

Informal learning with mobile devices - moblogging as learning resource?

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ABSTRACT

The paper describes the progression of a learning experiment with high school students producing moblogs (mobile weblogs) outside of the school environment and focuses especially on the reflective aspects of the moblogs as an expression of *the reflective practicum* (Schön 1987, DESECO 2003). Through an analysis of my data I will centre my discussion around the value of this informal approach for learning purposes and discuss what kind of reflective competencies come into play here (Nesta Futurelab 2004a, 2004b). The theoretical framework for this article also draws on social learning theory (Lave & Wenger 1991, 2003).

Keywords: informal learning, mobile media, digital learning resources, situated learning, reflective practicum, competencies

Conference theme: Informal learning between creativity and competencies

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By Mette Berth

"...anyone who has an interest in how children learn with digital technologies needs to look beyond institutional contexts to consider the implications of children's use of computers, mobile phones, digital television and so on as part of their informal day-to-day lives" (Nesta Futurelab 2004a: 1)

Introduction:

This paper describes a learning experiment in which eight Danish high schoolers were loosely instructed in how to make a 'moblog' (mobile weblog) using the photoblogging site Flickr. The students' assignment was to take pictures of their everyday life for a week with their camera phones and then to incorporate some of the pictures into a Danish essay on a 'good experience'. Thus the moblogs were used as a room for reflection and framing of their daily life. The moblogging experiment in particular serves as a basis for discussing whether mobile phones might facilitate learning processes, thus placing the experiment in the budding academic field of *mobile learning*.

Countless articles have been written on teenagers' use of SMS and how the mobile phone is used for e.g. social 'hyper' and 'micro coordination' (Ling & Yttri 2002), but more recently educational researchers with interest in how ICTs are used in education have begun addressing the concept of *mobile learning*. It is important to note here that although the concept of mobile learning entails the use of mobile technologies, its central starting point is that it is the *learner* who is mobile. As the leading mobile learning researcher Mike Sharples notes, it is just a happy coincidence that there is a "natural alliance between learning as a contextual activity and the new personal, mobile technology, so that it is becoming feasible to equip learners with powerful tools to support learning anytime, anywhere" (Sharples et al 2002: 220). As with all new terms within academia, there is still a lot of disagreement about how to define mobile learning. For now, though, I will tentatively define mobile learning as *multi-locational learning in an age of increasing mobility aided by personal and interactive technologies*. But why are mobile technologies interesting as learning resources?

One only has to look at the recent Danish high school reform to see why, at least in theory, mobile technologies¹ lend themselves well to learning. A mobile device is characterised not only by its portability and context sensitivity but also by the dual affordance of being both a tool for social interactivity and individuality. All of these characteristics fit in well with a reform that puts special emphasis on increased use of ICTs in education, group work and individual competencies (Folketinget 2003: 1).

However, most mobile learning efforts have been concerned with the more advanced uses of mobile technology such as installing new software on PDAs, creating ambient learning games² or ambitious city tours using RFID tags³, mobile phones and PDAs to inform users and ultimately augment reality through access to location-based information. The time might come soon when most young people are running around with expensive miniature computers⁴ in their pockets, but for now the most prevalent mobile technology by far is quite simply a mobile phone. New features are constantly being added to this medium, and as objects of study mobile phones as well as their users are essentially 'moving targets' (Livingstone & Lievrouw 2002). This provides an exciting backdrop to look at how mobile phones can possibly support or facilitate learning.

In my PhD project on mobile learning, I have been interested in finding new and innovative ways of coupling the use of everyday communication technology such as mobile phones with the curriculum, in an effort to transcend the sometimes meaningless distinction between informal and formal learning settings. The data for the PhD project has been compiled over the course of several months (October 2005 through January 2006) with an informant group of eleven students (six girls, five boys) attending freshman year at a Danish high school. The empirical material consists of the following data sets:

- two rounds of qualitative interviews with eleven students: one about the everyday life of the informants and one specifically about mobile phone use

¹ Typically defined as mobile phones, smartphones and PDAs - Personal Digital Assistants. See Nesta Futurelab 2004b for a more in-depth definition of the broad range of mobile technologies.

² Examples are Savannah, Environmental Detectives, Ambient Wood, Mystery @ the Museum etc. (Nesta Futurelab 2004b: 22-26).

³ RFID: Radio Frequency IDentification tags. Small stickers with data embedded in them similar to the functionality of a barcode.

⁴ Mobilproducenten Nokia har for nyligt foreslået at ændre betegnelsen 'mobiltelefon' til 'multimediecomputer' på grund af telefonernes mange funktionaliteter (Amini 2006, <http://www.mobilsiden.dk/index.php?aId=2994>).

