Weblogs in Higher Education – why do Students (not) Blog?

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Abstract: Positive impacts on learning through blogging, such as active knowledge construction and reflective writing, have been reported. However, not many students use weblogs in informal contexts, even when appropriate facilities are offered by their universities. While motivations for blogging have been subject to empirical studies, little research has addressed the issue of why students choose not to blog. This paper presents an empirical study undertaken to gain insights into the decision making process of students when deciding whether to keep a blog or not. A better understanding of students' motivations for (not) blogging may help decision makers at universities in the process of selecting, introducing, and maintaining similar services. As informal learning gains increased recognition, results of this study can help to advance appropriate designs of informal learning contexts in Higher Education. The method of ethnographic decision tree modelling was applied in an empirical study conducted at the Vienna University of Technology, Austria. Since 2004, the university has been offering free weblog accounts for all students and staff members upon entering school, not bound to any course or exam. Qualitative, open interviews were held with 3 active bloggers, 3 former bloggers, and 3 non-bloggers to elicit their decision criteria. Decision tree models were developed out of the interviews. It turned out that the modelling worked best when splitting the decision process into two parts: one model representing decisions on whether to start a weblog at all, and a second model representing criteria on whether to continue with a weblog once it was set up. The models were tested for their validity through questionnaires developed out of the decision tree models. 30 questionnaires have been distributed to bloggers, former bloggers and non-bloggers. Results show that the main reasons for students not to keep a weblog include a preference for direct (online) communication, and concerns about the loss of privacy through blogging. Furthermore, the results indicate that intrinsic motivation factors keep students blogging, whereas stopping a weblog is mostly attributable to external factors.

Keywords: weblog, blog, higher education, informal learning, ethnographic decision tree modelling, motivation research

1. Introduction

This paper aims at a deeper understanding of students' motivations to use, and not to use, weblogs in informal learning contexts. Weblogs, or blogs, are chosen as an example of the educational use of social software tools.

The term 'social software' first appeared in the 1990s (Allen 2004), although some of its concepts were discussed long before under different names. Today it is broadly used to describe software that supports communication and interaction (Shirky 2003), feedback by the group, the creation of social networks (Boyd 2003), and collaboration. Typical social software tools include wikis, social networking tools, social bookmarking tools, and weblogs. The use of social software tends to be driven by a bottom-up approach, starting from the individuals' desire to affiliate and to connect with each other (Baumgartner 2006; Boyd 2003).

Social Software is often mentioned in connection with 'Web 2.0'. Kerres (2006) points to three boundaries which are changing or dissolving towards a new perception and use of the internet: user and author, local and remote, private and public. Applied to education, this shift implies that students (the former 'users') as well as teachers (the former 'authors') become the new authors; learning happens everywhere and thus becomes ubiquitous, and can not be adressed to being at a specific location (for instance, at school or at home); and learning activities are presented and made public to the teacher, peers, or the whole internet community.

This shift points to a student-centred design of learning. Social software tools have the potential to complement the traditional Learning Management System (LMS), which delivers courseware in a more or less uni-directional way (Downes 2005). Instead of e-learning being purely structured around courses (O'Hear 2006), social software can facilitate self-governed, problem-based and collaborative activities, and the building of networks (Dalsgaard 2006).

When learning becomes ubiquitous, informal learning gains increased importance. Reinmann (2005) defines informal learning as all learning activities that happen outside of seminars and courses and that are not guided by teachers. Informal learning is self regulated and interest driven and usually embedded in concrete contexts. Cross (2006) estimates that at least 80% of all learning is informal.

Among the various social software applications, weblogs have been increasingly used in education in the past few years (for instance, see Brooks et al 2004; Churchill 2009; Du and Wagner 2005; Safran 2008). Weblogs are individual or collective online journals, sometimes compared to diaries. They contain few to many entries, sorted in inverse chronological order, where every entry has a unique date stamp and URL. Thus, every entry can be bookmarked, referenced, or commented on by others (Baumgartner 2005; Gross and Hülsbusch 2004; Mosel 2005).

The potential for learning with weblogs has been discussed in various studies. Some researchers adopt a constructivist view on learning, and describe weblogs as supporting active knowledge construction, incremental improvement, self directed learning, and situated and context related knowledge construction (Du and Wagner 2005; Jadin 2007). Others see today's learning as gaining the competence to form connections. Under the term 'connectivism', learning is described as 'collecting knowledge through collecting people' (Siemens 2004). From both these theoretical points of view, social software, and blogs in particular, seem to provide the necessary requirements to enable learning.

