Learning with Social Technologies: Workplace Learner Experiences of Wiki and Blog and Perceptions of PLE

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Abstract. As social technology use is increasing in e-learning, so is the need to complement theoretical work with studies of learner experiences of the new dynamics of e-learning to guide this development. We studied how 15 learners experienced social media tools in a long continuous professional development (CPD) pilot training tailored for a large insurance company. While the training included some contact lectures, it was mainly conducted through blog, wiki, chat, and discussion forum tools. As we have already discussed forum and chat use in another paper on a shorter CPD training (with 40 learners) and this study confirmed the results, we focus here on learner experiences of wiki and blog. While the wiki process was widely misunderstood, wiki and blog experiences organically led learners to consider their uses as a personal learning environment. As to blog, the learners who saw it as a tool for self-reflection perceived it positively while others did not, underlining that the benefits and goals of using social tools need to be explicated. Furthermore, social learning process needs to be designed and maintained, as busy workplace learners tend to focus on fulfilling requirements. Simply adding social technology does not necessarily lead to social e-learning.

Keywords. E-learning, wiki, blog, PLE, workplace, social learning.

1 Introduction

Web 2.0 models and technologies have become enablers of learner-centered online learning, or social/collaborative e-learning [3]. Social media features, e.g. wikis, blogs, and chats, are increasingly part of e-learning in formal education and are also making inroads in continuous professional development (CPD) [5], [8]. Learning by constructing knowledge through social interactions instead of memorization is widely seen as having a great potential for enhancing learning [3], [8]. At the same time, however, many case studies have been less than successful (e.g. [3] and [2]) and there is an "ongoing debate about why and under what conditions cooperative peer-based learning is effective" [8]. In effect, the prevailing unsubstantiated evangelizing means that we urgently need case studies to uncover the actual dynamics of using social tools in learning context [4–5]. This need is even more pronounced in the field of continuous professional development (CPD) where the ramification of using social media have been studied even to lesser degree [4].

In this paper, we discuss experiences and perceptions of fifteen workplace learners who took part in an over one-year long pilot training that used wiki, blog, chat, and

discussion forum for learning. While we contrast this long expert-development training (LT=long training) with a similar but shorter and more intensive training (ST=short training) for workplace trainers where relevant, we do not otherwise discuss the results from ST here, as they were reported in [10].

Both LT and ST were tailored for large Finnish insurance companies (two trainings; two companies) by a professional training organization, Financial and Insurance Institute FINVA. These pilot courses were part of FINVA's drive to develop their trainings by adding social media features to them, and as such were not designed or conducted for research purposes, thus representing the organization's actual efforts. Prior to this drive to incorporate social media, electronic systems used in trainings had offered few social aspects and had basically been used to allow learners to submit assignments and to download materials.

The largely qualitative data provides us with an in-depth look at the actual dynamics of using social media tools in CPD trainings. Since the learner experiences of chat and discussion forum in LT and ST were practically the same, we focus here on learner perceptions of wiki (DokuWiki) and blog (B2Evolution). The learners who understood blog's potential for introspection viewed it positively while those who did not see this aspect viewed it negatively. Wiki failed to engender social learning process online; learners ended up doing the assignment face-to-face and simply putting the results in the wiki. Overall, learners widely felt that social media tools had no real purpose in the training.

Simultaneously, however, blog and wiki use experiences organically led users to envision their uses as a personal learning environment (PLE). Although this study did not focus on PLE related factors *per se*, assisting workplace learners in developing PLE is a central research theme in our overall project (F-Shape[1]). Consequently, we were interested in what kinds of PLE related concepts had emerged organically from using social media tools in the training.

We first briefly review literature on PLE and e-learning uses of wiki and blog, and then describe our study method and the two trainings in more detail. After looking in detail at wiki and blog use in the training, we turn to discussing motivational and moderation-related factors and how to engender interactive learning process.

2 Background: Blogs, wikis, and PLE

The way social media tools will be used in e-learning context will be different from their uses in other contexts [13]. Consequently, adding social media to e-learning is not so much about tools and technology but rather about "concepts, practices and attitudes" that guide incorporating social tools to be a part of e-learning [13]

While blog use is proliferating in e-learning, the number of in-depth studies of its use is still inadequate [9]. Used typically as a shared learning journal/diary, blog is seen as having potential to encourage reflective thinking [9], [14]. Feedback from peers and trainers is seen as integral to the experience, as interactivity allows for coproducing knowledge [9]. In using blogs, it is important to keep the number of contributions learners are expected to read and comment reasonable to maintain

[1] http://fshape.wordpress.com/f-shape-2010-2011/in-english/

(inter) activity without overwhelming learners [9–10]. While some case studies have been successful (e.g. [9]), some have been less so [14]. Experiences from these studies underline the importance of suitable group size, providing detailed guidelines, and explaining benefits [9], [14].

