Leadership 2.0: Engaging and Supporting Leaders in the Transition Towards a Networked Organization

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Abstract

The adoption of social software brings about a plethora of socio-technological changes for organizations. A still largely unresolved challenge is to develop a better understanding of the consequences for leadership. To address this challenge, we first develop the notion of leadership 2.0, delineating it from previous leadership approaches. Then, we present results from 24 interviews conducted with people responsible for social software projects of publicly listed, mostly multinational organizations. Analyzing the interviews, we derive a set of activities that help to consider the role of leaders during the adoption and use of social software. We group the activities into three categories: convince (engage and activate leaders), sensitize (demonstrate the impact and develop new leadership models) and coach (help leaders to embrace the new tools and understand emergent use cases). We present this set of interventions as a framework to support and engage leaders in the transition process towards a networked organization.

1. Introduction

Over the past years, the increasing use of information and communication technologies has brought about a significant transformation of organizations [1,51,54]. Alongside other technologies, social software, such as wikis, blogs, and social network sites, have become a focal area for many organizations [12,15,22,24,29,32]. The use of social software contributes to the fact that a significant amount of work takes place virtually [21,34,38], i.e., in distributed groups, whose members are spread across different time zones and locations, communicating via information technology, aiming to accomplish a specific goal [55].

One of the most important drivers for the performance of a group is its leadership [2]. While leadership research has a long history in the discipline of management and organizational behavior [36,41,44], information system scholars have recently joined this debate to study the interplay of technology and leadership [18,30,48], which is usually associated with the terms e-leadership or virtual leadership [2,3,19].

Despite the increasing importance of virtual work, research on virtual leadership is still limited [17]. This is surprising as the increasing use of social software, in particular, raises a number of important leadership issues [7,33]. Among them are increased transparency and the reduction of communication hierarchies, which require an adaptive capacity on the side of the leaders [7]. Kahai [20] asserts that "most organizational leaders have yet to understand what this new [social software] context is and what it means for leadership." Furthermore, research on how to develop and educate e-leaders is largely missing to date [20,53]. This is all the more important since leadership commitment has been found to be one of the most important determinants for the success of a change initiative like the adoption of social software [25].

In this paper, we want to address the question how leaders can be targeted before, during, and after the implementation of enterprise social software. We collect evidence from a series of 24 interviews, most of them conducted at multinational organizations with multiple years of experience in social software projects. We qualitatively analyze the material and derive a set of activities that were used by responsibles of social software projects to deal with leaders, to help them to cope with the introduction of social software at their company – and, thus, to contribute to its adoption.

The remainder of the paper is structured as follows: First, by reviewing and integrating the extant literature, we aim to provide a better understanding of what leadership 2.0 is and how it may be distinguished from other types of leadership. Next, we outline the research design and present the findings of our study. We structure our findings along the three dimensions 'convince', 'sensitize', and 'coach'. Subsequently, we put our findings in context with previous literature on

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social software and leadership. The implications for research and practice are then presented, followed by limitations and suggestions for future research. We conclude our paper by suggesting directions for next research steps.

2. Leadership and social software

Leadership is traditionally understood as "the process (act) of influencing the activities of an organized group in its efforts towards goal setting and goal achievement" [44]. The key elements (influence, group, goal) have been used by a variety of researchers [10]. More recent approaches describe the leader as a 'manager of meaning' who defines organizational reality [36]. Leadership is currently referred to as a dyadic, shared, relational, strategic, global, and complex social dynamic [4,52].

In the history of leadership research, three dominant perspectives can be identified, namely the trait approach, the style approach, and the contingency approach [10,35]. The trait approach is grounded in the idea that people can be distinguished with help of certain personal characteristics that make them more likely to become leaders. The style approach, in turn, posits that certain actions and behaviors are likely to make some leaders more successful than others. Ultimately, the contingency approach emphasizes the fit between leaders and situational characteristics, arguing that adaptation is required from one context to another. Whereas a specific leadership style may be perfectly adequate in one situation, it does not necessarily have to be appropriate in another setting.

Burns [11] and Bass [6] brought about important change by discriminating between transactional and transformational leadership and introducing the notion of a symbolic or visionary leadership. They initiated the *new-genre leadership* research which continues until today. New-genre leadership models emphasize symbolic leader behavior, visionary, inspirational messages, emotional feelings, ideological and moral values, individualized attention, and intellectual stimulation [2]. We view leadership with social software as an emerging field within the leadership literature. In the big picture, it falls within the boundaries of the new-genre leadership, yet it is distinct from previous forms of IT-enabled leadership, such as virtual and e-leadership, both of which will be described in more detail below.