- computer logging of the students' text messages for a period of one week, a total of 2743 messages
- classroom observation over a period of ten weeks
- eight⁵ student moblogs
- six⁶ Danish essays that incorporate images from the moblogs
- two focus group interviews with the students about the moblog experience

I will focus on the last three data sets for the remainder of the paper in order to discuss the potential value of mobile blogging as an informal learning resource. But what are the connections between the notion of informal learning and more generally mobile phone use?

Informal learning and mobile phone use

Informal learning is typically defined as a broad term that describes learning which takes place outside the classroom. As such informal learning would cover a broad spectrum of everyday activities that include various forms of media use, e.g. learning CPR from watching an episode of *Baywatch* or getting help for your homework through text messages with class mates⁷. Professor of education Michael Eraut has suggested that we use the term 'non-formal learning' instead of 'informal learning' as the term 'informal' is commonly associated with many other everyday situations such as dress, behaviour and discourse (Eraut 2000: 12).

The term 'non-formal learning', however, is not very much different from 'informal learning'. It is also not descriptive of *where* this learning takes place. For instance, it is perfectly reasonable to think that informal or non-formal learning may indeed take place within institutional/formal settings and vice versa, such as peer-to-peer learning taking place in school yards or students communicating about various subjects through chat programs or mobile phones. As Illeris suggests, perhaps we should rather refer to informal learning as *everyday learning*, seeing as the division between the informal and the formal is rapidly losing its meaning:

⁵ Two of the students did not own a camera phone and were therefore unable to take pictures. A third student lost her phone two days before the week of taking pictures began which is the reason why not all eleven students participated in the moblog experiment. However, there were many similarities between the moblogs that *were* produced and therefore I choose to believe that the 'missing' moblogs do not significantly distort my data analysis.

⁶ Unfortunately two essays were lost by the students during the data collection due to hard drive crashes.

⁷ This practice was quite common in the SMS data material from my study, where students e.g. discussed how to calculate a dew point in Biology or coordinated how to write a group paper. However, the text messages are outside the scope of this paper and will therefore not be discussed further.

"(...) these terms [the informal vs. the formal] - particularly the division between informal and non-formal learning - are theoretically unsustainable⁸, used in very differing ways and signify a division that cannot be maintained in practice. Therefore I prefer to use the term everyday learning that not only has a more qualitative character and thereby precisely underlines the non-intentional and yet ubiquitous element in this kind of learning but also relates directly to the context in which this learning is embedded." (Illeris 2006/1999: 226, my translation)

Illeris makes an excellent point and touches on two key dimensions of learning that I focus on in my study: *intentionality* and *context*. These two dimensions become important when looking at what kind of learning takes place with mobile phones, particularly because mobile phone use is filled with both productive and receptive activities that cuts across contexts and levels of intentionality. Furthermore, through my analysis of the moblog experiment I wish to briefly address the question of how we can exploit or support informal (or everyday) learning in terms of more formal learning contexts such as the classroom.