2. Why do few students blog in informal learning contexts?

According to Sifri (2008) weblogs are still continuing to evolve, with the weblog search engine Technorati having indexed 133 million blogs since 2002. Schmidt and Mayer (2006) report on motivations for blogging which include, among others, the sharing of ideas, the recording of ideas and experiences, and the making of new contacts. However, despite the potentials for learning and the positive expectations of educators towards social software, this enthusiasm is not always reflected through extensive use of social software in education by students.

Ebner et al (2008) have conducted two studies among students at Universities in Graz (Austria) and Zurich (Switzerland) in 2007/08. Results indicate that, although 80% of students in Graz (resp. 86% in Zurich) possess laptops, and 84% (resp.98%) have access to internet, few students actively use Web 2.0 technologies. Less than 60% know what weblogs are, and among those, less than 10% actively blog. Experiences with Web 2.0 technologies are mainly constrained to passive use of Wikipedia and YouTube, and participation in the social networking platform StudiVZ.

Bennett et al (2008) discuss other empirical studies with similar results –students being equipped with technology and Internet access, but 'only a minority of the students (around 21%) were engaged in creating their own content and multimedia for the Web' (Bennett et al, 2008: 778).

Finally, Andergassen (2007) presents results of a survey conducted at the Vienna University of Technology (Austria) in 2007 on the use of weblogs, indicating that just around 7.5% of students used informal weblogs. 20% of these weblogs contained around 79% of entries, which indicates that just very few students blogged with a high frequency.

When looking at these studies, it is not surprising that an intensive discussion has arisen around the nature and characteristics of today's students. Some authors advocate the idea of a generation which is 'different' because it grew up with digital technologies. Bennett et al (2008) summarise these allegedly distinctive characteristics in their critical article as (1) the assumption that the new generation has sophisticated knowledge and skills with information technologies, and (2) they have therefore particular learning preferences, which differ from prior generations. Prominent exponents of these theories include Tapscott (1999) who talks about the 'net generation', and Prensky (2001) who uses the term 'digital natives' to describe a generation which is 'radically different'.

However, empirical studies like those above support critics of the concepts of this 'different' generation. Schulmeister (2008) compares more than 45 empirical studies on media usage and user motivation of children and teenagers. He comes to the conclusion that they generally do use media extensively, but that this does not make the generation 'different' from prior generations, as they have the same interests, like making friendships, as the generations before them. Also, he notes big differences in digital literacy among the young generation, and thus argues that concepts like the 'net generation' are, if at all, applicable only to a minority of the generation. A transfer from competencies gained through use of computers (in the leisure time) to learning seems not to happen to any large extent.

Despite the different views on the topic, the discussion demonstrates the large interest of researchers in the new developments of digital technologies, and in the students and their learning needs in the knowledge society. This paper presents an empirical study undertaken to elicit motivations for students to blog, and – most important – for students not to blog. The results might form a step towards deepening the understanding of today's students and how they think.

3. Empirical study: ethnographic decision tree modelling

The empirical study aims to investigate the decision making process of students about blogging or not. Specifically, the following research questions are being addressed:

- Research question 1: What makes students decide whether or not to lead a weblog in an informal education context?
- Research question 2: Why do many of the students stop blogging?

The Vienna University of Technology (TU Vienna), Austria, provides the context for the research. Since 2004, the university has been offering a free weblog service for all members of the university (Rappold 2004). Every student and staff member gets the opportunity to open one or several weblog accounts. Besides their use in seminars, blogs can be kept outside of course settings, on a voluntary basis, and without assessment pressure. These informal usage scenarios by students are the subject of the presented empirical study.

To address the research questions, the approach of ethnographic decision tree modelling, described in detail by Gladwin (1989), has been adopted. It is a method of 'both describing and predicting group behaviour' (Beck, 2005: 243). In the *describing* process, decision tree models are developed out of statements of informants. This is a qualitative process. These models should then serve to *predict* decisions under similar circumstances. Therefore, as a second step, these models are tested for their validity through questionnaires developed out of the models, and given to a new selection of interviewees. The analysis of these questionnaires follows a quantitative approach (Gladwin 1989).

3.1 Data collection: guided interviews

Guided interviews were held with students of TU Vienna in 2007. Three interviewees were selected from each of the three following user groups: bloggers, former bloggers, and non-bloggers. Log files helped to identify bloggers and former bloggers. From the total of all weblog entries at TU Vienna, the 20% of blogs contributing most entries, formed the pool for selecting the blogger sample.

The interviews aimed to elicit students' decision criteria on whether to blog or not. The form of guided interviews was chosen to give students the maximum freedom to talk about the topic from their point of view in their own time, rather than imposing the opinion of the researcher or pre-defined categories on them (Bell 2005).