2.1. Virtual and e-leadership

As a basis for discussing the implications of the adoption and use of social software for leadership, we first review the results of earlier studies on the impact of information technology on leadership. These studies can be associated with two research streams, namely 'virtual leadership' or 'e-leadership' [3,23,53,55].

Virtuality can be characterized along four dimensions of dispersion: organizational, geographic, temporal, and cultural [55]. At the same time, virtuality should not be considered a categorical variable, i.e., it is not enough to distinguish solely between the polar cases of face-to-face and virtual teams, but focus instead on the degree of virtuality, thus considering virtuality as a variable with multiple levels [17]. Kayworth and Leidner [23] argue that some of the social mechanisms in communication are lost or distorted in virtual settings. For example, physical cues are absent or limited and having team members from different cultures may require greater communication skills, but may also lead to biases or misunderstandings. It has further been argued that the virtual or temporary nature of interactions in virtual environments may dilute certain leadership styles [16]. Kahai [20] adds that greater use of electronic communication may reduce social contact and limit the expression of emotions, both of which are important ingredients of leadership. Reduced social contact may also cause an overall reduction in serendipitous encounters and damage the cohesiveness of the group. Zigurs [55] points to the following issues that require careful attention in virtual environments: different leadership roles, negotiation of presence in virtual environments, structuration of group processes and, ultimately, the richness of the medium in question. In addition, virtual leadership effectiveness depends crucially on effective communication (e.g., prompt replies, continuous feedback), mutual understanding (e.g., care and concern for others' problems), role clarity (e.g., follow-through and mentoring), and leadership attitude (e.g., assertive, yet not bossy) [23]. Malhotra and colleagues [17] add the establishment and maintenance of trust in virtual settings and the appreciation of team diversity.

Avolio [3], in one of the first papers on *e-leadership*, states that the "successful implementation and integration of advanced information technology will typically require a transformation in the leadership system to accommodate the insertion of new technology." In other words, introducing technology as a mediating mechanism between leaders and followers is likely to alter a number of leadership features. Leadership systems and technology are thus anticipated to coevolve. Kahai and Avolio [19] define e-leadership "as a process of social influence that takes place in an organizational context where a significant amount of work is supported by information technology." As information technology changes, so

do patterns of how information is acquired, stored, and disseminated. As a consequence, changes in information technology affect how power is distributed across organizations and how decisions are made, both of which have significant leadership implications [20].

2.2. Framing leadership 2.0

A basic prerequisite for leadership 2.0 is proficiency and skill at communicating in social software environments and awareness of the various instruments to choose from in order to reach the target audience and accomplish the objective at hand. Drawing on and extending the definition put forward by Kahai and Avolio [19], we define leadership 2.0 as a process of social influence that takes place in an organizational context where a significant amount of work is supported by social software. Leaders who used to be very effective in traditional offline settings may face severe difficulties if the personal influence process that made them so successful in the first place cannot be transferred from a physical into a virtual context [23,55]. As a consequence, leaders' ability to adapt to social software is critical.

At this time, it is important to outline what makes leadership with social software distinct from previous types of computer-mediated leadership, such as virtual and e-leadership. On a general level, we argue that social software provides leaders with channels and tools to enhance interactions with other organizational stakeholders, effectively making them network enablers. This is in contrast with earlier notions of virtual and e-leadership, where scholars expressed strong concerns about reduced social contact.

In an effort to characterize social software, scholars have repeatedly made use of the concept of affordances [8,13,46,47]. This concept goes back to Gibson who suggests that physical objects are rarely perceived free of values and they are often associated with certain types of uses which influence perceptions. Essentially, then, the term affordance is about an object's perceived utility [14]. Markus and Silver define affordances as "possibilities for goal-oriented action afforded to specified user groups by technical objects" [31]. We believe that three social software affordances are particularly insightful in the leadership context as they affect leaders' abilities to influence a group towards the setting and achievement of specific goals. More specifically, these affordances are: authoring, reviewability, and association. We will discuss these briefly in the following to deduce the special characteristics of social software that impact leadership and point to challenges coming along with it. For an overview of additional social software affordances discussed in the literature, see Wagner et al. [47].

