Web 2.0 in the Netherlands' Higher Education

Introduction

This chapter outlines the current position and prospects of Web 2.0 in the Netherlands' Higher Education. After a brief description of the national conditions for Web 2.0 services, the chapter zooms in to the Dutch Higher Education area and the agencies for driving its innovation. A topical evaluation of Web 2.0 in Higher Education is based on a quick scan amongst higher education representatives that was carried out on behalf of this survey. In conclusion, a brief description of topical Web 2.0 cases will be given.

The national context

The Netherlands are a nation of public consensus. Any potential source of conflict, be it in politics or in everyday life, is discussed at length in order to arrive at some common understanding and agreement. Probably, the proverbial autonomy and wilfulness of the Dutchman can only be preserved by displaying sufficient empathy, tolerance and helpfulness. Internationally renowned are the extended consultations between the government, employers and labour unions to agree upon wages, taxes and prices. This so-called "Polder-model" which effectively appears to avoid strikes and revolts, exemplifies the importance of collaboration, vivid democracy, argumentation and mutual commitment as important values in the Dutch society. These values make a great starting point for Social Web services, because of their shared focus on supporting bottom-up initiatives, self-fulfilment, democracy, social cohesion, discourse and exchange of ideas. It is not just a coincidence that one of the major peer-to-peer media sharing services Kazaa (www.kazaa.com) was developed in the Netherlands. Also Hives (www.hives.nl) which is a highly successful social networking service, was developed in the Netherlands.

A second important enabler for the application of the Social Web is the high quality cable network infrastructure in the Netherlands. According to the Eurostat monitor[1] the Netherlands is the leading country in Europe with 83 % of the homes connected to the internet. This substantially exceeds the average in Europe which is 54%, or the world average which is only 6.4% [2]. Sweden (79%) and Denmark (78%) are second and third respectively. The Netherlands also has the highest rate of wideband internet: 74%. Currently, in various areas of the country the infrastructure is being upgraded to optical fiber networks.

For students no recent data are available about their computer and internet access, probably because this is not really an issue anymore. Already in 2002 it was established that the

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[1] Smihily, M. (2007) *Eurostat Data in focus, Internet usage in 2007 Households and individuals*, 23/2007. Accessed July 28, 2008 from http://www.nederlandbreedbandland.nl/uploaded/FILES/Internet_Usage_2007_Europa.pdf

[2] Point-Topic (2008) *World Broadband Statistics Q1*. Accessed July 28, 2008 from http://point-topic.com/

majority of the students have a computer at home[3]. In view of decreasing prices of hardware over the years and various institutional initiatives for providing students with cheap laptops, penetration will be up to 100 %.

There is very little topical and consistent data available about actual use and appreciation of Web 2.0, but the trend of increased popularity is unmistakable. The Eurostat report distinguishes between different internet activities. Typical Web 2.0 activities like peer to-peer file sharing, online discussion or publishing a web page are carried out in the Netherlands by about one third of the users. An extensive survey has been carried out by Ruigrok | Netpanel [4], which addresses various Web 2.0 issues. It turns out that the majority of the population is not familiar with the term Web 2.0: only 13% knows what it means. Interestingly, however, Web 2.0 services are being used substantially. It appears that 40% of the Dutch participate in one or more online networks. Half of this group logs on to the community each day. These networks concern mainly general social networks (83%). Less popular are multi-user games (14%), dating sites (12%) and business networks (11%). Popular networks for participation are Wikipedia, YouTube, Hyves, Videogoogle, Myspace, MSN and Flickr. Half of the Dutch share their photo's on the internet. Blogging is less popular, but still 1 out of 8 users has its own blog. The social network site Hyves is labelled the most popular social networking site (83%). By the end of 2007 Hyves welcomed its 5 millionth user. Recently, Hyves' commercial value was estimated by Arrington[5] between 90 million and 544 million euros. The results of the Ruigrok survey fairly match to outcomes of a survey by Multiscope[6], which applies user logging statistics. This survey shows that Google, Marktplaats and Startpagina remain the most popular sites, but that social sites like Hyves, Wikipedia, Web-log, YouTube, MSN, Digg, GoogleVideo and Flickr are attracting more and more users. Interpretation of the data, however remains problematic because the degree of user involvement (or the lack of it) is not taken into account. Similar problems concern the supposed popularity of Second Life, where most users drop out after a while without unsubscribing.

