

Social learning for university staff

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SOCIAL LEARNING FOR UNIVERSITY STAFF

ABSTRACT

Social Learning is the utilization of Social Networks and Social Technology for specific organizational learning outcomes. In the university's organization contexts these outcomes are, for instance, academic staff professionalization. In this paper we present an initial exploration on how a social learning network to enhance academic staff competences can be designed. The starting point is to explore the use of social networks sites (SNS) in the academic staff and, considering the results, suggest what characteristics a social learning network should have to enhance competence development. A survey on the use and appreciation of SNS was conducted among our university staff. The responses showed that although staff is familiar with SNS, the actual use and participation is much lower. Staff tend to browse and visit special purpose SNS, but register to general and professional SNS. Reasons to join and participate are mostly social: finding and connecting to people. In a social learning network for competence development, a clear aim, next to indicators of quality of participants and learning material was considered important. Motivations to learn include usability, appealing interface, clear expectations and learning support services.

KEYWORDS

Social network sites, professional development, learning network, lifelong learning

1. INTRODUCTION

The current knowledge society requires a shift in education, not only towards a more demand-driven approach but also to one that takes account of the growing opportunities new media and technology offer. This shift in educational paradigm requires continuous professional development of staff, including teachers, researchers, administration and management. Staff needs to be aware of new developments in their areas, such as new didactical approaches, innovative technologies, and develop new and current competences to foster their careers. Social learning for university staff is referred to as the utilization of Social Networks and Social Technology for specific organizational learning outcomes as, for instance, professionalization of the University staff. For an example in an organizational context see <http://www.masie.com/social1>.

Learning Networks can cater for this. Learning Networks (LN) are online social networks where the participants organize their own learning process in line with their needs for competence development. The LN consists of people and learning resources organized around a particular domain or subject. The LN members can participate in the role of learner, teacher, as well as content provider. The learning resources or events vary from courses, workshops, to learning objects suited to assist the learner in obtaining the required competence. There are some examples and initiatives of so-called learning networks (e.g. the Scottish Social Services Learning Network, <http://www.learningnetworks.org.uk/>). However, these mostly consist of top-down organized traditional education supported with some form on online education and communication facilities. Our notion (Sloep et al., 2007) of LN as online social network sites takes this to another level. The LN are bottom-up self-organized networks for competence development in a particular domain. Participants are self-directed: determine what, when and how they want to study, geared towards their own personal needs. Thus participants have to take control over their learning process and activities, actively looking for competence development plans, learning actions and people to support them. We observe similar phenomena in the popular online communities and social network sites that thrive on social interaction. Our main assumption is that LN should self-organize into communities and that social interaction between its participants is paramount. We investigate how to design LN, including required functionality, in such manner that social interactions are promoted and stimulated to enhance knowledge transfer and efficient and effective competence development.

In this paper we focus on affordances for competence development that would be required when designing LN. LN resemble social network sites (SNS) and can be designed like these sites or by using existing social network sites. In this paper therefore we investigate whether academic staff is familiar with social network sites, whether they use them and what for. Next we asked them what affordances a social network site would need to have when its purpose would be competence or professional development. We start by briefly introducing LN and related work. Next, we present the results of a survey on SNS and affordances for competence development among academic, teaching, management and support staff of a Technology Enhanced Learning Centre. Finally we conclude with future work.

2. LEARNING NETWORKS

There are many popular online communities or social network sites where people share all kinds of information. In this paper, we adhere to boyd's (boyd and Ellison, 2007) definition of a social network site (SNS) as a web-based service that allows people to (1) construct a profile within a system, (2) have a list of contacts, network or friends with whom they share a connection, and (3) view and navigate through their connections and those made by others within the system. These sites show a high activity, and thrive on the social interaction between its members. This large social space, emerging from social interactions between the participants is required for social network sites to become effective. However, interaction and knowledge exchange between people does not start automatically. Several behavioural, psychological and sociological theories are mentioned in literature that can provide some insights in people's motives to contribute (Erickson and Kellogg, 2000, Millen and Patterson, 2002, Thibau and Kelly, 1959, Trivers, 1971). (Ling et al., 2005) found an increase in contribution when the benefit became clear to the members; while (Cheng and Vassileva, 2005) applied several theories to increase participation and contribution in their educational system.