3.2 Ethnographic decision tree modelling part 1: building the models based on interviews

Gladwin (1989) differentiates between an indirect and a direct approach for building the ethnographic decision tree models. The *indirect approach* starts from an individual model of the first interviewee. All subsequent models build up on this first one. The *direct approach* first builds all individual models independently, and then seeks to combine them in a second step. This latter approach is the approach adopted for the current study. It has the advantage of being more immediate and natural, although this approach does not check whether each informant considers the other decision criteria as valid or relevant (Gladwin 1989)

Figures 1, 2 and 3 show examples of individual decision tree models. The various decision criteria were elicited from the interviews and arranged in the diagrams, following the thoughts of the students. Dotted lines and forms in the figures represent what students mentioned as important factors in the decision making process, solid lines represent their actual decision making process.

It turned out that the modelling worked best when splitting up the decision process for each individual into two parts: one model representing the decision criteria for whether to start a weblog (Figure 1 and 2), and a second model representing the decision criteria for whether to continue to blog, if this decision was applicable (Figure 3). This is what Gladwin (1989) describes as 'sequential modelling'.
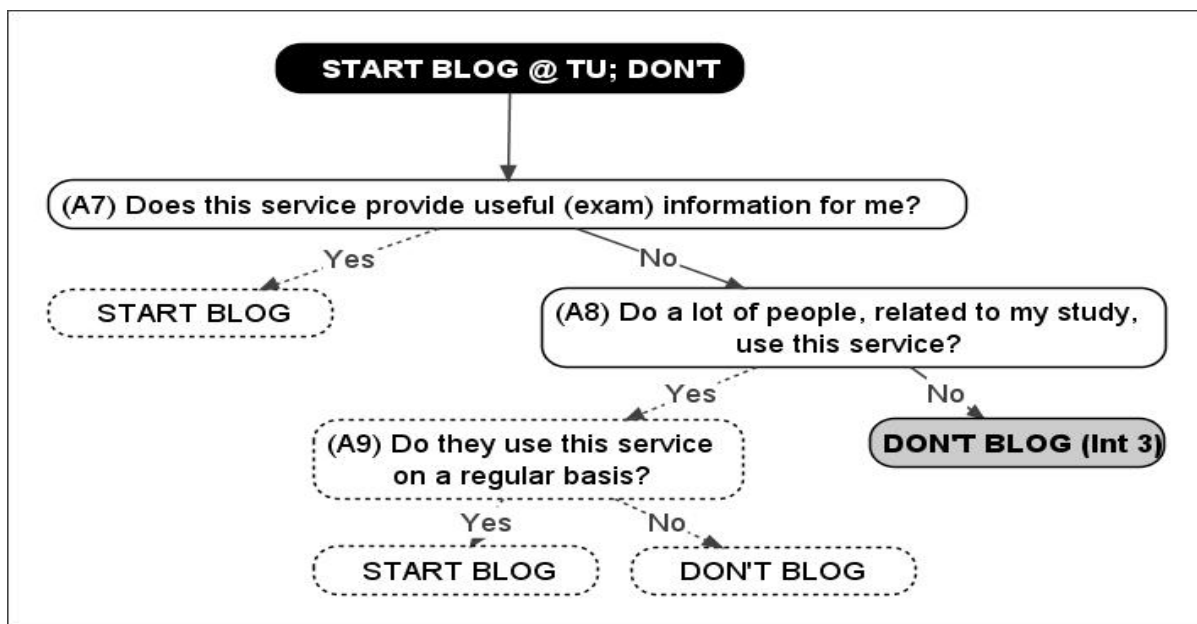

