

Association for Information Systems

## AIS Electronic Library (AISeL)

---

AMCIS 2009 Proceedings

Americas Conference on Information Systems  
(AMCIS)

---

2009

### Towards Assessing the Success of Social Software in Corporate Environments

Philip Raeth

*European Business School*, philip.raeth@ebs.edu

Stefan Smolnik

*European Business School*, fuh@smolnik.net

Nils Urbach

*European Business School*, nils.urbach@uni-bayreuth.de

Christian Zimmer

*European Business School London*, christian.zimmer@ebs.edu

Follow this and additional works at: <https://aisel.aisnet.org/amcis2009>

---

#### Recommended Citation

Raeth, Philip; Smolnik, Stefan; Urbach, Nils; and Zimmer, Christian, "Towards Assessing the Success of Social Software in Corporate Environments" (2009). *AMCIS 2009 Proceedings*. 662.

<https://aisel.aisnet.org/amcis2009/662>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2009 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# Towards Assessing the Success of Social Software in Corporate Environments

**Philip Raeth**

European Business School (EBS)

Philip.Raeth@ebs.edu

**Nils Urbach**

European Business School (EBS)

Nils.Urbach@ebs.edu

**Stefan Smolnik**

European Business School (EBS)

Stefan.Smolnik@ebs.edu

**Christian Zimmer**

European Business School (EBS)

Christian.Zimmer@ebs.edu

## ABSTRACT

Induced by the widespread use of social software in personal contexts, companies wish to profit from its advantages. Owing to limited IT budgets and the need to justify investments in such systems, it is important to assess the benefits of employing social software in the corporate context. In this paper, we propose conceptual models for assessing the success of two specific types of social software: wikis and weblogs. These conceptual models are based on the DeLone and McLean IS Success Model as well as on an extensive review of social software literature. The two resulting models form the foundation for future empirical work in this area.

## Keywords

Social Software, Wikis, Weblogs, Information Systems Success

## INTRODUCTION

Social software refers to a range of web-based applications that allows users to interact and share information with one another (Green and Pearson 2005). The distinctive feature of such systems is the development of new ideas and concepts rather than technological innovation: Internet users are increasingly evolving from being an audience to forming a community that actively participates in the creation of content (O'Reilly 2007). With the emergence of a large number of wikis, weblogs, and social networking platforms like MySpace, Wikipedia, and Facebook, social software has become very popular in the personal context.

A 2008 study by Gartner indicates that this year half of all US companies will use wikis (Morse 2008). Other companies choose to implement weblogs (Efimova and Grudin 2007) or social network applications (Cross, Liedtka and Weiss 2005). The motive for using such software in the corporate environment is usually to improve communication with customers and business partners, and to encourage collaboration within the company (Bughin and Manyika 2007). However, due to limited budgets, IT departments and decision makers have to justify their investments and must, therefore, provide transparency concerning the impacts of new information systems (IS). Accordingly, it is essential to assess the success of social software in corporate environments.

To date, a few studies have scientifically investigated single aspects of social software success. Only two reviewed studies have examined social software success in a comprehensive and integrated way, but they either do not provide measures, or they lack a valid theoretical basis (Hester and Scott 2008; Trimi and Galanxhi-Janaqi 2008). Success measurement needs to consider both the tangible and intangible effects of success; this ensures a comprehensive assessment, identification of potential improvements, and justifies present and future investments. In our paper, we address these issues by proposing two conceptual models as well as possible corresponding operationalizations.

Generally, the dominant model for measuring IS success is the DeLone and McLean IS Success Model (D&M IS Success Model) (DeLone and McLean 1992, 2003). It is considered a sound basis for measuring social software success, since it is a comprehensive evaluation framework with validated measures and associations; it has also been applied to several types of IS (Urbach, Smolnik and Riempp 2008). However, it has to be adapted to social software's specific requirements. We therefore chose the D&M IS Success Model as a basis for our models.

In this paper, we report on our development of two conceptual models, based on the D&M IS Success Model. We further provide corporate wiki and weblog success measures that could provide a basis for future operationalizations. Section 2

describes the theoretical foundations of social software and presents a brief literature review of IS measurement and social software success. Section 3 outlines the methodological approach applied in the research process. In section 4, we present our results, i.e. the wiki and weblog success models. To conclude, we summarize the paper's contribution, refer to social software's limitations in corporate environments, and present suggestions for future research.

## FOUNDATIONS

### Social Software

In general, *social software* refers to web-based applications that support human collaboration and communication (Green and Pearson 2005). Social software is not an entirely new phenomenon; Social computing, groupware, and computer supported cooperative work (CSCW) are similar concepts that have been explored in scientific literature since the 1980's. However, the spread of the Internet, its bandwidth growth, and the increasing power of personal computers have increased the popularity of social software (Parameswaran and Whinston 2007). Moreover, social software differs considerably from previous paradigms, since it is more people-oriented. Communities emerge instead of being imposed. Social software comprises various applications from online community platforms, such as wikis or weblogs, to interactive entertainment (Wang, Zeng, Carley and Mao 2007). Finally, the variety of application areas is large: Whether used in libraries (Spiteri 2007), e-learning (Lin and Yuan 2006), or corporations (Efimova and Grudin 2007; McAfee 2006), social software is adopted within various settings. Corporations focus primarily on two types of social software applications: wikis and weblogs. A global McKinsey study recently confirmed that one-third or more of companies currently use or plan to use these technologies (Bughin and Manyika 2007). Given the aim of our research endeavor, we focus on wikis and weblogs, which we now briefly describe.