While blog centers on the individual, wiki is a collaboration tool designed to promote group interaction, a place where knowledge is iteratively co-constructed rather than absorbed or reproduced [15-16]. In effect, wiki provides educational affordances for both constructivist and collaborative learning approaches [3]. Still, as with blogs, research into using wikis in e-learning is "in its infancy" [15] and many attempts of using it have been less than successful [2-3]. Besides proficiency issues [3]—even learners with IT background and initial training have had technical proficiency problems [2]—learners have had motivational problems [2–3], [15]. Learners focus on activities that provide "the greatest perceived benefit" [3]. As currently only visible individual efforts are rewarded, promoting wiki use requires new approaches to assessment [3], [8]. Also, course contents need to be designed around wiki use to avoid an add-on perception of wiki [2–3]. Finally, learners need to be made aware of their role in the process and the benefits of using wiki—valid pedagogical reasons for engagement—need to be pointed out [2–3], [15].

Zenios and Holmes [16] furthermore suggest that wikis should not be seen as standalone collaboration tools but rather as "repository spaces for storing and sustaining shared information and collaboratively created knowledge." Their study suggests that learners do not use wiki for communication, as social dialogue necessary for knowledge co-creation needs a more direct communication tool, e.g. Skype.

Personal Learning Environment (PLE) is a concept over which there is no consensus [1], [7]. While some researchers see it as a technological system, even as a standalone application, many others consider it more of a concept or an approach [1], [7]. PLE is a learner-centric "counter-concept" to institutionally owned and controlled learning landscapes [7] that rejects the idea of one size fitting all and focuses on learner's individual needs [6]. PLE is also a recognition of the continuous nature of learning, bringing both formal and informal learning together [1]. While e.g. Downes [6] sees PLE as consisting of "a set of related concepts, each associated with the technologies and applications of Web 2.0," Fiedler and Väljataga [7] warn against the concept being reduced to a snapshot of digital artifacts available today.

3 Method, data, and participants

The long training (LT) lasted about one year and three months (Nov. 2010–Jan. 2012). Besides start-off and ending days, there were six 7–8 hour contact teaching days with lectures. Majority of the training, however, was carried out with social media tools: Blog (learning diary; no. of postings required not specified), discussion forum (two one-month discussions on given topics; the 1st had two threads with altogether 15 learners postings and the 2nd had three threads with altogether 5 learner and 3 trainer postings), chat (one session in small groups of 4-5), and wiki (one assignment in groups of 2–3 learners: describe customer-centricity at your unit/section).

The shorter training (ST) wi

th forty participants, in contrast, lasted about three months and utilized chat (3 sessions), discussion forum (2 assignments), voice conferencing (2 sessions), and blog (3 assignments with one deadline). The only contact teaching days were the start-off and endings day. For details on ST research, see [10]. As social media tools in workplace e-learning represents a new field of study, studying it requires a qualitative case study approach to allow investigating complex social phenomena [12]. As a result, we collected learner input through interviews and questionnaires and observed online interactions as they took place (e.g. chats) in addition to using log data about interactions (e.g. wiki activity) and online artifacts (e.g. blog postings) as data sources. Data was collected throughout the training.

In LT, the semi-structured interviews were conducted after the training activities had ended as group interviews: Six learners (out of 15) were interviewed in two groups (G1 and G2), both consisting of three learners. The interviewed learners provide a rather comprehensive learner viewpoint of the training, as at least one of them was present as a member in every small group in the training except for one wiki group (out of the seven wiki groups) (see Table 1).

Table 1. Activity by interviewed and non-interviewed learners (*number of postings instead of learners as in others)

	Chats			Forums		Wikis						
	Group 1	Group 2	Group 3	Disc. 1*	Disc. 2*	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Section 7
Interviewed	1	3	1	7	2	2	2	2	2	1	0	1
Non-interview	4	1	4	8	3	1	1	1	1	2	2	3
Altogether	5	4	5	15	5	3	3	3	3	3	2	4

The interview themes were selected to allow comparing the experiences in this training to other trainings we had already studied (including ST) and to plumb the wiki use and related experiences, as this is the only training we studied that used wiki. For studying PLE related factors—both not to lead learners and because the concept of PLE had not been introduced to learners—we asked open-ended questions that led learners to consider tool uses and their experiences of them in learning more widely.

