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Use of and satisfaction with blogging software: empirical findings for the German-speaking blogosphere

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Use of and satisfaction with blogging software

Empirical findings for the German-speaking blogosphere

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Abstract

Blog software is an important structural aspect of blogging practices, since the various functionalities built into the code frame, but not determine, actual use. It is also subject to ongoing change, either through innovations in the software itself, or through the (re-)combination of different tools. This working paper reports findings on the use of and the satisfaction with blogging software for the german-speaking blogosphere. By comparing users of stand-alone software and blogging software as well as comparing Wordpress users to users of different stand-alone systems, the study brings differences in the respective user bases to light, for example in regard to gender and age. The findings also show how changes in the technical base lead to different levels of satisfaction, with lack of functionalities being a major reason for changing the software. The paper concludes with a short outlook on possible future research that takes software as a defining characteristic of blogging practices into account but avoids fallacies of technological or social determinism.

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1 Introduction

Most of the growing empirical research on blogs is focussing either on individual characteristics, motivations, routines, and expectations (e.g. Wei 2004; Herring/Paolillo 2006; Lenhart/Fox 2006; Nowson/Oberlander 2006) or on structural properties of the blogosphere, most prominently on the link networks between blogs (e.g. Tricas/Ruiz/Merelo 2003; Adar et al. 2004; Bachnik et al. 2006; Esmaili et al. 2006) or the emerging publics (e.g. Haas 2005; Tremayne et al. 2006). While these papers usually mention some technical aspects of blogs, e.g. by defining the format through the software properties or by discussing specific features like permalinks, RSS or trackbacks, there has been little actual research on the distribution of different software tools or the satisfaction of bloggers with the functionalities offered. This lack of empirical findings is especially problematic since the actual use and the social consequences of blogs cannot by analyzed without taking the functionalities and the architecture of the software into account.

As argued elswhere (Schmidt 2006)[1], software code is one of the three structural dimensions of blogging practices (besides rules and relations) that frame individual usage episodes, but are also subject to ongoing change. With respect to software, this dynamic can be seen, for example, by the high degree of technical innovation, which is fostered on the one hand by communication between developers and users with varying degrees of technical competence, on the other hand by the various open standards and APIs that allow for "remixing" or "mashups", that is for the (re)combination of previously unconnected tools and applications.

It is beyond the scope of this working paper to present a full analysis of the interdependencies between the use of blogs, the emerging publics and social networks, and the technical mechanisms and functionalities that form the basis of blogging practices. It will instead present some empirical findings from two large-scale surveys of the german-speaking blogosphere (including Germany, Austria and Switzerland), starting with a short description of the study design (chapter 2). The main part (chapter 3) will present data about the distribution of different software tools and the characteristics of the respective users, followed by findings about the users' satisfaction with the software in general, certain functionalities in particular, and about changes in software use. The paper will conclude with a short discussion of the findings and some remarks about future research.

[1] An english paper outlining the conceptual model and theoretical arguments is currently under review at a journal.

2 Study design

This paper is based on results from two online-based surveys. The first survey „Wie ich blogge?! " (translating both to "How am I blogging? " and "That's how I blog! ") was conducted between October 3rd and 31st, 2005. It aimed not only at active bloggers, but also at ex-bloggers and those who only read blogs. The online questionnaire included 18 pages and about 50 questions (including some open questions for extended input). Participants were recruited by two means (see Table 1): An e-mail invitation was sent to registered members of two cooperating blog hosting services (blogg.de and twoday.net), and the survey was announced in the author's blog. At the end of the questionnaire, participants were then asked to blog about the survey. To help spread the announcement, a code snippet and a banner were available for download, which users could insert in their own blogs. This led to a total of 5246 participants, making the „Wie ich blogge?! "-survey one of the largest surveys on blog use conducted so far.[2] During the first week, the survey and the corresponding FAQ page on the authors 'blog were the most-linked-to URLs in the German-speaking blogosphere, according to the (now inactive) blog tracking service blogstats.de.

Table 1: Contacts and response rate for the "Wie ich blogge?! "-survey (October 2005)

Mode of invitation	Contacts	Survey started	Survey completed	Response rate
Mail twoday.net	11,916	1,149	980	8.2 %
Mail blogg.de	659	107	96	14.6 %
Self-recruitment	Not applicable	10,309	4,170	Not applicable
Total	Not applicable	11,565	5,246	Not applicable

At the end of the questionnaire, participants could indicate whether they were interested in participating in a follow-up survey. 2701 participants agreed and were contacted for the second survey, which ran between July 23rd and August 18th, 2006. Subtracting invalid E-Mail addresses and non-participants (see Table 2), the survey had response rates of 56.4 percent (who at least partially completed the survey) and 51.0 percent (who completed the whole survey). Answers from the second wave were merged with answers from the first wave by the way of an anonymous ID, allowing for the identification of changes or stability in individual blogging practices. Participants were informed about this procedure and had the opportunity to opt out of participation. The second survey was not open to other bloggers.