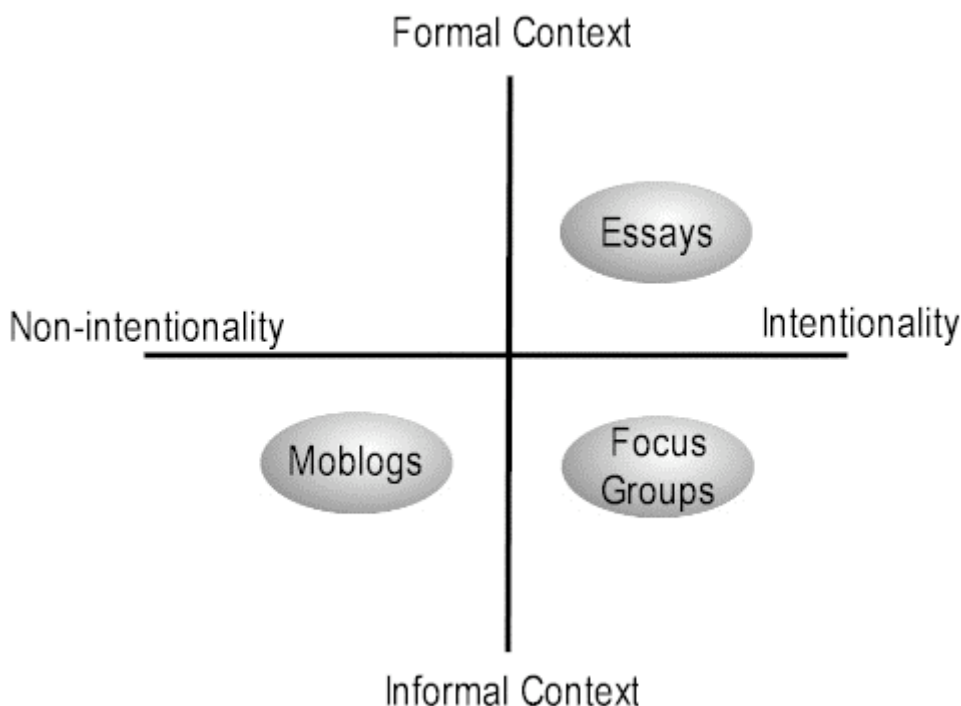


Figure 1: How the moblog experiment places itself between the informal and the formal, the intentional and the non-intentional Model inspired by *Literature Review in Informal Learning with Technology Outside School*, Nesta Futurelab, 2004a

⁸ The original text is "fagligt uholdbare", which I interpret as relating to learning theory.

As shown in the model above my data sets are placed across the 'traditional' informal and formal learning spectrum, meaning that part of the learning experiment (the essay) is embedded in a curricular context but at the same time there are no intentions with respect to what needs to be learned, rather the moblogs themselves function as a room for creative expression and reflection. And finally there is an evaluative intention with the focus groups interview, however they are held outside a formal learning context.

This again raises the question of what kind of learning can take place with mobile phones. Not only are mobile phones used in all sorts of physical and social contexts with more or less intentionality behind it (actual use versus e.g. the construction of a mobile learning experiment), but there is also the discussion of whether learning takes place within the individual or through interaction with the social environment (Nesta Futurelab 2004a: 12-15, Illeris 2006/1999). These positions, however, are not mutually exclusive, but for now I will argue that learning in general is a process of 'coming to know' through mutual adjustment and negotiation. Therefore, *conversation* or rather *communication* becomes instrumental for learning, specifically in the realm of informal learning. This again provides a useful argument for the value of communication media such as mobile phones for learning. But what is the theoretical foundation for making such claims?

To answer this question, it can be fruitful to view informal learning as an expression of *situated* learning, thus leaving behind the problematic distinctions made between formal and informal learning. This takes us beyond cognitive understandings of learning as being internal, or 'within the skin', of individuals towards an understanding that takes place in the social. Situated learning can be seen as involving participation in *communities of practice*. According to Lave & Wenger's theory on situated learning, learning takes place whenever the learner acts as a participant in social practice regardless of context and intentionality (Lave & Wenger 2003: 21). As such one could easily see the social clusters of e.g. girlfriends maintaining and negotiating their relationships as a community of practice where members participate in the social practice of communicating through their mobile phones. Lave and Wenger write: "Learning involves the whole person; it implies not only a relation to specific activities, but a relation to social communities – it implies becoming a full participant, a member, a kind of person. In this view, learning only partly – and often incidentally – implies becoming able to be involved in new activities, to perform new tasks and functions, to master new understandings. Activities, tasks, functions, and understandings do not exist in isolation; they are

part of broader systems of relations in which they have meaning" (1991: 53). Such activities or tasks could be e.g. writing texts, sharing pictures, sending jokes or other common mobile phone activities. In other words, the definition of learning presented here by Lave and Wenger leaves room for the notion that young people may actually learn something from each other when they participate in the social practice that is mobile phone communication, producing social knowledge as they go along.

Blogging on the go: *moblogs* as genre

So how can we trace these informal learning processes, whether they are intentional or non-intentional? One approach could be to look at the actual content produced through mobile phones and the social discourse that surrounds it. I have found this very interesting in terms of what kind of tool the mobile phone could provide for students for *producing* their own media material, the most obvious function being that of taking a picture. During my interviews with the students about their mobile phone habits I had noted the seeming contradiction between how many pictures the students were taking with their mobile phone and how few they shared through e.g. MMS⁹. Instead a common practice was to look at each other's mobiles and go through the images section as a way of presenting your life to the other person. As the 16 year old girl Manal noted:

I: How about showing off the pictures you have?

Manal: Yes.

I: You do that?

Manal: Well I think that people have started to [do that] a lot, including myself, that you're very, you're in a way very curious.

I: Curious?

Manal: Yeah, to like see what's in the mobile, I mean it's not like they sit and grab each other's phones and such, that the first thing you do is to go into the pictures and such, but it's there I mean unless you say that you can't, right, then I feel okay.

