companies to invest in-house in Web 2.0 applications and to adapt corporate processes, i.e. to launch Enterprise 2.0 projects? Several prominent examples of corporate blogs in small and medium-sized businesses in Germany (Kelterei Walther, Frosta) show that companies can successfully start up a dialogue with customers on their own websites. However, the majority of the companies are still reluctant to do so. Only a small share of the companies regard Enterprise 2.0 as a focus of investment activity, as demonstrated by an older study conducted by BITKOM in 2008 (see chart 8). This is no doubt partly because, as a rule, Web 2.0 platforms are linked with low investment costs. Nonetheless, such projects are probably not to be found very far up on the list of company priorities in the midst of the current economic crisis. This suggests that it will take a while for them to spread further. The Forrester study already cited says that 17% of the companies surveyed use wikis and about 20% use blogs or forums either internally or externally (see chart on cover page). The survey found that idea generation platforms play an only minor role. 35% of the companies said they plan to use wikis next year, while 25% have similar plans for blogs or forums. The expansion plans of European and North American firms scarcely differ from one another.

A survey conducted by the Centre for European Economic Research (ZEW) recorded similar findings for forums and wikis for the sector “Service providers of the information society” (see chart 9). The survey goes on to say that about 14% of the companies set up platforms for group work. Information exchanges, communication and knowledge management are at the very top of the target hierarchy for roughly 70% of the companies as their motive for internal use of Web 2.0 technologies (see chart 10); by contrast, 39% of the companies use at least one social software application. See ZEW sector report. Dienstleister der Informationsgesellschaft. No. 1, April 2009.
only about 25% of the service providers use Web 2.0 tools for company suggestion boxes or for fostering innovations. Communication and public relations also play a major role in external usage. 38% say they use social media for working on joint projects with external partners. Communication is thus a main motive, while collaboration is not yet given such high priority.

How successful has Web 2.0 been in companies?

So does the use of Web 2.0 tools in companies really result in better communication and intensify knowledge exchanges? Does the quality of the information exchanged increase, and do the costs decline? Are innovation processes – also in collaboration with external partners and customers – improved? And does the quality of customer and advisory service increase? These are all questions that company managers have to face when they arrange for Web 2.0 tools in-house and externally.

What is initially crucial for their assessment is the degree to which employees, customers and partners accept the tools offered. For a start, a Web 2.0 tool is only a further application made available to employees and/or customers. As documented by a McKinsey study, one sign of favourable internal Web 2.0 projects is partly that they maintain a strict focus on utility for the individual employee and therefore can be well integrated by the employees into existing processes (see chart 11). Furthermore, the commitment of the company management or of the relevant managers to the use of Web 2.0 tools plays a key role in their success. In practice, though, the actual use of social media by employees is still limited (see chart 12). The most important factor for the lack of their use is that nearly 60% of the employees do not recognise the benefits of the tools offered for their daily work.

The acceptance factor is critical in external communication with customers, too. In this case, the companies probably are at an advantage if they are perceived by their target group as being innovative, dynamic and tech-savvy and if they offer ICT-linked products. Products that, as an example, are appropriate for “fan communities” (e.g. sporting goods, vehicles and certain types of food) can be presented well on Web 2.0. They spark considerable interest and have identification potential. In fact, it emerges that Web 2.0 applications tend to enhance customer relations more among companies from the technology or telecommunications segments than among financial services providers, for instance (see chart 13).

Often no evaluation

In most cases today it is likely that companies still fail to conduct a rigorous evaluation of Web 2.0 projects. This is partly due to the fact that most companies are still at the experimental stage. But fewer than 20% of the decision-makers worldwide even measure the ROI of their Web 2.0 project in the first place, often because they lack relevant data and measuring concepts. Whether and how the use of Web 2.0 tools can contribute to a business’s success can, in general, only be measured with difficulty. This is often a substantial hurdle upon their introduction.

Frequently, the acceptance of the tool (website traffic) and the quality of communication are examined as ex-post criteria in measurements or surveys. In fact, though, the changing face of collaboration processes also has to be analysed. Admittedly, against

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Design plays a role

Besides fundamental principles, successful Web 2.0 projects used by employees with the effect of actually raising productivity often feature the following characteristics:

- User friendliness: a system with simple, familiar handling and structured framework heightens user acceptance; there is a trade-off between structure (orientation) and the expense incurred to maintain it.
- The employees are familiar with the Web 2.0 tools: this is a challenge particularly in the case of company-wide deployment. It would be advisable to foster its integration at a prominent location on the intranet.
- Users have few alternatives: if information is disseminated in various media, the utility of the individual medium declines; search costs are higher as a consequence.

Enterprise 2.0 has made only few inroads

Which of the following tools do you use at least weekly while doing your job? (%)

- Social networks: 12
- Wikis: 11
- Forums: 10
- Blogs: 7
- Microblogs: 3

Source: Forrester Research, Inc., 2009

Technology companies benefit the most

% of respondents within each industry gaining at least 1 measurable benefit from using Web 2.0 technologies

- High tech / telecom: 80
- Business / legal / prof. services: 60
- Manufacturing: 40
- Financial services: 20


the backdrop of the differing objectives of diverse projects, a general assessment will remain a difficult undertaking: to do so the decision-makers would have to develop project-specific criteria.