For effective LN, it is thus very important that the social space arises to stimulate effective knowledge exchange and the learning process. Next to social space, the characteristics of the network and the participants are important (Kester et al., 2006, Sloep et al., 2007, Berlanga et al., 2008). Three conditions underlie this social space and thereby the enhanced knowledge sharing: boundary (a clear and defined goal and rules to abide by), heterogeneity (varied community composition) and accountability (identify people and their actions and likelihood to meet again) (Kester et al., 2006, Sloep et al., 2007). These conditions can be found in most successful and sustainable online communities. In addition, successful SNS offer the participants, next to a clear goal, purpose and rules, functionalities to enforce sustainability. We characterize these as: self-management: facilities that allow members to create and manage their own presence as well as their contributions within the community; self-organization: facilities to allow and enhance interaction and collaboration between members; self-categorization: facilities to assist members in classification and evaluation of contributions; and self-regulation: facilities for members to control the level of privacy of contributions (Berlanga et al., 2007).

Our research focuses on investigating the factors that make SNS so popular and effective in establishing sociability and knowledge exchange, to see whether we can apply these to LN for professionalization, or design LN on top of existing social network sites. In this paper we present the results of survey we conducted among 102 academic (teaching and research), management, administration and ICT development staff in our research centre.

2.1 Social network sites

SNS allow people to look for and find other people (new and existing) and exchange information, based on their profile and common interest. Many of these SNS thrive due to social interactions: finding previous classmates, friends, relatives and meeting new people. They started off in the personal context, but professional SNS are rising. Other SNS are formed around a particular purpose: sharing resources of varying nature.

All SNS have in common that they evolve around the members' profile (although it is possible to browse the sites without having to register). The profile composition among SNS is fairly consistent, with a generic section and a more elaborate section for interest, education and "information about me" (Berlanga et al.,

2008, Ellison et al., 2007, Gallant et al., 2007). Interestingly, even information about education and work is included in most profiles, even for those SNS that are mainly oriented towards friends' networks. All SNS encourage members to interact with others and add as many contacts as possible by providing support and tooling for this (Berlanga et al., 2008). Our survey contained four questions to investigate what information the staff considered to be important in a user profile, either to present themselves or to get acquainted with others, and vice versa. Respondents indicated occupation, interest and expertise to be most important, followed by real name and school/university. They did not make a distinction between information in their own profile and that of others.

The SNS are still increasing in popularity. For example, the Nielsen survey in 2008 (<http://www.nielsen-online.com>), indicate that MySpace is still the leading SNS, followed by Facebook, but that Twitter, Ning and LinkedIn are among the fastest growing SNS (based on US data). According to a press release of comScore (<http://www.comscore.com/press/release.asp?press=2742>) Facebook is the fastest growing SNS in Germany. Hyves is the most popular SNS among youngsters in the Netherlands. The respondents in our survey were certainly familiar with a lot of SNS, as indicated by the number of SNS they visited, but the actual use and participation as can be derived from the number of SNS they registered to, was much less. LinkedIn turned out to be the most visited and used SNS among our staff. The forty respondents indicated 311 times that they visited one or more of a total of 60 different SNS; with a range of two to 24. LinkedIn, Youtube, Plaxo, Flickr, and Hyves were among the most visited SNS. The list of 60 SNS seems impressive, but only 23 were mentioned more than twice. Most of the mentioned sites can be classified as special interest sites: sites intended for sharing all kinds of content; closely followed by general SNS (sites with as main aim connecting with friends). As the majority (27) of the respondents indicated research to be their main activity and only 10 teaching, it is not surprising that the research staff mentioned more (107) visited SNS, against 35 for the teaching staff. Both teaching and research staff however visited on average more of the general purpose SNS (Table 1). The majority of the respondents worked in either a more traditional educational research field or a more technology development research area. Staff in the first form of research visited less SNS (74), but more of the general (32%) SNS, while staff in the technology oriented research visited 111 SNS and more of the special interest SNS (37%) (Table 2). In the more traditional educational research group, 82% of respondents indicated research as their main activity and the remainder (12%) teaching. In the technology development oriented group, staff activities were 53% research, 13% teaching, 20% ICT development, 6% management, 6% administration. This could explain their more varied interest in types of SNS.