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[3] Poelmans, P., Joosten, G., & Westera, W. (2002). ICT in het onderwijs van de OUNL: ervaringen van studenten. In: Cordewener, B., Gruiter, J. van de, Keijsers, I. (Eds.) *ICT in het onderwijs vanuit studentenperspectief*, Utrecht: Stichting SURF, 36-42. Accessed July 28, 2008 from http://www.surffoundation.nl/download/SURF_EducatieFreeks_10.pdf

[4] Vos, H. & Geel, van A. (2007) Ruigrok | Netpanel. Accessed July 28, 2008 from http://2007.thenextweb.org/onderzoek/NextWeb2007.pdf

[5] Arrington, M (2008) TechCrunch, *Modeling the real market value of social networks*. Accessed July 28, 2008 from http://www.techcrunch.com/2008/06/23/modeling-the-real-market-value-of-social-networks/

[6] Multiscope (2007) *Visiscan online benchmark*. Accessed July 28, 2008 from http://www.multiscope.nl/top-20-sites-van-2007.html

The Dutch Higher Education Area

In 2006-2007 the total number of students in Dutch higher education was 572.000, which corresponds with 3,6% of the population[7]. This number includes 366,000 students at professional universities and 208,000 students at regular (academic) universities (2,000 of which combine two subscriptions). Some 85% of the students follow a full-time programme. Over the last years the number of female students in higher education has grown substantially. Today female students slightly outnumber male students: 52% against 48 %. The number of students from abroad is about 4% (2003); it tends to increase somewhat over the years.

The Dutch school system enables diverse routes to higher education. Overall, some 62% of the children that enrol at primary school level eventually achieve a secondary school diploma which allows access to higher education. The majority of these children (82%) indeed move on to higher education, which corresponds with 51% of the original group. Some 33% of the initial pupils successfully achieve a higher education degree, which yields a higher education success ratio of 65% (i.e. 33/51).

Agencies driving higher education innovation

In the Netherlands, there are many parties and agencies involved in higher education innovation. These include separate universities, like the Open University of the Netherlands, but also the ministry of Education, associations and alliances of Universities, research institutes, industry parties and funding agencies like the National Organisation for Scientific Research. We will describe two dominant bodies, that have some importance for Web 2.0/ Social Web in Higher Education .

An important governmental body for supporting the knowledge economy is the national Innovation Platform (www.innovatieplatform.nl). The Innovation Platform which is chaired by the prime minister, stimulates various innovative activities. These include internet and social networking. Amongst various initiatives two can be explained here. First, the Innovation Platform has assigned the creative industry to an national priority. This sector includes, the gaming and television industry, as well as cultural institutions. Relevant topics are strongly related with social networking. Currently, partners from industry, cultural institutes, universities and research laboratories are preparing a strategic agenda for joint development of the sector. Second, the innovation platform has supported the initiative of a summerschool about teaching the learning-2.0. This initiative marks the ambition to procure relevant changes and improvements of current educational approaches at schools. The underlying model is the realisation of a networking school. Naturally, Web 2.0 approaches are envisioned to play a dominant role.

A second important player is SURF (www.surf.nl), which is the collaborative organisation for higher education institutions and research institutes, aimed at breakthrough innovations in ICT. Its efforts of educational innovation are covered by a special SURF unit and go with funding opportunities. Over the last years, social software has been a priority topic on the agenda of annual SURF conference, the SURF Onderwijsdagen. About half of the higher

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[7] CBS (2008) *Jaarboek onderwijs in cijfers 2008*, Centraal Bureau voor de Statistiek. Accessed July 28, 2008 from http://www.cbs.nl/NR/rdonlyres/06C75EA6-3221-45B1-820D-6CEE5637007B/0/2008f162pub.pdf

education institutes are reconsidering their virtual learning environment[8]. The option of social web services is one of the important considerations. Importantly, the SURF-foundation supports these discussions by arranging seminars, workgroups and funding VLE-projects. SURF chairs a special interest group on Sharepoint and also hosts Sharepoint services on a national scale (www.surfgroepen.nl). Its 2.0 version offers typical Web 2.0 services like wikis, blogs and RSS-feeds, for all students, teachers and researchers of higher education in the Netherlands. Together with the Kennisnet organisation (secondary education) SURF runs an innovation programme directed at the development of educational Internet applications for the Dutch education community. The programme is sponsored by the ministry of Education, and covers video, gaming and electronic co-operation.