A *wiki* is an easy to use website designed to collect information collaboratively. Users can rapidly generate new articles and modify existing articles, even if they are not the initial author (Tepper 2003). Each article is automatically converted into a web page, which is instantly available through the website. The different articles can be sorted into categories, are referenced in an internal search engine, and related web pages are usually linked (Hippner 2006). A new wiki can be easily set up and requires little initial configuration, since the community organizes the content from the bottom up (Beck 2007; Gouthier and Hippner 2007). A community often forms around such a website, and the users not only consume information, but also actively participate in improving and expanding it. Since all users can usually contribute to a wiki, it is easy to keep the information up to date if the community is active and large enough (Beck 2007; McAfee 2006). Increasingly, corporations are also using wikis to support employee collaboration and knowledge management (Majchrzak, Wagner and Yates 2006; Wagner 2004).

*Weblogs* are websites in which an author or a group of authors publishes articles sporadically or at regular intervals. The dynamic index page of a weblog lists the articles or extracts from them counter-chronologically so that the most recent item is listed first. Visitors can use this function to read the complete article, and they also have an opportunity to comments on it. The author and other visitors can, in turn, respond to these comments, creating vivid discussions (Hippner 2006; Ip and Wagner 2008). Weblogs are often created by individuals or small groups of individuals, but the number of corporate weblogs is also steadily increasing (Du and Wagner 2006). The application areas of corporate weblogs are very diverse. Some corporate weblogs are only for internal use, but companies also apply this technology to market communications and public relation tasks (Efimova and Grudin 2007).

### IS Success

The IS literature provides several definitions and measures of IS success. As DeLone and McLean state, there are nearly as many measures as there are studies (1992). Obviously, there is no ultimate definition of IS success. Each group of stakeholders who assess IS success in an organization (Grover, Jeong and Segars 1996) has a different definition. From a software developer perspective, a successful IS is completed on time and within budget, has a set of features that is consistent with the specifications, and functions correctly. Users may find an IS successful if it improves their work satisfaction or work performance. From an organizational perspective, a successful IS contributes to the company's profits or creates a competitive advantage. Furthermore, IS success also depends on the type of system that is evaluated (Seddon, Staples, Patnayakuni and Bowtell 1999).

In order to provide a more general and comprehensive definition of IS success that covers these different points of view, DeLone and McLean (1992) reviewed the existing definitions of IS success and their corresponding measures, and classified them into six major categories. They therefore created a multidimensional measuring model with interdependencies between the different success categories. This D&M IS Success Model received much attention from IS researchers who thereafter have often treated and measured IS success as a multidimensional construct. Motivated by DeLone and McLean's call for

further development and validation of their model, many researchers have attempted to extend or respecify the original model. A number of researchers claim that the D&M IS Success Model is incomplete and suggest that more dimensions should be included in the model, or present alternative success models (Ballantine, Bonner, Levy, Martin, Munro and Powell 1996; Seddon 1997). Other researchers focus on the application and validation of the model (Rai, Lang and Welker 2002). Judged by its frequent citations in articles published in leading journals, the D&M IS Success Model has, despite some revealed weaknesses (Hu 2003), become the dominant evaluation framework in MIS research, in part due to its understandability and simplicity.

Ten years after the publication of their first model, and based on the evaluation of the many contributions to it, DeLone and McLean proposed an updated IS success model (DeLone and McLean 2003). This updated model consists of six interrelated dimensions of IS success: information, system and service quality, (intention to) use, user satisfaction, and net benefits. The model can be interpreted as follows: A system can be evaluated in terms of information, system and service quality; these characteristics affect subsequent use or intention to use and user satisfaction. As a result of using the system, certain benefits will be achieved. The net benefits will (positively or negatively) influence user satisfaction and further IS use.

### **Research on Social Software Success**

Success in the field of social software can be perceived in many dimensions, as is the case with IS success in general. However, there is little documented research on social software success measurement. Some studies investigate single aspects, but only two of the studies we reviewed took a comprehensive, integrated approach (Hester and Scott 2008; Trimi and Galanxhi-Janaqi 2008). We conducted an extensive literature review in order to obtain insight into the existing literature in this area. Finally, we ended up with a set of articles investigating various aspects of social software success, summarized in the following.

Hsu and Lin investigate people's intention to blog by considering technology acceptance factors, knowledge-sharing factors, and social influence factors in order to assess whether a person is a blogging candidate. They conclude that people's blogging tendencies are influenced by their attitude towards blogging, which is influenced by whether they identify with the blogging community (Hsu and Lin 2008). Ip and Wagner identify several types of bloggers and their corresponding social needs. These investigations, together with an adapted task-technology fit model, lead to an identification of the possible impact of weblogs on organizations and customer relationships (Ip and Wagner 2008). Du and Wagner highlight another dimension of weblog success by exploring the role of weblog technology and its impact on weblog popularity, highlighting the importance of technological features within weblogs (Du and Wagner 2006). In addition, Trimi and Galanxhi-Janaqi (2008) emphasize the congruence that has to exist between the organization's and user's benefits from blogs and the importance of this for the acceptance and success of blog technology in a corporation. On this basis, they propose a research framework for further empirical studies. Nevertheless, the paper fails to provide precise operationalized measures and lacks a theoretically validated basis. Hester and Scott do, however base their comprehensive model on the diffusion of innovation theory. They incorporate organizational constructs, such as organizational culture and individual user perceptions, to assess wiki diffusion in organizations. Still, the proposed model is in a very early stage of research and also lacking operationalized measures (Hester and Scott 2008).

