

# ***Where have all the students gone? They are all on Facebook Now***

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## **Abstract**

This paper reports and discusses findings from a study carried out amongst a subset of 5th semester students (app. 80) in the programme CDM, Aalborg University (AAU). The purpose of the study was to uncover what networked technologies students use to support their studies and their problem and project based group work. We also wished to explore their rationales and motives for employing those particular tools. While there is much research into the technologies students use we understand too little about students' motives for using or choosing particular technologies (Henderson, Selwyn, & Aston, 2015). In the paper we therefore discuss the technologies they use and their motives for doing so. The study has however unearthed some deeper questions and concerns. For one thing it became apparent that students' uses of networked technologies were heavily reliant on commercial mainstream solutions. Services such as Facebook, Dropbox and Google Docs were the dominant choices of technology and students chose these - without much reflection - as they were the easiest and most widely used. Secondly, it became apparent how these services formed a completely parallel or alternative technological infrastructure to the ones offered by the institution (Moodle). These points have led us to questions such as: Should we promote more critical and reflexive discussion of technologies for learning in higher education, and what is the role of higher education institutions in relation to technological infrastructures i.e. does it make sense to maintain a learning management system if students are not using it. These are issues we raise in the final discussion.

## **Keywords**

Networked Learning, Problem and Project Based Learning, Students' use of Social Media, Institutional Infrastructures, Higher Education, Facebook, ICT

## **Introduction**

This paper reports and discusses findings from a study carried out amongst 5th semester students (app. 80) in the programme Communication and Digital Media (CDM), Aalborg University (AAU). The purpose of the study was to uncover what networked technologies students use to support their studies, and in particular their problem and project based group work, as this is the pedagogical foundation of AAU and practiced across all educational programmes. We wished to explore their rationales and motives for employing those particular tools for as Henderson et.al (2015) have argued there seems to be a vast number of studies reporting on what technologies students use, but less studies of their motives for using these technologies. In the paper we therefore discuss the technologies they use and their motives. The study has however raised some deeper rooted questions and concerns. For one thing it became apparent that students' use of networked technologies was heavily reliant on commercial mainstream solutions. Services such as Facebook, Dropbox and Google docs were the dominant choices of technology and students chose these - without much reflection - as they were the easiest and most widely used. Secondly, it became apparent how these services formed a completely parallel or alternative technological infrastructure to the ones offered by the institution (Moodle).

This in many ways confirm previous studies of students engaged with problem and project based learning (Khalid, Rongbutstri, & Buus, 2012; Rongbutstri, Khalid, & Ryberg, 2011; Ryberg & Larsen, 2012), and also other studies have hinted at disconnects between the institutional systems and the digital ecologies preferred by students (Hannon, Riddle, & Ryberg, 2014). In many ways this can be interpreted positively and as illustrating that students are critically and consciously constructing and maintaining their Personal Learning Environments (or personal learning ecologies). However, the study has also unearthed some areas of concern we feel are important in relation to students and institutions use of networked technologies in Higher Education. For one

thing, as we shall illustrate in the analysis, students may not necessarily critically and reflexively choose particular technologies; rather we should argue that they are quite conservative, insecure and oriented towards ease-of-use. We do not mean to say that ‘students of today’ lack this-or-that, are incompetent or non-reflexive. Rather we wish to show that the students themselves express doubts about their own reflexivity and competences in relation to choosing networked technologies to support their learning. So, while the notion of digital natives (still!?) routinely rears its head in educational talks, it is also becoming increasingly clear that students might need support, inspiration and education in order to develop critical and reflexive (digital) literacies. Adding to that, our study also suggests that students are developing alternative or parallel infrastructures to the institutional offerings; and thus teachers and students inhabit different socio-technical environments. Such disconnects between institutions and students can become problematic, we would argue, as Higher Education settings should be places where lecturers and students challenge each other and co-develop new critical, reflexive practices with networked technologies. But if we do not inhabit the same spaces or students are left more or less to themselves in adopting relevant tools then how can we create shared spaces for the development of critical and reflexive literacies?