Questionnaire

On behalf of this report, a web questionnaire was published and notified to 361 higher education professionals and officials in order to collect additional ideas and information about social web initiatives in the Netherlands' higher education. A Dutch translation of the English questions has been used; these are all open questions. This target group was composed of formal educational ict-representatives of all higher education institutes, visitors of the SURF-Onderwijsdagen 2007 (a key conference on ict in the Netherlands' higher education) who are affiliated to higher education institutes, and some dozen of experts suggested by the personal network. Response was low (6%), which was probably due to the summer holidays (July, probably the most unpropitious month of the year, was the only option because of the overall planning of this report). However, the response covers 14 out of 65 higher education institutes in the Netherlands, thus covering 22 % of the higher education area. Quality and extensiveness of the responses were high, providing detailed and useful information. It seems that all respondents are actively involved in Web 2.0. For the purpose of this survey, the nature of the questionnaire was qualitative in kind. Its results outline a rough impression of the current situation, but cannot be used for detailed numerical analysis. Below we will summarise these qualitative results.

Appliance
Weblogs, wikis, social bookmarking, RSS-feeds, photo sharing and public video-resources are increasingly being used by higher education students and teachers as part of their educational settings. Occasionally, portals include Web 2.0 tools for student profiles, blogging, and video messages. Discussion forums and real-time chat are mentioned as very common tools over the last decade, but these are existing collaboration tools rather than new Web 2.0 examples.
Weblogs are being used for e-portfolios, tracking of competence development, personal presentation and discussion. Also weblogs are used for reflection and feedback on behalf of students abroad, the promotion of social cohesion between students, teachers and their institutions, the support of student projects and for keeping in touch with alumni. Wikis are used for collaborative work between students, for providing support for courses, for supporting individual students at their graduate work. Sometimes a wiki is used by both students and teachers to build a shared knowledge base (for instance marketing and retail, or social-psychiatric nursing). Both wikis and weblogs are used by teachers for knowledge

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[8] Westera, W., Kerstjens, W., Hermans, H., Nadolski, R. and Wigman, M. (2007) *Open Source Elektronische Leeromgevingen, Over de gebruiksmogelijkheden in het Nederlands hoger onderwijs*, E-Learning Research reeks, Utrecht, SURFfoundation.

sharing, for instance applying a wiki for supporting curriculum redesign. Both internal facilities (Elgg, Sharepoint) and external services (i.e. Hyves, SURF-groepen, Linkedin, Del.icio.us, Slideshare, MSN, YouTube, Flickr) are used. In one occasion students created a Hyves social networking page on behalf of their educational institution.

Student using Web 2.0 / Social Web

Respondents were asked how their students are using Web 2.0 / social web as part of their informal learning processes. Respondents argue that there is hardly any data available, but, fostered by their contacts with students, their general impression is that students are frequent users of external Web 2.0 services. These include MSN, Hyves, Flicker, iGoogle, YouTube, Googledocs and Google Sites, to mention a few. Yet their educational use is assumed to be very limited. Incidentally, students initiate using these tools for the support of collaborative learning activities. But most respondents indicate that students wish to separate their (formal) learning from their private world: students share these tools with their fellow students, but mainly for their informal contacts, their social lives and entertainment. The idea that students frequently use Web 2.0 services is indirectly supported by the Ruigrok | Netpanel survey (Vos & Geel, 2007) which showed that 40% of the whole population uses these services, most of which are people below 35 years old.

