

Management 2.0

Face-to-Face in a Globalised Polis

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Keywords

Management 2.0, Social Web, Corporate Community, Collective Intelligence, Aristotelian Philosophy

This article gives an outlook on the future of management. It reflects the socio-technical (r)evolution of web-based communication and its implications for management practice. The paper begins with a general overview of the development of the Web accompanied by the immediate improvements for the corporations. Out of these investigations we suggest that corporations still have not realised the importance of new management models. Therefore, we define Management 2.0 and explain the underlying new mindset referring to a corporation's self-image. The urgent need of new management models is made clear with the assistance of the ancient idea of the Greek polis. From an Aristotelian perspective, we analyse the face-to-face collaboration and openness for large corporations in today's globalised world and absorb Solomon's idea of a corporate community. In order to support companies on their way to Management 2.0 and to describe their online engagement and their benefits, we have developed a Maturity Model and will present it as our road map to Management 2.0 in the last section of this article. We show the role of corporate Social Web engagement in the evolution towards Corporate Communities and the benefits of tapping the Social Web's knowledge and Social Capital. In doing so, modern software tools are mentioned to demonstrate that Management 2.0 is already practicable. Finally, our vision of a completely decentralised and self-organised corporation is described as Management X.0.

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1. Introduction

“If you look five years out, every industry is going to be rethought in a social way”, thinks Mark Zuckerberg, the founder of Facebook, the world’s largest Social Network so far (Gelles 2010). The newest Google product called Google+, another Social Media platform which is assumed to be one of the fastest growing social networks (cf. Qvist 2011: 24). It is a sophisticated and even more beneficial network since the platform depends on people’s search habits and recommends in search results what your networks like. Data collecting is simplified and can even be predicted and thus not only private persons but also companies can profit from it. All this shows that our fast moving worldwide societies are increasingly connected by means of Social Media. This has a lasting impact not only on the way we communicate and the way we work but also on our business culture. Especially a fundamental change of the management system can be observed and shall be illustrated in this paper. We develop an understanding of a complex socio-technical evolution to get a better insight into the change of management. The change in companies’ existences accompanies this and must be precisely regarded.

We first take a look back on the evolution of web-based communications up to today’s Social Web (section 2). We then present our definition of the next version of management that is supported by this development: Management 2.0. This term was coined by Gary Hamel who announced a revolution in management primarily regarding the understanding of corporations and the way people are motivated (section 3). With assistance of Robert C. Solomon, a philosopher who managed to apply an Aristotelian approach to modern business ethics, we then take a look at this from a very different angle. The ancient Greek concept of a city-state (polis) offered the great advantage of face-to-face collaboration through openness. Aristotle’s idea of a community can be transferred to Management 2.0, which internalises this ideal for today’s globalised corporations (section 4). Corresponding to the evolutionary steps of the technological development, we then present our maturity model of companies’ internal usage of web-based communication. The model can be seen as a road map for companies to develop from Management 1.0 to Management 2.0. We name some interesting tools, list the benefits of these tools and show that Management 2.0 is already possible and not too complicated to utilise. What might be possible in the future is described in section 5. Eventually, we describe our vision of the future’s future: Management X.0 (section 6).

2. Groundwork: The Evolution of Web-Based Communication

Twenty years ago, the World Wide Web, an internet-based hypermedia initiative for global information sharing, was born and changed the world in an unpredictable way.¹ Since then, the web has been an indispensable means of communication. Building on the internet as an open data network between computers, the World Wide Web today is a global standard. The term World Wide Web is often used as a synonym for the internet even though it actually refers to something quite different. The World Wide Web is a system of interlinked hypertext documents that can be entered via the Internet. Web pages may contain text, images, videos, and other multimedia elements and can be viewed with a web browser. Users can navigate between them via hyperlinks. The process of its development so far has led us from the initial so-called Web 1.0 to Web 3.0. The web between 1993 and 2003 is regarded as Web 1.0 (cf. Wang 2007: 27). It is a world of simple transactions, a place to actively search for and find information with little or no interaction among users. At the beginning of the 1990s, HTML pages which could be viewed through a Web browser and site building became the main characteristics of Web 1.0 (cf. Dahlen 2010: 459). However, there were few content creators in Web 1.0, with the vast majority of users merely acting as consumers of content and thousands of websites published primarily by experts in their specific fields (cf. Wankel 2010: 9). Web 1.0 elements were standard web pages acting more or less as brochures with image material and facts & figures. The most influential communications medium derived from Web 1.0 is e-mail.