Table 1. Average number of visited and registered sites for teaching and research staff, according to type of SNS

	Visited		Registered	
	Teaching	Research	Teaching	Research
general SNS	4.3 (1.9)	3.2 (1.6)	1.4 (0.5)	1.4 (0.7)
professional SNS	1.7 (0.7)	1.8 (0.8)	1.3 (0.5)	1.6 (0.5)
special interest SNS	3.8 (1.2)	2.9 (1.6)	1.5 (0.7)	1.0 (0.0)
total SNS	91	228	18	32
cases	35	107	13	22

Table 2. Average number of visited and registered SNS by staff in a more traditional education research group or a more technology development oriented research group, according to type of SNS

	Visited		Registered	
	Traditional research Mean (SD) Count	Technology development Mean (SD) Count	Traditional research Mean (SD) Count	Technology development Mean (SD) Count
general SNS	2.6 (0.8) 24	3.7 (1.9) 33	1.2 (0.5) 5	2.5 (0.7) 5
professional SNS	1.5 (0.7) 12	1.8 (0.8) 18	1.3 (0.6) 4	1.3 (0.5) 5
special interest SNS	1.9 (1.2) 21	3.7 (1.6) 41	1.0 (-) 1	2.0 (1.4) 4
total SNS	74	111	10	16
cases	45	44	8	9

However, the actual registration to a SNS was lower. We asked the respondents to indicate their first, second and third most frequently used SNS. Of the 40 respondents, only 29 (72%) had ever registered to a SNS, but 5 (12%) did not return to the SNS after registration. So, 28% never registered to a SNS at all.

Although the respondents indicated that they visited general and special interest types of SNS, the SNS they registered to were the professional (career development) types, such as LinkedIn. LinkedIn was mentioned 11 times, Hyves 5, Facebook 4, and Plaxo 4 times. LinkedIn (7) and Plaxo (3) were used in work context, Hyves (5) and Facebook (3) in personal context. The staff in the more traditional research group seemed to prefer the professional and general SNS; while the staff of the technology oriented research group registered to general and special interest SNS (Table 2).

The same SNS, Plaxo, MySpace, Facebook and LinkedIn, were among the sites people registered to, but stopped using. Reasons to stop using a SNS were: not meeting expectations, too time-consuming, low usability, no added value, better alternatives available and concerns around privacy. Similar factors were mentioned as drawbacks of SNS.

The respondents to the survey mentioned social aspects (invited by friends or others, keeping in touch, meeting new people) as main reason to join, as well as the main reason to participate and the most appreciated characteristics. Respondents mentioned that they both acted as 'listener' as created or shared content. The respondents ranked the self-management functionalities add contacts, browse other people's contacts and create a personal profile most often in first and second position. This corresponds to the findings by Ellison (Ellison et al., 2007) that Facebook promoted social capital, in particular bridging and maintained social capital. Bridging social capital enforces weak ties and allows users to build loose connections between people. Maintained social capital allows users to maintain contact after disconnecting from a previous network (Ellison et al., 2007). Social interaction in networks or communities does not arise spontaneously. Online social question and answer sites rely on active participation of their visitors. This can be promoted by creating benefit for the participants, like the point system in Yahoo that favours those who contribute with high quality answers (Shah et al., 2008).