Motives

Educators display various motives for applying Web 2.0 services in their teaching. First, and most importantly, educators refer to pedagogical principles. Web 2.0/Social Web is claimed to greatly support social constructivist starting points which are widely adopted today. Web 2.0 services support knowledge sharing between students, various didactic scenarios (i.e. action learning), improved interactivity which makes learning more interesting, exciting and meaningful, efficient access to information resources and collaborative work which is supposed to be essential for professional workers. These Web 2.0 services provide important extensions to common learning management systems and virtual learning environments. Furthermore, they offer new opportunities to connect learning assignments with the outside world and thus support connecting learning with working and living. Respondents also indicate the importance for higher education students to regulate their own learning. These motives reflect the tendency of the institutions to transfer the control and responsibility of learning activities from teachers to students. Also strategic motives are mentioned, which include the need to achieve greater involvement of students, the need to anticipate future work environments which certainly involve online communication and collaboration tools, and the development of required expertise by university faculty. Finally, various pragmatic motives are stated: Web 2.0 is trendy, the Social Web services are easy accessible, and their operation is direct, fast and convenient. Also, these distributed tools make interactions with students more flexible; they help keeping in touch with students outside office hours. The institutions clearly recognise the opportunities to involve students in the development of learning content.

Barriers

Educators observe various types of barriers for using Web 2.0/ Social Web in their teaching. These include technical barriers, cultural barriers, lack of skills, organisational barriers and practical issues.
Several technical barriers are noticed, in particular the technical linking and integration with existing IT infrastructure which is rigid and not prepared for Web 2.0. The underlying problem is that the existing IT-architectures are based on learning paradigm(s) which may conflict with the open, user-centred approach of Web 2.0. Even when current virtual learning environments increasingly provide additional tools for blogging and tagging, its closed

architecture seems to violate the open philosophy of Web 2.0 / Social Web approaches. One respondent states that current pedagogy is greatly interlinked with existing closed learning environments and hardly matches new pedagogies associated with Web 2.0. Also, the lack of standards hamper easy integration and involve severe risks for future compatibility. This holds for instance for imperfect or lacking linking to LDAP directories, which urges users to multiple usernames and passwords. Furthermore, respondents observe problems with system stability and performance.

With respect to the institutional culture it is noted that the majority of teachers are very reserved about new technologies in education. After many years, innovations like VLE, email and video lectures are now accepted and integrated. These need not be replaced because they function satisfactory. Consequently, the basis for Web 2.0 innovations is quite small; only a small group of front runners is prepared to explore the options. This reservedness goes with a lack of awareness. Clearly, the majority of teachers lack the required ICT-skills to use such tools in their teaching. It is also suggested that the preparedness of teachers for developing their skills is very limited. In addition, it is stated that students' ICT skills are easily over-estimated. For both students and teachers, the use of external open content raises questions about content quality.

Practical barriers concern lack of time and money to realise these innovations. Because central support units often don't offer Web 2.0 support and hosting, pioneers are urged to sort out, arrange and host their own applications.

Finally, some of the respondents suggest that the adoption the Web 2.0 tools as regular components of the virtual learning environment and the educational offerings is likely to deprive these tools from their charm and attractiveness, because of its institutionalisation and the inevitable need for Web 2.0 regulations: since Web 2.0 is essentially a platform for informal communications, it wouldn't make sense for teachers to integrate these in their courses.

Web 2.0 / Social Web tools that are used by teachers

A wide variety of tools is being used; most of these are wikis and blogs. Popular wiki tools are Wikimedia, Wetpaint, and Sharepoint 2007. Wikimedia (www.wikimedia.org) is the originator of the most popular open content wiki: Wikipedia. Wetpaint offers collaborative websites that integrate wikis and blogs for the creation of online communities (www.wetpaint.org). Sharepoint is a popular Microsoft platform for online collaboration and content sharing. The 2007 version of Sharepoint includes modules for wikis and blogs. In the Netherlands, the platform has been adopted and hosted by SURF as a free service for higher education institutes. One of the advantages of Sharepoint is the easy integration with Microsoft Active Directory for the management of user access and with Microsoft Exchange Server groupware. For blogging also Wordpress, Elgg and Drupal are reported. Wordpress claims to be the world largest self-hosting blogging tool in the world (www.wordpress.org). Elgg is a multipurpose, open, social software application, which can be used as a functional engine for any socially-aware application (www.elgg.com). Drupal is an open source content management platform, which recent versions include blogs and collaboration tools (www.drupal.org). Other social software tools that are actually used are IBM's Lotus Quickplace and Lotus QuickR for online team co-operation, IBM's Lotus Sametime for integrated presence via instant messaging, telephony and webconferencing (www.ibm.com) and Librarything which is a social networking site that connects people based on the books they share (www.librarything.com). Other tools and services that are used by teachers are Blip.tv, various Google sites, Del.icio.us, rss feeds, podcasting, Slideshare, MSN, Facebook, Hyves, LinkedIn and YouTube.