In conclusion, several studies try to evaluate certain types of social software from different perspectives. We did, however, find one conceptual study investigating the success of wikis as well as one studying the success of corporate blogging, though both have the above-mentioned shortcomings.

### **RESEARCH METHODOLOGY**

The long-term objective of our research is to present reliable and valid instruments for measuring the success of social software – in this study particularly of wikis and weblogs – in corporate contexts. The first stage of this research project, of which the first results are presented in this paper, is the development of conceptual models based on theoretical considerations. Our initial research process consisted of three steps: (1) The identification of relevant literature, (2) the classification of existing success measures and dimension associations, and (3) supplementing the success measures.

In order to achieve a sound theoretical basis, we collected literature on social software, following approach established by Webster and Watson (Webster and Watson 2002). We searched electronic databases using search strings (e.g., “social software,” “wiki,” “weblog”) and scanned journals' and conference proceedings' tables of contents to find articles not caught by the keyword sieve. Furthermore, we worked backward by reviewing the citations of the articles already identified to determine prior articles that are relevant.

The updated D&M IS Success Model appears to be an appropriate framework for application in the social software context, since it is a comprehensive evaluation framework; the proposed associations have been validated by a large number of empirical studies; there are many validated measures for the proposed success dimensions that can be reused; it has been applied to several types of IS; and it is the dominant evaluation framework in IS research (Urbach et al. 2008). Consequently, we reviewed the identified articles and classified the applied success measures and their operationalizations, as well as proposed associations according to the D&M IS Success Model. We added additional success measures and their operationalization where important aspects of the content domain had not been covered. These additions were mainly based on the literature of related domains such as web-based system and knowledge management, as well as our experiences.

The results of this early stage of research are two conceptual models for wiki and weblog success as presented in the next section. Before the models can be used for survey-based research, they certainly need further development and validation. We are, for example, currently conducting an explorative case study with an international organization to receive valuable qualitative insights into the proposed models. In the second stage of our research, we will apply classic test theory methods to validate the resulting survey instrument and to assess the measurement model. These methods will include discussions with experts to achieve content validity, a card-sorting and item-ranking approach to ensure construct validity, as well as pre-testing in order to ensure the quality of the survey instrument design and presentation. Furthermore, we will use a partial least squares (PLS) approach to validate and refine the instrument. Given an adequate measurement model, field studies will be conducted in several organizations within different industries.

## TOWARDS WIKI AND WEBLOG SUCCESS MODELS

The challenge of applying the D&M IS Success Model to social software lies in the heterogeneity between the different application types. These application types diverge considerably in terms of characteristics, functionalities, and the objectives that they try to achieve (see the foundations section). For this reason, it is not feasible to create one social software success model for the assessment of all types of social software applications. Consequently, we propose separate conceptual models, starting with wiki and weblog success models as presented in the following sections.

### Wiki Success Model

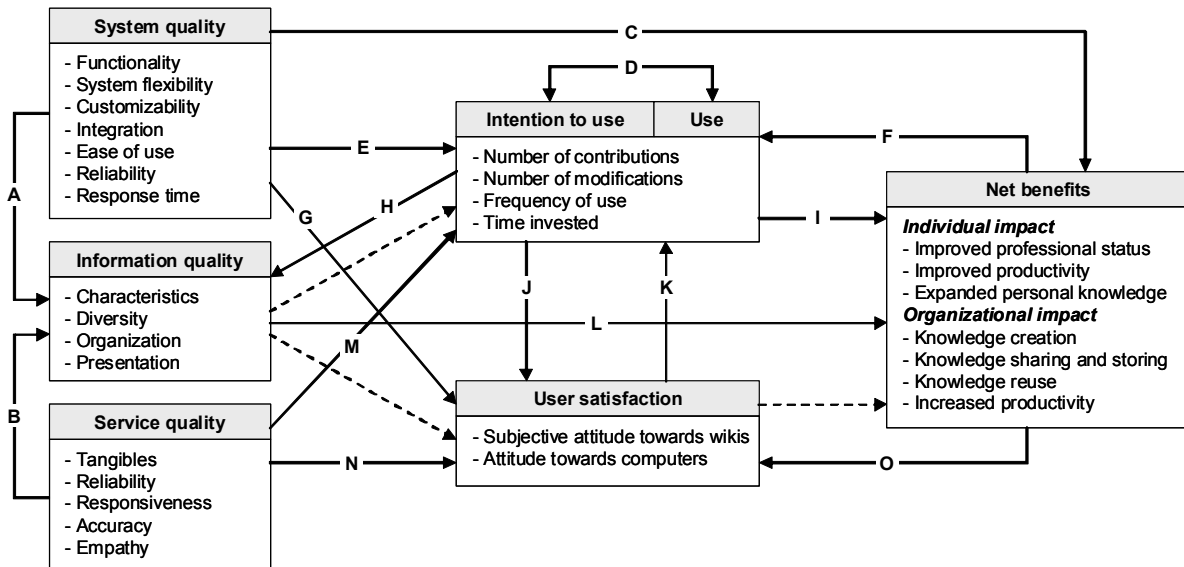
Table 1 contains wiki success measures as well as the measurement approaches. We also present references to the literature in which the measures have been proposed, theoretically deduced (\*), and empirically tested (+).