Finding a clear definition of Web 2.0 is far more difficult and elusive, simply because there is no single, commonly accepted one. The term Web 2.0 can be traced back to the publisher Tim O'Reilly, who was searching for a title of a conference dealing with the companies that survived the dot-com collapse after the speculative bubble covering formerly booming internet-based companies burst in March 2000. The first use of the term became an overnight sensation; the feedback from industry to public was enormous, using Web 2.0[≠] as one of the most-hyped technology terms (cf. Governor/Hinchcliffe/Nickull 2009: 2). Far from having crashed, O'Reilly stated that the web itself was more important than ever, with excitingly interactive new applications and sites popping up at a surprising rate. Exactly this idea of an interactive web marked a turning point and is the

¹ In August 1991, the World Wide Web inventor Tim Berners-Lee invited people for the first time to access websites on other computers via his hypertext transfer protocol (http) using a browser. We understand this to be the birth of the internet as we know it – yet this is highly disputed with ages ranging from below 15 to over 40 years (cf. Ryan 2010).

characteristic feature of the second new born version of the web. The enormous advancement of the interactive Web 2.0 becomes obvious when comparing the Encyclopaedia Britannica with the free online encyclopaedia Wikipedia. With the apparent establishment of the internet, Britannica's publishing house made a lot of effort to survive the change. After unsuccessfully having published CDs, the company moved its encyclopaedia set to the web, where it was free to anyone. The fundamental idea was preserved: the company still relied on experts and editors to create its entries. In contrast, Wikipedia was open to anyone willing to contribute, trusting the community instead of installing standard quality management. People all over the world interested in certain topics can edit or re-edit articles they think are incomplete or incorrect. Even though this idea of a voluntary non-expert encyclopaedia with shared creativity was a bold step, Wikipedia passed the test and has become the most widely used and often fastest reference source. A report in the magazine *Nature* compared science articles in the two encyclopaedias and suggested that Encyclopaedia Britannica articles are often only marginally more accurate than Wikipedia articles (Vossen/Hagemann 2007: 57). Social networking sites such as Facebook and MySpace are often held up as prototypical examples of Web 2.0, primarily due to their social networking aspects which include the user as a first-class object, but also due to their use of new user interface technologies.

There has been a significant shift in Internet traffic as a result of a dramatic increase in the usage of Web 2.0 sites. Most of the nearly half a billion users of online social networks continue to use Web 1.0 sites. Many sites are even hard to categorise strictly as Web 1.0 or Web 2.0. For example, Amazon.com was launched in the mid-1990s and has gradually added features over time. The principal content (product descriptions) is curated rather than user-created, but much of the value is added by reviews and ratings submitted by users. Profiles of users do exist, but social features such as friend links, although present, have not been widely adopted. With the democratisation of Web 2.0, every user has access to the instruments necessary to become a creator of content himself and is able to exchange content of any kind (text, audio, video), to tag, comment or link. Numerous technological aids have been created to maximise the potential for this content creation. The catchphrase to describe this new kind of user is "prosumer", which implies that the user now is consumer and producer at the same time. If these prosumers get involved, innovation, awareness and enthusiasm quickly and vigorously flow on a huge scale (cf. Camarinha-Matos 2009).

The term Social Media is closely linked to Web 2.0. It is broadly defined as any form of computer-mediated communication where individuals are addressable and, as a consequence, able to interact on a person-to-person level; forms of social media thus range from chat and instant

messaging to media sharing, blogging, and social networking services (SNS). “Social Media refers to activities, practices and behaviours among communities of people who gather online to share information, knowledge, opinions and interests using conversational media” (Safko/Brake 2009: 6). Similarly, Cook and Hopkins (2008) define social media as the internet tools which “allow for far greater levels of two-way interaction, discussion and conversation” and which facilitate “the conversational web” (pp. 1, 2). Many of these platforms have been launched in the last few years; for instance, social network sites such as YouTube and Bebo were launched in 2005 and Twitter and Facebook (for all users) in 2006 (Boyd/Ellison 2007). The rapid technological developments and diverse ways users have adapted social media platforms make it difficult to predict which platforms will remain popular even for six months. People sign up for online communities to share their interests, to discuss their hobbies or simply (and mostly) to connect with their friends. The main difference to the former Web 2.0 communities is that people do not appear as an imaginary virtual identity with fake names but a digital version of their actual real-world identity. This characteristic can be seen as a further development of the Web 2.0 towards a Social Web. Another step in the development of the web, which is expected in the future, is Web 3.0 or Semantic Web, a term coined by Tim Berners-Lee. This is where artificial intelligence and the web converge. The computer is expected to understand, categorise, and use information like humans do. A good example for conceiving what the developed Web 3.0 will be like is a still fictional mobile personal information assistant. The user makes queries using natural language, and the assistant answers by extracting and combining information from the entire web, evaluating the information found while applying Semantic Web technologies (cf. Wahlster et al. 2006). The development and future of Web 3.0 is yet to come, but it will be a revolutionary step forward.