Table 2: Contacts and response rate for the follow-up survey (July/August 2006)

	N	Response rates
Invitation E-Mail sent to	2701	
Undeliverable	- 150	
Reached	2551	100.0%
Did not click on link	- 1003	
Visited survey start page	1548	60.7%
Did not start survey	- 44	
Opted out	- 65	
Participated	1439	56.4%
Cancelled during survey	- 139	
Completed survey	1300	51.0%

[2] The largest blog survey up to now has apparently been the "MIT Blog Survey " conducted in Summer 2005 with about 35,000 participants (Marlow, 2005).

Due to the design of the invitation process (self-selection; no distinct basic population), neither wave can claim to be statistically representative for the german-speaking blogosphere. However, the findings give valuable insights into blogging practices in general and technical aspects of blogging in particular.

3 Findings

3.1 Users of blog software

A clear majority of the participants (60 percent) have their blog hosted by a specialized blog provider whereas about a third use stand-alone software (Table 3). Keeping in mind that the distribution might be skewed due to different ways of invitation (see previous chapter), the most popular blog provider is twoday.net, followed by myBlog and blog.de (Table 4). Wordpress is the most common stand-alone software, with Serendipity and Movable Type trailing by great margins. About five percent state that they use a software they have programmed themselves (Table 5).

Table 3: Blog software (in %)

N=3751	Total
Hosted by weblog provider	60.5
Using stand-alone software	31.9
Don't know	7.6

Table 4: Most popular blog providers (in %)

N=2551	Total
twoday.net	28.5
myBlog	13.2
blog.de	10.5
blogg.de	9.3
blogger.com	8.8
LiveJournal	5.4
Blogigo	5.1
20six	4.1
DesignBlog	2.1
Antville	1.5
Other	11.5

Table 5: Most popular stand-alone software (in %)

N=1034	Total
Wordpress	49.9
Serendipity	10.8
Movable Type	5.7
Self created software	5.6
pMachine Expression Engine	3.0
Textpattern	2.5
B2evolution	2.1
Sunlog	2.0
Other	18.3

Looking at the characteristics of the bloggers using a provider or stand-alone software, respectively, some interesting trends come to light (Table 6). Among provider-users, women are in the majority, and teenagers as well as bloggers over forty years are slightly overrepresented compared to to the general distribution. On the

other hand, about four out of five stand-alone-users are male, and age groups between 20 and 40 years are overrepresented. Use of different tools also correlates with the age of the blog, while there is no significant correlation with the frequency of blogging.

But even within the group of stand-alone bloggers, there are significant differences (Table 7). Among Wordpress users, male bloggers, those younger than 30 years and those with less than half a year of blogging experience have higher shares than among other stand-alone users. There are no significant differences between participants with different frequencies of blogging.

Table 6: Characteristics of bloggers by technical base (in %)

	Provider	Stand-alone	Total
Gender ***			
Male	42.4	81.9	56.0
Female	57.6	18.1	44.0
Age ***			
< 20 years	21.0	10.2	17.3
20 to 29 years	37.6	48.6	41.4
30 to 39 years	23.9	29.4	25.8
40 to 49 years	11.4	8.8	10.5
> 50 years	6.1	3.0	5.0
Blog Age ***			
< Six months	47.4	33.7	42.7
Six to 12 months	20.5	21.4	20.8
12 to 24 months	20.4	24.1	21.7
24 to 36 months	7.5	11.6	8.9
36 to 48 months	2.7	5.6	3.7
> 48 months	1.5	3.7	2.3
Frequency of blogging (n.s.)			
(About) Daily	35.9	34.9	35.6
(About) Weekly	39.9	40.7	40.2
(About) Monthly	24.2	24.3	24.2

**** p< .01 / ** p< .05 / * p < .10 / n.s. not significant (p>0,1)*

Table 7: Characteristics of Wordpress bloggers vs. other stand-alone users (in %)

	Wordpress	Other stand-alone	Total
Gender ***			
Male	87.0	76.9	81.9
Female	13.0	23.1	18.1
Age ***			
< 20 years	12.4	8.1	10.2
20 to 29 years	53.0	44.2	48.6
30 to 39 years	25.1	33.7	29.4
40 to 49 years	7.2	10.3	8.8
> 50 years	2.3	3.7	3.0
Blog Age ***			
< Six months	41.9	23.2	32.6
Six to 12 months	21.9	20.6	21.3
12 to 24 months	21.7	27.2	24.5
24 to 36 months	8.7	15.8	12.2
36 to 48 months	5.6	7.6	5.7
> 48 months	1.7	5.6	3.7
Frequency of blogging (n.s.)			
(About) Daily	37.5	34.2	35.9
(About) Weekly	41.6	39.5	40.5
(About) Monthly	21.0	26.3	23.6