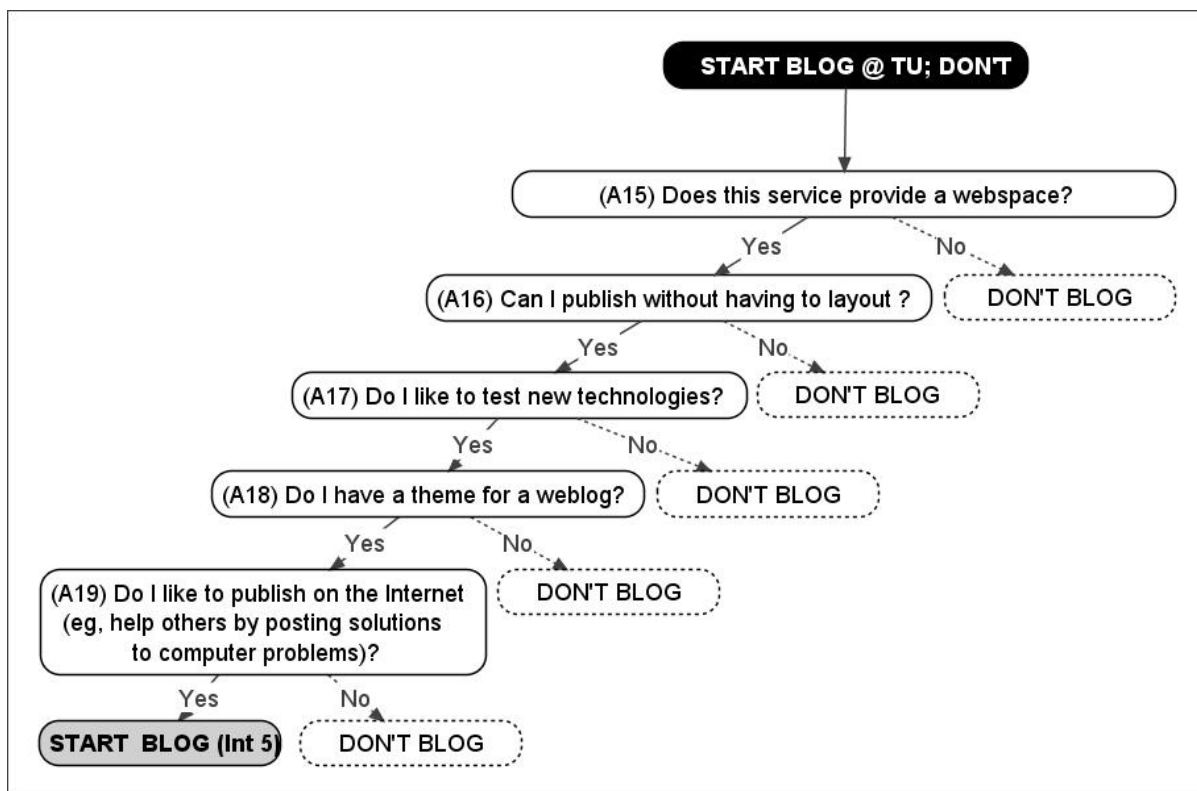**Figure 1**: Individual decision tree model of interviewee #3 about whether to start a weblog

Figure 2: Individual decision tree model of interviewee #5 about whether to start a weblog

