Making Sense of Facebook: A Mixed Methods Approach to Analysing Online Student Groups

Janus Aaen
Centre for teaching development and digital media
Aarhus University
Email: jhaaen@tdm.au.dk

Abstract

The objective of this paper is to discuss a methodological design developed to analyse self-governed student Facebook groups as a part of a larger study of the use of ICT in Danish secondary schools (Mathiasen. Aaen, Dalsgaard, Degn & Thomsen, 2014). The paper will discuss how this methodological setup can help the researcher gain in-depth knowledge of the students' use of Facebook groups, looking past the traditional dichotomy between online and offline as well as the distinction between school-related and non-school-related communication. The paper will address the potential shortcomings of the design as well as how the approach can be further developed, and suggests 1) broadening the scope of the study from the Facebook group as a singular medium to include other media used by the students and 2) extending the study to include the voice of students by engaging them as co-researchers.

Keywords: online groups, informal learning, mixed methods, online learning

The context of the study

The methodological design discussed in this paper was developed as a part of a larger research project studying the use of ICT in 16 projects in Danish secondary schools (Mathiasen et.al., 2014). The research project employed a mixed methods approach (Tashakkori & Teddlie 2010) and was centred around a comprehensive questionnaire concerning educational use of ICT answered by 932 students and 111 teachers, as well as semi-structured qualitative interviews (Kvale 1996) with both 4-6 students and 4-6 teachers in all 16 projects.

In earlier iterations of this study carried out by the research group (Mathiasen Bech, Dalsgaard, Degn & Gregersen, 2012, 2011), the empirical data had suggested that Facebook groups initiated and governed by students themselves had a significant part to play in the students' educational use of ICT. On these grounds it was decided to conduct an in-depth qualitative study of student-governed Facebook groups in the third iteration of the research project (Mathiasen, Bech, Dalsgaard, Degn, & Gregersen, 2013; Dalsgaard, 2014). The Facebook study was further developed in the fourth iteration of the research project (Mathiasen et al. 2014). This is the study presented as a case in this paper.

The methodological design

The research setup for the study of the Facebook groups is based on a mixed methods approach (Tashakkori & Teddlie 2010) and thus consists of both qualitative and quantitative methods. This approach was employed in order to harness the strengths of both the qualitative and the quantitative paradigms in order to provide more informative and balanced research results (Johnson & Onwuegbuzie, 2007). The study was predominantly qualitative and the quantitative data mainly has served as inspiration and also lent perspective to the qualitative studies.

The main qualitative method of the study was ethnographic observation, inspired by Kozinets (2010) who has coined the term 'netnography' and emphasises the need for a certain sensitivity towards the online context, in which the observations unfold. Realising, however, that no social medium is an island, the study has also drawn on the thoughts of Beneito-Montegut (2011) who argues that ethnographic research of online phenomena often has a tendency to overlook the significance of the offline activities of the subjects. Thus, abandoning the notion of a purely virtual ethnography (Hine, 2000), Beneito-Montagut urges researchers to strive for a more "...holistic analysis of the way in which social information and communication technologies operate within society in everyday life" (Beneito-Montagut, 2011, p. 716). This view is supported by Markham who states that "...*If lived experiences in online social environments such as Second Life, MMORPGs, or less dramatically, Facebook, Twitter, and email has [SIC!] taught us anything, it is that terms like 'real' or 'virtual' are not significant separators of experience.*" (Markham, 2012, p. 349).

In order to transcend the dichotomy between online and offline (or virtual and real), the netnographic observations of the Facebook groups were supported by the qualitative interviews and observations conducted within the main research project, as well as exploratory follow-up interviews with the some of the teachers of the classes who created the Facebook groups.

To make sense of the netnographic observations, a content analysis (Holsti, 1969) of 2247 posts and 12217 comments spread across the six student Facebook groups was carried out. All posts of the Facebook groups were coded and tagged with analytical distinctions in order to construct categories in a grounded theory method approach (Bryant & Charmaz, 2007). Thus, the content analysis was partly deductive based on an analytical distinction and partly inductive and grounded (Ibid.). The five categories used to code the

posts were 1) status updates 2) social events outside of school 3) social events in school 4) academic content and subjects 5) practical matters concerning school. The two main distinctions drawn in the formulation of the categories between *school related/non-school related* and *academic/social* are drawn from the existing literature on the educational use of Facebook which has focussed on these terms in discussions on the potentials and role of Facebook in education (for instance Madge et al, 2009; Selwyn, 2009).