In the developed countries, younger people, especially those born and raised since the establishment of the internet (‘digital natives’) are presumably signed up for at least one Social Network and more and more of the older people (‘digital immigrants’) are doing so too – both for private and professional use. In fact, the Social Web, with its ideals of free and transparent information and the value of networking, is quickly becoming a way of life or, to be precise, a central point of it. People can easily work together no matter how many thousands of kilometres they are geographically separated. Some authors already declared ‘cooperation’ as the leading technology for the sixth Kondratiev wave of economic upswing displacing “information technology” (Friedag/Schmidt 2009: 282). Social Web tools are easy to understand and use, they are usually free or at least have

free basic functions (freemium) and people can easily and quickly sign up.² Social interaction via mobile devices is rapidly increasing and will overtake stationary internet usage. As more and more people connect online to communicate and collaborate, access to personal information (including localisation) is becoming a whole new market. This trend of global connection of billions of individuals and organisations is often thought of as leading to some kind of estrangement. To some extent, this may be true but actually it offers the possibility to socialise in a face-to-face way.

3. *Management 2.0: The Evolution of Management*

“Management is out of date. Like the combustion engine, it’s a technology that has largely stopped evolving, and that’s not good. Why? Because management – the capacity to marshal resources, lay out plans, program work and spur effort – is central to the accomplishment of human purpose. When it’s less effective than it could be, or needs to be, we all pay a price” (Hamel 2007: X).

The evolution of web-based communication clearly led to powerful communication and collaboration tools. The management system, though, seems not to have evolved as much since its successful rise in the early 1900s. In the following, we will refer to it as Management 1.0. Gary Hamel classifies it as “ancient” and calls for revolution, guaranteeing a “fundamental change” with enormous advantages for those willing to lead towards a new way of running companies. The reason for this “almost inevitable” change is the role that the traditional management system plays today: it is a limiting factor. It provoked a “crisis of values that drains creativity and effectiveness” (Roberts 2010: 9). The individual within a corporation lacks the most motivating value: passion and internal motivation. When an employee is told to do a certain job and his (external) motivation is the money he gets paid and perhaps a chance to get promoted sometime, he will do the job, but he will not be engaged.³ To access his full potential, the employee needs internal motivation and passion – and what, if not the belief in a higher purpose, could achieve this? Let us have a look

2 Social Web tools are mainly Social Networks (e.g. Facebook, XING, LinkedIn). They include more and more once standalone services as, for example, Google+ comes with applications for video chat, mailing, media, and file sharing.

3 In the “Towers Perrin Global Workforce Study 2007-2008” titled “Closing the Engagement Gap: A Road Map for Driving Superior Business Performance”, only 21 per cent of nearly 90,000 employees worldwide said they were “engaged” in their work.

at Hamel's argument that management has more or less stopped evolving. Apart from soft skill trainings, which have developed to a huge degree to become a constant in management education, we can definitely see a huge leap forward in the essentials of management. Management is largely dominated by communication, and communication has apparently evolved immensely. Management has become not only an international but a globalised challenge as large corporations are not limited to certain regions anymore. They are not bound to their country of origin or even a single continent. Management is broadly influenced by society, and society experiences a far-reaching socio-technical transition. Hence, management has evolved, but so far it has been a rather passive adaptation. Now experts like Hamel demand not only to actively build the future, but to start a revolution.

This seems rather bold, as what comes next will just be a logical step in the evolution of management, although it will clearly be a fundamental change. First of all, we need to rehash keywords such as Enterprise 2.0, simplification, flattened hierarchies, decentralisation,⁴ or collective intelligence, but what this redefinition process actually means is usually left undefined. Hamel chooses a different, rather interactive approach by denying the existence of a single correct answer. He demands imagination from his followers to participate in building the future instead of waiting for the trends to come. And this is already part of his understanding of Management 2.0, as innovation, creativity, renewal, change, and especially passion are his keywords (cf. Hamel 2007). He demands all of them from modern corporations that are willing to prepare for the future. As we have shown, the socio-technical transition includes (social) networking in which people are connecting with one another via internet. The possibilities opened up by today's World Wide Web and its collaboration tools mark the key difference between the non-collaborative, hierarchical traditional Management 1.0 and the (r)evolutionary next level interactive Management 2.0, and can be seen as the initiation of a new mindset.