Success measures	Measurement approach	Source(s)
<i>System quality</i>		
Functionality	Proportion of desired functions supported by the wiki	(Maxwell 2007; Wagner and Bolloju 2005)*, (Hepp, Siorpaes and Bachlechner 2007; Majchrzak et al. 2006; Müller and Dibbern 2006) <sup>+</sup>
Flexibility	Interviews with technicians and administrators	(Wagner 2004; Wagner and Majchrzak 2007)*, (Müller and Dibbern 2006; Raman 2006) <sup>+</sup>
Customizability	Interviews with technicians and administrators	(Wagner 2004; Wagner and Majchrzak 2007)*, (Müller and Dibbern 2006; Raman 2006) <sup>+</sup>
Integration	Interviews with technicians and administrators	(Beck 2007)*
Ease of use	Survey of the users	(Hasan and Pfaff 2006; Maxwell 2007)*, (Hepp et al. 2007; Raman 2006; Wagner and Majchrzak 2007) <sup>+</sup>
Reliability	Survey of the users	(Bharati and Chaudhury 2004; Lin and Lee 2006) <sup>+</sup>
Response time	Survey of the users	(Bharati and Chaudhury 2004; Lin and Lee 2006) <sup>+</sup>
<i>Information quality</i>		
Characteristics	Analysis of a representative fraction of the article, survey of the users	(Reisberger and Smolnik 2008)*, (Hepp et al. 2007; Majchrzak et al. 2006; Müller and Dibbern 2006) <sup>+</sup>
Diversity	No. of articles, proportion of requests failing to yield expected results	(Reisberger and Smolnik 2008)*
Organization	Survey of the users	(Maxwell 2007; Wagner 2004)*, (Majchrzak et al. 2006; Müller and Dibbern 2006) <sup>+</sup>
Presentation	Survey of the users	(Maxwell 2007; Wagner 2004)*, (Majchrzak et al. 2006; Müller and Dibbern 2006) <sup>+</sup>

<i>Service quality</i>		
Tangibles	SERVQUAL survey of the users	(Hasan and Pfaff 2006; Reisberger and Smolnik 2008)*, (Müller and Dibbern 2006; Raman 2006; Wagner and Majchrzak 2007) <sup>+</sup>
Reliability	SERVQUAL survey of the users	(Reisberger and Smolnik 2008)*, (Parasuraman, A. and L. 1998; Pitt, Watson and Kavan 1995) <sup>+</sup>
Responsiveness	SERVQUAL survey of the users	(Reisberger and Smolnik 2008)*, (Parasuraman et al. 1998; Pitt et al. 1995) <sup>+</sup>
Accuracy	SERVQUAL survey of the users	(Parasuraman et al. 1998; Pitt et al. 1995) <sup>+</sup>
Empathy	SERVQUAL survey of the users	(Parasuraman et al. 1998; Pitt et al. 1995) <sup>+</sup>
<i>Use and intention to use</i>		
Number of contributions	Evolution of the number of articles, survey of the users	(Majchrzak et al. 2006; Wagner and Majchrzak 2007) <sup>+</sup>
Number of modifications	System features and log statistics, survey of the users	(Majchrzak et al. 2006; Wagner and Majchrzak 2007) <sup>+</sup>
Frequency of use	System features and log statistics, survey of the users	(Reisberger and Smolnik 2008)*
Time invested	System features and log statistics, survey of the users	(Reisberger and Smolnik 2008)*
<i>User satisfaction</i>		
Subjective attitude towards wikis	Survey of the users	(Reisberger and Smolnik 2008)*, (Bailey and Pearson 1983; Müller and Dibbern 2006; Rushinek and Rushinek 1986) <sup>+</sup>
Attitude towards computers	Survey of the users	(DeLone and McLean 1992)*
<i>Individual impact</i>		
Improved professional status	<i>No success measure found</i>	(Reisberger and Smolnik 2008)*, (Majchrzak et al. 2006) <sup>+</sup>
Improved productivity	Evolution of personal productivity	(Reisberger and Smolnik 2008)*
Expanded personal knowledge	<i>No success measure found</i>	(Cress and Kimmerle 2008)*
<i>Organizational impact</i>		
Knowledge creation	<i>No success measure found</i>	(Fuchs-Kittowski and Köhler 2002; Raman 2006) <sup>+</sup>
Knowledge sharing and storing	Number of articles	(Fuchs-Kittowski and Köhler 2002; Raman 2006) <sup>+</sup>
Knowledge reuse	Number of article consultations	(Majchrzak et al. 2006) <sup>+</sup>
Increased productivity	Evolution of overall productivity	(Reisberger and Smolnik 2008)*, (Majchrzak et al. 2006) <sup>+</sup>

Table 1. Wiki Success Measures

Figure 1 presents the wiki success model based on the D&M IS Success Model. The relations between the success dimensions, which have been deduced from theory (\*) or empirically tested (+), are illustrated (solid arrows) and relevant literature references are given; the original relations not referred to are illustrated as dashed arrows.



