

“Weblogs, more than just a toy?” or “Should I keep a e-Portfolio for my PhD study?”

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Abstract:

Weblogs have a great potential to support doctoral studies. By the integration of weblogs in this phase of ones study students have the opportunity to support their self-directed learning process over a long period of time: they resort to a memory-pool of information and ideas, they have an opportunity of metacognition and reflection and they have the opportunity of a discourse with the scientific community. Furthermore a weblog is a great chance to gain reputation in an early phase of the doctoral study. In this article some ideas about weblogs in doctoral studies are argued.

1 Introduction

Since Tim O'Reilly [15] alluded the term Web 2.0 the first time and Stephen Downes [5] emphasized e-Learning 2.0 for the area of teaching and learning, a definitely new way of working with the Worldwide Web has began. Slogans like “The User is the Content”, “Read/Write Web” or “Web4All” as well as the election of “YOU” as the “Person of the Year 2006” by TIME Magazine point out the dramatically change of Internet usage.

Nowadays weblogs, wikis, podcasting and other applications like YouTube and Flickr can enhance the daily lecturing and learning process in manifold ways [6]. With the aid of mobile devices and fast Internet connections it is possible to attend the Internet nearly everywhere. This helps us to reach a new level of e-Learning. Furthermore students of today usually work in different ways. Often pronounced as digital natives [18] a typical learner of now is familiar with digital content, much more with digital media in general.

The possibilities of the Worldwide Web have dramatically changed within the last two years. Worldwide collaboration is easier than ever in history of mankind. But the technical innovations on the one side enforce research of the “usefulness” in practice on the other side. How can these technologies enhance our daily learning process? Are these technologies helpful or just a typical hype?

In this paper one simple question is being answered: “Why should I use a weblog for my PhD work?” First an introduction into the learning theory of self-determined and informal learning is given. The second chapter addresses to the field of doctoral studies and the third discusses the implementation of a weblog. In the end two big research blogs are presented to confirm the “blogging theory”.

2 Learning approaches

2.1 Self determined learning

Self determined learning is not a new type of learning; there are approaches since Diesterweg (1873) [4], Montessori (1909) [13], Otto (1914) [16] and many others. But the main focus on

self determined learning began with Knowles (1975) [12] and his definition: «Self-directed learning is a process in which the individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning strategies, and evaluating learning outcomes. ... (it) usually takes place in association with various kinds of helpers, such as teachers, tutors, mentors, resource people and peers. There is a lot of mutuality among a group of self-directed learners» ([12], S. 18). Today with participative technologies like wikis, weblogs and similar possibilities the idea of self determined learning is on focus in many learning concepts.

Doctoral studies are characterized by a process of self determined learning. The doctoral student has to plan her/his timing, her/his resources, etc. on her/his own. She/he needs a lot of cognitive, metacognitive, volitional and motivational strategies to finish her/his thesis.

The dimensions of academic self determination ([26], S. 8):

Scientific question	Psychological dimensions	Task conditions	Self-regulatory attributes	Self-regulatory process
Why?	Motive	Choose to participate	Intrinsically or self-motivated	Self-goals, self-efficacy, values, attribution, etc.
How?	Method	Choose method	Planned or automatized	Strategy use, relaxation, etc.
What?	Performance outcomes	Choose performance outcomes	Self-aware of performance outcomes	Self-monitoring, self-judgment, action control
Where?	Environmental (social)	Control social and physical settings	Environmentally/socially sensitive and resourceful	Environmental structuring, help seeking, etc.

Self determined learning is a main learning form at the end of a study career, especially in the doctoral phase.

2.2 Informal Learning

Like self-determined learning informal learning is not really new. Already Dewey (1966) [2] compares “natural” (informal) learning with learning in schools. This aspect, the difference between schooling (formal) learning and private (informal) learning is leading the discussion until today, mostly in adult learning and continuing education [23].

Learning can’t only take place in highly structured environments such as schools and universities. Most of our learning is informal, unorganized and not formally defined. It can take place everywhere: at work, at home, by solving problems. Jay Cross defined informal learning as following:

«Informal learning is the unofficial, unscheduled, impromptu way most of us learn to do our jobs. Informal learning is like riding a bicycle: the rider chooses the destination and the route. The cyclist can take a detour at a moment’s notice to admire the scenery or help a fellow rider. Formal learning is like riding a bus: the driver decides where the bus is going; the passengers are along for the ride. People new to the territory often ride the bus before hopping on the

bike» (Cross, 2006). In the last time informal learning gets more and more in focus by using Web 2.0 tools and mobile learning.

