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# THE BLOGOSPHERE AS ŒUVRE: INDIVIDUAL AND COLLECTIVE INFLUENCES ON BLOGGERS

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# THE BLOGOSPHERE AS ŒUVRE: INDIVIDUAL AND COLLECTIVE INFLUENCES ON BLOGGERS

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## Abstract

*Blogging has often been described as writing an online diary but, nowadays, it is more diverse and a considerable amount of blogs forms a common interconnected resource – the blogosphere – with comprehensive societal impact. While various studies have inquired social-psychological influences on the intention to contribute to an individual blog, the perceptions related to creating such a common valuable good have not yet been focussed. Therefore, we introduce a new construct – the œuvre of blogging – to better account for the notion of the blogosphere as a collective outcome. Furthermore, we propose a research model to inquire the influence of individual and collective beliefs on the œuvre in comparison to short-term blogging activity. We conducted an online survey with 509 international distributed bloggers to test our model. The results of our study provide support for the importance of an œuvre construct to explain influences on bloggers and blogging.*

*Keywords: Blog, Blogosphere, Collective benefit, PLS, Knowledge Sharing.*

# 1 Introduction

The blogosphere is a public good that has an increasing societal impact next to traditional media like press or TV. Current prominent examples are the influential blogs in political movements in Egypt (Lynch, 2007) or Iran (Coleman, 2005). But also in other domains, people engage in blogging, e.g. in the fields of arts or science (Wang, Jiang and Ma, 2010). The blogosphere as an institution has two connotations, which have not yet been sufficiently researched and theorized: On the one hand it is considered as a place where people build relationships – the blogosphere as a social networking phenomenon (Ali-Hasan and Adamic, 2007; Tian, 2011). This view is emphasizing the activity of relating to others. On the other hand, it is also important to recognize that the numerous contributions yield a joint creation – the blogosphere as a common *œuvre*, an institution shared by all bloggers and readers. It can be argued that the increased societal influence of the blogosphere is significantly emanating from the development and quality of this joint result, and it is this *œuvre* which eventually might become, as an artefact, an important cultural heritage of our Internet era.

In related fields, various existing studies on knowledge exchange or social media use have so far mostly focussed on the interaction aspect but ignored to study the role of the emerging artefact (Kankanhalli, Tan and Wei, 2005; Wasko and Faraj, 2005). It is an open question what the contingencies are that drive the importance of the resulting *œuvre*.

For example, with the event of social media, knowledge transfer appears to increasingly prefer the transient sharing activity (‘bringing people together’) and awards reduced priority to advancing a codified documentation. On the other hand, Wikis, which are also a means to accumulate and exchange information and knowledge, are clearly more valued for their resulting artefact than for their discussions and relationships between actors.

To address these open questions, our research studies bloggers and their perceptions of the blogging activity and the resulting blogosphere. We contribute by proposing the new construct of *œuvre* to better differentiate and understand the role of the collective artefact as an institution formed and shaped by the activity and interactivity of millions of blog users. We argue that this notion of long-term versus short-term views is important to understand the sometimes conflicting research results when it comes to explaining knowledge exchange and system participation.

Next to the importance of the resulting artefact (versus the everyday processes that bring it about), previous research substantiated the role of differentiating collective versus individual motives to explain participation and use behaviour (Dholakia, Bagozzi and Pearo, 2004). The social drivers of systems usage are especially relevant, as activity in the social media is no individual endeavour but happens in a very salient social context of other relevant users (Dholakia, Bagozzi and Pearo, 2004). To explain this phenomenon, Dholakia et al. (2004) differentiate We-intention from I-intention to emphasize the difference of a collective effort compared to the individual efforts that were assumed, e.g., in the TAM model (Davis, 1989). Based on this differentiation, we propose that the blogger’s emphasis on contributing to an emerging collective *œuvre* is primarily driven by We-intentions and the respective collective drivers than the actual everyday activity of contributing numerous blogs. Such a differentiation of individual and collective motives may hence explain when bloggers advance from a short-term activity view to a long-term *œuvre* view.