**** p< .01 / ** p< .05 / * p < .10 / n.s. not significant (p>0,1)*

3.2 Satisfaction with blog software

Participants of the survey were asked how satisfied they are with their blogging software in general and specific aspects in particular. As Table 8 shows, users of stand-alone software are in many regards more satisfied than bloggers who have their blog hosted by a blogging platform. The biggest differences are with regard to design/layout changes, to the expandibility of the blog software by plugins or through APIs, and to the possibility of integrating the blog into an extended website. Blog providers, however, seem to perform better on spam protection. Also interesting to note is that there are certain software aspects that relatively high shares of participants cannot evaluate.

Comparing Wordpress users to other stand-alone systems, some more differences come to light (Table 9). The former are significantly more satisfied in general and with the expandability in particular. They are significantly less satisfied with the integration into an extended website and the possibility to embed pictures or other data into their blogs.

Table 8: Satisfaction with software by software type

	Stand-alone	Provider
General Satisfaction	1.52	1.76
Ease of handling for administrator/author	1.53	1.65
Don t know	0.7%	1.0%
Adjusting Design/Layout	1.60	2.22
Don t know	2.5%	2.0%
Expandability (plugins, APIs etc.)	1.65	2.73
Don t know	1.3%	36.1%
Ease of handling for readers	1.49	1.65
Don t know	2.1%	1.8%
Spam protection	2.08	1.95
Don t know	15.5%	26.3%
Permitting author rights to other users	1.71	1.78
Don t know	24.3%	27.6%
Integrating Weblog into an extended website	2.01	2.32
Don t know	35.5%	49.3%
Embedding of pictures or other data	1.94	2.02
Don t know	2.7%	4.4%

Scale ranged from 1 („Very satisfied") to 5 („Totally unsatisfied"). Means were calculated without category "Don t know".

Table 9: Satisfaction with software by type of stand-alone system

Weblog-Software	Wordpress	Other Stand-alone
General Satisfaction***	1.44	1.62
Ease of handling for administrator/author n.s.	1.50	1.56
Adjusting Design/Layout n.s.	1.62	1.57
Expandability with modules/plugins/ ***	1.40	1.90
Ease of handling for readers n.s.	1.48	1.50
Spam protection n.s.	2.10	2.05
Permitting author rights to other users n.s.	1.68	1.75
Integrating Weblog into an extended website***	2.17	1.87
Embedding of pictures or other data***	2.09	1.78

*Scale ranged from 1 („Very satisfied") to 5 („Totally unsatisfied"). Means were calculated without category "Don t know". *** p< .01 / ** p< .05 / * p < .10 / n.s. not significant (p>0,1)*

3.3 Changing the software

The study design allows for the tracking of changes in software use between the two surveys. Looking at only those participants who have been active bloggers in the first wave, about two-thirds of the provider users and three-quarters of the stand-alone bloggers did not change the technical base of their weblog (Table 10). One out of five of the stand-alone bloggers of the first wave have changed the software, but stayed with stand-alone solutions. Only two percent migrated to a blog provider. Of the provider bloggers, on the other hand, about a quarter changed to a different provider, and ten percent moved their blog to a stand-alone solution.

Table 11 compares the general satisfaction with the software for the different groups. For most of the bloggers who changed the technical base of their blog, no significant changes in satisfaction were recorded.[3] However, those who went from a blogging provider to a stand-alone system report a great increase in satisfaction.

Table 10: Changes of technical base compared to first wave (in %)

1. wave / 2. wave	Provider	Stand-alone	Total
New provider	25.0	2.1	15.6
New Stand-alone	10.6	22.0	15.3
No changes	64.4	75.9	69.1

Note: Data without "I don't know"-category

Table 11: Satisfaction with old and new software for different groups (in %)

	%	Satisfaction with old software	Satisfaction with new software
Provider to Provider	14.7	1.83	1.86
Stand-alone to Provider	0.9	2.00	2.00
Provider to stand-alone	6.2	2.11	1.47
Standalone to stand-alone	9.0	1.69	1.65
No change (provider user)	38.0	1.71	n.a.
No change (stand-alone user)	31.2	1.47	n.a.

Satisfaction scale ranged from 1 („Very satisfied") to 5 („Totally unsatisfied").

Those participants who changed the technical base of their weblog were asked to name the reasons for the change (Table 12). Many users choose "other reasons" to give specific reasons that were not included in the list of answer options the survey provided. Besides these answers, many participants gave a lack of functionalities as a reason for the migration. About a fifth of those changing to a different hosting platform were forced to do so since the old hoster closed down, and a slightly lesser share said that they changed to a different stand-alone system because the old one was too complicated to handle.