2.2 Affordances in Learning Networks

In the current knowledge society and with the onset of technology and web 2.0, continuous competence development or professional development is required. Online communities like mailing lists, discussion forums, have been used for quite some time now both by professionals as individuals looking for an answer to a problem they face. Question-answer sites like Yahoo Answers, but also all kinds of support sites, like for example the communities around (open source) software applications, are popular and thriving. This, even informal and non-formal, process of obtaining answers to a question or problem constitutes a form of competence development. People tend to rely more and more of these forms of support instead of traditional curriculum based courses, because it is more flexible and geared towards their personal needs and requirements at that particular moment. It offers quicker options to arrive at a solution (King Research, 2007). LN should accommodate this by providing users with support for finding the right persons and resources for their needs and incentives or affordances to stimulate interaction and exchange. Our survey addressed this by asking several questions about what functionalities or affordances a SNS should contain to assist somebody in improving a competence in order to do their job better or obtain a better job position. In three open-ended questions we enquired what functionalities and features a competence development SNS should contain so that they would join, what the most important characteristic would be to assist in developing competences, what aspects or features would encourage learning.

2.2.1 Entice to join

Regarding the reasons to join a SNS intended for professionalization, respondents indicate the following features and functionalities they would like to have in order to sign up:

- Social aspects: type of people present, experts, asynchronous and synchronous communication.
- Expertise of participants: experts who can teach me something, people I know, people I trust, information about expertise and interests.
- Quality of the learning material, like "learning resources and activities", "worked out examples by experts", "interesting course material".
- Learning support: assist in determining the goal, recommendations on people and resources, access to people and experts for support, communication facilities. Also, some people commented about a form of social support that involved other people in providing answers and advice; in few cases respondents indicated that the person should be an expert.

- The boundary or purpose of the SNS: “a description of the competences”, “a list of goals, experiences, problems solved, ... I could pick from”, clear goal, structure.
- Openness of the system: ability to bring in own content, usability, employer benefits, but also being able to see in which other SNS a member participates, not using a dedicated SNS, but building on top of existing ones and including some fun

2.2.2 Develop competences

Respondents indicate that learning material and content is the most important feature they consider for competence development. Particularly, staff ranked as most important characteristic: competence descriptions, sufficient learning material, identify learning resources and teachers, being able to organize and categorize content-related aspects, finding and contacting people and experts, and peers with a mutual goal sharing, and find out what are peers doing. As second most important characteristic, staff ranked mainly:

- social aspects: expertise, how do I compare, list of people who reached competence, nice peers.
- learning aspects: engaging self-tests, how do I compare, learning opportunities, simulations, list of people who reached competence

. In addition, respondents indicated anonymous access, being able to browse, clear aim, reliability, transparency, mash-up with existing SNS, easy access: no costs, no (additional) registration, to be important

2.2.3 Motivate to learn

Aspects or features that motivate to learn were found to be related to the boundary (clear expectations, functionalities, goals), and usability aspect (ease of use, reliability, user-friendly, appealing interface), more than to particular aspects of learning or competence development (trace learning paths, progress indicator, test skill development, the idea that there is something to learn). The sustainability functionalities included content as well as social aspects. For categorization and organization the social aspects (people with similar interests or activities, stimulating experts and peers, easily getting connected with peers, being able to distinguish between experts and newbie) were more important, for management the content (interesting and useful information, access to new information). Effectiveness indicators scored high (12) as well as usability and a dynamic and interactive environment (active participation, new information, stimulating experts and peers, interesting discussions, easily getting connected). But also personal benefit was mentioned (equal benefit, contribution, increased reputation. The respondents remained vague on requirements towards learning materials (interesting courses, learning opportunities), but were a little more specific on learning support (progress indicator, test skill development, trace learning paths, helpful solutions to problems).

2.2.4 Learning support

The respondents considered learning process related forms of support, like answers to content related topics, feedback, collaboration and advice on how to proceed the most important (Table 3).