Correspondingly, we theorize five influence factors for the perceived importance of the blogosphere as a collective outcome (*œuvre*). A clear differentiation of individual and collective drivers is, however, not straight forward. We address this complication by selecting influence factors and sorting them by the (increasing) role of the social aspects implied in them, ranging from individual abilities to perceiving blogging as a beneficial contribution to the blogosphere as a whole.

We conducted an international survey in six languages to test the theorized model. The data were analysed with a structural equation model that is based on the Partial Least Squares (PLS) method.

In the remainder of this article we first propose a differentiation of an œuvre-oriented long-term and an activity-oriented short term view. We then theorize our model of influence factors on the dependent constructs of both views. Subsequently, we report the method and present the results of the PLS analysis followed by interpretations and conclusions.

## 2 Theoretical model

In the following, we start by discussing the concept of œuvre followed by theorizing the influence factors for bloggers' perceptions of an emerging collective blogosphere artefact.

### 2.1 Blogging activity vs. Contributing to an emerging Œuvre

Previous research has inquired the intention to contribute in an own blog from several perspectives. Thereby, various factors were examined regarding their influence on the intention to blog (Hsu and Lin, 2008), the intention to share information via blogging (Lu et al., 2010; Lu and Hsiao, 2007), blog usage intention (Wang and Lin, 2011), and the intention to frequently publish blogs (Lu and Hsiao, 2009). Other related studies explained knowledge contributions to a shared knowledge repository (Kankanhalli, Tan and Wei, 2005; Wasko and Faraj, 2005). When reflecting on the conceptualisation of these dependent variables we note that this research primarily recognises the everyday social action of blogging or providing information.

However, we propose that this social action of contributing entails a second, currently largely ignored, connotation. Next to the transient **activity of posting blogs** we need to improve our understanding of the resulting shared artefact, the blogosphere, as a joint œuvre. In analogy to the evolving Wikipedia, it might not alone be the short-term value of the contributive act or comment to other fellow bloggers that drives users, but also the advance of the collective result. To better capture this duality of action and institutionalised artefact we propose to augment the current measurement of contribution activity (e.g. knowledge contribution) by a second, long-term and more societal outcome, the emerging **œuvre**. In the case of the blogosphere, it is at the same time the networked domain of information and the network of bloggers which may act as a means to ensure authenticity and quality, but which also may emphasize authority and thought-leadership. The œuvre of the blogosphere can hence be regarded as a unique socio-technical artefact. In the absence of some absolute measure for this joint result, in our study, we consider the bloggers' perception of the œuvre.

In explicating the role of the joint outcome, we aim to sharpen and strengthen the current perspective on blogging as an activity that creates a valued public good whereas existing studies on the intention to blog focus on the creation of an individual or personal resource of the blogger.

### 2.2 Drivers of Blogging Œuvre and Activity

We further propose that the short-term activity perspective and the long-term œuvre perspective are likely to be driven by different motives. To identify relevant impact factors, we draw from factors proposed by previous social-psychological research on knowledge and information sharing. As we will outline in this section, the drivers differ in the emphasis on individual versus collective behaviour and values.

A first factor that we expect to impact œuvre perceptions and activity levels is *feedback*. The feedback that a blogger receives through blogging can be advice, criticism, or information about the goodness or usefulness of the information and knowledge that the blogger shares with others (Lu and Hsiao, 2007). Hence, feedback can facilitate self-discovery as well as the performance of tasks (Dholakia, Bagozzi and Pearo, 2004; Lu and Hsiao, 2007). It may help the blogger to reflect about intrinsic concerns like beliefs, attitudes, and values (Lu and Hsiao, 2007). Thereby, we can assume that the expected feedback serves as individual support for the blogger and his posts even if he writes in a corporate blog. The effects of group feedback can be negligible in this context (Barr and Conlon, 1994). Hence,

the blogger may expect an individual benefit that facilitates his activity or task performance. This characterisation of the role of feedback suggests that this factor is primarily yielding a short-term perspective of blogging interactivity rather than advancing perceptions of the blogosphere as a common body of work. Thus, we hypothesise that:

H1a: Individual benefits through feedback positively influence the blogger's contribution activity.