Authoring describes the act of generating content and putting it online for a broad audience [32]. Being able to take the role of an author gives leaders the chance to broaden their communicative strategies and, thus, their influence. Leaders can communicate important facts in a timelier and substantially more personal manner. They are no longer bound by corporate newsletters and other static material that is essentially one-way communication. In addition to written words, they may also make use of other types of media, such as photos and videos, to address their audience. For example, leaders may share their visions and provide directions to the group of employees by embedding their thoughts into blog posts, contributions to corporate wikis or discussion boards, and status updates on microblogging platforms. Being able to connect with their leaders 'in person' (please see section on Association below) and follow their thoughts with help of social software is likely to give employees a better sense of connectedness and belonging. At the same time, authoring is also possible for employees, thus making it possible for them to leave immediate feedback for leaders or voice criticism regarding organizational practices and norms, a fact that may be perceived by leaders as threatening.

Reviewability means that all communicative acts remain accessible over time [13,46]. Reviewability allows leaders to refer back to certain statements or discussions, by themselves or by others, and to demonstrate consistency in their actions. They may further evaluate planned strategies against actually achieved results, for example. It thus makes a leader more authentic. Reviewability also allows leaders to scrutinize content their employees have created and react to it, accordingly. Leaders may also use links to channel the group's attention to certain bits of information, e.g., a particular post or discussion. On the downside, reviewability provides a great deal of transparency regarding the authors' contributions, which may leave them feel vulnerable. It is also the precondition for replication and leakage of information, making it necessary to think carefully about data protection and security [8,26].

Association refers to the act of enabling individuals to make their social networks visible and establish connections between individuals, between individuals and content, or between an actor and a presentation [46]. First and foremost, leaders may use information about who is connected to whom, i.e., information about network structure, to target individuals in the organization who are particularly influential or who bridge certain subgroups within the organization. This may be the case if support for certain types of initiatives is sought. By analyzing certain connection structures among groups of employees, they may also

gain a better understanding of power struggles within the organization. Furthermore, monitoring associations between individuals and content, e.g., through an examination of profile information, tags, discussion threads, or interest groups, also allows leaders to identify relevant expertise if input is needed for a given problem. Admittedly, association may also work against leaders. A networked structure may challenge established hierarchies and therefore produce tensions [43]. Several stakeholder groups, who were previously unconnected, may become more powerful due to the availability of information and new opportunities for organizing. As a consequence, leaders may feel intimidated by the loss of control [7,20,33].

As shown above, social software means a paradigm shift for leaders. The affordances of authoring, reviewability, and association provide a number of opportunities, yet each of them also comes with specific challenges for leaders. A certain degree of resilience and openness on part of the leaders are required for a successful adaptation to leadership 2.0 [7]. While some leaders may be capable of adapting to a leadership 2.0 context intuitively to a certain extent, most leaders will not be able to adapt to the considerable changes by themselves. Interventions to support and engage leaders in the transition process towards a networked organization may thus be required.

3. Research design

In order to answer the research question, we conducted a series of semi-structured interviews with 24 persons responsible for the implementation of social software at publicly listed, multinational organizations in Germany. The selected organizations have had at least two years of experiences with a major social software initiative and can thus be considered first movers in the field.

The interviews were carried out from December 2012 until May 2013 and each of them lasted roughly one hour. There were two interviewers that worked closely together and exchanged after each interview. The interviews were recorded and subsequently transcribed. There was one case of an interviewee who did not want the interview to be recorded. We then coded the interviews to make an exploratory assessment of the approaches used in the projects. During the interviews, we adopted the role of neutral observers and aimed at gaining answers from different perspectives that were as frank as possible [49]. The transcribed interviews were sent to and have all been approved by the interviewees.

Prior to the interviews, we developed an interview guide to support the conversation with the interviewees [9,27,42]. The interview guide contained 23 questions in different categories and was basically structured into two parts according to the main questions: “What measures did you take during the implementation concerning the role of leadership?” and “Which changes did you perceive in the relationship between employees and leaders?” The interview guide allowed a meaningful comparison of the interviews and, at the same time, let sufficient room for comprehensive statements of the interviewees and additional questions from the interviewers [9]. Since the interviews were conducted in German, the quotations used in this paper were translated from German into English [39]. The following table gives an overview of the interviewees. As can be seen, we had 18 individuals that were responsible for the initiative in their organization and six that supported initiatives of other companies as consultants. Moreover, four interviewees could only report for a part of their company (in three cases these persons were responsible for the German initiative of a US-based company).