3 Doctoral studies

In Europe there is a new perspective at the so-called “Bologna Reform”: doctoral studies become planned. This is a good time to make some appointments about technology integration. This phase at university education is the most self-determined phase. Candidates have to do their thesis per definition alone.

The thesis and the research project behind it need support over a long period of time. But most of the students aren’t integrated in a university program; they often hold down a job and have a professor at university [9].

Doctoral students should develop a lot of competencies:

- They should have the ability to design, implement and adopt a research process.
- They should understand their subject and have the associate skills.
- They should contribute something new to the subject of their thesis.

This development of competence needs time and enduringness. Students especially need a good attendance by professors and tools to structure this process. The long time period means to be a big challenge for each PhD student. How can collected material be structured and saved that it can be retrieved years later? Digital content expand this problem nearly endless. Videos, pictures, weblog contributions with high relevance to the work must be found after a long time. Opinions, hints, discussions done via digital channels should be comprehensible. Some advisors often suggest writing a „research diary“ [22] for collecting thoughts, main steps or other important facts. Due to the fact that digital content is increasing exponentially the question occurs if hand written notes are timely adequate?

So we have to find a technology, which is able to help students to collect and save their thinking outcomes, to structure resources and allow them a metacognitive view on their research process.

4 Technology support

Self-determined and informal learning can be supported by technologies in different ways. Weblogs can be integrated in doctoral studies as tools to foster self-organized learning and to accompany the competence development over a long time. Keeping in mind that many doctoral students are no fulltime students and work beside their doctoral studies, students need a tool to collect their information resources and ideas, to reflect their academic and workplace knowledge and to connect to the scientific community.

4.1 Weblogs in general

Weblogs can be implemented in learning and teaching scenarios in many different ways: as a community blog, to publish students writings, to publish field notices, to have a journal for your professional work, to publish your own meaning, as instrument to reflect your research and as learning journal [1].

«Blogs are both individualistic and collaborative. Blogs promote self-expression, a place where the author can develop highly personalized content. Yet blogs connect with an online community – bloggers can comment and give feedback to other bloggers, and they can link to fellow bloggers, creating an interwoven, dynamic organization. In the classroom, students can have a personal space to read and write alongside a communal one, where ideas are shared, questions are asked and answered, and social cohesion is developed» ([10], p. 94).

With blogs, discursive writing can be promoted. Students can refer about different topics about their research, they can comment contributions of others and they learn to deal with critique. So reflection can be stimulated.

And reflection and metacognition are main processes in the self-determined learning process [8]. Most of scientific blogs can be categorized as knowledge blogs.

Knowledge blogs can be used as information memory, as medium for reflection and as medium to communicate, for example with a scientific community [22]. Especially in knowledge based workplaces knowledge blogs are an adequate instrument to work with. Weblogs foster knowledge management and networking. This is crucial for new researcher; they have to build up their own research network amongst interested people.

4.2 Weblogs from a technical point of view

A simple technical definition of weblogs follows this description [24], [25]: “A weblog is a frequently updated website consisting of data entries arranged in reverse chronological order.” Usually a weblog consists of a webinterface and a database. For example the most famous open source system called “Wordpress” (<http://wordpress.com>) consists of a PHP application as front end and a MySQL database. Additionally there are also so called weblog hosts which are offering weblogs for free or of charge. One of the best-known and biggest hoster is “Blogger.com” (<http://www.blogger.com>) which is launched by Google. “Blogger.com” offers a readymade weblog provided to the user without any additional installing process, after passing the registration process once. Of course the possibilities for using own style sheets and plugins as for example “Wordpress” allows to are restricted to some very simple ones. “Wordpress” offers a framework with useful libraries, which makes it possible to realize the whole functionality in separate modules. This architecture is comparable with a simple form of object-orientated programming. Consequently the main advantage of the modular structure is the possible expandability. Modules, also known as plug-ins, can be easily implemented and attached to the system to increase and expand the functionality without interfering with other modules. However, it must be pointed out that installing an own weblog is much more easily than expected, either by passing a registration process or by copying some PHP code to a webserver. „Create a blog in a minute“ as it is advertised at “Blogger.com” can be confirmed.