H1b: Individual benefits through feedback will not influence the blogger's oeuvre perception.

*Self-efficacy* describes the confidence of people in their skills to perform specific tasks like the sharing of valuable knowledge via blogging (Bandura, 1986; Kang, Kim and Bock, 2010; Lu and Hsiao, 2007). The empirical support for the influence of self-efficacy is inconsistent in previous research. In the one hand, some inquiries found support for an influence on the usage of electronic knowledge repositories (Kankanhalli, Tan and Wei, 2005), on knowledge transfer (Kang, Kim and Bock, 2010) and on the intention to blog (Lu and Hsiao, 2007). In other studies, self-efficacy and similar constructs like the sense of self-worth or self-rated expertise were not influencing the attitude toward knowledge sharing (Bock et al., 2005), knowledge contribution (Wasko and Faraj, 2005) or the intention to share information in social networking services (Kalb et al., 2011). In an attempt to re-assess these ambiguous findings for the domain of blogging behaviour, we propose that:

H2a: Self-Efficacy positively influences the blogger's contribution activity.

Next to such a direct effect, self-efficacy is likely to influence perceptions and behaviour via a second process that impacts the collective dimension of blogging: Leonard et al. (1999) identify the human need to reinforce and validate his or her self-concept. Such a positive appraisal is closely related to the individuals' expectation about their capacity to succeed in particular tasks, i.e. self-efficacy. At the same time, social influence theory (Tajfel and Turner, 1979) suggests that people are influenced by their self-categorization and social comparison as a valued member of some group. Following this line of thought, it is likely that people who have a positive self-evaluation of their contributions to the group of bloggers are also evaluating the joint group outcome positively. A negative evaluation of the resulting effort would, given their own high evaluation of self-efficacy, have negative effects on their self-evaluation. In other words, if the blogger thinks he is capable in some domain, such as the blogosphere as a joint body of work, it is likely that he also considers this domain relevant and important. We hence posit that:

H2b: Self-Efficacy positively influences the blogger's oeuvre perception.

In addition to self-related benefits through feedback, blogger may also gain status and respect through sharing their experiences and knowledge in blogs. The perception of such *reputation* improvement can motivate the blogger to share knowledge (Kankanhalli, Tan and Wei, 2005; Wasko and Faraj, 2005) and influences his attitude toward blogging (Hsu and Lin, 2008). Drawing on these findings when we expect that:

H3a: The perception of reputation through blogging positively influences the blogger's contribution activity.

Although reputation is currently mostly conceptualized as an individual motive, we draw again on the joint effects of self-concept evaluation motivation (Leonard, Beauvais and Scholl, 1999) and social identity theory and argue that perceived reputation can be interpreted as an indicator for the individual's self-assessment, which is among other things a result of one's perceived belonging and importance in a group (Tajfel and Turner, 1979). Social identity theory further suggests that this need to belong is also related to the perceived value of the group for the individual. Applying this theory to the blogosphere we propose that expected reputation should also relate to increased levels of oeuvre perception. Correspondingly we propose:

H3b: The perception of reputation through blogging positively influences the blogger's oeuvre perception.

Whereas feedback and reputation focus on the individual itself, *relationship management* concerns the connection of the blogger to others. Sharing of knowledge and information in blogs can be considered as social exchange among bloggers. This generates diffuse obligations based on trust which are different to the precise obligations through economic exchange (Organ and Konovsky, 1989). Thus, relationships can be created and improved. The attitude toward knowledge sharing is more positive for individuals who believe that their sharing improves their relationships (Bock et al., 2005). However, previous research on blogs does not support an influence of expected relationships on the attitude to blog (Hsu and Lin, 2008). That may be caused by the availability of other kinds of social software like social networking services that provide more extensive functionalities for relationship management (vom Brocke, Richter and Riemer, 2009; Richter and Koch, 2008).