Table 3. Type of support consider most important (multiple answers allowed, n=28)

Feedback	17
Question answering on content related topics	19
Advice on how to proceed	15
Assessment	4
Collaboration	16
I don't know	2
Other	4
- advice on materials to use, best path to follow	
- depends on the task	
- self-assessment	
- teaching	

Respondents clearly prefer a mix of methods to be able to find suitable people to ask a question (Table 4). The main reasons to help others were either for the good of the community (18) (altruistic, collegiality, community building, knowing the person) or because of personal benefit (17) (challenge, clear goal, benefit

for self, get help in return, reputation, improving own skills), although quite a few (10) would help only when it did not involve any costs for themselves (available time, existing expertise).

Table 4. Preferred method of social support (single answer allowed, n=28)

Choose potential people from a list	7.1%
Have a service that suggests relevant people	3.6%
A combination of both	71.4%
Don't know	3.6%
Other	14.3%
- ask questions anonymous to a forum like feature	
- Google search for the site	
- have an expert answering my questions	
- only contact people that I know	

When asked to rank content and functionality a SNS can offer, self-study material was ranked highest, followed following courses and being able to contact experts (Table 5).

Table 5. Ranking of content and functionality

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Rank 6	Rank 7	total
Following courses/workshops/trainings/seminars	6	7	2	4	-	2	4	25
Being able to contact other participants	3	3	2	6	3	4	4	25
Being able to contact experts	6	6	8	1	4	2		27
Being able to find participants that can help you	2	2	5	4	9	-	2	24
Get a recommendation from the system who can help you	-	3	3	4	3	5	7	25
Get a recommendation from other participants who can help you	-	2	4	2	2	9	5	24
Relevant resources for self-study	11	5	3	4	2	1	1	27
	28	28	27	25	23	23	23	177

3. CONCLUSION

While the use of SNS for learners in formal and non formal contexts is a hot topic of research, the use of such technologies for professionalization of university staff is addressed only cursory. Although staff was familiar with the phenomena of SNS and visited quite a few SNS, actual use by registering and participating was much less. Most visited sites were the special interest sites, but respondents registered more to general and professional SNS. These general and professional SNS seem to be used for the social aspects mainly. Even when this is done in a professional context, for the job, it seems respondents mainly used the sites to find people (existing or new) and not as much for competence development. The special interest sites like Youtube offer attractive and leisure resources that potentially could be used towards competence development. It is not clear whether respondents actually used the SNS for this, as the social aspects seem to outweigh the content related aspect. Even if the respondents did register to these sites, at the moment of the survey they did not consider these to be their most frequently used site. As the use of SNS is still growing, it is likely that also among the respondents the use and uptake of SNS has changed.

Reasons to join, participate and main characteristics seemed to evolve around the personal aspects, indicating the importance of the accountability, self-management and self-organization aspects of the SNS. Respondents want to be able to identify and find people, based on a description or profile of the person, together with a qualification of that person, by expertise and interests. Similar findings is found in literature where the lack of face-to-face contact is often mentioned as the main obstacle in online learning (Stodel et al., 2006).

The replies to the questions on affordances for a SNS directed towards competence development suggest that such a SNS could work. The SNS should provide the affordances that allow the participants to find the people they need, and the content they want. Not only being able to find these resources seems important, but also being able to find the correct or most suitable resources, as indicated by the need for categorization. A fair amount of the remarks dealt with the quality indicators, both of the participants and the content.

The motivation to learn was influenced by the boundary and usability as well as incentives like effectiveness and personal benefit. Personal benefit can lie in a credit system as used in online social question and answer sites (Shah et al., 2008) or in reputation and effectiveness (Vassileva, 2008).

This indicates sufficient grounds to assume that a LN can be based on the principles found in SNS. A similar survey we conducted among psychology and computer science students indicated as well the usefulness of such a SNS in an academic setting. Currently we are preparing a prototype to investigate how a social learning network can be build using existing social networks and Web 2.0 technologies (e.g., OpenSocial, mashups, etc.). The central idea is to take advantage of existing social technologies and benefit from them to enhance professionalization of academic staff in non-formal contexts.