This new mindset is characterised by all the possibilities that the innovative web provides to companies: meritocracy, modern participation, decentralisation and openness, in particular, openness towards new ideas and the way they are generated, and openness towards vanishing hierarchies and a rising understanding of the relationships within the company as a community. The underlying phenomenon is described as 'groundswell', a "social trend in which people use technologies to get the things from each other rather than from traditional institutions" (Li/Bernoff 2008: 9).

⁴ The famous management thinker Peter Drucker introduced definitions such as simplification, flattened hierarchies or decentralisation already in the 80s to the business world.

Once accepted, this trend can be used for various benefits as people connect to share knowledge with each other. Examples reach from open source programming to communities for virtually everything, for example, reviewing and recommending movies (like the internet movie database imdb.com), music (like last.fm) or clothing styles (polivore.com). All this exchange is web-based and can be analysed to access a formerly unknown treasure, namely collective intelligence. Collective intelligence in this sense is not only efficiently shared knowledge but also a flow of shared intuition often unconsciously produced in the collaboration of individuals. This can be used for trend forecasting for instance by analysing the data streams of Social Networks. Prosumers add value to the so-called Social Capital by becoming part of a collective intelligence. Social Capital describes a density of trust resulting from the individual's membership in community networks. Social Capital consists of resources accessible through social connections and it contains resources of other individual actors to whom an individual actor can gain access through direct or indirect social ties (cf. Lin 2001: 43). This involves the value of actual or potential relations of individuals within and between community or Social Networks as well as the knowledge of individuals or groups being available on the web (e.g. open-source programming). It contains sources of collective intelligence that lead primarily to corporation and beneficial outcomes.⁵

Management 2.0 is the application of the open mindset to a collaborative leadership model for the purpose of utilising the groundswell trend. It is flexible, fast and faithful as it is innovative, has to react instantly and is highly transparent. Moreover, this demands corresponding leaders. "The art of letting go" by Buhse and Stamer (2008) describes the difficult process of transforming a traditional enterprise into a community, with the key challenge to trust the collective. But as today's world, especially in terms of globalisation, has become extremely complex, splitting decision power among many people seems to be a fitting solution to this problem. Online open innovation projects like the Management Innovation eXchange are encouraging people to join the quest to reinvent management, thinking of it as a radical upgrade of the technology of human accomplishment.⁶ In practice, Management 2.0 can only be applied with the help of modern Social Web technology, making it a merge of the ideas of the Social Web and traditional management. This should not be confused with the so-called Social Media Management, as this simply is the management of a company's online presence and not a management system realised through Social

5 Social Capital is discussed in the article "Social Neocapitalism" in this publication.

6 The MIX (Management Innovation eXchange) is an open innovation project supported by famous partners like McKinsey&Company, Dell and the London Business School. It can be found on www.managementexchange.com.

Web applications. The attempt to control the Social Web presence from within the otherwise rather non-collaborative company even seems to be an opposing strategy. Management 2.0 addresses a movement comparable to the “own mini-groundswell within the company” that enables companies to “embrace the groundswell of customers outside it” (Li/Bernoff 2008: 199). This way, the once opposing strategy of actively influencing the external Social Web identity of a company has been transformed into a natural part of most internal processes. Hence it basically includes a system of Social Media Management 2.0. The approach of Management 2.0 creates companies that are as “nimble as change itself [...] innovative from top to bottom” (Hamel 2007: 41) and that are awe-inspiring places to work by offering individual self-fulfilment within the company. To adopt the new Management model to corporations, openness is needed. That is where Aristotle gets into the game as openness can only be achieved through an operating community.

4. A Globalised Polis: The Aristotelian Approach

“According to Aristotle, one has to think of oneself as a member of the larger community – the Polis for him, the corporation, the neighborhood [sic], the city or the country (and the world) for us – and strive to excel, to bring out what is best in ourselves and our shared enterprise. What is best in us – our virtues – are in turn defined by that larger community, and there is therefore no ultimate split or antagonism between individual self-interest and the greater public good” (Solomon 2004: 1022).