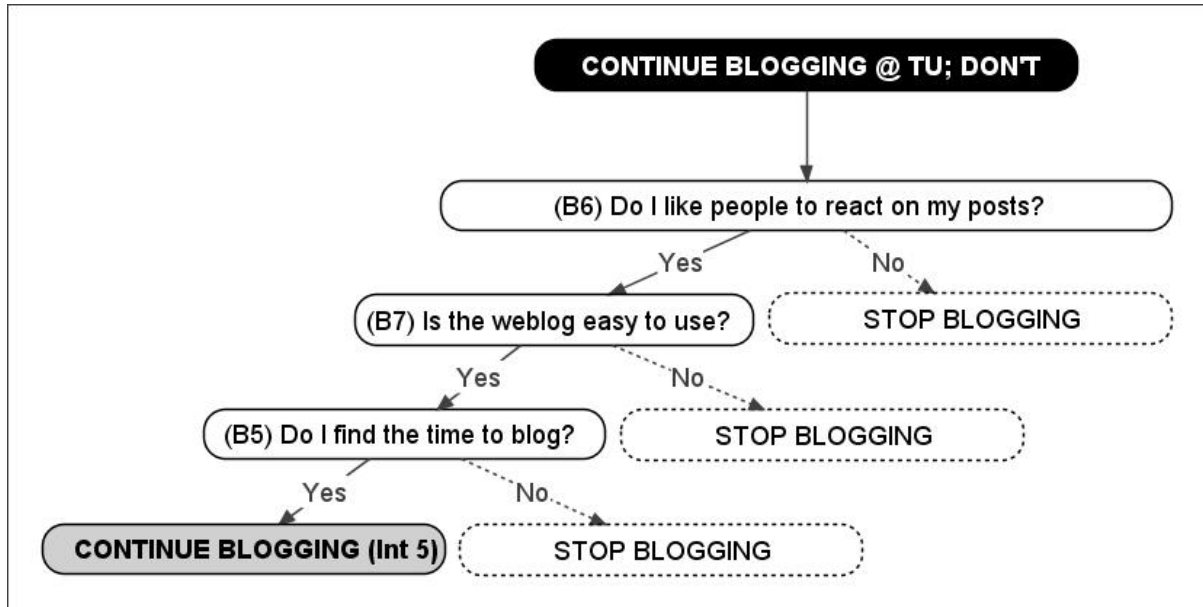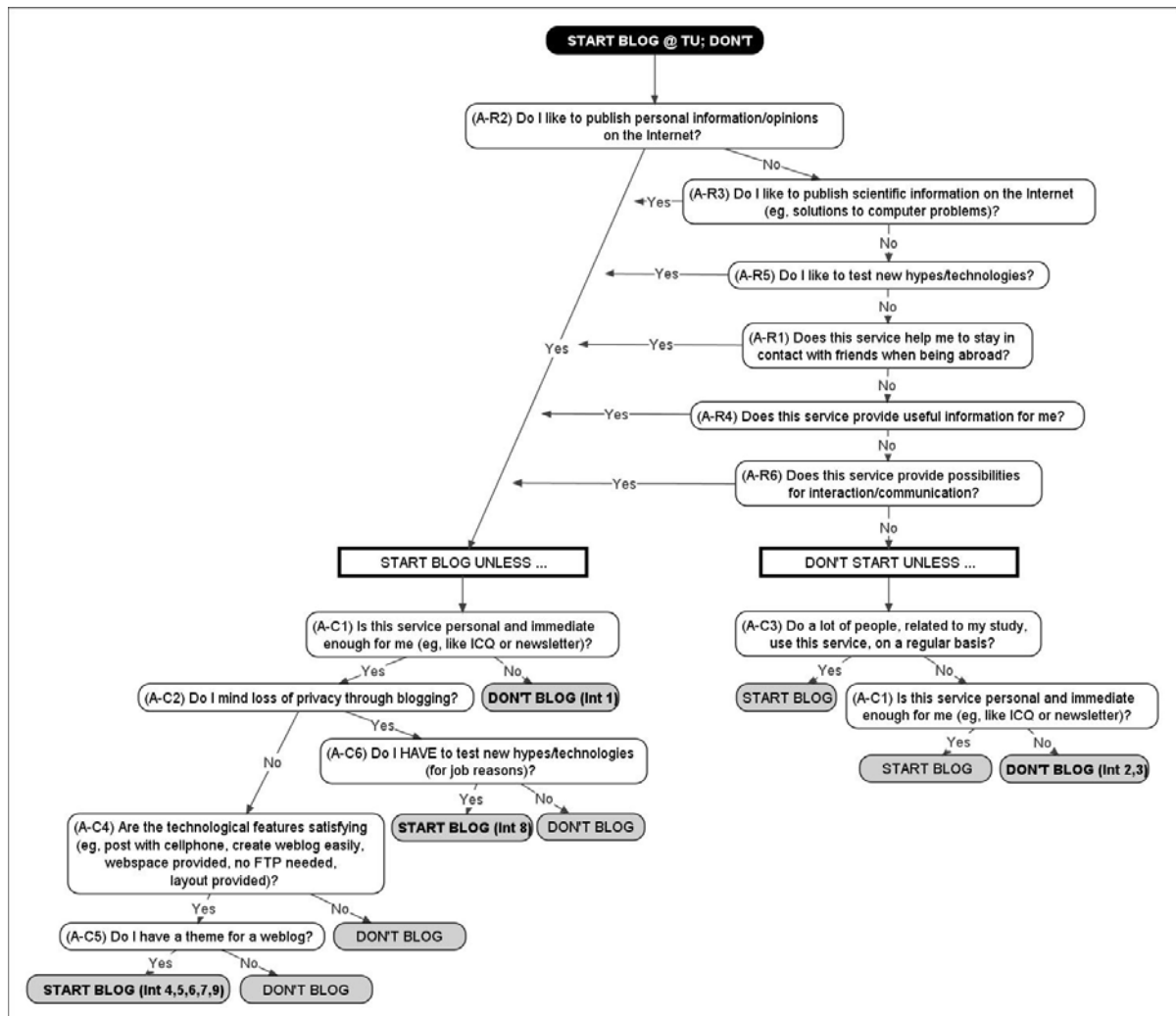**Figure 3**: Individual decision tree model of interviewee #5 about whether to continue blogging

Figure 4: Composite decision tree model representing decision processes of interviewees on whether to start a weblog

Each model can be read as a series of if-then conditions (Gladwin, 1989: 31). For instance, interviewee #3 decided against a blog. The decision making process is represented in Figure 1. The

model can be read as follows: "If this service provides useful (exam) information for you, and a lot of people use it related to your study, on a regular basis, then start blogging". Since the if-conditions were not true for interviewee #3, he decided not to start blogging. By contrast, interviewee #5, represented in Figure 2, decided to start blogging: "If this service provides a webspace, and if you can publish without having to layout, and if you like to test the new technology, and if you have a theme for a weblog, and if you like to publish on the internet, then start blogging". Figure 3 is the follow-up model for interviewee #5. It shows interviewee #5 thinking as follows: "If you like people to react on your blog, and if the weblog is easy to use, and if you find the time to blog, then continue blogging".