## Background to the study

In our study and research design we have focused on a subset of 5th semester students in CDM. This is because half of the 5th semesters students' participate in a course module where the central task is to develop material and courses for first semester students on ‘study relevant networked technologies’. The 5th semester students are expected to use their own experiences of study-relevant technologies, and thus have to reflect on their own use, participate in future workshops (design workshops), develop digital learning materials and organise classes/lectures over two days for first semester students. Thus, they were in the process of reflecting on their own use of technology and therefore seemed to be a particularly relevant sample to observe, interview and survey.

In AAU a particular PBL model has been employed across the entire university since its inauguration in 1974 (Holgaard, Ryberg, Stegeager, Stentoft, & Thomassen, 2014; Kolmos, Fink, & Krogh, 2004). In AAU students work with problem based projects every semester. This means that half their time (15 ECTS) is allocated to and assessed through courses and course work, whereas the remaining time (15 ECTS) is used on and assessed through the project work and report. Furthermore, the courses are designed to support the students in their problem oriented project work, by providing introductions to relevant theories and methods that students can employ in their project work. The project reports are usually around a hundred pages and document and reflect a group of students’ process of solving or addressing the problem. The project work lasts 3-4 months where the students go through different types of enquiry: problem identification, problem formulation, theoretical and methodological inquiry, data collection, analysis and discussion. In this way the project work is quite similar to e.g. the process of doing research (albeit on a smaller scale).

## Data collection

Data used for this paper are both qualitative and quantitative. The qualitative data consists of five interviews. Four with students from the 5th semester CDM, and one with a 7th semester student who holds a BA in CDM, and who is now in one of the related master programmes (this was conducted to see if there were similar experiences in other semesters). We used a semi-structured approach to these interview i.e. the scripting of the interview was structured, but also flexible and open to exploring interesting themes emerging in the interview situation (Kvale & Brinkmann, 2009). Further, we conducted (video) observations during the fifth semester students’ Future Workshop sessions, where they critiqued their own introductions to ICTs as a means to develop their own (and supposedly better) teaching practice. During the workshops we observed two groups of five students. Two students from each group were subsequently approached for interviews. We found that these four students’ knowledge of ICT and digital practices were characterized by great diversity, as their perception of own IT skills ranged from less experienced to experienced. The quantitative data consist of a survey circulated only to the subset of students working with teaching first semester students. The other half was working with a different type of learning design task. These two groups were completely random. The overall response rate was 89% (71/80). The survey was divided into four parts: 1. Use and knowledge of specific ICTs, 2. ICTs used for

various study-related activities, 3. Influential factors on the ICT choices of the students and 4. Motives for choosing or not choosing specific ICTs.<sup>1</sup>

In the first part of the survey the aim was to investigate students use and knowledge of different ICT tools. They were presented with a list of tools and had to select one of the following options: “I don’t know it”, “I know it but I don’t need it”, “I know it but use a better alternative”, “I know it and would like to start using it” and “I know it and use it”. The type of statements were inspired from Rogers (1995) as adopted in Khalid et al. (2012) who made a survey distributed to a wider population across Aalborg University. Also some of the listed ICTs were chosen on basis of their study. Further, we asked whether they believed they had a good understanding of how ICT tools can support problem based project work. In the second part students were asked to select their most commonly used ICT tools for various activities related to the problem based project work and their course work. The students had the opportunity to select predefined tools and to add other tools, which were not listed. In addition we queried into changes or stability in terms of the students’ use of ICTs over time (1-4 semester). In the third part they were asked to which degree other people (such as educators, supervisors, family, friends and fellow students) had had an impact on the ICT used for project work. In addition, they were asked whether their prior knowledge of ICTs (before starting at University) had had an impact on which technologies they used for educational purposes. The fourth and final part consisted of two open questions: “Briefly describe what has motivated you to use ICT tools for project work” and “Briefly describe your motives for not using particular ICTs for project work”. We used open questions to allow the students to answer in their own terms and to gain possibly ‘unusual responses’ (Bryman, 2004). To analyse this part we have subsequently created post-coding tables and grouped the answers in categories that have emerged from our analysis.