[3] Since the questionnaire included a filter, those participants who did not change their software were not asked about the satisfaction.

Table 12: Reasons for changing the software (in %; multiple answers possible)

	Old system		
Current system: Blogging-platform (N=135)	Platform	Stand-alone	Total
Old software was too expensive	1.6	0.0	1,5
Old software offered too little functionalities	31.0	0.0	29,6
Old software is no longer offered	19.4	0.0	18,5
Handling the old software was too complicated	8.5	0.0	8,1
Other reasons	34.1	66.7	35,6
Current system: Stand-alone-Software (N=130)	Platform	Stand-alone	Total
Old software was too expensive	1.9	1.3	1,5
Old software offered too little functionalities	50.0	47.4	48,5
Old software is no longer offered	1.9	7.9	5,4
Handling the old software was too complicated	3.7	13.2	9,2
Other reasons	53.7	46.1	49,2

4 Discussion

While the findings of the two surveys are not representative for the german-speaking blogosphere, they allow for a number of (tentative) conclusions regarding the use of and the satisfaction with blog software.

First of all, blog hosters and stand-alone systems seem to reach different groups. Stand-alone software is primarily used by male bloggers between 20 and 40 years, which might have more computer and programming skills (although one cannot exactly tell from the existing data). The prerequisites necessary to start a blog differ between the two basic sysems: Stand-alone software requires more technical knowledge and competence to set up and administrate a blog, while blog hosters often market their services with slogans like "Mit 1... 2... 3... Klicks zum eigenen Weblog" ["1... 2... 3... clicks for your own blog"; www.twoday.net]. The relatively simple and easy-to-use blog hosters have greatly contributed to the diffusion of the format, since they have opened up ways to enter the blogosphere without any specific programming skills at all (other than knowing how to use a browser). This low barrier of entry comes at the cost of less control over the data, which is stored on the hosters' servers, and less opportunities to fully customize the layout and the functionalities of the blog. On the other hand, stand-alone software usually gives the blogger more freedom to adapt the software to one's own needs, regarding both design and features.

The difference in functionalities manifests itself in different levels of satisfaction between the two user groups, too. Regarding the possibilities to adjust the design/layout and to install plugins or interfaces to other software tools, stand-alone users are more satisfied than bloggers with hosted blogs. The importance of functionalities for the satisfaction with software becomes also visible when looking at the reasons people give for changing the software: About half of the users who have changed to a stand-alone system stated the lack of features as one of the reasons (although the high share of "other reasons" indicates that range of options presented in the survey was not sufficient to assess all experiences). Finally, the general satisfaction rose remarkbly for those people who changed from a hosted platform to a stand-alone system, while it stayed about the same with the other groups.

Regarding the distribution of individual software products, we were actually surprised by the high share of Wordpress users. They express an even higher satisfaction with the software in general, although with regards to some of the specific aspects (most notably the integration into an extended website and the embedding of pictures) other stand-alone systems seem to allow a slightly better user experience. The big advantage of

Wordpress over other systems, though, is the quite strong base of users who are actively involved in programming plugins, providing design templates or just supporting the diffusion by helping new users in case of technical problems. For example, the leading german discussion board on Wordpress[4] covered more than 13.600 topics with over 72.000 postings at the end of November 2006. Such and other knowledge repositories like the "Wordpress Codex"[5] help the exchange of information between users with different levels of expertise, thus reducing the barriers of setting up and maintaing a Wordpress blog.

The findings presented in this working paper can only give some first insights into the use of different blog software. In order to explain and to understand the interdependencies between software use and other aspects of blogging practices, more specialized analyses would be needed. It would be worthwhile, for example, to contrast different hosting platforms and stand-alone systems with regard to the features they offer for identity management and relationship management, that is how they assist the presentation of topics and the articulation of already-existing as well as newly founded social ties. Another approach would be to look at the characteristics of the diffusion process of different software systems. This could explain, for example, the importance of mere features for the popularity of certain platforms, compared to other aspects that might influence adoption of a given software (for example, the user of a specific software might introduce his/her peers to the tool).

Finally, from the perspective of sociology of technology one could look at the ways blog software is (co-) developed by groups of people with different levels of technical expertise. This could include a comparison between open-source- and proprietary software solutions, which might have different ways of opening up the development process to user feedback and contributions of different groups.

These (and other) research efforts could help foster an understanding of blog software as an integral part of blogging practices, avoiding the fallacies of either technological determinism (software features determine the actual use) or of social determinism (not acknowleding the role software and its architecture plays in structuring our use of it). Thus, blog research would not only reach a refined understanding of this relatively new phenomenon, but also contribute to a better understanding of computer-mediated communication and interaction in general.

[4] See http://forum.wordpress-deutschland.org/.
[5] See http://codex.wordpress.org/Main_Page.

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