Once all the individual decision tree models were created, they were brought together into a composite model. It is important in this step to combine all the individual models into one decision tree, while still preserving the individual decision paths.

Figure 4 presents the composite decision tree model for whether or not to start a weblog. Figure 5 presents the composite model for whether or not to continue blogging, once a blog was started.
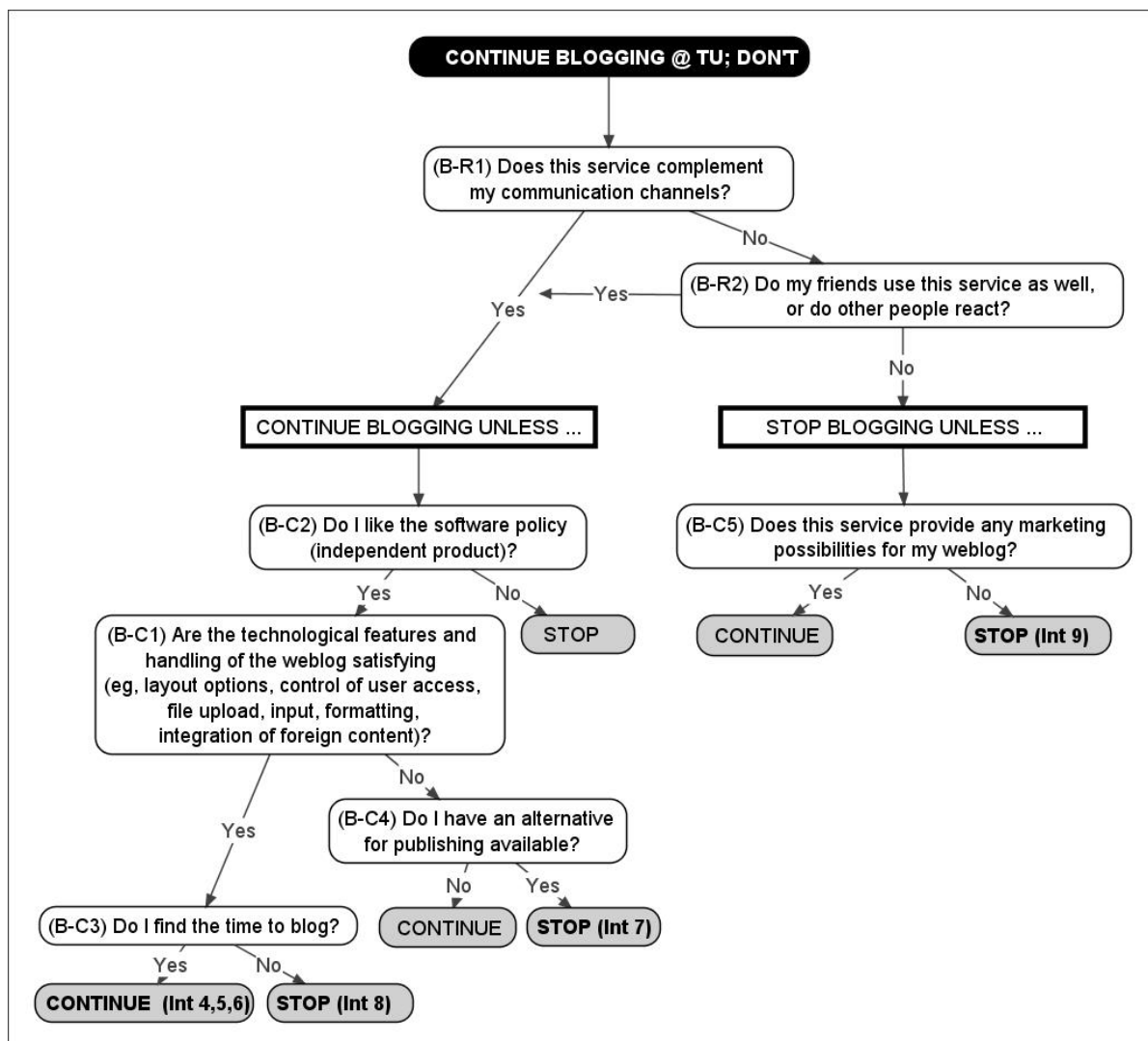
Figure 5: Composite decision tree model representing decision processes of interviewees on whether to continue blogging

It should be noted that the number of informants in this qualitative part of the study is relatively small. Gladwin (1989) proposes a minimum sample of 20 informants for the qualitative process of model constructing. The drawback of working with few informants is that not all possible decision criteria might be elicited in the interviews. The testing of the model validity described in the next section overcame some of these problems. However, further work is needed to cover a wider variety of informants and so strengthen the model.