Furthermore, learners were asked to blog about their perceptions of the training in the last blog posting, which thirteen learners (87%) did, thus proving us with further insight into learner experiences and perceptions of the training and the tools.

The learners' prior familiarity with social media varied. While some were very experienced chatters and had used Facebook for a long time, some others were not in Facebook and had no prior experience of chatting. Because of using Wikipedia and other wikis as information sources in everyday work, most were familiar with wikis as users. The tool training provided failed to level the skill differences; e.g. non-experienced chatters experienced the chat as too fast-paced and disjointed while experienced ones felt that chatting became something akin to exchanging group emails.

We used a typical data coding approach to analyze the qualitative data. After transcribing non-text materials, we coded them into interview themes. These themes were further coded into subcategories based on themes emerging from the material.

While other pilots that we have studied, e.g. ST [10], offer supporting evidence to many findings, case studies of actual use represent a certain set of circumstances by nature and are thus subject to contextual influences. For instance, the behavior of instructors can influence learner behavior and experience [11], as can the usability of the particular tools used; e.g. here the low usability of the wiki tool clearly influenced learner perception. Therefore, we need to exercise care in generalizing the results.

4 Blog: Perceptions and experiences

In ST, forty people submitted each three blogs (topics selected from ten given by trainers) to a common blog, resulting in a "*gray mass*" of text that "*flooded*" in close to the one deadline, effectively "*numbing*" the learners who made practically no comments (non-compulsory). The blog ended up a system of submitting assignments.

In contrast, in LT, blogs were used more like blogs in recreational use. Learners were instructed to use them as learning diaries and consequently saw them as such. With 15 learners and no one big deadline, the number of blogs remained sensible at 61 blog postings. Although learners felt that blogs did not provide much interactivity, 22 postings (36%) still received altogether 36 comments (1–3 per posting): 19 comments (53%) were by trainers, 8 (22%) by the poster, and 9 (25%) by peer learners.

The opinions over blogs' usefulness were clearly divided between G1 and G2. G1 considered blog the best tool in the training because it caused them to "*analyze what I have learned for real,*" something that they felt would otherwise not have taken place. In contrast, G2 felt that "*there was no function, no need for writing a blog.*" G2 in fact felt that none of the social media tools contributed much to the training and considered them to have been "*glued on top*" rather artificially. G1 also felt much the same way about all the other tools but blog. The significant difference is that G1 felt blog to have a clear purpose and that it had contributed to their learning.

In effect, workplace learners are busy and have no extra time for something the function of which they do not see. Learners need to understand the benefit that using the tool brings to be motivated to use it: "*Somehow the understanding of what I benefit from this should've been communicated at the beginning—what do I benefit from writing this blog.*" Consequently, explicating the purpose and benefit of a tool can clearly spell the difference between a success and failure.

Learners felt that interactivity was "*almost entirely missing*" from blogs. With not enough comments, "*…discussion or exchanging of ideas didn't take place,*" and "*it stayed a bit diary-like.*" Learners did miss interactivity—"*it would have been nice to read comments from others and then it might've led to you commenting that*"—and were aware of blog's potential for sociality: "*…it has all these features available.*" They saw continuous, active use—"*that people would read and comment*"—as a prerequisite for interactive process and felt that some compulsoriness could have helped: "*It could be that if you had to go there, you*

might end up getting excited…" However, learners at the same time felt that there was little encouragement for reading postings.

Learners felt that there was no culture of interactivity in their organization. Interestingly, part of the reason may be that the organization management did have a blog. Learners felt that it was "*tasteless and odorless,*" more akin to "*politically correct*" bulletin. The heavy style of informing rather than questioning or asking for opinions did not seem to invite discussion. Moreover, learners felt that since the content came from the management, "*people don't dare to go there and comment.*"

Besides self-reflection, G1 also saw other benefits in blogging. They felt that blogs offered a way to get ideas and viewpoints from others: *"…somebody who wrote about a contact day had remembered different things than I did and it was nice to read it … it allowed exchanging benefit, you know, that's a brilliant observation, I could use it, too, or at least remember that and that theory that I could put into use at work.*"

G1 members felt that the information that ended in the blogs was different from the information that is exchanged face-to-face, partially because of the type of information and partially because in face-to-face conversation, discussion moves on and if there was no suitable opportunity to say what was on their mind, it was forgotten. Also, writing things down gave them a chance to check facts and organize their thoughts better, allowing clearer communication and, again, introspection. They also emphasized that this way of writing deepened their learning: *"…writing a blog makes you think about the subject matter and analyze it and organize what you are about to write, and that's cerebration and improves learning.*"