Volume of Web 2.0 in Higher Education

In general, the use of Web 2.0 in higher education is still very limited. It is difficult to give an overall percentage for the institutions, since its use is determined by individual teachers (pioneers) rather than by institutional policies. All respondents recognise that there are very little quantitative data available. Displaying lots of disclaimers, their estimates of Web 2.0 usage in courses range from 0% to 30%. Similar percentages hold for the number of students that are confronted with these tools. Using the intermediate value of 15% would yield up to 100,000 students as compared with the whole population (572,000). This would correspond with some 1500 students on average per institution. These include small scale pilots of pioneering teachers. Only few respondents claim already substantial and regular use in their own teaching, particularly associated with student support and student internships. Informal use of Web 2.0 by students is assumed to be much higher, up to 70 % – 80%. Within the scope and constraints of this survey, however, it is not possible to present accurate and more specific quantitative data. It is generally noted that the interest in Web 2.0 services is rapidly growing and that there are many chances for increased appliance. Currently, more Web 2.0 tools are being made available inside the institutions, as part of the learning management system or as separate tools.

Advantages of using Web 2.0 / Social Web

A variety of advantages are mentioned. Most frequently mentioned (30%) is the advantage of matching the students' experience: the net generation students seem to be well acquainted with these kinds of tools and expect their appliance in the learning environment. This is assumed to improve student motivation. A second advantage of Web 2.0 tools is their support of collaborative work. This includes various types of collaboration. It supports collaboration of student groups as part of an educational programme or course. Teachers appreciate these tools because they extend the official schedules of face to face meetings and group work with an informal and easy accessible communication and collaboration channel. This is supposed to reduce the work load of teachers. Also, Social Web tools support communities and collaborations of students across educational programmes, across educational institutes and across national borders. The latter is important because of increased internalisation of higher education. As a third advantage, some 20% of the respondents mention improved pedagogy. The use of Social Web tools is assumed to enrich current virtual learning environments. This especially applies to the increased interactivity, increased community building, the sharing and exchange of resources and the arrangement of productive learning tasks ("the student as a prosumer") which can now be supported very well online. Also, Web tools provide extra functionalities, which can be easily accessed and applied by students without extensive introduction or training. Fourth, from a organisational perspective it is noted that many of these tools are publicly available without the burden of local hosting and maintenance. Many of these online tools and services are free; this also holds for a variety of knowledge resources.

Disadvantages of using Web 2.0 / Social Web

The following disadvantages of Web 2.0 are mentioned. Pedagogically, there may be a problem with the arrangement and management of learning activities. This is not only related to the lack of integration with the institution's virtual learning environment, but also with the fragmented nature of Web 2.0. Moderating and keeping track of new posts is time-consuming for teachers. In addition, while Web 2.0 supports content creation by students, it is very difficult to preserve the quality of such content; poor and fallacious learning content is likely to persist. One respondent notes cynically that this so-called user-generated content of Web 2.0 is nothing new; it has been applied for decades and it was called "productive learning"

rather than Web 2.0. The diversity of Web 2.0 tools and their lack of transparency is not very helpful for their users. It is often difficult to retrieve the right content ("where is my content?"). Large groups of users are still unfamiliar with Web 2.0 and there is a serious lack of good practices in education. One respondent notes that the commercial nature of some Web 2.0 tools using banners and commercial adds makes them less appropriate because they may guide students away from learning content. From a user perspective it is observed that Web 2.0 demands great user involvement. This may be a pro for educators, but for learners it may cause unnecessary social pressure to be online all the time. Technically, these tools are difficult to integrate within regular virtual learning environments and they cause problems with scaling, stability, authentication and privacy. Since central hosting and support services within the institutes are often lacking, teachers are compelled to try out things for themselves, which takes a lot of time and efforts.