3.3 Ethnographic decision tree modelling part 2: testing the models

The final step in the process of ethnographic decision tree modelling is the use of questionnaires to test the models for their predictive validity. This might be an iterative process, as is described in this section.

Figure 6: Revised composite decision tree model about whether to start blogging

Each composite model gets its own specific questionnaire. Each decision criterion from the composite models becomes one yes-or-no question in the questionnaire. For instance, the first question reads as follows: "Do you like to publish personal information/opinions on the Internet?". As in the modelling process, the questionnaire in this study consists of two parts: the decision process concerning whether to start a blog, and the decision process concerning whether to continue blogging.

The questionnaire was posed to the three groups of bloggers, former bloggers, and non bloggers, but with a new sample of students.

The questionnaire was completed by 30 students and the results were compared to the models. If the result of a questionnaire, and thus the decision path of a student, corresponded to the decision tree models, the questionnaire was counted as a 'successful' case. The division of the successful cases to the total number of cases led to the success rate of the composite decision tree models and their ability to predict the decision (Gladwin, 1989: 49). Model 1 (Start Blogging; don't) did have a predictive rate of only 63.3%. This means that when deciding whether to start blogging or not, the decisions of

11 students wound up in the wrong place in the first model. Model 2 (Continue Blogging, don't), on the other hand, had a predictive rate of 85.7%. After Gladwin (1989: 49), a model is adequate if it predicts 85-90% of choices. Thus, model 1 required a revision to become an adequate model, whereas model 2 is adequate to predict the decision about whether continuing to blog or not.

Two items in model 1 were identified where most of the decision strands from the questionnaires turned to a different direction than would have been predicted by the model:

▪ The negation of the question "Is this service personal and immediate enough for me?" led 7 students to the decision not to start blogging. However, 4 other students started to blog after negating this question, although the model implied that they would not. When probing further, some students reported that they were curious about the weblog system.

▪ The question "Do I have a theme for a blog?" was answered in the affirmative by one student who started to blog. However, it was negated by four other students, who nonetheless started to blog, although, according to the model, they should not have started to blog.

In the revision process, changes in the model can be made by re-ordering items, omitting items, or adding new items. However, if a new item is added to the model, it is not known what the previous informants would have responded to the question related to this item. In this case, the model becomes again descriptive rather than predictive (Gladwin, 1989: 53). Following these possibilities, the item "Is this service personal and immediate enough for me?" was broadened by introducing a new item, "Am I driven by curiosity to try out the system?". The item "Do I have a theme for a blog?" was omitted in the revised model. Figure 6 presents the revised version of the model.

The new model is consistent with 86.6% of the questionnaires. However, with the introduction of a new item, a new questionnaire would need to be developed out of the new model in order to test it for its predictive ability. This iteration cycle will be investigated in further research.

4. Results and discussion

When comparing the models to the initial research questions, the following observations can be made:

4.1 Research question 1: What makes students decide whether or not to lead a weblog in an informal education context?

Four major points could be identified which motivate students to start blogging:

▪ Writing: A general will to write/publish on the Internet is an important basis for starting to blog. Those students who explicitly mentioned this factor in the guided interviews, were still blogging at the time of the interviews.

▪ Technology: A few students were originally interested in testing the new hype/technology. There is a differentiation between *wanting* to test the new technology and *having* to test it, eg for job reasons. Indeed, *having* to test the technology did lead to people ceasing to blog later on.

▪ Communication: When being abroad, blogging is seen as a suitable tool to communicate with friends/family at home.

▪ Socialising: The will to make social contacts in web platforms is a very important driver for many students to engage in the Internet. However, this need is mostly covered by tools other than weblogs. As a side note it can be said that almost all of the nine students from the guided interviews mentioned that they are subscribed to the social networking site StudiVZ.

Conversely, three reasons seem particularly important in preventing students from blogging.

▪ Lack of (study) information: One factor behind the decision not to start blogging lies in the perception that this service does not provide useful study information. This is a different sort of criterion from the four above mentioned, because it is not driven by an active will to *do* something, but rather by the expectation that something is *provided* for the student.

▪ Lack of immediacy and personal communication: Here, blogs were compared to instant messenging services like ICQ, which is preferred by many students. 13 out of 30 participants reported that blogging was not immediate and personal enough, and in 7 cases this was the decisive criterion not to start blogging.