Aristotle’s major emphasis was on living the ‘good life’ and having a ‘good city-state’. The good life can be achieved if virtues are fully exhibited. He eschewed the idea of profit and distinguished two types of economics: ‘oikonomikos’ and ‘chrematisike’. The first one translates as ‘household trading’ which Aristotle recognised as a community-based economy and as essential in the working of any society. This economy can only be achieved if people live a life of virtue (a good life). Aristotelian virtues include for example courage, temperance, liberality, justice, pride, friendliness or honour. He condemned the second type of economy, ‘trade for profit’, as being devoid of virtue, fundamentally parasitic and turning people away from the community. A polis is the foundation of a community-based economy. This ancient Greek word which would today correspond to a

city-state includes the democratic idea of citizenship in an independent, autonomous self-governed community. The polis is the ideal framework to fulfil the conditions for a modern corporation. Solomon was one of the first thinkers who referred to Aristotle for his illustration of corporations as such communities. He emphasises Aristotle's views concerning the importance of community and argues that virtues Aristotle recognised as valid can be assigned to corporations. For Solomon, businesses and corporations are communities that positively reward people's virtues. By no means did Solomon ignore individual and cultural heterogeneity when he adapted the Aristotelian idea of the community to our modern world.⁷ Today's more and more required specialisation induces this adaptation and clashing individual interests strengthens this definition of a community. But corporations are not isolated city-states, not even the biggest and most powerful of the global players. Both corporation and individual are also part and parcel of a larger community, which may be understood as the society. Everyone has a multiple citizenship, finally somehow linking everyone to one another over several intermediate steps. The community is designed to "bring out what is best in ourselves" (Solomon 2004: 1022), corresponding to Aristotle's conception of 'areté' (which can be understood as excellence), and in return defines certain virtues to be obtained and this way assigning us to units of morality. According to the idea of areté, we are defined by our habitual actions. Our job often is our most influential habit and therefore it is our job that defines us. By taking the place within the community that corresponds to our capabilities, it lets us be the person we want to be: we not only get to be successful, we get to live a decent life rewarding us with highest human good, 'eudaimonia' (which can be understood as happiness), in the process. This happiness is nothing less than an entirely good life, with all of its parts in balance (cf. Solomon 2001: 252). This is the higher purpose to get us engaged: when we pursue a goal with passion, we can achieve maximum performance resulting in individual happiness and a good life. Management 2.0 uses this view to achieve the central purpose of management: to get people involved in accomplishing target-oriented tasks as effectively and efficiently as possible. This is realised by engaging people in their work through intrinsic motivation, as they not only identify themselves as part of the company but also enjoy their tasks.

As pointed out by Solomon, this engagement serves the greater public good as well. In terms of our relationships with other individuals, we are a part of the community, which implies a

⁷ Robert C. Solomon (1942-2007) was a professor of philosophy at the University of Texas, USA. After working as a consultant for various companies including Motorola and IBM, he developed the Aristotelian Approach as a program in business ethics, emphasising the value of integrity (cf. Solomon 1999).

democratic, decentralised way of decision-making. What the Management 2.0 mindset implies is not to see “business as business” (Solomon 2004: 1022) simply for the purpose of individual interests. Business is seen as a human institution in service to humans and aims to switch to a truly collaborative model. We have to understand it as a part of the society serving both the individual interest and (thereby) the greater public good – consistent with financial interests. According to our understanding of Management 2.0 combined with the Aristotelian Approach, people in Corporate Communities identify with the corporations they see themselves part of and take pride in working in a self-fulfilling position. This way they engage passionately and massively increase creativity and efficiency, just as Hamel wants modern management to be. As this concept depends on powerful communication and collaboration tools, it is directly connected with the achievements of the Social Web and its successors.

5. How to Apply: The Maturity Model of Management 2.0

In 2009, McKinsey conducted a survey to find out “How companies are benefiting from Web 2.0”. 69 per cent of the 1,700 responding executives reported that their companies have gained measurable business benefits through Social Media engagement. More effective marketing, better access to knowledge and more innovative products were the chief reasons for the distinct answers. The results even show that the greater the use of Web 2.0, the greater the benefits – regardless of industry. Moreover, despite the last recession, most companies were willing to continue investing in Social Media. But so far, the companies have interacted with only 35 per cent of their customers online and as they so far merely see it as a marketing channel, there has been little effort to apply the socio-technological change to their organisation itself (cf. Bughin/Chui/Miller 2009). Apparently, there is a huge interest in the opportunities of the Social Web, but the implementation is still rather cautious.