Both groups felt that knowing others will read the text affected their writing-style and the care put into writing: "*You do it more carefully when you remember that many will read it, and so in a way you consider more carefully your conclusions…*" This made blogging different from simply writing a learning diary on paper: "…*it was quite nice that it wasn't just a learning diary but you also wrote it for others, you took that into consideration, thought about what would be nice to read.*"

Finally, G1 expressed displeasure that some had not contributed at all or had written their blogs at very superficial level, simply fulfilling the requirement: *"…many blog postings… you didn't get inside the thoughts of the author based on them, what they had learned or what kinds of feeling at all they had about the contact days.*"

5 Wiki: Perceptions and experiences

Wiki assignment asked learners to "form a community understanding of how customer-centricity is realized in the [organization's name] structure." Learners were divided into small groups of 2–3 to describe this at unit/department level; one unit, one wiki page. Depending on their job description, learners were involved in generating 1–4 wiki pages.

Learners uniformly saw wiki as a "*chore*" and as the worst social media tool in the training. Learners felt unmotivated to use wiki because trainers did not point out any

function for it and presented it as something to try for the sake of trying. The problem was compounded by the fact that learners saw the wiki assignment as replication of a part of their intranet. Consequently, they felt their work would not be used for anything: *"…I don't know if the results are used for anything since we have better descriptions in the intra…*" It is important to have assignments that make sense to learners, that they see the benefit and purpose in what they do.

However, learner dislike of wiki here was not based on disliking or misunderstanding wiki or its purpose *per se*: *"…wiki is a fabulous tool. Plenty of great examples on the Internet…*" In fact, they constantly used various online wikis at work. Also, they were clear on the use logic: "*…anybody can go there and [fix it] if they know better.*"

Learners did not see wiki as inherently interactive: "*…if somebody does a wiki, the point is not to have a big yes-no tug-of-war happening; it's meant to be a writing that contains information.*" Also, many groups completed their wikis close to the deadline, leaving little time for interactivity even if learners had been motivated for it. Learners did feel, however, that ideally they would have read more wiki entries by others and expanded or corrected them but did not do it in this training because they felt that it was not wanted: "…*there was such a possibility and we never used it, but I don't think we were meant to, either.*" They felt that they were not even encouraged to read the contributions of others, never mind expanding or correcting them. Still, they felt that this would have made wikis more interactive and using them more meaningful.

Interestingly, small groups made their wiki contributions by getting physically together by one computer and did most of the content as group work at one sitting. The possibility of collaborating through the features offered by the wiki was not emphasized in instructions and groups ended up treating wiki as a place where to put the end-result while complaining that "*it was horribly hard for us to find common time.*"

6 PLE: Blog and wiki as one-stop information storage

When asked to think uses for social media tools for themselves, learners came up with ideas that strongly resembled the concept of PLE organically, i.e. without being introduced to the concept. Learners felt that blog could allow them to "*collect their thoughts to one place and others could then read it, too*" in addition to enabling themselves to "*follow what I have done and when.*" However, it was wiki in particular that was seen as a good tool for PLE because "*you can build out of wiki quite smartly*" a place for "*training contents… with links and everything else and so all the information would be [in one place].*" Learners said that all lecture etc. notes could be entered there directly without first writing them on paper. Wiki was also seen as offering easy building blocks: "*I'd have templates there and I'd simply have built it there.*"

Sharing and interactivity were seen as part of PLE. Learners envisioned that sharing and allowing editing for others could result in a common place for solving problems as a group and for recording the solutions.

7 Motivation, moderation, and activity-cum-interactivity

Although the organization allowed learners to use working time for the training, learners had difficulties doing so, as finding time from work was challenging and learners prioritized work over study: "*My boss said that you can use working time but [studying] took the last place because work matters were more important.*" The typical time for doing assignments at work was "*Friday afternoon*" "*when even easy things began to feel complicated … when you no longer can focus but can't go home, either…*" Also, learners typically left things close to the deadlines.