REFERENCES

- BERLANGA, A., SLOEP, P. B., BROUNS, F., ROSMALEN, P. V., BITTER-RIJPKEMA, M. E. & KOPER, R. (2007) Functionality for learning networks: lessons learned from social web applications. *ePortfolio 2007*. Maastricht, the Netherlands.
- BERLANGA, A. J., BITTER-RIJPKEMA, M., BROUNS, F. & SLOEP, P. B. (2008) On the importance of personal profiles to enhance social interaction in Learning Networks. IN KOMMERS, P. & ISAIAS, P. (Eds.) *IADIS International Conference Web Based Communities 2008*. Amsterdam, Netherlands, IADIS Press.
- BOYD, D. M. & ELLISON, N. B., 13(1), . [HTTP://JCMC.INDIANA.EDU/VOL13/ISSUE1/BOYD.ELLISON.HTML](http://JCMC.INDIANA.EDU/VOL13/ISSUE1/BOYD.ELLISON.HTML) (2007) Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13.
- CHENG, R. & VASSILEVA, J. (Eds.) (2005) *User motivation and persuasion strategy for peer-to-peer communities*.
- ELLISON, N. B., STEINFELD, C. & LAMPE, C. (2007) The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12, 1143-1168.
- ERICKSON, T. & KELLOGG, W. A. (2000) Social Translucence: An Approach to Designing Systems that Support Social Processes. *ACM Transactions on Computer-Human Interaction (TOCHI)*. *Special issue on human-computer interaction in the new millennium. Part 1*, 7, 59-83.
- GALLANT, L. M., BOONE, G. M. & HEAP, A. (2007) Five heuristics for designing and evaluating Web-based communities. *First Monday*, 12.
- KESTER, L., VAN ROSMALEN, P., SLOEP, P., BROUNS, F., BROUWERS, M. & KOPER, R. (2006) Matchmaking in Learning Networks: A System to Support Knowledge Sharing. *International Workshop in Learning Networks for Lifelong Competence Development, TENCompetence Conference*. Sofia, Bulgaria, TENCompetence.
- LING, K., BEENEN, G., LUDFORD, P., WANG, X., CHANG, K., LI, X., COSLEY, D., FRANKOWSKI, D., TERVEEN, L., RASHID, A. M., RESNICK, P. & KRAUT, R. (2005) Using social psychology to motivate contributions to online communities. *Journal of Computer-Mediated Communication*.
- MILLEN, D. R. & PATTERSON, J. F. (2002) Stimulating social engagement in a community network. *CSCW '02*. New Orleans, Louisiana, USA, ACM Press, New York, NY.
- RESEARCH, K. (2007) The Value of Online Communities: A Survey of Technology Professionals. KACE.
- SHAH, C., OH, J. S. & OH, S. (2008) *Exploring characteristics and effects of user participation in online social Q&A sites*.
- SLOEP, P. B., KESTER, L., BROUNS, F., VAN ROSMALEN, P., DE VRIES, F., DE CROOCK, M. & KOPER, R. (2007) Ad Hoc Transient Communities to Enhance Social Interaction and Spread Tutor Responsibilities. IN USKOV, V. (Ed.) *Sixth International Conference on Web-based Education WBE 2007*. Chamonix, France, Acta Press.
- STODEL, E., J., THOMPSON, T. L. & MACDONALD, C., J. (2006) *Learners' Perspectives on what is Missing from Online Learning: Interpretations through the Community of Inquiry Framework*.
- THIBAU, J. W. & KELLY, H. H. (1959) *The Social Psychology of Groups*, New York, John Wiley and Sons.
- TRIVERS, R. L. (1971) The evolution of reciprocal altruism. *Quarterly Review of Biology*, 46, 33-57.
- VASSILEVA, J. (2008) Toward Social Learning Environments. *IEEE Transactions on Learning Technologies*, 1, 199-214.