We use a maturity model to show how to evolve towards the Corporate Community in the sense of Management 2.0 using Social Web technology. As we mentioned above, this technology is the tool to create a whole new understanding of the corporation and one’s place in it. This implies that the costs of change are mainly indirect, as they arise in the process of bringing the tool into service. The new technology can help corporations to fully enjoy involvement, flexibility and collaboration. Our maturity model corresponds to the evolution of web-based communica-

tion described above. It was developed to classify a company's Social Web engagement and most notably to give the company a road map of how to transform itself from Management 1.0 to Management 2.0 taking Aristotle's understanding of community into consideration. It states six levels of companies' integration of online communication services from traditional Management 1.0 to Management 2.0. These levels are categorised in three periods to distinguish between different types of motivation of the usage of the applications and to show the different benefits accompanied by the periods: "presentation" for representation and contact, "involvement" for tapping the Social Capital and "community" for using collective intelligence. There is no clear status quo concerning the maturity level of the entirety of companies engaged in the Social Web, as it is an individual process that depends on the line of business, the size of the company and especially the corporate culture (or corporate philosophy, whether explicitly communicated or not). The development from Management 1.0 to Management 2.0 does not have to start automatically at the first level, as for example, many internet start-ups tend to be founded within and as a part of the Social Web and therefore begin their development at level 3 or above. Also, the Social Web engagement does not have to reach the final level: while the mere online presence makes sense for most companies, every further step is not useful per se but can even be a risk depending on the line of business. For example, companies of the armaments industry might not want to enter into a direct dialogue with the web community via chat rooms or other communication tools. The reason for it is obvious, as these companies would provide their opponents with an easy target by using communication tools.

5.1 The First Period: Presentation

The first period shows us the enablement of companies' representation through Web 1.0 and Web 2.0 techniques. Therefore a comprehensible distinction between these web evolutions is needed. The basic use of the web is to transport information, and it is Web 1.0 technologies that offer the easiest way to reach this goal. Companies build their own (static) websites on which the visitor can find information about them on demand. The sites usually are not interactive and visitors remain consumers who cannot contribute to the sites, apart from perhaps posting comments. The style of Web 1.0 websites is rather impersonal, descriptive and fact-based and creates a distanced and shuttered atmosphere for visitors. The visitor is usually expected to be someone who is not directly part of the company, such as customers, people looking for a job or secondary stakeholders (e.g. the media, the general public or interest groups). Such web engagement is comparable to an

online version of a brochure, offering facts about the company, career options and contact forms. Especially small and medium-sized enterprises (SME) are at this level of online engagement. In our model, 'Information' (Level 1) is the first of the six levels. Web 2.0 features, on the other hand, are interactive. The most important are individualised web pages, user generated content (e.g. with blog services like Wordpress, media sharing sites like YouTube for videos or Flickr for personal photo and Wikis for knowledge of any kind) and web applications. The latter have many of the characteristics of desktop applications, but can be used online. For example, Google Calendar, a free time-management web application or Microsoft's Office Web Apps which allow users to access documents directly from anywhere within a browser, share files and collaborate with other users online. Successful mediums of communication are online communities (e.g. DeviantART which provides a platform to exhibit and discuss art works of any kind) and video and voice calls (e.g. Skype or Apple's FaceTime which can also be used for video chats). Since Web 2.0 offers an immensely broader range of ways to communicate with individuals, companies enter a 'Dialogue' (Level 2) with their primary stakeholders (e.g. customers, stockholders and even employees) and reach the next level of online engagement towards Management 2.0. This gives the users at least the feeling of openness and participation and often leads to improved customer service, again strengthening the customers' identification and satisfaction rate.

5.2 The Second Period: Involvement

The second period can be divided into two types of involvement known as 'personal involvement' (Level 3) and 'process-oriented involvement' (Level 4). Both go hand in hand with the development from Social Media to Social Web. In the first level of 'involvement', companies seek to use Social Media to achieve personal involvement. Companies start to use the web as a means of access to the Social Capital mentioned in section two. Not only can websites be individualised by offering a personal login, now employees can identify with their company by linking to it and to their colleagues like "I work at company x with colleague z". And, more importantly – as companies at this stage view Social Media above all as a marketing channel – their customers can click on a button to show their appreciation of their brands and products ("like" on Facebook, "+1" on Google+), comment on their posts and take part in contests and surveys. This way, they do not

only connect emotionally with these brands and products,⁸ but also act as a multiplier, carrying their appreciation on to their friends. By socially connecting with corporate Social Network pages, one becomes a “friend” who gets access to special promotion, news and information channels and thereby has something to talk about and to cite on his Social Media platforms. Hence, Social Media analysis tools are powerful and easy to use elements in market research. A visionary tool for market research and trend scouting in the Social Web is Condor, developed at the Massachusetts Institute of Technology (MIT). As it not only analyses Social Media platforms and typical Web 2.0 applications for trends, but can also analyse internal communication flows for important relations, it is an efficient way to optimise communications (cf. Gloor/Cooper 2007).