## Main results from the survey

The main result of the survey was: Facebook...Facebook was more or less omnipresent in the survey. In relation to the first part the most known and used ICTs were: Facebook (100 %), Google Docs (90 %), Dropbox (82 %), Skype (73 %), Google Drive (63 %) and the reference tool in MS word (56%). The other tools listed were not used by the majority of students (e.g. the reference tools, Refworks (6%) and Zotero (3%)). This was the same pattern in the second part of the survey where we queried into ICTs used for various purposes in relation to the project work. Here Facebook was the most used tool for: Communication and discussion in the project group (97%), Sharing content in the project groups (87%), Communication and content sharing with fellow students outside the project group (96 %), and Discussion of course content (77 %). Apart from Facebook, Google Docs, Dropbox and Google Drive were commonly used ICT tools as well. Google Docs was the preferred tool for planning and structuring within project groups (56%) and 73% use it for content sharing (though it should be noted that we had omitted Facebook as an option in this category - even so 24% added it under the option ‘other’). Further, the majority of students indicated that they had predominantly used the same ICTs throughout the first two years of the programme (79% answered to ‘a very high degree’ or ‘high degree’ whereas 21% answered to a moderate degree). 43% answered that they “to a very high” or “high degree” understand how ICTs can support PBL, whereas 45% answered to a moderate degree.

In the third part where we asked who had had an impact on students’ choices of ICTs ‘fellow students’ emerged as the most important influencers (80% answered ‘high’ or a ‘very high degree’), while the impact of lectures, supervisors and friends were characterised by greater diversity - a high impact for some students and minor or none for a great deal of students. Thus, there was no clear trend, although ‘family’ had a distinctively smaller impact on the ICT choice of the students. 62% of the students ‘agreed’ or ‘strongly agreed’ to the statement: ‘My knowledge of ICTs prior to University has had an impact on what tools I use for my project work’. These results are very much in line with an earlier study made by Rongbuttsri et al. (2011) since this study also found that students prior knowledge can have an impact on the selections of ICTs used in project groups; also the found that the most common used ICTs were Dropbox, Facebook and Google services (their study covered a broader sample of students across Aalborg University). Further in a recent paper from Guerra(2015) she investigated which technologies 23 project groups from an engineering education at Aalborg University used for project work. Similar to our study turned out to be the most used tool for communication and collaboration. These studies indicate that Facebook across different educational programs is very adapted by students at Aalborg University. In both our study and that of Rongbuttsri et al. (2012) it was furthermore clear that ICTs

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<sup>1</sup> For more detailed descriptions about the design and results of the questionnaire we refer to: <https://www.dropbox.com/sh/7s004I9jz0mhaoh/AADrianYfH36gTYrGLCy9hvTa?dl=0>

which students found complex, such as reference tools, were often not adopted (despite the four years of difference in data collection).

To analyse the open parts of the survey, we have read through the answers multiple times and started to develop broader categories. This has - for the first question - led to four overarching categories:

**Table 1: Categories identified related to the question: "Briefly describe what has motivated you to use ICT tools for project work"**

Categories	Examples of Statements
1: ICT makes group work related processes easier (41%, 29/71)	It facilitates the many parts of the project report, it facilitates sharing documents with many, it facilitates co-writing in the same documents. It facilitates group work, both in terms of planning and sharing of content. It is easy and everything is stored in one place. It will ease project work a great deal What motivates me is if the programme eases the process
2: Good for communication and collaborative/cooperative work processes (27%, 19/71)	Easy way to see each other's work and easy way of communicating They enhance the communication in the group It is necessary to share information and communicate with each other when you delegate tasks between one and another It is the place where we communicate when we have not gathered physically It is easy to get in contact with each other and share things The need for communication with the project groups as well as sharing of files and cooperation in terms of writing
3: Good for sharing files and content (20%, 14/71)	It makes it easy and quick to share files with each other and can give an overview of the work Easy way to share material with one's group For practical reasons. A way to share and get an overview. Simple communication with other group members It is easier to organise and share project content
4: Good for planning and coordination (13%, 9/71)	It makes it easier and gives a better basis for coordination when we work more people together in a project group. Use of ICT-tools makes it easier to coordinate with other group members To get more structure in terms of schedules, group meetings and supervisor meetings It gives an overview and structures the work process