In our international study we assess the relationship between the motivation to develop relationships and blogging activity again and propose:

H4a: The expectation toward relationship development positively influences the blogger’s contribution activity.

Next to fuelling activity, a focus on blogger relationships is also likely to emphasize the role of the blogosphere as a collective œuvre, as this represents and institutionalized the emerging configuration of social relationships and the related social output. Hence, we posit that:

H4b: The expectation toward relationship development positively influences the blogger’s œuvre perception.

In the continuum between individual and collective drivers, the sharing of knowledge in blogs can also be influenced by altruistic motives like the enjoyment in helping others (Bock et al., 2005; Wasko and Faraj, 2005; Yu, Lu and Liu, 2010). Whereas egoistic motives dominate the knowledge sharing in organisations (Wasko and Faraj, 2005), bloggers’ attitudes were found to be influenced similarly by reputation and altruism (Hsu and Lin, 2008). Contrary to altruism as a perception of joy through helping, we assume the belief of improving a common resource and, thereby, enhancing collective welfare as the altruistic motive that triggers bloggers’ perceptions and behaviours.

The common resource is the whole of the blogs – the blogosphere – that are available to the public. A blogger who perceives that blogging effectively creates such *collective benefit* will likely also show increased contribution activity and high levels of œuvre perception. We hence formulate

H5a: The perception of a collective benefit through blogging positively influences the blogger’s contribution activity.

H5b: The perception of a collective benefit through blogging positively influences the blogger’s œuvre perception.

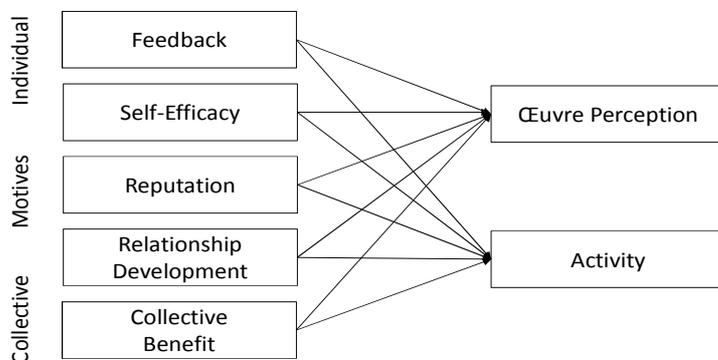


Figure 1: Theoretical Drivers of Bloggers Activity and Œuvre Perception

In summary, our model represented in figure 1 proposes five beliefs as direct influence factors on perceptions of the blogosphere and blogging activity.

### 3 Method & Sample

The set of hypotheses was tested with an online questionnaire. As shown in Appendix A, the items used to measure the latent variables feedback, reputation, relationship development, and self-efficacy were adapted from previously published studies (Dholakia, Bagozzi and Pearo, 2004; Hsu and Lin, 2008; Kankanhalli, Tan and Wei, 2005; Lu and Hsiao, 2007). The own proposed measurement items were developed in collaboration with bloggers and other researchers. Activity was measured with a six-point scale from “several times a day” to “Never / Not at all”. All other items in the questionnaire were constructed as disagree-agree statements on a five-point Likert scale. The questionnaire was part of a bigger online survey in a research project. The applicability of the questionnaire was enhanced by a one-week pilot testing through the project members. Minor changes of rewording were made based on their recommendations. Additionally, the questionnaire was translated into several languages (Greek, Spanish, Russian, French, and German) to include native speakers from different nations.

The project members distributed the questionnaire to bloggers via forums, web-page banners, and email. The distribution channels were selected by the project partners with the purpose to address a broad range of bloggers. The survey software ensured that responses could be made anonymously.

In total, we collected 509 eligible responses. Due to the survey software, we could not measure how many people abandoned the survey. The majority answered the questionnaire in German (219), followed by English (152), Greek (78), Spanish (41), Russian (13), and French (5). Two project partners are blog providers from Germany and Greece what may cause the relatively high numbers of responses in German and Greek. Table 1 shows additional descriptive statistics for the respondents.