I/C	Industry	HQ	NOE	CW/lim	int/ext
Alpha	Insurance	G	> 140k	CW	int
Beta	Automobile	G	> 60k	CW	int
Gamma	Consumer goods	G	> 16k	lim	int
Delta	Automobile	G	> 100k	CW	int
Epsilon	Engineering & Electronics	G	> 300k	CW	int
Zeta	Electronics	G	~ 4k	CW	int
Eta	Consulting	F	> 120k	CW	int
Theta	Banking	G	~ 100k	CW	int
Jota	Engineering	G	~ 1,5k	CW	int
Kappa	Software	US	> 430k	lim	int
Lamda	Software	US	~ 94k	lim	int
Mü	Insurance	G	~ 45k	CW	int
Nü	Consulting	US	> 180k	lim	int
Xi	Engineering	G	~ 22k	CW	int
Omikron	Software	G	> 65k	CW	int
Pi	Engineering	G	~ 17k	CW	int
Rho	Engineering & Electronics	G	> 370k	CW	int
Sigma	Electronics	G	> 230k	CW	int
Tau	Research	A	dna	dna	ext
Ypsilon	Consulting	G	dna	dna	ext
Phi	Consulting	G	dna	dna	ext
Chi	Research	G	dna	dna	ext
Psi	Research	A	dna	dna	ext
Omega	Consulting	G	dna	dna	ext

Table 1. Overview of interviewees/companies

I/C = Interviewee/Company, HQ = Headquarters, NOE = number of employees, CW/lim = company-wide or limited to

part of the company, int = internal, i.e., responsible for the initiative of the own company, ext = external, i.e., supporting the initiative of one or several other companies, G = Germany, US = United States, A = Austria, dna = does not apply, since the consultants and researchers had experiences from several projects

The type of social software was not included in the table: Firstly, most of these big, multinational organizations have implemented several tools, including wikis, microblogging, and social network sites during the last years. Since we conducted our study very recently, our interviewees were all engaged in the latest approaches, i.e., most often the implementation of a social network site that includes or integrates a wiki and microblogging. This is also true for the consultants and researchers. Exceptions are Gamma, Zeta, and Mü. However, even among the exceptions, at least a wiki has been implemented. Secondly, it seems important to mention that social software can be conceptualized as malleable end-user software that is not developed for a clearly defined usage scenario within a specific business process and cannot be understood merely through its feature sets [40]. Rather, its benefits materialize only when the software has found its place in the everyday work practices of users. This necessitates active appropriation on part of the users, which entails practical experimenting and reflecting on emerging usage scenarios.

4. Findings

Through the interviews, we were able to identify a number of measures that have been taken to target the special role of leaders during the implementation of social software within organizations. We structure the activities into the following categories: to *convince* leaders of the utility of the new tools and generate a buy-in, to *sensitize* the leaders for issues that may arise due to the special characteristics of social software, and to *coach* them accordingly. Each of these steps was discussed in detail during the interviews and can therefore be broken down into several subcomponents. We will explain the three steps and their sub-components in the section below.

4.1. Convince

4.1.1. Gain attention and show benefits. We learned from the interviews that the attention of leaders on different levels was gained through internal marketing of social software projects in a variety of channels. In addition, success stories were collected and presented at corporate events to guarantee exposure to leaders. According to most of the interviewees, it was essential to communicate the benefits of using the tools, since these are not as obvious as those of other tools or initiatives. In order to show the benefits of using the social software initiative, three levels of arguments have been used: strategic arguments, arguments related to operating procedures, and, ultimately, personal appeals.

Strategic arguments often included the following: Organizations may enhance their employer branding through the initiative, making the organization more attractive to outsiders as a potential employer. Using social software may serve as a signal of technological readiness, guaranteeing a modern work culture, and a fresh corporate image. Senior leaders, including the executive level (like CEO, CIO), can use social software to listen and sense what is discussed within the organization. As a consequence, leaders may gain a richer understanding of the internal life of their own organization, obtaining a more nuanced picture of which issues concern their employees.