Policies in Higher Education

One of the questions of the questionnaire was to what extent the use of Web 2.0 has any form of official sanction, i.e. policies, validation, strategies, within the higher education institutions. Only 20% of the institutions has an innovation policy which explicitly includes Web 2.0 appliance. Over the years, educational innovations have not been very successful and many teachers are sceptical about another new innovation: possibly, Web 2.0 is no more than a hype which soon will fade away. Also, teachers are overloaded with work, which makes them less susceptible to changes, new policies, or new strategies. Some institutions define separated explorative Web 2.0 projects or stimulate bottom-up initiatives by project sponsoring and the arrangement of central facilities. Despite the absence of policies, most of the institutes are discussing the new opportunities of Web 2.0. Sometimes such discussions are linked with institutional communication strategies, but more and more Web 2.0 is involved in the development of e-strategies and the future virtual learning environment. In some cases, institutions join a national project under the direction of SURF for further development of VLE-services, in particular aligned with the Sharepoint platform.

Description of Web 2.0 / Social Web practices in higher education

As was noted before, large scale implementations of Web 2.0 /Social Web in higher education are lacking. Yet, there are many small scale initiatives that mark the interest in these new approaches. Below we will give a brief description of different practices which represent a cross section of Web 2.0 /Social Web initiatives.

RetailWiki: creation of a shared and sustainable knowledge base

As part of a series of courses on retail and merchandising, students of the Leisure Academy of the NHTV International School Breda use a wiki to collect relevant resources of the domain[9]. The idea is to establish a sustainable and topical knowledge base for the domain in order to support student projects and research. Students make content contributions and are supposed to moderate the articles and article threads. The retailwiki offers open content. Contributing to the wiki requires registration. Besides students of NHTV, various companies are involved. Currently the wiki contains over 3500 pages. Each year, about 30 new students that enrol the course take over the work.

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[9] Retailwiki (2008) retrieved online August 01, 2008 at http://www.retailwiki.nl/

TelematicaWiki: collaborative writing of papers

At Tilburg University wikis are used for collaborative learning in a telematics course which is part of the batchelor programme Economy and Business Administration. This TelematicaWiki [10]was tailored for the course and was integrated with assignments and lectures. It involved 45 students, the majority of which had never been using a wiki before. The wiki was used for jointly writing a paper by groups of 3 students. Participation of students is reported to be very high (about 25 visits per student per month; up to 51 actions per visit, i.e. "edit", "upload", "comment" etc.; each visit takes on average 20 minutes). The evaluation amongst students shows that students easily learn to operate the wiki and learn to understand the underlying wiki concept. They have confidence in the tool and consider it as productive for their work. It is also concluded that the wiki contributes to improved sense of community. Students also report some disadvantages of the wiki. One of the problems is the ever-expanding amount of wiki pages, which affect the overall structure and navigation; this is a confusing and difficult to handle side-effect of wikis. Also, various technical issues were reported to hamper student collaboration. These comments were strongly linked with the applied wiki platform (Wikkawiki) for instance limited text formatting, limited file exports, limited text imports, limited discussion thread annotation, no integration with other collaborative tools (agenda, groupwork logging and tasks overview).

Hyves social networking

At Utrecht University the master programme New Media and Digital Culture uses various social networking tools both as a virtual learning environment and as the object of study. As part of their programme students explore various tools, like weblogs, mobile technologies and multi-user virtual games (World of Warcraft). Students that apply for the master programme have to complete a course module that focuses on social networking. Students have to register and work in the Hives environment. Over 100 students have now participated in this course. The evaluation shows that the platform is very suitable for brainstorming and discussion because it supports swift communication and interaction. Since students use the system for both private and educational purposes they check there accounts frequently (multiple times per day). Also, email or SMS notifications of new postings amplify the dynamics of communication. Teachers can easily monitor activities in different student groups and may subscribe to dedicated notification services. The potential of such platform is recognised, but there is no clear educational scenario available. It is concluded that the Hyves platform should not be mistaken for a virtual learning environment or a learning management system; it doesn't support student tracking, it doesn't offer document sharing and it doesn't integrate with existing infrastructures. The students liked it, but they had clearly special interests in new media.