In relation to the students' statements about motives for \*not\* choosing particular technologies we identified seven different categories. A majority of the statements (70% 44/63) were related to four of the seven categories as presented below:

**Table 2: Categories identified related to the question "Briefly describe your motives for not using particular ICTs for project work"**

Categories	Examples of statements
1: When ICT seems too complex and difficult (30%, 19/63)	Some tools are more complicated than other alternatives Some tools can become too advanced but I would never deselect all ICT-tools If the tools seems to be too complex If it becomes too difficult or confusing, then it is deselected Deselected those which have seemed to be difficult and unnecessary Not user friendly I deselect them if they become too complex and the time which is required to figure out how to use the tools takes too long
2: The ICTs I use work for me, I don't need others (14%, 9/63)	The ICT-tools I have used so far have worked fine so I don't need anything else If an ICT-tool works for me, I do not need to use new or other ICT-tools Using those I know work for me. Therefore alternatives are deselected
3: Lack of knowledge of ICTs	Deselection of ICT-tools can perhaps be caused by a lack of experience with using these particular ICT tools

(14%, 9/63)	No knowledge of these ICT-tools No knowledge Do not have knowledge of most of them
4: Not relevant (13%, 8/63)	If we do not find them relevant/necessary If they are not relevant If they are not necessary

In the following analysis we return to these open questions, as well as the interviews with students.

## Analysis

### Why and how to choose the ICT tools

The choice of ICT tools in the project work is predominantly a question of whether 'it works' for the individual student and their project group rather than a matter of acquiring new skills or exploring new technologies. Their primary purpose for using ICTs is to qualify and to make the collaboration and the production of the project report easier. This is indicated by students' descriptions in the interviews and the in the four categories identified about motivation for using ICT. In the statements from the survey the word 'easy' appears several times, which is illustrated in the few examples in Table 1.

Ease of use seems to play a significant role in students' choices of technologies. In the interviews students describe the ease-of-use in terms of acquirement, use, and access as deciding factors in choosing a tool and they highlight these aspects as particular qualities of the tools they use and consider good, study-relevant, and useful. In particular they stress the potential of 'saving time' when using ICTs and they explain that if a tool is too complicated they may use more time on acquiring the tool than they are saving by using it. Therefore they drop it. Student 1 and Student 3 describe the criteria of choosing or not choosing a tool in these ways:

"It must be good, usable, simple and above all benefit the process." (Student 1 about criteria of choosing ICT)

Interviewer: What is the most important when choosing ICT tools?

Student 3: I am a little lazy, so it must be easily accessible, it should not be something where I have to fight with accessing it. Just having to register, I think it is well aarrh, I know that results in spam (...)

Interviewer: How about the opposite, when you choose not to use a tool?

Student 3: If it gets too complicated and messy and if I can see, I will spend more than an hour on it I don't bother. Then I think, so I just use what I know."

Across the survey and interviews a picture emerges of the students' choice of ICTs. This seems to be a balance between immediate usefulness and benefits of using a tool versus the resources to be invested in mastering the it. In the survey the three most prevalent categories in terms of students' motives for dropping a technology were: 1. When ICT seems too complex and difficult, 2. The ICTs I use already work for me I don't need others and 3. Lack of knowledge of ICTs. Thus, the students do a cost-benefit analysis and skip tools that may be too difficult or demanding and stick with their already preferred choice. This suggest that that the students are not necessarily explorative in relation news tools or feel that they have limited competences for adopting new and more advanced tools. In the interviews the student also describe, that they often chose tools they already are familiar with:

"We have been presented with many different tools, but personally I have only used those I already knew." (Student 3)

"I found what I thought was most useful for me, and so I sit a little superior and think, then I do not need more. It has worked well so far, so why even think innovatively/new." (Student 1)

Interviewer: "How did you reach it (the agreement of group tools)?" Student 2: "A matter of experience, people had experiences with the tools, and there were no problems, so people saw no reason to change it because it worked already (...) They were tools people knew in advance."