Arguments that address *operating procedures* often included faster identification of experts within a given knowledge domain, avoiding duplicate work and sharing of existing knowledge with others, tapping the creative potential of employees, i.e., generating new ideas and fostering innovation, and, last but not least, cost savings by reducing in-person business trips and moving meetings into virtual settings. Social software can also make organizations more flexible, giving leaders and employees room to work from locations other than the office, e.g., their home.

As for *personal appeals*, it was often mentioned in the interviews that leaders may be interested in enhancing their reputation through social software. This may be achieved by constructing targeted user profiles or contributions to relevant communities of practice. One comment was: *"You are present on a platform and 100.000 people may notice you. You can certainly be the star with many of those talking about you... This is very important for leaders, because they also live from their image."* (Interviewee Theta) Given the fact that participation in social software requires a certain degree of openness, transparency, and authenticity, leaders were also interested in using their engagement in social software to build trust with employees.

4.1.2. Address fears and prejudices. The interviewees reported to be confronted with a number of fears and prejudices on the side of the leaders. Many leaders fear the loss of control through social software. More specifically, they believe that more transparent and authentic communication may make them more vulnerable. On a related account, leaders are troubled

by the idea that employees may use social software to gossip about them or the organization. Last but not least, leaders are worried about the time and effort involved in learning how to use social software. Given that organizations face a multitude of IT-driven initiatives, many leaders do not want to be part of yet another IT project, as the following quote shows: *"If possible, do not position the project as a pure IT project, but as an organizational development project. They [i.e., the new tools] are there to support project management, to support communication, to support information and documentation processes, but this is no IT project, because these very often have a negative connotation."* (Interviewee Sigma)

4.1.3. Involve leaders. Another possibility to gain leadership support mentioned by most of the interviewees is to analyze the leaders' preferences and involve them in the initiative. Active leadership engagement is likely to trigger more support. At the same time, many interviewees pointed out that this is a difficult undertaking: *"If you present a concept paper to the management board, the leadership teams and so on… then you have the people on your side immediately. 'Yes, important. Changing values ... new generations and speed ... lalala'... So you just have fans. And then, when it comes to say: 'Okay, now we have social software in place. Here you go, ladies and gentlemen, executives: It's your turn to bring your processes in there now. Now change your way of working' - and then you will lose at least 90 percent or more."* (Interviewee Sigma) The preceding quote emphasizes how important it is to show what the platform means for the work practices. The following quote shows how the benefits were reported from leader to leader (on the same hierarchy level): *"And then leaders explained how they have used the [tool] in their project organization, the benefits they have gained ... we conducted this [knowledge transfer] at the beginning. And it has interestingly developed culturally with the effect that the employees do this themselves and independently now."* (Interviewee Xi)

4.2. Sensitize

4.2.1. Understanding the own (new) leadership role. All interviewees pointed out that leaders will never start from a neutral position when they embrace leadership 2.0. They will have a particular understanding of their leadership role which is influenced both by organizational values and having been immersed in its culture, but it is also affected by personal preferences and experiences regarding the use of social software. In fact, contrary to many other IT applications in the business world, social software started in the private domain and then spread to corporate settings. Many interviewees stressed that the role of a leader in social software environments includes providing direction and serving as a coordinator. It also incorporates coaching and mentoring. In contrast to traditional, hierarchical settings, leaders embracing a leadership 2.0 paradigm define themselves less by position and more by what they do. One project responsible stated: *"The leader is not there to check every bit and byte of work of their employees, but rather to mentor people, to coach them, to challenge them, so that people will continue to develop."* (Interviewee Kappa)

4.2.2. Realizing challenges of leadership 2.0. This section summarizes what responsibles of social software initiatives considered as most important and critical areas for leaders to be aware of. First, there are several legal issues that need to be taken into account when information is made visible for the whole company which leads to an increased pressure on leaders due to the speed and transparency of communication. At the same time, leaders need to be willing to give up control and pass on more responsibility to their subordinates. Getting information is no longer a matter of being informed by others (push mode), but instead becomes a personal responsibility (pull mode). While social software can contribute to worker flexibility, as mentioned above, it is also a leader's task to make sure that the flow of information for subordinates does not become overwhelming and workers do not feel obliged to remain in an 'always on' mode. Leaders need to find ways to protect their subordinates from excessive use.