Blogs for reflection on internships

In 2006, a consortium of universities (the former Digital University Foundation), ran a project that used weblogs as a tool for reflection[11]. A pilot study was carried out at the Teacher Education Faculty of Fontys University and the Teacher Education Department of VU University Amsterdam. Blogs were used by 20 students (3 groups) for logging of their activities during their internships at schools. Usually students experience severe problems in

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[10] Jansen, J.P.J. (2007) Wiki in het Hoger Onderwijs, Een onderzoek naar wiki ter facilitering van CSCL, Master thesis, Tilburg University; retrieved online August 01, 2008 at www.livre.nl/download-document/71-wiki-in-het-hoger-onderwijs.html

[11] Project site Weblogs for reflection (2008) ; retrieved online August 01, 2008 at http://www.reflectieblogs.info/ (English texts available)

aggregating the right information for their final reports on the internships. Often, this creates a lot of last-minute stress. The basic idea of the project was to facilitate reflection by a blog because it is much more dynamic than common logging, since it allows interaction with others. The set-up was based on a simple categorisation of competences (e.g. organisational, inter-personal, pedagogical) and instructions about reflection. Students were given the assignment to produce a reflection blog after each lesson they gave. This was not self-evident, yet the evaluation was quite positive. Students were more or less urged to evaluate their experiences right after their lessons rather than wait a few months. Helpful comments from fellow students improved the reflection (which is indeed about making things explicit). It was observed though that the number of comments decreased substantially during the pilots, so the viability of the approach is questionable. Also issues were encountered about privacy (what should be open, what should remain personal?), responses (can we really expect students to keep commenting regularly?) and structuring (how tight should the reflection format be?). Although the projects has ended, blogs for reflection are still being used by the teachers involved. Also the approach is adopted by a few other domains, but these are all small scale implementations, with only few students and teachers involved.

Social bookmarking for collecting relevant literature

Social bookmarking has been used by students of the master Programme Active Learning of the Open University of the Netherlands, in preparation of the annual student conference of 2006 [12]. Students used a localised version of Scuttle (scuttle.org) for sharing their bookmarks of papers and other resources of relevance for the conference's theme: "Significance of multimedia in education". Students were asked to bookmark their favourites and use the shared bookmarks for preparation for the conference. After the conference the students had to write a paper about the conference's theme. In this experiment 21 students participated as well as 2 teachers. External visitors of the conference was also given access to the bookmarking site. Initially teachers made a subset of bookmarked papers available. Most of the students involved added their own bookmarks; on average 5.6 bookmarks per student. The total collection of different tags amounted 156. A questionnaire amongst participants showed that the majority appreciated the social bookmarking approach as a valuable one, be it that they found it difficult to establish the appropriateness of the bookmarks. For most of the students the tool drew their attention to interesting resources that they would never have been able to track themselves. Bookmarks of fellow-students were appreciated much higher than bookmarks of teachers. The majority of the students prefers to use the bookmarks of fellow students rather than adding their own bookmarks. The evaluation report raises the question to what extent such a small scale application of social bookmarking, which is restricted to a specific educational context, is viable. Despite the positive outcomes, it appeared that this pilot did not produce a robust, shared set of tags. As a consequence, accessibility of the collection and search options were very restricted. It is suggested to raise the application level of such tools to a substantial set of courses or even to curriculum level.