A: (Du and Wagner 2006; Müller and Dibbern 2006)+, B: (Müller and Dibbern 2006)+, C: (Wagner and Bolloju 2005)\*, D: (Majchrzak et al. 2006; Wagner and Majchrzak 2007)+, E: (Müller and Dibbern 2006; Wagner and Majchrzak 2007)+, F: (Majchrzak et al. 2006; Müller and Dibbern 2006; Wagner and Majchrzak 2007)+, G: (Wagner and Majchrzak 2007)+, H: (Müller and Dibbern 2006; Wagner and Majchrzak 2007)+, I: (Müller and Dibbern 2006)+, J: (Wagner and Majchrzak 2007)+, K: (Müller and Dibbern 2006)+, L: (Hasan and Pfaff 2006)\*, M: (Müller and Dibbern 2006; Wagner and Majchrzak 2007)+, N: (Müller and Dibbern 2006; Wagner and Majchrzak 2007)+, O: (Majchrzak et al. 2006; Wagner and Bolloju 2005)+

Figure 1. Wiki Success Model

**Weblog Success Model**

The weblog success measures and model are presented analogously. The weblog success measures are presented in table 2, which again contains both measures and corresponding measurement approaches. The relevant literature is indicated and again categorized into theoretically deduced (\*) and empirically tested (+) sources.

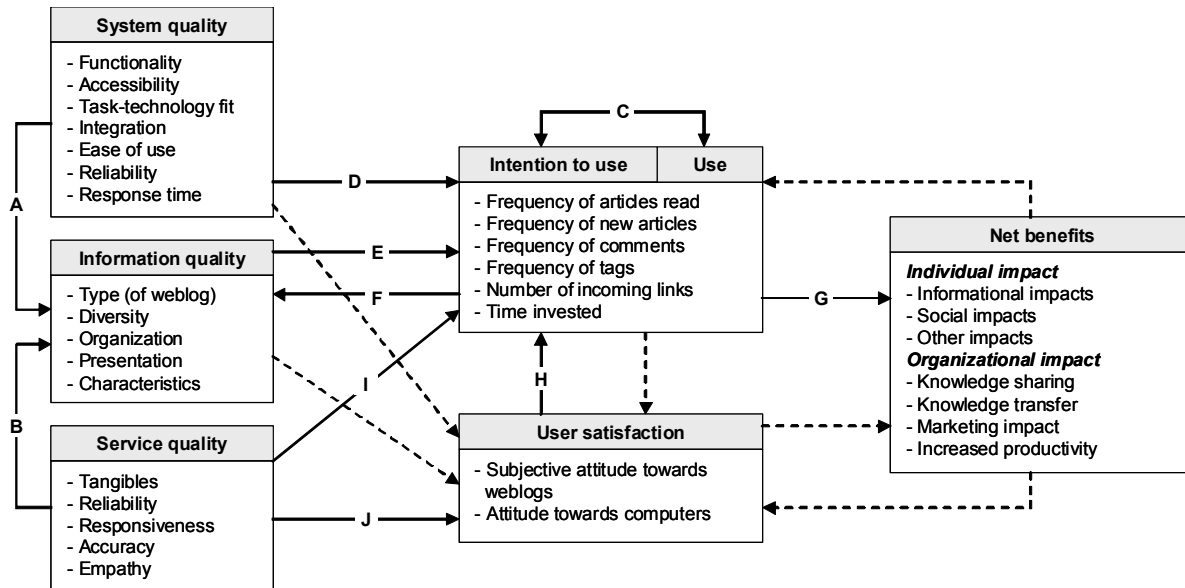
Success measures	Measurement approach	Source(s)
<i>System quality</i>		
Functionality	Type of weblog engine	(Du and Wagner 2006; Herring, Scheidt, Bonus and Wright 2005; Ip and Wagner 2008)+
Accessibility	Degree of accessibility: public, intranet, or restricted	(Wagner and Bolloju 2005; Zerfaß 2005)*, (Efimova and Grudin 2007; Ip and Wagner 2008; Jackson, Yates and Orlikowski 2007)+
Task-technology fit	Proportion of the desired functions	(Ip and Wagner 2008)+
Integration	Interviews with technicians and administrators of the community; type of weblog engine, availability of RSS, permalink, trackback, blogroll, and pingback	(Blood 2004; Du and Wagner 2006; Jackson et al. 2007)+
Ease of use	Survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Du and Wagner 2006)+
Reliability	Survey of the authors and readers	(Bharati and Chaudhury 2004; Lin and Lee 2006)+
Response time	Survey of the authors and readers	(Bharati and Chaudhury 2004; Lin and Lee 2006)+
<i>Information quality</i>		
Type (of weblog)	Filter, personal journal, electronic notebook, mixed, or other	(Blood 2002)*, (Du and Wagner 2006; Efimova and Grudin 2007; Herring et al. 2005)+
Diversity	Number of articles	(Reisberger and Smolnik 2008)*
Organization	Overall number of tags, tags per article, inter-weblog links	(Hasan and Pfaff 2006; Wagner and Bolloju 2005)*, (Rushinek and Rushinek 1986)+
Presentation	Survey of the readers	(Reisberger and Smolnik 2008)*, (Du and Wagner 2006)+
Characteristics	Survey of the readers	(Glass 2007)*, (Efimova and Grudin 2007; Herring et al. 2005; Ip and Wagner 2008; Schmidt 2008)+