Web 2.0 already has a huge democratisation capacity, as it pushes transparency and involvement; with Social Media and the Social Web, this trend is intensified. This leads to process-oriented involvement, meaning the involvement of customers (and ultimately primary stakeholders) into the actual working process by influencing product design, or participating in submitting marketing ideas.⁹ Process-oriented involvement sees the community as a potent and infinite pool of creativity. Products and also company-internal matters can be solved not just through a small group of decision makers but through an environment of company-involved people. The new mindset towards the Social Web linked with the stage of process-oriented involvement can be regarded as the key criterion of Management 2.0. To tap their full potential, people need to be enabled to work together in real-time from anywhere. This is offered by collaboration suites like Google Apps and Microsoft Office 365, both including standard office applications, e-mail and organiser functions and data sharing for an annual fee not less than \$864 per user over the course of three years for Microsoft Office 365. Coming as web-based software on demand, it is a cloud computing technology. Even though these solutions are presented as cost-effective alternatives to offline office suites, they have possibly not yet reached nearly the same acceptance in its target group, the SME.¹⁰ There is a simple

8 The idea of “Emotional Identity” is discussed in detail in the same-titled paper in this publication Hofman/Habebschuss/Sonnenberg 2014:181.

9 An infamous example of a failed viral marketing campaign is the attempt to let the Facebook community vote for user-made label design of Henkel’s washing-up liquid “Pril” in 2011. The campaign “My Pril” successfully attracted more than 50,000 participants – but the community chose two line drawings the company did not want to put on the market: the so-called “rage guy”, a male face expressing serious disappointment, and a fried chicken with the slogan “tastes deliciously like chicken”. By appealing to the exclusion of immoral content in the conditions, Henkel ignored the democratic decision. After vehement protest of the community, at least a limited edition of the “Rage Guy” was announced.

10 According to a recent study of PwC, 80 per cent of the computing officers interviewed think that cloud computing is irrelevant and about 30 per cent do not even know the term. The press release can be found on <http://www.pwc.de/de/pressemitteilungen/2011/skeptischer-blick-auf-die-wolke-cloud-computing-ueberseugt-mittelstand-noch-nicht.html> (accessed: 10.01.2014).

reason for that: companies' typically conservative attitude towards fundamental workflow changes. Apart from these fee-based suites, various free applications can be found. File sharing can be done with Dropbox, a very successful and fast growing web-based file hosting service, where users can store and share files and folders with others. Direct communication is possible via multiple platform tools like Meebo, a social platform connecting users with their friends. Google Docs is the best example for a sophisticated work grouping, as it allows users to simultaneously edit text documents. This real-time collaboration with other users creates the situation that no train of thought will be lost. Setting up websites with content management systems is enabled via tools like Joomla! and managing communication channels via Social Media Management systems like Spredfast.

5.3 The Third Period: Community

In the last period, companies will finally have fully adopted the new view towards their community and use the opportunities of collective intelligence available to them for complex forecasting. This is what they consider themselves to be: Corporate Communities (Level 5), a network of people connected with each other and to the Social Capital surrounding them, with common goals and shared values. There are already brilliant tools, which help to involve a community in corporate decision-making processes while simultaneously using collective intelligence. Prediction Markets are a dynamic way of making measurements by aggregating opinions similar to what the stock market uses. The process of aggregating opinions is better at forecasting than almost all participants in the market are and they can be any forecast you are trying to measure (cf. Hubbard 2010: 257). With Prediction Markets, collective intelligence can be efficiently used for "bottom-up forecasting" (Hamel 2007: 241), or as Kammerer explains it: They basically work like "a stock exchange with a Web-based platform, people deal with information derivatives. They wager on the success of new strategies, innovations, solutions and projects. If their estimates change – the prices change. The price index creates an enormous transparency" (Wiek 2008: 25). An idea for a tool offering a solution to the problem of rewards within a community is given by Social Micropayments. It is based on the known concept of the micro donation system flatrr. Registered users can pay an amount every month (minimum 2 Euros) and then click Flatrr buttons ('flattring') on sites the users think of as worth being rewarded to share the money. But instead of sites, colleagues can be supported through communication networks.¹¹

¹¹ The idea of "Social Micropayments" is described in detail, with special regard to the very important topic of trust in dealing with communities, in the same-titled paper Andresen/Weiß 2014:249.

The communication consists of a compliment and a combined feedback of the colleagues. Thanks to intrinsic motivation, social capital is created which can help to overcome and solve dilemma situations. In the long run, Social Micropayments are able to implement and allocate values to companies.

Eventually the sixth level, effectively the perfection of this idea, is what we labelled the 'Meritocratic Swarm' – an organisation which is completely decentralised and self-organising. Everyone's merits will be used reasonably within this organisation and it will be supported by intelligent and autonomous software. We call this vision Management X.0. This final level of our maturity model overshoots the Corporate Community by far, being based on the idea of swarm-like organisations. The swarm is a self-organising crowd of people sharing basic interests and collectively pursuing certain targets.