We want to note at this point that we collected data from different countries to ensure a representative sample of bloggers. In the context of this article we are, due to the limited space, not concerned with analysing for national differences.

<b>Gender</b>	<b>Age</b>	<b>Country</b>	<b>Amount of blog authors</b>
Male: 259	Under 18: 47	Germany: 209	Single authored blog: 440
Female: 243	18 - 24: 82	UK: 78	Multiple authors: 69
Rather not say: 7	25 - 34: 130	Greece: 77	
	35 - 44: 106	Spain: 34	
	45 - 54: 85	Armenia: 23	
	55 - 64: 41	US: 20	
	Over 65: 18	Other: 68	

Table 1: Descriptive statistics for the respondents

### 4 Results

Data analysis was conducted using the Partial Least Squares (PLS) approach and the software package SmartPLS (Ringle, Wende and Will, 2005). PLS, a structural equation modelling technique, supports confirmatory and exploratory research (Gefen, Straub and Boudreau, 2000). With 509 responses our sample fulfils the required sample size of “at least 10 times the number of items in the most complex construct” (Gefen, Straub and Boudreau, 2000: 9).

#### 4.1 Measurement model

We considered content validity and construct validity to validate the measurement model. For the latent variables feedback, reputation, relationship development, and self-efficacy, we established content validity by ensuring consistency between the associated measurement items and existing literature. For the remaining variables, own items were developed in collaboration with other researchers as well as bloggers.

Construct validity is composed of convergent and discriminant validity. We assessed convergent validity by examining the item loadings, the average variance extracted (AVE) and the composite reliability (CR). All latent variables were measures reflective and, therefore, item loadings should be higher than 0.7 (Hulland, 1999). Table 2 shows the constructs, related items and loadings of the items. All items load high on their constructs (higher than 0.813). Additionally, the AVE values should be greater than 0.5 and the CR values should be greater than 0.7 (Chin, 1998). As shown in table 1, the thresholds were exceeded for all constructs.

Latent variable	Item	Loading	AVE	Comp. Reliab.
Activity	Act_1	0.813	0.725	0.841
	Act_2	0.889		
Œuvre	Œuvre_1	0.931	0.870	0.931
	Œuvre_2	0.935		
Feedback	FE_1	0.918	0.766	0.867
	FE_2	0.830		
Reputation	REP_1	0.880	0.770	0.870
	REP_2	0.875		

Latent variable	Item	Loading	AVE	Comp. Reliab.
Relationship development	RD_1	0.932	0.871	0.931
	RD_2	0.935		
Collective benefit	CB_1	0.867	0.762	0.865
	CB_2	0.879		
Self-Efficacy	SE_1	0.885	0.806	0.893

Table 2: Convergent validity: Factor loadings, AVE, and composite reliability of the constructs

For discriminant validity each of the items should load higher on the theoretically assigned construct than on any other construct (Gefen, Straub and Boudreau, 2000). Cross loadings were tested and fulfil the criterion. Furthermore, the average variance of a construct should be higher than the square of a correlation with any other construct (Fornell and Larcker, 1981). Table 3 shows that the criterion is also satisfied.

	Act	CB	FE	Œuvre	REP	RD	SE
Activity (Act)	<b>0.841</b>						
Collective Benefit (CB)	0.089	<b>0.870</b>					
Feedback (FE)	0.046	0.121	<b>0.768</b>				
Œuvre	0.053	0.306	0.046	<b>0.762</b>			
Reputation (REP)	0.058	0.184	0.094	0.180	<b>0.770</b>		
Relationship Development (RD)	0.120	0.153	0.156	0.115	0.128	<b>0.871</b>	
Self-Efficacy (SE)	0.057	0.180	0.068	0.226	0.219	0.066	<b>0.806</b>

Table 3: Discriminant validity: Diagonal elements (bold) are AVE of the constructs. Off-diagonal elements are the squares of the correlations between constructs.