<i>Service quality</i>		
Tangibles	SERVQUAL survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Ip and Wagner 2008; Jackson et al. 2007; Schmidt 2008) <sup>+</sup>
Reliability	SERVQUAL survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Ip and Wagner 2008; Jackson et al. 2007; Schmidt 2008) <sup>+</sup>
Responsiveness	SERVQUAL survey of the authors and readers	(Efimova and Grudin 2007; Ip and Wagner 2008; Jackson et al. 2007; Schmidt 2008) <sup>+</sup>
Accuracy	SERVQUAL survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Ip and Wagner 2008; Jackson et al. 2007; Schmidt 2008) <sup>+</sup>
Empathy	SERVQUAL survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Ip and Wagner 2008; Jackson et al. 2007; Schmidt 2008) <sup>+</sup>
<i>Use and intention to use</i>		
Frequency of articles read	Usage statistics from web server and weblog engine, survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
Frequency of new articles	Usage statistics from web server and weblog engine, survey of the authors and readers	(Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
Frequency of comments	Usage statistics from web server and weblog engine, survey of the authors and readers	(Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
Frequency of tags	Usage statistics from web server and weblog engine, survey of the authors and readers	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
Number of incoming links	Usage statistics from web server and weblog engine	(Du and Wagner 2006; Efimova and Grudin 2007; Jackson et al. 2007) <sup>+</sup>
Time invested	Survey of the authors and readers	(Du and Wagner 2006; Efimova and Grudin 2007; Jackson et al. 2007) <sup>+</sup>
<i>User satisfaction</i>		
Subjective attitude towards weblogs	Survey of the authors, commentators, and readers	(Reisberger and Smolnik 2008)*, (Bailey and Pearson 1983; Efimova and Grudin 2007; Ip and Wagner 2008; Rushinek and Rushinek 1986) <sup>+</sup>
Attitude towards computers	Survey of the authors, commentators, and readers	(DeLone and McLean 1992)*
<i>Individual impact</i>		
Informational impacts	Survey of the users to assess the expected and obtained impact	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
Social impacts	Survey of the users to assess the expected and obtained impact	(Reisberger and Smolnik 2008)*, (Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
Other impacts	Survey of the users to assess the expected and obtained impact	(Efimova and Grudin 2007; Lin and Lee 2006) <sup>+</sup>
<i>Organizational impact</i>		
Knowledge sharing	Number of articles and comments on internal weblogs	(Reisberger and Smolnik 2008; Wagner and Bolloju 2005)*, (Jackson et al. 2007) <sup>+</sup>
Knowledge transfer	Number of visitors on internal weblogs	(Reisberger and Smolnik 2008; Wagner and Bolloju 2005)*, (Jackson et al. 2007) <sup>+</sup>
Marketing impact	Number of external visitors reading articles	(Efimova and Grudin 2007; Ip and Wagner 2008) <sup>+</sup>
Increased productivity	Evolution of overall productivity	(Reisberger and Smolnik 2008)*

Table 2. Weblog Success Measures

The weblog success model is presented in figure 2. Again, the relations between the success dimensions are indicated accordingly to whether they are specific for weblogs (solid arrows), or are from the original model and not referred to (dashed).





A: (Efimova and Grudin 2007)<sup>+</sup>, B: (Efimova and Grudin 2007)<sup>+</sup>, C: (Du and Wagner 2006; Jackson et al. 2007)<sup>+</sup>, D: (Blood 2004; Du and Wagner 2006; Efimova and Grudin 2007; Ip and Wagner 2008; Jackson et al. 2007)<sup>+</sup>, E: (Du and Wagner 2006; Herring et al. 2005)<sup>+</sup>, F: (Jackson et al. 2007)<sup>+</sup>, G: (Jackson et al. 2007)<sup>+</sup>, H: (Efimova and Grudin 2007)<sup>+</sup>, I: (Jackson et al. 2007)<sup>+</sup>, J: (Efimova and Grudin 2007)<sup>+</sup>

Figure 2. Weblog Success Model

## CONCLUSIONS

We started our paper by describing different types of social software and presented characteristics of wikis and weblogs. Subsequently, in our review of the IS and social software success literature, we found no study aimed at comprehensively evaluating social software, i.e. specifically aimed at wikis and weblogs. We propose two conceptual models, which are based on the D&M IS Success Model, for measuring wiki and weblog success. Furthermore, we briefly present the research methodology for the further development and validation of these models. This paper's main contribution is the theory and literature-based deduction of the initial models that provide measures that can be operationalized for an empirical validation. Furthermore, these models pave the way for further investigations, models, and/or adaptations in the area of social software success research.

The research presented is limited in that the proposed models are merely based on an extensive literature review and on our experiences. The results are the foundation for future empirical work in this area. However, the models need further development and validation before they can be applied in practice.