Finally, our idea of Management X.0 viewed from around 2025 is as follows: After having already had a huge impact on society in general and management in particular, the web kept evolving and became increasingly intelligent in the way that software is now able to decide on its own, which information is relevant and which is not. This ability of computers not only to exchange and categorise but to interpret, process and relate information is labelled semantic in which humans are capable of using the web to carry out tasks. It leads to a final wave of ultimate decentralisation of companies: Corporate Communities are no longer run by certain persons or functionaries but by autonomous software. Based on the individual profile and capabilities of each member of the Corporate Community, the software decides whom to give a limited power of decision to in order to solve a certain problem, and takes it away afterwards so that he or she is an equal, highly motivated member of the swarm again. This is a meritocratic organisation as power is bound to merits such as expertise, experience, intelligence and ethos. Every member of the swarm usually has the role he or she wants to work in the most – except if put in charge. Then the individual decides in the interest of the community on the basis of their corporate values and virtues. The disadvantage is that people working together do not have the possibility to elect their representatives and cannot be elected themselves to guarantee that decision power is solely based on situational competence and not social soft skills and self-marketing campaigns. Those working in corporations designed as Meritocratic Swarms are highly regarded in society as they are following humanistic ideals.

PERIOD	LEVEL	ONLINE MANAGEMENT	BENEFIT	WEB EVOLUTION	TOOLS	
PRESENTATION	1	INFORMATION	REPRESENTATION AND CUSTOMER CONNECTIVITY	WEB 1.0	WEBSITES, YAHOO, EMAIL, NEWSLETTERS	} MANAGEMENT 1.0
	2	DIALOGUE		WEB 2.0	WIKIPEDIA, FLICKR, YOUTUBE, SYKPE	
INVOLVEMENT	3	PERSONAL INVOLVEMENT	TAPPING SOCIAL CAPITAL	SOCIAL MEDIA	FACEBOOK, GOOGLE+	} MANAGEMENT 2.0
	4	PROCESS-ORIENTED INVOLVEMENT		SOCIAL WEB	CONDOR, DROPBOX, MICROSOFT OFFICE 365	
COMMUNITY	5	CORPORATE COMMUNITY	USING COLLECTIVE INTELLIGENCE	CORPORATE SOCIAL NETWORK	PREDICTION MARKETS	} MANAGEMENT X.0
	6	MERITOCRATIC SWARMS		AUTONOMOUS SOFTWARE	STILL EXPECTED	

FIGURE 1: MATURITY LEVEL OF MANAGEMENT 2.0 (OWN SOURCE)

6. Conclusion: Brave New World!

The socio-technical evolution of web-based communication and online engagement has already had a huge impact on business culture. It affects the mindset towards the way corporations see themselves and the people they are related to. In the nearer future, new collaboration and communication technologies will be a key ingredient of the next version of management and change the idea of the company towards a Corporate Community. A thus far unknown potential of virtually direct communication among thousands of members of these communities, who can push themselves to peak performance and happiness at the same time simply by being passionate about their job is accessible. This releases a creativity that has been suppressed for a long time. The accompanying openness towards new ideas and change in all areas makes sure that people share knowledge with each other. Management 2.0 applies the openness mindset to a new leadership model and

can be seen as the successful transformation of a traditional company into a community. Social Web technology allows the application of this new model. Being an evolutionary process, the development towards Management 2.0 is not an option – it is inevitable. That is just what makes it so attractive to be one of the leaders of this process: to participate in forming the future and not having to abruptly restructure one's own enterprise in a couple of years. What is next is not settled at all but open to be formed. Again: Management 2.0 is not an option, but it is an opportunity. Thanks to this model and the new technologies, a fundamental human state which has been lost for years is becoming visible again: the concept of perceiving oneself as part of a community as Aristotle realised. And if we apply this to our modern business world: the concept of identifying with the corporations people work in and seeing themselves proudly as part of the company. This is the highly welcomed Corporate Community. Efficiently involved and intrinsic motivated people enjoy their tasks and act in a similar way in the community as a whole. With reference to Solomon, Management 2.0 engagement consequently serves the society and public good as well. If we are thinking further, we can observe developments towards a Management X.0 where decisions will be made by software and Meritocratic Swarms will be the mainspring of corporations.

We can only guess whether Aristotle would actually agree with us on the question of social networking and whether he would appreciate the idea of a software-run corporate swarm. But we know that we are excited about what the future of management will look like – and even more excited to take part in its shaping!

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