To address concerns of common method variance, we execute the method proposed by Rönkkö & Ylitalo (2011) with the two marker indicators stated in appendix A. All the paths were still significant after analyzing the model with the marker variable design. The significance level for the influence of reputation on oeuvre did change but it was still significance. Therefore, it seems to be unlikely that the measurement was seriously influenced by common method variance. As we have shown in the analysis of the measurement model, all scales in this study are measuring the theoretical constructs of our model sufficiently.

## 4.2 Structural model

The proposed research hypotheses were tested with PLS. We used the bootstrap re-sampling method with the option of 1000 re-samples to determine the significance of the paths among the constructs. Figure 2 shows path coefficients and significance for proposed relationships as well as the R2 values of the endogenous variables.

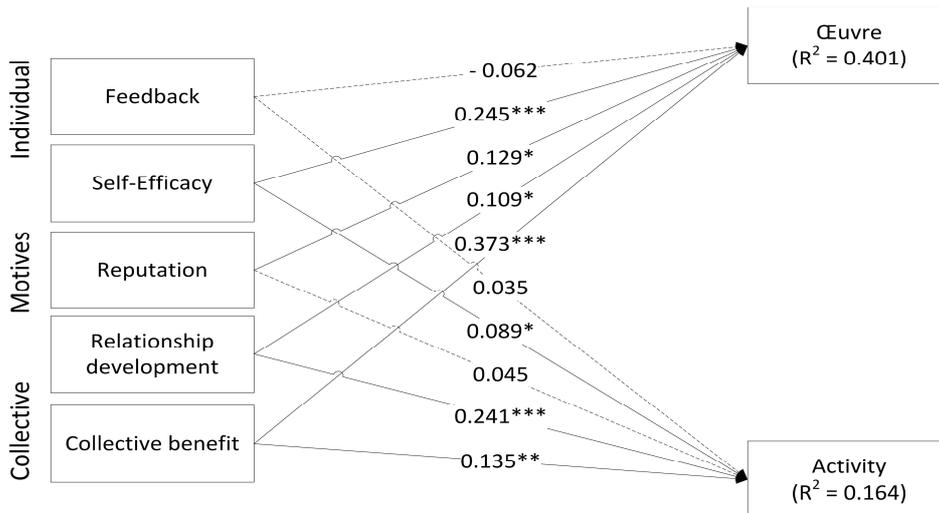


Figure 2: PLS path analysis model (\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ )

The  $R^2$  values of the dependent constructs indicate the explanatory power of the structural model (Wasko and Faraj, 2005). According to the thresholds denoted by Chin (1998), *œuvre* is on a moderate level because 40 % of the variance is accounted by the independent variables in the model. For activity, only 16 % of the variance is explained. Therefore, it can be stated on a weak level.

Seven of ten modelled paths are supported significantly. We estimated additionally the effect size  $f^2$  of the significant influences. The effect size indicates the impact of an exogenous variable on an endogenous variable and can be considered as small ( $f^2 = 0.02$ ), medium ( $f^2 = 0.15$ ), or large ( $f^2 = 0.35$ ) effect (Chin, 1998).

Our analysis shows that feedback does neither influence blogging activity nor *œuvre* perception. Thus, hypothesis H1b is supported because it already suggested the missing influence on *œuvre* perception. Contrary, H1a, which proposed an influence on activity, is not supported.

Self-efficacy has a significant positive influence on blogging activity as well as *œuvre* perception and, therefore, hypotheses H2a (path coefficient = 0.089,  $p < 0.05$ ) and H2b (path coefficient = 0.245,  $p < 0.001$ ) are supported. However, the effect size is only for the influence on *œuvre* perception on a good small level ( $f^2 = 0.08$ ). The effect size of H2a does not even exceed the threshold of 0.02 and the effect could therefore assumed as almost none existent.

The proposed positive influence of reputation is supported significantly for *œuvre* perception (H3b, path coefficient = 0.129,  $p < 0.05$ ) but not for blogging activity (H3a). Therefore, a higher expectation of reputation does not lead to a higher frequency of activities in the blog but increases the perception of common valuable blogosphere. However, the effect of reputation expectation on *œuvre* perception is only small ( $f^2 = 0.02$ ).