The students' prior knowledge of ICTs plays a strong role in relation to choosing tools. In the descriptions there is an underlying notion of 'why change what works'. The decision of which tools a group are going to use often occur in connection with the group formation in the beginning of the project period. All the students in the

interviews describe, that the decision is often a process with little or no discussion and agreement is reached almost instantly.

"When you sit together and find out what we want to do with this project in different ways, then we say, should we use this tool or what are the preferences in the group. And then you pretty much agree on what is working and not working. It's just to find out what the group is in the mood for using." (Student 2)

Two students describe, that they once experienced disagreement within their group on which kind of tools they were going to use. They both describe the discussion as annoying and a waste of time. In many ways this can be read as a very sane strategy, where students are goal-oriented and focused on getting their project work and report writing to run smoothly. On the other hand we could also, somewhat provocatively argue, that the students' choices are not particularly critical or reflexive. In fact, we could say that their choices are somewhat conservative and 'lazy', as Student 3 said above.

### **Facebook - a Platform for Project Work**

As the survey showed Facebook is \*the\* most used tool for various activities related to group work. One reason for selecting Facebook for project work is that all students are already familiar with it. They know its functionalities and it has been with them 'almost since childhood'.

"We used Facebook, when sending a file, to see what others had written. We simply use Facebook for that because we know it. Almost from childhood I was about to say." (Student 1).

Another reason is that Facebook is a big part of their everyday lives and not only related to educational matters. A student explains it in this way:

"It is so much a part of your everyday life, it is actually easier to have it as ICT tools because you can also use it for everything else." (Student 5)

Similarly another student stated:

"You know that it's where people live their life next to life. I do not think I know anyone who doesn't use Facebook, at least to organize the group." (Student4)

Facebook appears in many ways as an internalised part of their everyday practices which becomes implemented also in study-related contexts. It is noteworthy that all students in the interviews have used Facebook in all their project groups and have never questioned whether they should use it or not. It is described as a matter of course. Hence, the choice of Facebook can be described as an almost automated or default selection carried out with little reflection and discussion. Facebook is the favourite online meeting place, and the place where you can always get in contact with the team members.

"You have your group with you all the time in one way or another. You can always get in touch with them." (Student 4)

Some of what the students perceive as 'obvious benefits' are the push notifications, which means that team members are always updated about new posts and are certain everyone have seen them. A student points out that this is a great advantage compared to Moodle and Dropbox:

"The nice thing about Facebook is that you can see when people have seen your post and people can comment on it and write a message to you e.g. "Remember to add something here". You can't really do that in other ICT tools." (Student 4)

From the survey and the interviews we can see Facebook - in relation to project work - is primarily used for communication, coordination, sharing files and organizing group work. Examples of this are discussions in chat rooms, reviewing group members' written text and comment on it, organisation of work, for sharing files such as literature papers, pictures from books, and messages from supervisor. However, there is disagreement about whether that Facebook is suitable for \*all\* these activities. Particularly when it comes to gaining and sustaining an overview of the groups' resources and activities on Facebook. Some students find it easy, while others find it confusing because content cannot be placed in folders

"It's easy just sharing a link and agree what to do with this and that because people are on Facebook anyway or get a push notification on their phone. In that way I think it is an irreplaceable tool and without comparison because people are always available. They are not on their student mail all the time." (Student 2)

Despite such minor differences it seems that availability of and access to the other group members are very important aspects and reasons for choosing Facebook for group work. In articles by Deng & Tavares (2015) and Wang, Woo, Quek, Yang, & Liu (2012) similar findings were highlighted; regarding to some University students Facebook features are poor in terms of an overview of the content as the content cannot be divided into folders and threads. Thus it can be difficult to get an overview of for example discussions and it can take time to find the information you seek. On the other hand more studies found that students find Facebook good for

communication and information dissemination among peers (Deng & Tavares, 2015; Irwin, Desbrow, & Leveritt, 2012; V. Rasiah, 2014; Wang et al., 2012). Also in these studies Facebook notifications were highlighted as a major feature of Facebook, as it supports that all will be reminded and can see posts immediately. Thus one can expect an answer to a question in a short time.