Survey results paint a mixed picture: over 60% of those polled in the already cited BITKOM study say that departmental cooperation has improved with the use of Web 2.0 tools, as have employee integration and motivation. Furthermore, 62% of the company respondents indicated that the impact on the company’s bottom line had generally been positive (see chart 14). However, only 35% of the US marketing professionals surveyed believed that their social-media projects had helped to boost sales.\(^\text{15}\) Even if the surveys point to positive effects in terms of employee collaboration, integration and motivation as well as in terms of a company’s bottom line, robust results will probably not be available until a few years from now when Web 2.0 projects have matured and become more widespread among German companies.

Reputational risks get a new meaning

Communication about a company, its products and services are to be found on Web 2.0 also beyond a company’s own platforms or pages in social networks. Customers and the public at large gather information on consumer platforms or price comparison pages about the products and their prices as well as about a company’s quality and service record. From the company’s standpoint, it is important to be familiar with these opinions. They can be informative about a company’s image, about possible shortcomings regarding its products and/or services, about inadequacies in processes involving customers and about how its advertising campaigns are perceived.

Particular reputational risks emerge in the Web 2.0 world if criticism of products, processes or campaigns takes root on the internet and is rapidly spread through viral effects. In some cases, unkind comments made by employees on Web 2.0 platforms have triggered reputational crises. As countless case studies show, these negative campaigns are frequently picked up by the conventional media and this helps to spread them further. In the past, numerous companies have been too slow to recognise smouldering criticism of their products or corporate image in the Web 2.0 world because they had failed to implement any sort of systematic monitoring of the new media. From the viewpoint of the Web 2.0 community, the companies compounded the problem by responding unprofessionally in that they sought legal recourse to stop the spread of the information over the internet.

Therefore, it is highly important for companies to integrate the Web 2.0 world into their system of managing reputational risks. This includes, firstly, the pillar of prevention, i.e. training employees how to handle Web 2.0 tools and adapting internal rules and regulations. Secondly, the risk management structures need to be adapted. To do so it is necessary to continually monitor one’s own brand on the internet in order to keep an eye on the online community’s assessment of the company as well as its products and activities. This, of course, has to be done in compliance with all legal conditions surrounding data protection and personal rights. Finally, the public relations department and risk management have to be schooled so these teams can deal with developing reputational crises in keeping with the rules of Web 2.0.

Outlook

Web 2.0 is currently the subject of much debate in (expert) public circles – with one of the driving factors being its increasing use in the private sphere. Its growing popularity – not only among young people – confronts decision-makers with the question of whether they also want to deploy Web 2.0 tools in their own company. Today, 20% of the companies in the US and Europe use blogs, forums or wikis for internal or external purposes. Against the background of the current economic crisis the topic is likely to enjoy less priority on company agendas now than it used to.

Nevertheless, going forward there is no way Web 2.0 can conceivably be decoupled from corporate reality. It offers the opportunity to develop networked exchanges and consolidate knowledge. This system builds on the input of the participants. The interaction between the communication partners will be documented and thus be traceable for readers and contributors. In this way, Web 2.0 tools offer recognisable advantages over Web 1.0 communication and traditional knowledge-management platforms. It has to be borne in mind that people report on companies in the Web 2.0 world: customers exchange stories on products and services and give recommendations. Company strategy, products and campaigns will be assessed by the public online. In a worst-case scenario, a reputational crisis could emerge. Even if companies opt to refrain from participating actively in virtual reality, e.g. in the shape of a corporate blog, at the very least they will have to monitor their reputation in the Web 2.0 world.

The use of Web 2.0 tools is predicated on a corporate culture that is big on openness and transparency. Companies must ask themselves the basic question of whether they are ready for this. Case studies show that companies often start to experiment in-house with Web 2.0 tools before they actively involve their customers or suppliers.

Wikis, blogs and forums are the Web 2.0 tools in most common use. They perform differing services. Wikis help to concentrate knowledge independently of the knowledge-bearer and put it at the company’s disposal in real time. Blogs and forums, by contrast, are helpful as dialogue-style tools in order to generate ideas in the framework of innovation processes or to discuss user problems during the implementation of IT projects. They support the formation of networks.

Numerous companies are currently experimenting externally with profiles in social networks and with microblogging services. This is not Enterprise 2.0 in the narrow sense of the definition, since companies do not invest in Web 2.0 tools. Frequently, companies recycle information produced for traditional corporate communication on these channels. But this has little or no impact on corporate processes and their communication culture. This contrasts, for example, with a corporate blog that opens the door to the critics and their issues, demanding an open exchange of views.

Microblogging services, Twitter in particular, have seized the bulk of media attention – not least because of their prominent role in spreading news of disasters or political events. Many companies broadcast “tweets” via Twitter in the hope that these 140 characters can win the battle for the customer’s attention. But actually, customers and employees are faced with the challenge of having to steadily monitor yet another news stream.

Communication and marketing are the primary objectives of companies today when they use Web 2.0 tools. However, there is also real potential to be tapped in the areas of innovation and collaboration. Nonetheless, companies are not yet giving these issues and their tools such high priority, no doubt one of the reasons being that the restructuring of processes involves greater expense than communications and marketing. Companies still have a good way to go in this area before they will be able to fully tap the potential offered by Web 2.0 tools to boost corporate productivity.

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