The influence of relationship development on blogging activity as well as *œuvre* perception is positive and significant. Hence, the hypotheses H4a (path coefficient = 0.241,  $p < 0.001$ ) and H4b (path coefficient = 0.109,  $p < 0.05$ ) are supported. Thereby, relationship development has the highest influence of all constructs on blogging activity even if the effect is still on a small level ( $f^2 = 0.05$ ).

The perception of collective benefit through blogging influences significantly the *œuvre* perception as well as blogging activity. Thus, the hypotheses H5a (path coefficient = 0.135,  $p < 0.01$ ) and H5b (path coefficient = 0.373,  $p < 0.001$ ) are supported. While the effect on activity is only small ( $f^2 = 0.02$ ), collective benefit has with a medium level ( $f^2 = 0.17$ ) the highest influence of all constructs on *œuvre* perception.

Our findings support eight of the ten hypotheses proposed in chapter two. We discuss the results in the following chapter.

## 5 Discussion

The descriptive results of our study indicate that the emerging collective body of work – the *œuvre* – is considered as an important outcome of individual blogging activity. Adding this second dimension to the currently common measurement of contribution activity adds an important long-term perspective as we are extending our aim to explain transient activity levels with the objective to explain the perceived value and importance of the resulting socio-technical artefact to its creators - the bloggers. The role of this collective outcome appears to bear similarities to the emerging body of work resulting from contributions to a joint Wiki.

Our research aimed at identifying relevant factors to explain the degree as to which people consider the *œuvre* important. The proposed influence factors together explain 40% of the variability of perceived *œuvre*. As expected, the most relevant influence factor is addressing the belief to produce collective benefits. The primarily individual motivation of receiving feedback did, again as proposed, not relate to a salient perception of an emerging *œuvre*.

In line with our hypotheses, the influence of the construct relationship development related to its emphasis on blogging as a collective effort. The emerging social network configuration is as much an aspect of the blogosphere as the content collection. The weak effect size of relationship development on *œuvre* may reflect the dual role of the blogosphere as a social network and as a content collection: The impact of a relationship focus might be limited to the social relationship configurations among authors and hence might attenuate the notion of a resulting artefact in the form of a body of work.

Thereby, the higher influence, compared to the other constructs, on blogging activity could result from different usage behaviours of blogging (Herring et al., 2004). Bloggers who aim on relationship development through blogging may blog more in a way of permanent dialogue. Therefore, they publish posts and respond on comments more frequently to keep the dialogue on going. On the other hand, they consider blog communication more transient and, therefore, perceive less value of the *œuvre*.

For the next two factors, self-efficacy and reputation, we also detect a significant influence. Looking at the strong impact of self-efficacy on the *œuvre* of blogging, it is likely that, in accordance with our theory above, the collective influence results from the joint effects of self-evaluation motivation (Leonard, Beauvais and Scholl, 1999) and social identity theory (Tajfel and Turner, 1979). In other words, a blogger with a high perceived self-efficacy might perceive the blogosphere as an important body of work (*œuvre*), as this positive evaluation eventually also pushes his self-concept: he is good in some valued group with some relevant output. A similar feedback mechanism is likely to exist for reputation: increased perceived importance of the resulting *œuvre* is just adding to the boost of self-evaluation that perceived reputation might bring to the contributor.

On a more general level, our findings seem to support the remark made by Terry et al. (1999: 228): “there is a continuum between personal and social identity”: a clear separation into two classes of individual and collective drivers is not possible. Rather factors vary in their emphasis on individual and collective beliefs.

When we assess the effects on the activity level of blogging contributions, we could report empirical support for the role of self-efficacy but on a very low level – a finding that may add to scrutinize the currently inconsistent literature (e.g. Kankanhalli, Tan and Wei, 2005 versus Wasko and Faraj, 2005).