4.2.3. Embracing cultural change. As mentioned above, the adoption and use of social software has repercussions for the entire organization, affecting leadership and organizational culture. All interviewees mentioned that leaders need to be made aware of the fact that social software requires open and transparent communication. Cooperation, thus, takes place at eye level, irrespective of traditional hierarchical levels. These new communication routines need to be understood and appreciated. *"In principle, there are measures that enable transparency; transparency that in turn can also promote open communication and participation, thereby increasing the intensity of cooperation. This is a cycle; this is a spiral that can go up or down, of course. Somewhere at this point I say: 'How can I create more trust between employee and manager, by trying to influence these factors, then?'"* (Interviewee Omikron)

For social software initiatives to be implemented successfully, a certain culture needs to prevail in an organization, i.e., organizational members need to share some basic assumptions, e.g., regarding openness and transparency. While these assumptions may not be shared initially by all employees, organizations will have to negotiate their own position towards these issues over time. The process of negotiation may be considered a phase of cultural adaptation which the leaders should actively manage. This is illustrated by the following quote: *"I think some write a blog post and then send an email afterwards to say that they have written a blog post. […] This is, I believe, what many are not yet aware of. Many still do not trust social media and think: Okay, email is the panacea."* (Interviewee Gamma)

4.3. Coach

4.3.1. Teach skills for leadership 2.0. According to the interviewed project responsibles, there are several essential skills leaders need to develop in order to operate in a leadership 2.0 environment. First, it is important to coach leaders in the field of information literacy, i.e., to enable them to identify, locate, evaluate, and effectively use information at hand. Second, leaders need to be specifically trained in digital communication skills, i.e., to make the best use of online resources. Third, leaders need media competence. This skill includes distinguishing between private and professional uses of social software, how to use different social software technologies, and when to use what kind of tool.

4.3.2. Developing a leadership 2.0 style. In the above sections, we mentioned transparency and openness as key attributes for a leadership 2.0 style. However, several other style features exist which any coaching effort should address. Being able to develop trust in virtual environments is first on the list. If possible, leaders should use rich communication media as they make it easier to transmit emotions. Leaders who actively use social software can thus serve as role models, in the best case through their own channels, e.g., by authoring a blog. Many interviewees reported stories of leaders who did so. These leaders sought and provided regular feedback from and to subordinates while actively encouraging communication across all levels of the hierarchy. According to most of the interviewees, these messages should be personal and authentic. One interviewee noted: *"And the executive should post directly and not have their posts filtered through four, five editors. An important point here is that the whole thing feels authentic, that you really notice: 'Okay, now this really comes from this person.' It should not simply be an anonymous, processed status message, where one can effectively read out nothing because you do not notice: 'What moves this person?' This personal touch should really be obvious. And then, in turn, this moves the employee, then they leave really personal comments on the subject, too."* (Interviewee Beta)

4.3.3. Establishing a point of contact. The organization should establish a point of contact for both technical as well as leadership questions related to the social software initiative. Several organizations have created the role of a community manager which may be viewed as a cross-functional supporter that serves as such a point of contact. One interviewee highlighted that this is a special role: *"Typically, I have such a community manager, a very communicative spirit that motivates the employees, and then, of course, also gets the task of trying to reach and motivate the executives […] So, it has to be very much a skillful communicator."* (Interviewee Beta)

5. Discussion

5.1. Further framing leadership 2.0

We have shown above that social software facilitates new types of communication and interactions which influence and challenge leaders. At the same time, we think it is important not to treat leadership 2.0 as a completely novel leadership paradigm, but instead as a special form of new-genre leadership which can and should be informed by existing leadership research. In the following paragraphs, we will further scrutinize the interrelationships between the affordances introduced earlier and the proposed interventions as well as the influences of other forms of leadership.

As a first step, it was suggested by the interviewees to engage and activate leaders (convince) by showing them the benefits of social software. Several types of arguments have been identified that can be attributed to the affordances of social software. For example, social software makes it easier to identify experts within a given knowledge domain. This benefit is attributable to the affordance of association as social software allows to make connections between people and content explicit [46]. It was also mentioned that social software prevents duplicate work and makes it easier to share knowledge with colleagues. This benefit is theoretically related to the affordance of reviewability [13]. A personal argument for persuasion of leaders to use social software was that they may use social

software for reputation management. Again, this argument draws on the affordance of reviewability. The content provided by leaders on social software is highly scalable and visible, making it easy for leaders to reach numerous employees. However, as we note in the section on coaching, high visibility by itself is not enough. Leaders also need to be able to draft authentic and convincing messages. This point is related to the affordance of authoring [32]. We found that leaders generally need coaching in order to understand how to draft messages for large audiences, how to construct targeted user profiles, or how to identify and contribute to relevant communities of practice.