Consequently, **motivating** learners is very important. Now learners felt that social media tools were largely "*glued on top*" of the training without them having any real function or purpose. Learners felt this clearly reducing their motivation, and when asked what should be done differently, immediately emphasized giving a purpose for using social media tools: "*Well, the first thing is to consider the function, purpose, reason why … that we are just testing is not very motivating.*"

Activity at the learning environment was seen as an important motivator. Learners felt that trainers should have actively made sure that all contribute and that way started a virtuous circle of more postings and more comments, resulting in interactivity. Without activity, "*it simply dies.*" Learners felt that to engender more activity and interaction, consuming (e.g. reading) content should be encouraged and compulsoriness should be employed to keep learners returning: "*You'd have a little compulsoriness, nothing more or less, a weekly assignment to go there and have a look*" A community has to have "*a critical mass*" of activity to engender enough contributions to make going there "*worthwhile.*" Moreover, when activity was not continuous, learners had to break inertia every time they did log in: "*When you go there rarely, threshold of starting is always as high.*"

In effect, now learners described **moderation** as "*vague*" and felt that trainers should have been more active and direct in soliciting contributions. Learners wanted to have "*encouragement and prompting,*" signs of monitoring—"*tell us right from the scratch that 'we will be watching how you are doing there'*"—to show that contributing was important, even if they knew that making contributions was ultimately up to them. Learners wanted clear rules instead of vague, infrequent pleas: "*…clear dates and if I haven't written by then, something to prompt, some kind of sanction or maybe carrot to start it up.*" Learners appeared to want to be shown that what they did mattered instead of feeling that any nominal, low-quality contribution was enough.

Besides stick, learners also saw need for carrot, e.g. making high-quality contributions to stand out somehow. Besides showing that contributions are read and are important, this would also have given examples of what was expected. Now some learners mentioned first looking at the content by others to understand how to approach e.g. writing wiki content. In addition, learners hoped to have indicators of how they are doing, e.g. a traffic light signal of red (not nearly enough), orange (almost there), and green (good level of contribution) to encourage contributing.

Furthermore, it is important that trainers themselves behave exemplarily; now learners felt that e.g. trainer blog with six postings (avg. 108 words; max 158 words) with one comment (by a trainer) was inactive and as such not a good example.

Without moderation engendering activity and e.g. wiki and forum activity condensing close to the deadline, learners saw the periods between contact days as "*empty.*" Social media failed to engender a feeling of continuity in the training and learners felt that they had to tune in to the training again and again: "*It didn't become a coherent package during which you could've seen an evolving whole...*" Consequently, social media tools did not integrate into the training—"*they popped up from somewhere and then went back to hiding*"—and using them became a "*chore.*"

As a solution, learners felt that instead of big deadlines, assignment should be divided into smaller deliverables with clear deadlines to engender activity, and reasonable compulsoriness should be used to engender interactivity around them. In addition, learners felt that when social media tools are to be used, learners should be preselected so that only learners "*who're really ready to use the tools*" would be selected and those "*for whom it's absolutely new and foreign*" and who have no enthusiasm for them would be offered more traditional trainings. Now the interviewed learners felt that some resisted the idea of social media which "*encumbered the whole group.*"

8 Conclusion

Social e-learning, learning together with peers that is facilitated with social media tools and, in case of formal CPD, moderated by trainers, is not about tools *per se*. It is about a learning process that needs to be designed and maintained to foster social interaction, and as such, represents a paradigm shift both for learners and trainers. In this training, social process did not emerge: "*We did it as individuals, not together—we didn't put social media into use in that sense.*" Learners did not understand their role or the role of the social media tools in the training, leading to lack of motivation. Consequently, as posited in [14–15], explicating benefits of using social media tools and approaches is essential; learners need to understand why the tools are used and how to use them to engender the value-bringing social process. Now those learners who saw introspective point in blogging liked the tool but others saw it as pointless.

Moreover, especially with asynchronous tools, e.g. wiki and blog, the process has to be designed to be continuous rather than condensing around big deadline(s) and leaving the social space otherwise dead. Furthermore, the process needs to be maintained with moderation to make sure that everybody makes quality contributions. Like Cole [3], learners in this training suggested breaking big assignments into smaller deliverables so that there would be new posting coming continuously and using judicious compulsoriness to engender interaction—commenting, correcting, and expanding—on those deliverables. This way the training/learning process could have continued between the contact days rather than learners having to re-orient to the training repeatedly.

Finally, learners organically envisioned PLE-like uses for wiki and blog. With guidance from trainers, it appears plausible that learners would be ready to start using suitable social media tools as shareable information storages where information could also be edited collaboratively, benefitting both themselves and other learners. In

summary, we need to move in our thinking further away from tool-centricity to learning process centricity, and see social media tools as means to the learning process rather than as an end onto themselves. Different tools offer different learning affordances, and while they represent an ever-changing and ever-evolving toolbox for fostering social e-learning process, they are not the process.

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