We cannot confirm the results of previous research where reputation was identified as a motivation to contribute information in blogs (Hsu and Lin, 2008). As we noted above, however, reputation was related to high levels of *œuvre* perception. Reputation may hence be more related to a long-term collective outcome than to short-term contribution activity.

A final observation is that the factors to which we attribute a primarily collective belief also have the largest influence on activity levels. This is another indicator of the importance of social interaction and online group collaboration in the pursuit of a collective valuable outcome.

## 6 Limitations

In this paper, we have inquired influence factors for the perception of a common blogging oeuvre and for blogging activity. However, our study has some limitations.

Due to the restrictions of the questionnaire, we measured each latent variable only with two reflective indicators. Additionally, we developed own indicators in discussion with other researchers and bloggers but did not test them extensively. Therefore, the items development should be reconsidered, even if the item loadings in this study were already high, to improve content validity. The item should be tested, for example with the approach described by Moore and Benbasat (1991). The study should then be replicated and new constructs should be measured with at least three indicators (for reflective measuring).

Additionally, the translation of items into six languages could bias the results. There was not any person in the translation process who has been able to understand all the six languages (maximum was three). Therefore, the translation should further verified through retranslation by other persons.

Furthermore, our sampling process focused on a high response rate but, therefore, was lacking in control. Due to the various distribution channels (email, forum, banner) of the questionnaire, we can neither state how many blogger decided not to answer nor how they were distributed (e.g. regarding gender). However, our sample does not show any peculiarities that cannot be explained. Nevertheless, our study should be also replicated in controlled scenario to provide further support of our findings.

## 7 Conclusion

In conclusion, our research wants to extend the current emphasis on contribution behaviour by theorizing the important role of a collective oeuvre, as a long-term socio-technical artefact and outcome emerging from blogging activity. We find that users perceive the emerging joint body of work, which is represented by the blogosphere, as salient and relevant.

Based on previous research we identified self-efficacy, reputation, relationship development and collective benefits as beliefs that can explain the level of contribution activity and the perceived oeuvre as a collective outcome. We discussed and support the notion that these impact factors relate, simultaneously, to different combinations of individual and collective motives.

Our empirical findings suggest that primarily the collective aspects are relevant for elevated levels of oeuvre perception, with collective beliefs being the most important driver.

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## Appendix A: Survey Items

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**Activity:** How frequently do you perform these activities?

Act_1	Authoring and editing activities (adding new blog post, writing, uploading content, embedding content)	Own proposal
Act_2	Dialogue activities (community response, responses to comments, moderating, search engine optimisation, adding links to other sites)	

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**Œuvre**

Œuvre_1	The Blogosphere is a growing and persistent body of knowledge for Internet users.	Own proposal
Œuvre_2	The blogosphere has long-term value for Internet users.	

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<b>Feedback</b>		Adapted from
FE_1	I write blogs to get some feedback (advice or criticism) about my blogs.	(Dholakia, Bagozzi and Pearo, 2004; Lu and Hsiao, 2007)
FE_2	I write blogs to learn other people's views on my blogs.	
<b>Reputation</b>		
REP_1	Writing a blog enhances personal reputation.	Adapted from (Hsu and Lin, 2008)
REP_2	I earn respect from others by writing a blog.	
<b>Relationship development</b>		
RD_1	Blogging strengthens ties with other bloggers.	Adapted from (Hsu and Lin, 2008)
RD_2	Blogging creates new relationships with other bloggers.	
<b>Collective benefit</b>		
CB_1	Writing a blog advances the overall Blogosphere.	Own proposal
CB_2	Generally, writing a good blog enhances the relevance of Blogosphere.	
<b>Self-efficacy</b>		Adapted from
SE_1	I think I am competent to create a good and well-received blog.	(Kankanhalli, Tan and Wei, 2005)
SE_2	I feel confident in my ability to create blogs that are interesting for others.	
<b>Marker indicators:</b> What elements of the blog are the most important for you to be preserved?		
MI_1	Specific sections	
MI_2	Topic tags	

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