4.3 Integration of weblogs

Weblogs can be implement in the learning process at universities in doctoral studies in the following way:

At universities special theoretical knowledge exists. In the workplace or daily work, PhD students are often organized in community of practice; they act in situated experiences. A weblog can mediate between both and integrate both sides, especially in the phase of doctoral studies. A Weblog can help to switch between these two important sides of knowledge at universities (see Fig. 1).

But even more the weblog allows also connecting with the world in general. It has become easy to make the work visible and comment able. By offering the students a blogosphere that holds a blog for each of them a community of practice can be established. Open source software (for example ELGG; <http://elgg.org>) allows to create a university wide blogosphere as be installed at Graz University of Technology.

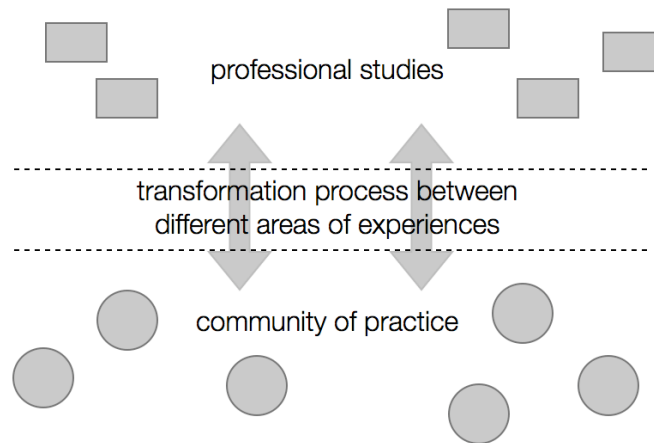


Fig. 1: Weblogs as mediator between science and workplace [20]

4.4 The “*Blogging-theory*”

Once a weblog is integrated into the system of doctoral studies still the most important question remains: “Why should I myself use such a weblog?”. What are the so-called big advantages when using it? Karger & Quan (2005) [11] mentioned that the concept of decentralization and peruse publication lead to the amazing success story. Porter et al. (2007) [17] pointed out the useful information-gathering tool for practioneers and Ebner et al. (2007b) [7] expressed the user-centered approach.

A further step is done by answering the question “How can blogging enhance research activities?” proclaiming – “The Blogging Theory”:

1. User-centered (Individuality): A weblog in doctoral studies and in general is not just a tool of reflection and networking, it’s one’s personal weblog. The personality is intimately connected with the own PhD weblog. A weblog expresses your personality to the Web – a virtual presence. Similiar to an email address it seems possible that in some years each of us has also an own weblog, with all facilities for our digital environment.
2. Information-gathering (Collectivity): One advantage to prior times is the integration of multimedia: You have the opportunity to include text, videos, podcasts, your own bookmarks, etc. These resources you can collect comment and reflect. So personal PhD- weblogs carry whole the material of your dissertation project and much more available on one page in the Internet. You can use it as your personal PhD knowledge management system. There is ONE system from which all important resources can be reached.
3. Connection (Community): Furthermore you can link to others. Weblogs help bloggers to become a part of a worldwide communication network [19]. Using your blogroll, or by subscription to special sites like PhD weblogs to connect your blogs to professors, researchers or other PhD candidates: «PhDweblogs.net is a non-profit initiative to bring together PhD students' weblogs from all around the world. If you are preparing a PhD, and have a blog about your research interests, you can register it here. We also accept other research-related weblogs, even if they are not directly connected to a PhD.» (Quelle:<http://phdweblogs.net/whatis.php?PHPSESSID=5bf89bbff7a337d873132f7839d4f05b>) Through this social networking it’s much easier to stay informed and to get relevant information about your dissertation project. If you can’t go to a conference, maybe someone from your blogroll is attending and blogging about it.

”The Blogging Theory“ bases on three fundamental crucial facts – Individuality, Collectivity and Community. With other words a weblog should be a subjective, manifold digital library

situated in a social network of interest, acting as Personal Information Environment (PIE).

5 Examples

In this chapter some examples of weblogs in educational scenarios in general and some in detail are presented. The authors are conducting their own weblogs since years and can confirm "The Blogging Theory".

5.1 Examples of international PhD weblogs

On "PhDWeblogs.net" there are a lot of PhD weblogs from different categories from all over the world:



Fig. 2: phd-Weblogs

So it's possible to search someone from your academic science, someone who is speaking the same language or someone who is from the same country.