Another criterion used in the forming of the five categories was the discrepancy in the way students and teachers had described the students' school related use of Facebook in the qualitative interviews conducted in the main study. While the teachers considered the students' use of Facebook to be private, disturbing and irrelevant, the students had a different story to tell. To some extent, they agreed that Facebook may have a disruptive effect and be irrelevant to their school work, but at the same time, they indicated that the Facebook groups in particular — which the classes had created on their own — often played an important role for the students when they wanted to help each other, collaborate, plan activities and keep track of what was going on at school. The findings of the study is the subject of the project report (Mathiasen et al., 2014), but the content analysis allowed us to create a visual representation of the distribution of the five categories (fig. 1), which clearly indicated that a substantial part of the communication directly addressed matters concerning school – both academically, socially and practically.
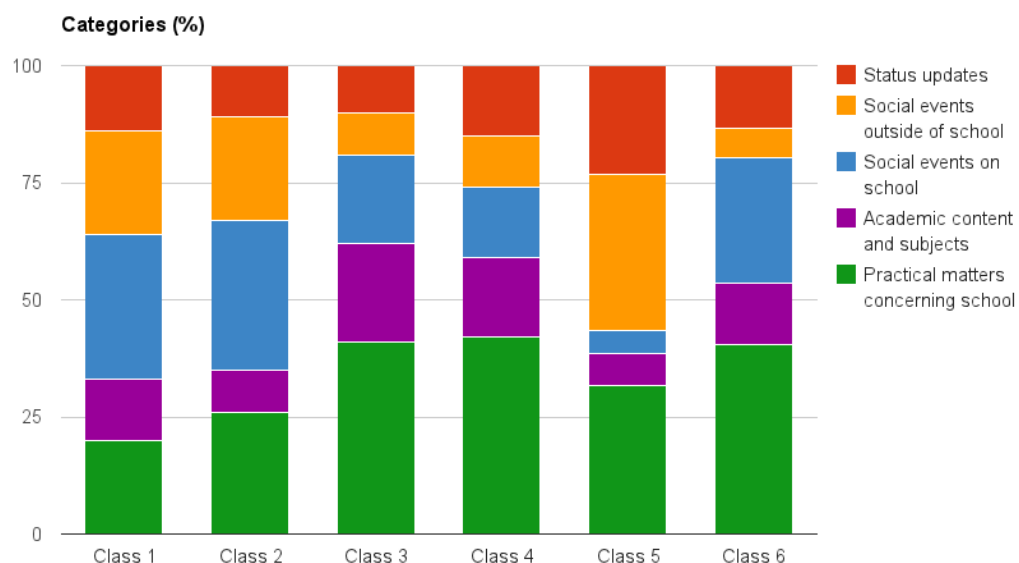

Fig. 1. The distribution of the five categories

Thus, the content analysis allowed us to quantify the qualitative data, thereby illustrating that the students – at least in these particular groups anyway – actually used the self-governed Facebook groups for purposes that benefited their academic work at school. In other words, the Facebook groups were not irrelevant as the teachers had suggested.

The Facebook groups were saved and collected as complete web pages, which allowed us to extract statistical data on the students' activity levels – both on group level and on an individual level. In other words, it was possible for us to pinpoint which students were highly active and which were not (fig. 2).
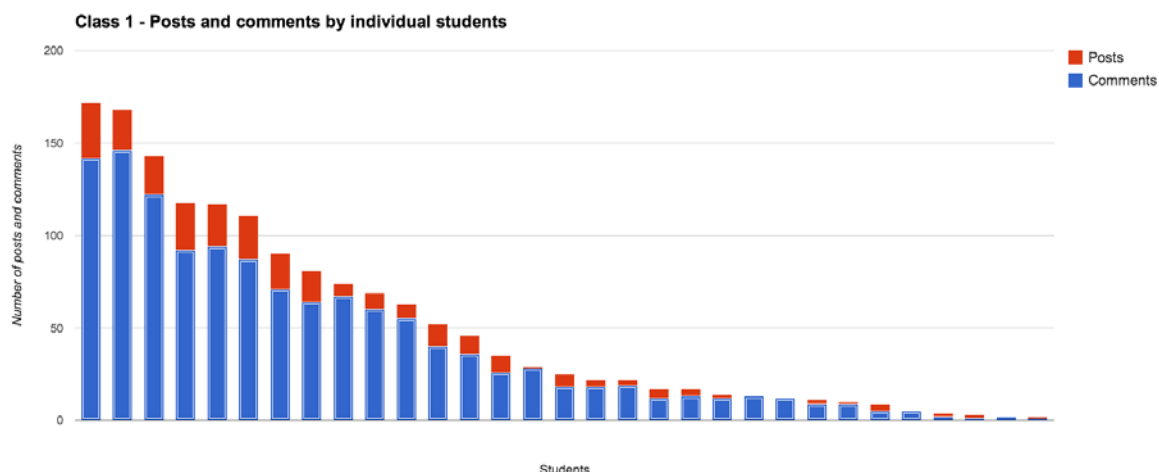
Class 1 - Posts and comments by individual students

Fig. 2. Posts and comments by individual students

These data were informed by the aforementioned explorative follow-up interviews with teachers familiar with the students. This allowed us to establish whether activity levels in the Facebook groups in line with the teachers' assessments of the individual students' academic skills, social skills and participation level in the classroom (for the results of the study, see Mathiasen, 2014). These interviews were also consonant with Beneito-Montegut's (2011) demand for a more holistic approach, in which online and offline contexts were connected.