### **Facebook - a Common Platform for the Semester**

The survey showed that Facebook is the preferred ICT to communicate with other students in the cohort (96%), and through the interviews we found that students have established a joint Facebook group for their semester peers. In the interviews they point out that the Facebook group is where most of the communication takes place amongst the students for both social and academic purposes. The social parts are, for example, information about events and parties, and sharing pictures from said parties. Thus, Facebook is an important part of the students' social life in the University and supports community across the students in a semester cohort. This echoes Madge, Meek, Wellens, & Hooley (2009) who found that the platform was a part of the 'social glue' among university students and moreover that it helped students settle into the university life.

For the academic part the students mention activities such as sharing information and helping each other with practical aspect e.g. sharing files and academic literature, information about cancelled lectures, enrolments for exams etc.. These are findings that resonate well with the study by Vivian et al. (2014) and Dalsgaard (2014). However, the students also state that more complex academic discussions rarely occur in the Facebook forum, which they explain in the interviews by personal fears of appearing stupid or non-academic to fellow students (see also Nicolajsen and Ryberg (2014) for similar anxieties amongst students). Despite this they gave examples of having discussed e.g. how an academic assignment should be structured and a few had asked about theories used in projects. However, these were rare discussions according to the students interviewed.

Both this and previous studies within the programme show that Facebook is a commonly used platform for communication, both in the project groups and between students in the same semester (Hannon et al., 2014; Ryberg & Larsen, 2012; Thomsen & Sørensen, 2015). The common page for a semester cohort is usually initiated by the student instructors who help the new students during the first two months (with both study related and social events). It is then handed over to the cohort later on to serve as an informal space that the institution and teachers are not involved in. Thus Facebook can be viewed as a 'mainstream subculture', since Facebook is used by virtually all students, but still is a form of non-formal practice (but quite a mainstream one). However, as pointed out by Aaen & Dalsgaard (2015) the self-directed use of Facebook amongst students is an area that is underrepresented in educational studies compared to studies of how lecturers have used Facebook to support particular learning activities.

### **Where Have all the Students Gone?**

Whereas Facebook is at the core of students' everyday practices with networked technologies, the institutional infrastructure (Moodle) holds a quite different place in the students' hearts and mind. All the students in the interviews describe Moodle as the only (or the primary) expectation placed on them by the institution in terms of their use of and competences with ICT. In spite of this the students explain that they don't use it, try to avoid it or that they only use the LMS, if they really have to. Student 1 describes it in this way:

"In the beginning, when you start at the first semester and take a look at it (Moodle) you get confused. You opt out of it very fast because you don't use it for anything else than checking your schedule (...) and then comes Facebook because it's so easy." (Student 1)

"We prefer not to use it, but we must." (Student 4 about Moodle)

All students in the interviews describe, that they only use Moodle for schedule, resources and information and not for asking questions or discussions. Like Student 1 other students indicate that Facebook replaces Moodle and that some of the activities occurring on Facebook should really take place in Moodle. For example study-related questions about the exam, the structure of the project report or similar topics that lecturers could give more qualified feedback on. Deng and Tavares (2015) found similar use and perceptions of the two platforms among university students. For the students Moodle was a forum for "downloading", while Facebook was perceived as an integral part of their everyday life and a place of belonging where they "upload", shared thoughts, and discussed different topics. Student 4 compares Facebook and Moodle and explains why they are using Facebook instead of Moodle:

"When creating a thread in there, a long time passes before anyone sees you have written something. Of course you go to Facebook first. You know that the people there correspond

immediately. On Moodle two days may pass before anyone sees you have written something (...) it's perhaps quite obvious why people choose Facebook rather than the other." (Student 4)