When considering other leadership paradigms from the new-genre, we consider the influences from transformational and authentic leadership particularly relevant for leadership 2.0. The literature and our results suggest that openness and transparency, which characterize social software environments, have significant leadership implications [7,28]. However, as we have shown in the section on convincing leaders, one of their major preoccupations is that more transparent and authentic communication could leave them more vulnerable. The authentic leadership paradigm has a particular focus on transparency as well. Authentic leaders present themselves through openly sharing information and feelings as appropriate [2]. We thus argue that a certain degree of authenticity is required in leadership 2.0 contexts. Next, in the section on sensitizing leaders for their role, we observed that the leader's role was perceived to be not so much that of a supervisor, but more that of a coach or mentor who helps employees to continually develop. This notion has a clear connection to the notion of transformational leadership, where leaders are expected to provide a vision and are considered enablers for employees to achieve high levels of self-fulfillment [5]. Analogous to authenticity, we argue here that leadership 2.0 also contains a transformational component. This point is particularly important in light of the fact that transformational leadership has been shown to have a stronger effect on virtual teams compared to ones in face-to-face settings [37]. Last but not least, it has been shown previously that a combination of transformational and authentic leadership has the strongest effect on long-term work motivation and performance [50]. From this perspective, it seems not only reasonable, but even desirable, to incorporate these leadership concepts into the leadership 2.0 paradigm.

5.2. Implications for research and practice

In this paper, we took a close look at the implementation strategies of various social software initiatives and addressed the question of how leaders can be engaged and supported in this process. Our study goes beyond the preceding conversations on e-leadership or virtual leadership by considering the unique affordances that characterize social software environments. It helps scholars to better understand what leadership 2.0 is and how it may be distinguished from other types of IT-enabled leadership. By looking at leadership with social software, we further bridge the gap between research in organizational behavior and information systems.

Many organizations have realized that they need to become more active in the field of social software in order to reap the benefits associated with it. The approaches taken are often idiosyncratic. As a result, numerous leaders are still wondering how to make good use of social software and how to structure their organizations' activities accordingly. This paper provides a framework to personnel involved in social software initiatives on how to get organizational leaders on board and support them in their daily work through a broad range of activities.

5.3. Limitations

Our study has several limitations. First, the initial plan of our study was to categorize the measures according to different hierarchy levels of the leaders. However, during the interviews we realized that the people responsible for social software initiatives generally did not differentiate between the leaders at different levels of the hierarchy. For this reason, we decided against an explicit consideration of hierarchy levels in the final version of the paper. At the same time, we perceive the measures to be applicable to all leaders, i.e., for every person influencing a group towards the setting and achievement of a specific goal. Moreover, even though the organizations have had several years of experience, some of them are still in the introductory phase of their social software initiatives. Thus, the measures taken may be further elaborated or specified in later stages of the transition.

6. Conclusion

The adoption and use of social software impacts employees on all hierarchy levels of a company. In this paper, we focused on leaders, defining leaders broadly as all persons influencing the activities of an organized group towards the setting and achievement of a specific goal. With help of this study, we want to answer the question how leaders can be targeted before, during, and after the implementation of social software.

Using the theory of affordances, we showed how social software environments are theoretically different from previous forms of IT-enabled leadership. Based on the analysis of 24 interviews with responsibles of social software projects of publicly listed, multinational organizations, we presented three categories of targeted interventions: convince (engage and activate leaders), sensitize (demonstrate the impact on organizational culture and develop new leadership models), and coach (help them to embrace the new tools and understand emergent use cases).

With this paper, we have just begun to scratch the surface of the challenges associated with leadership in social software environments. Many questions regarding the consequences of social software adoption and use for leadership are still unanswered [2,7,17,20]. We hope that this paper will encourage future research to scrutinize leadership in social software environments in more detail. More specifically, we hope that future endeavors will try to connect leadership 2.0 with other types of affordances and leadership paradigms, particularly those of the new-genre. Due to the fact that most of the interactions in social software are time-stamped and thus traceable, researchers may also shift their attention to how leadership processes are structured and develop over time, i.e., how leadership dynamically emerges in social software environments [45]. Such emergent leadership research may trigger exciting new insights.

7. References

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