5.2 Weblogs of the authors

5.2.1 The weblog "education & media"

The weblog «education & media» is written by Mandy Schiefner from the University of Zurich and holds about 300 contributions concerning the topic of different aspects of education, educational science and didactic. Mandy Schiefner started the blog as personal knowledge tool during her daily work, and in the last time during her PhD study. There is not much discussion in the weblog, it's a personal mark of the daily work. The focus is on individuality and collectivity. But during the last 2 years a lot of contacts or invitations to

speak are made over this weblog. Especially in the E-Learning Scene of Switzerland, the blog is well known and often visited.

5.2.2 The weblog “e-Learning Blog”

The e-Learning Blog is written by Martin Ebner from Graz University of Technology for about two years. About 700 contributions concerning the topic of e-Learning are part of this weblog. Of course the appearance of the weblog is different from the Swiss one “Education & Media”; a fact that expresses individuality. Furthermore videos, images in the same way as special tools (broadcasting or microblogging) can be embedded easily. Each article is tagged or categorized, so all information chunks can be found easily. A high number of unique daily readers (about 500/day) show that the weblog is well established in the community network. In average 0.29 comments per day are written, which means that every 3-4 days someone is discussing some topic with the author. Over 2 years of blogging a lot of interesting connections to other bloggers or educational experts have been established. Finally it must be pointed out that the existing social network never can be rebuild by using traditional technologies even not by mailing lists or newsgroups.

6 Conclusions

In the end the main advantages by using weblogs for research reasons are summarized as follows:

- Weblogs have the potential to foster self-determined learning, especially in the phase of doctoral studies. Many processes can be supported by weblogs: metacognition, reflection, and discourse with the scientific community.
- Weblogs have the potential to foster informal learning. With the help of the RSS-technology [14] it becomes easy to follow a community by filtering and reading the feeds. By reading articles and reflecting thoughts of other students and experts in the field of interest, learning processes can be supported and help to enhance the personal competences.
- Weblogs have the potential to support digital archives. The personal weblog is the centre of all activities. Bookmarks, videos, images as well as ideas are stored in there. If the blogger is searching for something that has happened in the past, she/he should be able to find it in her/his weblog.
- Weblogs have the potential to enlarge communities. Technologies like trackbacks, RSS and widgets help to build up a social community of interest. Bloggers writing and researching in the same field can get connect easily and exchange their experiences. In this way research work is not only restricted to very small, often national communities.
- Weblogs have the potential to be part of the daily life. The fast and easy possibility to publish something in the web, in the same way as to change the appearance according to the own requirements help to make the weblog to be a personal attendant for many processes.

Weblogs are not only a simple possibility for publishing information in chronological order on the Worldwide Web. It must be expressed once again that a weblog can play the role of a Personal Information Environment (PIE) by being the centre of all research activities. Furthermore in this case, the term “personal” fits perfect, because the bloggers themselves decide about appearance, content and community. According to the “The Blogging Theory” the success of this kind of online diary is Individuality – Collectivity and Community. With other words the answer to the question “How can I express and connect myself best to a worldwide community?” is “Use a weblog”.

References:

- [1] Barlett-Bragg, A. (2003). *Bloggling to Learn*. 24.01.2007.
http://knowledgegetree.flexiblelearning.net.au/edition04/pdf/Bloggling_to_Learn.pdf (last visited: March 2008).
- [2] Cross, J. (2003). What is informal learning. <http://informl.com/2006/05/20/what-is-informal-learning/> last visited: May 2008)
- [3] Dewey, J. (1966). *Lectures in the Philosophy of Education*. New York: Random House.
- [4] Diesterweg, A. (1873). *Diesterweg's Wegweiser zur Bildung für deutsche Lehrer*. Band 1: Das Allgemeine. Essen
- [5] Downes, S. (2005), E-Learning 2.0, ACM eLearn Magazine, October 2005 (10).
- [6] Ebner, M (2007a) E-Learning 2.0 = e-Learning 1.0 + Web 2.0?, In The Second International Conference on Availability, Reliability and Security, ARES 2007, IEEE, (S. 1235-1239), ISBN 0-7695-2775-2.
- [7] Ebner, M.; Holzinger, A.; Maurer, H. (2007b) Web 2.0 Technology: Future Interfaces for Technology Enhanced Learning? In Universal Access in Human-Computer Interaction - Application and Services, Constantine Stephanidis (Ed.), 4th International Conference in Human Computer Interaction (S.559-568), Beijing 2007, Springer: Berlin.
- [8] Friedrich, H.F. & Mandl, H. (1997). Analyse und Förderung selbstgesteuerten Lernens. In F. Weinert. & H. Mandl. (Hrsg.). *Enzyklopädie der Psychologie* (S. 237-293). Band 4: Psychologie der Erwachsenenbildung. Göttingen: Hogrefe.
- [9] Groneberg, M. (2007). Doktorierende in der Schweiz. Portrait 2006. Available from: <http://www.cest.ch/Publikationen/2007/Doktorierende%20in%20der%20Schweiz.pdf> (last visited: March 2008).
- [10] Huffaker, D. (2005). The Educated Blogger: Using Weblogs to Promote. Literacy in the Classroom. *AACE Journal*, 13 (2), 91-98.
- [11] Karger, D. R. ; Quan, D. (2005) What would it mean to blog on the semantic web? *Web Semantics: Science, Services and Agents on the World Wide Web*, 3 (2-3), 147-157.
- [12] Knowles, M. (1975). *Self directed learning*. Chicago: Follet.
- [13] Montessori, M. (1909). *Selbsttätige Erziehung im frühen Kindesalter*. Stuttgart: Hoffmann.
- [14] Nagler, W.; Korica-Pehserl, P.; Ebner, M. (2007) RSS - The Door to E- Learning 2.0 , In: E-Learning: Strategische Implementierungen und Studiengang, Proceeding, 13. FNMA Conference, 131-138
- [15] O'Reilly, T. (2006), Web 2.0: Stuck on a name or hooked in value?, *Dr. Dobbs Journal*, 31 (7), 10-10.
- [16] Otto, B. (1914). *Die Zukunftsschule*. Berlin: Scheffer.
- [17] Porter, L. V.; Sweetser Trammell, K. D. ; Chung, D. ; Kim, E. (2007) Blog Power: Examining the effects of practitioner blog use on power in public relations. *Public Relations Review* 33, 2007, 92-95.
- [18] Prensky, M. (2001), Digital natives, Digital Immigrants. *On the Horizon*, 9 (5), 1-6.
- [19] Peschke, R.; Lübecke, M. (2005) Zukunft Weblog?! – Lesen, Schreiben und die Materialität der Kommunikation. Anmerkungen zu einem neuen Typus der Online Kommunikation aus kommunikationstheoretischer Sicht. *kommunikation@gesellschaft*, 6 (7), 1-2, available from: http://www.soz.uni-frankfurt.de/K.G/B7_2005_Peschke_Luebke.pdf (last visited: March 2008).
- [20] Reinmann, G. (2006). Bologna und Web 2.0:Wie zusammenbringen, was nicht zusammenpasst? Vortrag am Education Quality Forum, 08.11.2006, Bonn.
- [21] Reinmann, G., Sporer, T. & Vohle, F. (2007). Bologna und Web 2.0: Wie zusammenbringen, was nicht zusammenpasst? In: R. Keil, M. Kerres & R. Schulmeister (Hrsg.). *eUniversity - Update Bologna*. Education Quality Forum. Bd. 3 (S. 263-278). Münster: Waxmann.
- [22] Röll, M. (2006). Corporate E-Learning mit Weblogs und RSS. In A. Hohenstein & K. Wilbers (Eds.), *Handbuch E-Learning*. (Vol. 2005, 12. Erg.-Lfg. April 2005). Köln: Deutscher Wirtschaftsdienst.
- [23] Rohs, M. & Overwien, B. (2007). Was ist informelles Lernen? <http://www.informelles-lernen.de/index.php?id=41>
- [24] Schmidt, J.; Schönberger, K.; Stegbauer, C. (2005) Erkundungen von Weblog-Nutzungen – Anmerkungen zum Stand der Forschung, *kommunikation@gesellschaft* 6, (4), pp. 1-20.
- [25] Walker, J. Weblog. Definiton for the Routledge Encyclopedia of Narrative Theory, http://jilltxt.net/archives/blog_theorising/final_version_of_weblog_definition.html (last visited: March 2008)

[26] Zimmermann, B.J. (1994). Dimensions of academic self-regulation: A conceptual framework for education. In: D.H. Schunk & B.J. Zimmermann (Eds.). Self-regulation of learning and performance: Issues and educational applications (p. 3-21). Hillsdale; NJ: Erlbaum.

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