- <u>Loss of privacy through blogging</u>: 10 out of 30 students reported that they mind the loss of privacy through blogging. Just in the case that the students had to test the technology, e.g. for job reasons, they would start blogging (3 out of 10 cases).

4.2 Research question 2: why do many of the students stop blogging?

The following reasons are suggested by our data:

- Lack of privacy and immediacy: A comparison of the composite models 1 and 2 shows that all the students who started blogging despite the fact that they thought it was not personal and immediate enough for them, or despite the fact that they minded the loss of privacy, stopped blogging again. These arguments seem to overrule other reasons for blogging on a longer term view. The perceived lack of immediacy might explain why many more students use instant messaging tools than blogs (see Ebner et al 2008). On the other hand, the concern for privacy reported by many students, seems at first sight to disprove Tapscott's (1999) observation that the 'net generation' is giving up their privacy on the Internet. When probing further, though, it turned out that almost all participating students actively used social networking sites, which indicates that social networking sites are perceived as providing more privacy control than weblogs. Tapscott points out in this regard that 'the maker of that application can see anything you put on your profile, like your dating interests, your summer plans, your political views, your photos, the works' (1989: 68). The password protection of social networking sites is thus just an assumed privacy control. Further research on the issue of privacy is needed to better understand the concerns of the students, and to enhance thier understanding of privacy.

- Software interface: some students reported that the interface was not intuitive enough; in particular the file upload was seen as too complicated.

- Lack of interaction: One student reported on the missing interaction of peers, which did not motivate him to go on blogging. This was coupled with the lack of possibilities to promote the blog through the university.

Summing up, it can be noted that drivers for both starting blogging and continuing to blog are personal and active in nature. A connection to the concept of intrinsic motivation, 'doing something because it is inherently interesting or enjoyable' (Ryan and Deci, 2000: 55), can be drawn: writing, testing technology, communicating, and socialising are generally perceived by students as enjoyable actions.

Conversely, motivations not to blog or to stop blogging are mainly attributable to external factors, for instance the lack of privacy or immediate communication, and sometimes with a negative connotation (eg, "this service does not provide study information"). 'External' factors are factors that are beyond the direct influence of the student, for instance the software interface.

5. Conclusion

The paper has presented an empirical study about motivations of students when deciding whether or not to blog, through the method of ethnographic decision tree modelling. Results indicate that the main reasons for blogging include a general will to write and publish on the Internet, and an interest in testing the technology. Many students do not decide to blog because their needs to socialise on the Internet or creatively write and publish are satisfied by other tools already. Furthermore, they would expect useful study information from such a service in order to use it. The perceived lack of privacy through blogging prevents many students from starting to blog or is an important factor for ceasing to blog.

The study indicates that students with high expectations towards external factors, like the software interface, or peers with whom to interact, are more likely to stop blogging than students being driven mainly by their will to write.

What use could decision makers at universities make of these ethnographic decision tree models? The models give insight into the decision criteria of the students. Furthermore, they point to some of their specific needs with applications like blogs, for instance:

- The software interface works well for students with a high digital literacy. Many students complain, however, about difficulties, for instance with uploading pictures. Further research could address usability aspects of the software in more detail.

- Social networking and immediate communication is very important for most students. However, many students report that this need is covered by other tools. Weblogs offer some functions which help networking and immediate communication, like the comment functions, trackback and pingback, and RSS feeds. These possibilities could be promoted more strongly, perhaps accompanied with additional tools for better connecting blogs to each other. Furthermore, the wish for more privacy could be tackled by enhancing the levels of public, semi-public and private spaces within the blog application.

- Blogging during an exchange semester seems to be appealing and could be promoted more strongly.

The study has some limitations. As mentioned earlier, the number of interviewees in the guided interviews as well as in the questionnaires is relatively low. For more validity, the empirical study should be extended to more participants.

Another limitation – or difficulty – lies in the method itself. Can we really draw a tree-like model of decision making processes? The process of merging the individual models into the composite decision tree models required going back to the interview transcripts and individual models several times, to check the sort order of the decision criteria according to the interviews. The interview transcripts did not always indicate clearly which decision criteria would appear at which time during the decision making process. Applying the direct method of modelling instead of the indirect approach, described earlier in this paper, would have facilitated the modelling process in this respect.

Finally, a more fine-grained grouping of interviewees could be done. For instance, a differentiation between frequent and non-frequent bloggers could be made, as well as a differentiation between students who stopped blogging after a few entries versus students who have blogged for a longer period of time. This would give a broader picture of factors behind decisions concerning blogging.

Despite these limitations, this study is important because it gives some insights into students' motivations for blogging and their demands for the use of internet tools.

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