Our future research within this long-term research study will focus on empirically validating the conceptual models and on applying them in practice. The empirical validation has already started with an explorative qualitative phase (case studies, expert and user interviews) and will include quantitative methods (survey-based). Moreover, we will consider other kinds of social software – particularly social networks. Like the existing research approaches, our proposed models ultimately focus on intangible measures. Further studies should therefore examine how to combine the monetary measures used in practice with approaches for measuring intangible benefits.

## REFERENCES

1. Bailey, J. E. and Pearson, S. W. (1983) Development of a Tool for Measuring and Analyzing Computer User Satisfaction, *Management Science*, 29, 5, 530-545.
2. Ballantine, J., Bonner, M., Levy, M., Martin, A., Munro, I. and Powell, P. (1996) The 3-D model of information systems success: the search for the dependent variable continues, *Information Resource Management Journal*, 9, 4, 5-14.
3. Beck, A. (2007) Web 2.0: Konzepte, Technologie, Anwendungen, *HMD - Praxis Der Wirtschaftsinformatik*, 255, 5-16.
4. Bharati, P. and Chaudhury, A. (2004) An empirical investigation of decision-making satisfaction in web-based decision support systems, *Decision Support Systems*, 37, 2, 187-197.
5. Blood, R. (2002) *The Weblog Handbook: Practical Advice on Creating*, Perseus Publishing, Cambridge, MA.

6. Blood, R. (2004) How Blogging Software Reshapes the Online Community, *Communications of the ACM*, 47, 12, 53-55.
7. Bughin, J. and Manyika, J. (2007) How businesses are using Web 2.0: A McKinsey Global Survey, *McKinsey Quarterly*, 32-39.
8. Cress, U. and Kimmerle, J. (2008) A systemic and cognitive view on collaborative knowledge building with wikis, *International Journal of Computer-Supported Collaborative Learning*, 3, 2, 105-122.
9. Cross, R., Liedtka, J. and Weiss, L. (2005) A Practical Guide to Social Networks, *Harvard Business Review*, 83, 3, 124-132.
10. DeLone, W. H. and McLean, E. R. (1992) Information Systems Success: The Quest for the Dependent Variable, *Information Systems Research*, 3, 1, 60-95.
11. DeLone, W. H. and McLean, E. R. (2003) The DeLone and McLean Model of Information Systems Success: A Ten-Year Update, *Journal of Management Information Systems*, 19, 4, 9-30.
12. Du, H. S. and Wagner, C. (2006) Weblog Success: Exploring the Role of Technology, *International Journal of Human Computer Studies*, 64, 9, 789-798.
13. Efimova, L. and Grudin, J. (2007) Crossing Boundaries: A Case Study of Employee Blogging, *Proceedings of the 40th Hawaii International Conference on System Sciences (HICSS-40)*, January 3-6, Big Island, Hawaii, USA.
14. Fuchs-Kittowski, F. and Köhler, A. (2002) Knowledge creating communities in the context of work processes, *ACM SIGGROUP Bulletin*, 23, 3, 8-13
15. Glass, R. L. (2007) What's with This Blog Thing?, *IEEE Software*, 24, 5, 103-104.
16. Gouthier, M. H. J. and Hippner, H. (2007) Web 2.0-Anwendungen als Corporate Social Software, in: *Web 2.0 - Neue Perspektiven für Marketing und Medie*, B.H. Hass, G. Walsh and T. Kilian (eds.). Springer, Heidelberg: 91-100.
17. Green, D. T. and Pearson, J. M. (2005) Social Software and Cyber Networks: Ties That Bind or Weak Associations within the Political Organization?, *Proceedings of the 38th Hawaii International Conference on System Sciences (HICSS-38)*, January 3-6 Big Island, Hawaii.
18. Grover, V., Jeong, S. R. and Segars, A. H. (1996) Information systems effectiveness: The construct space and patters of application, *Information & Management*, 31, 4, 177-191.
19. Hasan, H. and Pfaff, C. C. (2006) The Wiki: an environment to revolutionise employees' interaction with corporate knowledge, *Proceedings of the 20th conference of the computer-human interaction special interest group (CHISIG)*, November 20-24, Sydney, Australia.
20. Hepp, M., Siorpaes, K. and Bachlechner, D. (2007) Harvesting Wiki Consensus: Using Wikipedia Entries as Vocabulary for Knowledge Management, *IEEE Internet Computing*, 11, 5, 54-65.
21. Herring, S. C., Scheidt, L. A., Bonus, S. and Wright, E. (2005) Weblogs as a bridging genre, *Information Technology & People*, 18, 2, 142-171.
22. Hester, A. J. and Scott, J. E. (2008) A conceptual model of Wiki diffusion, *Proceedings of the 41st Hawaii International Conference on System Sciences (HICSS-41)*, January 7-10, Big Island, Hawaii, USA.
23. Hippner, H. (2006) Bedeutung, Anwendungen und Einsatzpotenziale von Social Software, *HMD - Praxis der Wirtschaftsinformatik*, 252, 6-16.
24. Hsu, C.-L. and Lin, J. C.-C. (2008) Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation, *Information & Management*, 45, 1, 65-74.
25. Hu, P. J.-H. (2003) Evaluating Telemedicine Systems Success: A Revised Model, *Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS-36)*, January 6-9, Big Island, Hawaii.
26. Ip, K. F. R. and Wagner, C. (2008) Weblogging: A study of social computing and its impact on organizations, *Decision Support Systems*, 45, 2, 242-250.
27. Jackson, A., Yates, J. and Orlikowski, W. (2007) Corporate Blogging: Building community through persistent digital talk, *Proceedings of the 40th Hawaii International Conference on System Sciences (HICSS-40)*, January 3-6, Big Island, Hawaii, USA.
28. Lin, H.-F. and Lee, G.-G. (2006) Determinants of Success for Online Communities: An Empirical Study, *Behaviour & Information Technology*, 25, 6, 479-488.
29. Lin, H. T. and Yuan, S. M. (2006) Taking Blog as a Platform of Learning Reflective Journal, *Lecture Notes in Computer Science*, 4181, 38-47.