In similar ways other students describe the selection of Facebook and de-selection of Moodle as a matter of course, and the reason is the same. On Facebook you get a quick response which is not the case on Moodle. For some students in the interview Facebook not only replaces Moodle for some activities, Facebook actually eliminates the use Moodle. Student 3 says:

"If there is a Moodle message from a lecturer then it is directly posted on Facebook. Facebook is just good because it brings all together. We have not used Moodle really, only to retrieve our documents from the lecturers. (...) Bibliographies from the lecturers are posted there too (...) In this way Moodle become superfluous to 80% of the students because the information is on Facebook." (Student 3)

As Student 3 describes Facebook and Moodle function as two parallel infrastructures. In Moodle lecturers post information and upload slides and other resources for the students. However, the students get all their needed information and resources from Facebook, where a few of the students act as mediators from Moodle to Facebook. In this way there is no common institutional space where both students and lecturers are present and can 'stumble upon' each other. The lecturers act as if the students are on Moodle and create silos of slides. At the same time the students are interacting on Facebook where the lecturers and the programme have little influence and presence.

### **Perhaps it Should be Different? Ambivalence and Insecurity**

In some of the students' description in the interviews there is an underlying notion or apologetic reasoning that perhaps it should be different. In the survey students list lack of competences as reasons for not exploring ICTs. Some students express a desire to become more competent, and that the programme plays a bigger role in their selection of tools e.g. by providing introduction to study-relevant ICTs. This was particularly visible during the Future Workshops where students aired concerns that they had not been properly introduced to various ICTs themselves. From the interviews it also surfaced that students have the idea that Facebook is not considered a good or proper collaboration tool amongst the lecturers and that the institution would prefer that the students use alternative tools. Whilst, the students arguably have managed to create their own, and in many ways successful, digital infrastructures, they also express some doubts and uncertainties in relation to their own use of ICTs, their own competences and their strong preference for working with Facebook.

## **Final Discussion**

From an increasing number of studies it is clear that Facebook and SNSs plays an important role for university students. Whether this is mainly a part of back-stage work and identity politics of being a student (Selwyn, 2009); whether it involves more than social support and also becomes an important learning arena and knowledge sharing forum (Dalsgaard, 2014; Vivian et al., 2014); or whether it is something we as educators should embrace and use for learning together with students (El Bialy & Jalali, 2015). Although, our study is limited to a smaller sample and would need further corroboration in terms of the claimed disconnect between Facebook and the institutionally provided system Moodle, the pervasiveness of Facebook amongst Higher Education students seems quite well established. In our study it is clear that Facebook and other commercial social media services play an important part as social and academic glue for the individual students, the cohort as a whole, as well as for the problem and project based group work where students use Facebook and other services, such as Google Docs, Skype, Dropbox etc. heavily to communicate and collaborate - quite successfully in many ways. However, our deeper concern is really not whether Facebook is 'good' or 'bad' or whether we should embrace it as educators; rather our concern is with the taken-for-granted "mainstream sub-culture" (which is a consciously chosen oxymoron) that seems to exist. There are authors who have voiced more vocal critiques of Facebook and social media e.g. as heavily commercialised spaces living off conviviality over dissent (Friesen & Lowe, 2012) or as spaces ill-fit for argumentation and academic discussion (Kirschner, 2015). Our question really is whether educators and institutions should play a more active and critical role in disturbing and provoking critical reflections on the tools and infrastructures we use in higher education. For example, to create a third space in-between routinized adoption of institutional slide repositories and uncritical adoption of mainstream social media. While it seems a sensible strategy that students choose tools they find 'easy to use' we are also wondering whether we should promote a higher level of reflection in terms of choosing tools for collaboration. From a networked learning perspective we would question whether students and educators should uncritically approach either institutional systems or popular, commercial alternatives. Our argument would be that we need to critically assess not only the pedagogical design, but equally the technological infrastructures we inhabit in higher education i.e. to develop a pedagogy and culture of technological scrutiny and critical

awareness of the infrastructures we inhabit; are they sustainable? Are they open? What are the interests of different stakeholder in the platforms? While these questions are preliminary and underdeveloped we see these kinds of reflections as important to networked learning in the next ten years to come?

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