Discussion: distributed communities

This mixed methods approach has resulted in a comprehensive body of data, which can be approached from many theoretical angels and can potentially inform a variety of different issues, e.g. the role of self-governed Facebook groups in formal settings, issues on social inclusion and visibility between students, or the learning potentials of mediated group communication. However, the approach is not without its weaknesses and these have become increasingly apparent.

Baym (2007) has suggested that online communities are often distributed over a range of platforms, instead of just being situated in a singular medium. This prompts her to suggest a shift in perspective from the researcher:

> One might liken the problem to that of a "pub crawl" in which a group goes from bar to bar drinking. One can do a fine study of any one of those pubs, and likely find something resembling community at play. Yet a slight shift of perspective from the space to the patrons reveals that for them, whatever community might be happening at that pub cannot be understood without reference to other spaces in which those people also meet. (Baym, 2007, p. 10)

In line with Beneito-Montegut's (2011) recommendation, this "pub crawl" of course also encompasses physical spaces of face-to-face communication.

An example of this problem presents itself when investigating the self-governed academic use of the Facebook-groups. As can be seen in figure 1, the classes in question do not use the Facebook groups for this purpose to the same extent. If the researcher maintained his/her view on the singular medium, this could lead to a conclusion that some classes were better at

helping each other than others. However, the study does not take into consideration that that the student community might be using other media to meet these needs. For example, there were several students mentioned in the qualitative interviews from the main study whose extensive academic conversations with peers took place in Facebook Chat or Google Docs. For the purposes of this study we did not have access to either or these two platforms and nor did we attempt to gain such access.

While any study to some degree can be considered as reductionist through its specific slant on a particular field of interest (Slingerland, 2008), the focus on the Facebook group as an isolated medium representing the full range of the community in question (the class) is problematic. If the objective is to pinpoint the significance of the Facebook groups for the students, it would be necessary to observe the full range of the community members' means of communication, which in this day and age includes face-to-face communication over Snapchat, Tumbler, Google Docs, Pinterest and Instagram, to Learning Management Systems, voice calls, video calls, and texts – to mention just a few. The in-depth study of the Facebook groups has the potential to say something about the Facebook group as a medium and perhaps its inherent educational potential. But if the researcher wants to say something about the students' experiences as students, it is far too reductionist.

Discussion: The students' voice

Another issue to be addressed regarding the methodological setup in question is that of the researchers' sensitivity towards the everyday context of the students. When educational researchers study students' media use, they risk doing so from the point of view of the educational system alone. The discourse of the educational system is likely to differ from that of students. And no matter what they do, the researchers are not a part of the student culture; they do not share the goals and motivations of the students, and therefore they will find it hard to understand what it is like to be a student. In other words, when observing a community from the outside and without being a 'participant', the researcher may lack sensitivity towards the situation (Markham, 2013).

A solution to this issue can be for the researcher to engage as a 'complete participant' (Gold, 1958) in the field in question and to some extent be a part of the community. But since the study can be said to have a bias towards an observation-as-archiving method (Markham, 2013), there is no participation whatsoever from the researcher. And since this particular community is dominated by young people, it is not feasible for a researcher in his or her thirties to adapt adequately to and participate in the field. The researcher's station in life is too far-removed from that of the student

One way to secure the student's voice in the study may be to include the students as co-researchers. Within the area of participatory research, scholars have developed research methods which "*...are geared towards planning and conducting the research process with those people whose life-world and meaningful actions are under study*" (Bergold & Thomas, 2012, unpaginated). Central to this view is to not treat the research partners (the students, in this case) as objects of research, but rather as co-researchers and knowing subjects with the same rights as the professional researchers. This is of course a

controversial shift in the way research is regarded, but it certainly allows the voice of students to be more present in educational academic literature.

Conclusion

This short paper has presented a mixed methods approach, which was used to study students' self-governed Facebook groups in Danish secondary education. And while the approach has certain qualities and led to significant insights through its combined qualitative and quantitative methods, some obvious shortcomings have also emerged, and these have been analysed and discussed. It is clear that future studies of Facebook groups in educational contexts should make an effort to broaden the scope and look towards other media used by the community of students as well. It is also clear that the distance between the researcher and his/her subjects created by the observing-as-archiving method is problematic and this needs to be addressed. One particular solution may be the implementation of participatory research methods.

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