30. Majchrzak, A., Wagner, C. and Yates, D. (2006) Corporate Wiki Users – Result of a Survey, Proceedings of the WikiSym 2006 - The International Symposium on Wikis, August 21–23, 2006, Odense, Denmark.
31. Maxwell, J. W. (2007) Using wiki as a multi-mode publishing platform, Proceedings of the Proceedings of the 25th Annual ACM International Conference on Design of Communication, October 22-24, El Paso, Texas, USA.
32. McAfee, A. P. (2006) Enterprise 2.0: The Dawn of Emergent Collaboration, MIT Sloan Management Review, 47, 3, 20-28.
33. Morse, G. (2008) Conversation - Wikipedia founder Jimmy Wales on making the most of company wikis, Harvard Business Review, 86, 4, 26.
34. Müller, C. and Dibbern, P. (2006) Selbstorganisiertes Wissensmanagement in Unternehmen auf Basis der Wiki-Technologie - ein Anwendungsfall, HMD - Praxis der Wirtschaftsinformatik, 252, 45-54.
35. O'Reilly, T. (2007) What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software, Communications & Strategies, 65, 1, 17-37.
36. Parameswaran, M. and Whinston, A. B. (2007) Social Computing: An overview, Communications of the AIS, 19, 762-780.
37. Parasuraman, A., A., Z. V. and L., B. L. (1998) SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality, Journal of Retailing, 64, 1, 12-40.
38. Pitt, L. F., Watson, R. T. and Kavan, C. B. (1995) Service quality: A measure of information systems effectiveness, MIS Quarterly, 19, 2, 173-187.
39. Rai, A., Lang, S. S. and Welker, R. B. (2002) Assessing the Validity of IS Success Models: An Empirical Test and Theoretical Analysis, Information Systems Research, 13, 1, 50-69.
40. Raman, M. (2006) Wiki Technology as A “Free” Collaborative Tool within an Organizational Setting, Information Systems Management, 23, 4, 59-66.
41. Reisberger, T. and Smolnik, S. (2008) Modell zur Erfolgsmessung von Social-Software-Systemen, Proceedings of the Multikonferenz Wirtschaftsinformatik 2008, München.
42. Rushinek, A. and Rushinek, S. F. (1986) What makes users happy?, Communications of the ACM, 29, 7, 594-598.
43. Schmidt, J. (2008) Weblogs in Unternehmen, in: Web 2.0: Neue Perspektiven für Marketing und Medien., B. Hass, G. Walsh and T. Kilian (eds.). Springer, Berlin: 121-135.
44. Seddon, P. B. (1997) A Respecification and Extension of the DeLone and McLean Model of IS Success, Information Systems Research, 8, 3, 240-253.
45. Seddon, P. B., Staples, S., Patnayakuni, R. and Bowtell, M. (1999) Dimensions of Information Systems Success, Communications of the AIS, 2, 1-60.
46. Spiteri, L. F. (2007) The Structure and Form of Folksonomy Tags: The Road to the Public Library Catalog, Information Technology & Libraries, 26, 3, 18-23.
47. Trimi, S. and Galanxhi-Janaqi, H. (2008) Organisation and employee congruence: a framework for assessing the success of organisational blogs, International Journal of Information Technology and Management, 7, 2, 120-133.
48. Urbach, N., Smolnik, S. and Riempp, G. (2008) A Methodological Examination of Empirical Research on Information Systems Success: 2003 to 2007, Proceedings of the 14th Americas Conference on Information Systems (AMCIS 2008), August 14-17, Toronto, Ontario, Canada.
49. Wagner, C. (2004) Wiki: A Technology for Conversational Knowledge Management and Group Collaboration, Communications of the AIS, 13, 265-289.
50. Wagner, C. and Bolloju, N. (2005) Supporting Knowledge Management in Organizations with Conversational Technologies: Discussion Forums, Weblogs, and Wikis, Journal of Database Management, 16, 2, 1-8.
51. Wagner, C. and Majchrzak, A. (2007) Enabling Customer-Centricity Using Wikis and the Wiki Way, Journal of Management Information Systems, 23, 3, 17-43.
52. Wang, F.-Y., Zeng, D., Carley, K. M. and Mao, W. (2007) Social Computing: From Social Informatics to Social Intelligence, Intelligent Systems, IEEE, 22, 2, 79-83.
53. Webster, J. and Watson, R. T. (2002) Analyzing the Past to Prepare for the Future: Writing a Literature Review, MIS Quarterly, 26, 2, xiii-xxiii.
54. Zerfuß, A. (2005) Corporate Blogs: Einsatzmöglichkeiten und Herausforderungen., BIG Blog Initiative Germany.