PAIR: online knowledge dating for the arrangement of peer tutoring

In online learning environments, the learners' expectations of obtaining frequent, one-to-one support from their teachers tend to increase the teachers' workloads to unacceptably high

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[12] Hermans, H. & Firssova, O. (2006) *Casestudy Social Bookmarking in het onderwijs; Verslag van een pilot binnen de Masteropleiding Actief Leren van de OUNL.* Utrecht: Stichting Digitale Universiteit.

levels. The Pair project (Peer-allocated instant response) involves a network-based allocation mechanism to arrange real time support by fellow-learners[13]. Rather than posting a call for help in the uncertainty of the community, the requesting student is actively paired by the networking mechanism which selects the best peer candidate to provide online support. Pilots were arranged at the Open University of the Netherlands (statistics course for psychology students) and at Fontys University (students of ICT Media Design). The evaluation established that students would evaluate such synchronous peer-tutoring system as a practical and convenient way of providing and receiving support. Until this moment, however, experimental results are incomplete; in the pilots large scale use by the students failed to occur. The reasons for students to avoid the tool are strongly linked with the educational context: 1) students knew each other too well and wouldn't need a tool to find the right peer, 2) the course contents gave rise to trivial questions rather than non-trivial ones, and could be answered easily by using an internet search engine, 3) regular face-to-face meetings greatly interfered with the suggested pairing mechanism by providing alternative consultation channels, and 4) initial participation was low and this created a self-establishing effect because often only few students were online to act as an appropriate peer. So, the approach should preferably be directed to large distributed student populations, deprived of face-to-face contacts, little availability of teachers, and content that raises conceptual questions rather than factual questions.

References

Arrington, M (2008) TechCrunch, *Modeling the real market value of social networks*. Accessed July 28, 2008 from
http://www.techcrunch.com/2008/06/23/modeling-the-real-market-value-of-social-networks/

CBS (2008) *Jaarboek onderwijs in cijfers 2008*, Centraal Bureau voor de Statistiek. Accessed July 28, 2008 from http://www.cbs.nl/NR/rdonlyres/06C75EA6-3221-45B1-820D-6CEE5637007B/0/2008f162pub.pdf

Hermans, H. & Firssova, O. (2006) *Casestudy Social Bookmarking in het onderwijs; Verslag van een pilot binnen de Masteropleiding Actief Leren van de OUNL*. Utrecht: Stichting Digitale Universiteit.

Jansen, J.P.J. (2007) *Wiki in het Hoger Onderwijs, Een onderzoek naar wiki ter facilitering van CSCL*, Master thesis, Tilburg University; retrieved online August 01, 2008 at www.livre.nl/download-document/71-wiki-in-het-hoger-onderwijs.html
Multiscope (2007) *Visiscan online benchmark*. Accessed July 28, 2008 from http://www.multiscope.nl/top-20-sites-van-2007.html

Point-Topic (2008) *World Broadband Statistics Q1*. Accessed July 28, 2008 from http://point-topic.com/

Poelmans, P., Joosten, G., & Westera, W. (2002). ICT in het onderwijs van de OUNL: ervaringen van studenten. In: Cordewener, B., Gruiter, J. van de, Keijsers, I. (Eds*.) ICT in het

---

[13] Westera, W. and Wagemans, L. (2007) Help me! Online Learner Support through the Self-organised Allocation of Peer Tutors, Conference paper, *Book of abstracts Online Educa Berlin 2007*.

onderwijs vanuit studentenperspectief, Utrecht: Stichting SURF, 36-42. Accessed July 28, 2008 from http://www.surffoundation.nl/download/SURF_EducatieFreeks_10.pdf

Project site Weblogs for reflection (2008) ; retrieved online August 01, 2008 at http://www.reflectieblogs.info/ (English texts available)

Retailwiki (2008) retrieved online August 01, 2008 at http://www.retailwiki.nl/

Smihily, M. (2007) *Eurostat Data in focus, Internet usage in 2007 Households and individuals*, 23/2007. Accessed July 28, 2008 from http://www.nederlandbreedbandland.nl/uploaded/FILES/Internet_Usage_2007_Europa.pdf

Vos, H. & Geel, van A. (2007) Ruigrok | Netpanel. Accessed July 28, 2008 from http://2007.thenextweb.org/onderzoek/NextWeb2007.pdf

Westera, W., Kerstjens, W., Hermans, H., Nadolski, R. and Wigman, M. (2007) *Open Source Elektronische Leeromgevingen, Over de gebruiksmogelijkheden in het Nederlands hoger onderwijs*, E-Learning Research reeks, Utrecht, SURFfoundation.