The curiosity Manal expresses to see glimpses of each other's lives (friends, experiences, family) was echoed by the sentiments of the rest of the students. This 'life gallery' function of the mobile phone images grabbed my attention, and at the same time I had also become increasingly aware of

⁹MMS: Multimedia Messaging Service - messages that can include picture and audio files. In Denmark the average cost of sending a picture with MMS is roughly 3 DKK, which is the main reason that young people do not use this service very much.

the phenomenon of moblogging, the mobile equivalent to weblogging or just blogging. The phenomenon of moblogging is only beginning to spread in Denmark with a few Danish sites hosting the service¹⁰. Internationally, this way of blogging is much more widespread¹¹ much like the traditional weblog only slowly has become popular in Denmark until its recent boom. As an activity, blogging or more specifically moblogging is a perfect example of what researcher Lisbeth Klastrup calls *interactive social software*, i.e. software that supports group communication and enables the user to "(...) create and maintain networks as an integrated part of communicating one's identity, interests and knowledge [my translation]" (Klastrup 2005: 1).

Social software, whether it is weblogs, moblogs, game worlds or other kinds of online communities facilitate various kinds of social practice, however it is important to remember that they do not necessarily create *new* practices just because the interaction is taking place through digital means. Design sociologists Alex Taylor and Richard Harper note this with SMS which they compare to the well known anthropological concept of 'gift-giving', an ancient friendship ritual (Taylor & Harper 2003: 268). Much the same way producing a moblog mimicks the social practices of real life when we want to share our thoughts and experiences with family and friends in an effort to communicate who we are and how we are.

The practice of moblogging is quite simply that you take pictures using your camera phone and then upload them to a photo blog¹². One might ask what the difference between a photoblog and a weblog is, and in a simplified account it is the fact that "[...] blogs use short bits of writing to chronicle daily events while photoblogs tend to use photographs in association with text to tell their tales" (Cohen 2005: 886). There seems to be a move towards the visual and aural in many media forms, and this is also true for mobile phones which are increasingly marketed not for the basic calling/texting features but rather for their built-in megapixel cameras or MP3 players. Today you will be hard pressed to find a new phone model *without* a built-in camera¹³.

¹⁰ <http://mobil.tv2.dk/moblog/?portal> and www.albinogorilla.dk are some of the Danish sites for mobloggers.

¹¹ See for instance websites such as www.blogger.com, www.flickr.com og www.textamerica.com.

¹² For a photoblog you can upload pictures both from digital cameras and from camera phones.

¹³ MMS is still a niche market for mobile phone providers, but it is growing fast in Denmark. In 2003 only 2.3 million MMSes were sent from Danish phones compared to the 12.3 million picture messages sent in the first half of 2005 alone.

In a research perspective, there has not been much focus on mobile phone pictures compared to the attention given to linguistic patterns of text messages and the overall social implications of using a mobile phone (Laursen 2006, Taylor & Harper 2003, Stald & Østergaard Madsen 2005). Recently, however, academic articles on camera phone use are beginning to see the light of day with most of the research done in Japan. Some of the research deals with what kind of purposes these images have among mobile phone users. Depending on your research focus, it is fair to talk about both *affective* and *functional* purposes of camera phone images. Kindberg et al describes the social-*affective* purposes of intimate image sharing (snapshots, postcards and greetings, chain letters, mutual experience, absent family/friends) as well as the more social-*functional* purposes (documentation of work related objects, visualisations of project status, mutual task, remote task) (2004: 6). What was most evident in the moblogs produced by the students in my study were the social-*affective* purposes, particularly that of sharing experiences and constructing identity through images of everyday life.

Method

Most of the students from my group (9 out of 11) had a fully functioning camera phone, and based on the significance of pictures in their mobile phone behaviour I thought that producing their own moblogs would be an interesting way to let the students work with their mobile phones in a familiar and low-cost way¹⁴, working almost exclusively in the sphere of leisure time. After giving them a brief introduction to moblogging, I had the students in the group each set up their own unique account at the photo hosting service www.flickr.com. This site was chosen primarily because it is user friendly, allows people to upload pictures via email¹⁵ and MMS as well as it allows users to visit each other's profiles and write comments to the pictures. I then loosely instructed the students that for one week they were to upload a minimum of four pictures per day focussing on everyday life experiences, in particular their own *wellbeing*. Other than that there were no rules and no moderation as I stayed out of their conversations completely.

¹⁴ The students were wary of spending any additional money on their mobile consumption and were therefore reimbursed for a whole week of moblogging by TDC Mobil and Roskilde University. However, this move will not distort the data analysis as I am not focussing on the quantity of moblogging, but rather how and why pictures are taken.

¹⁵ When pictures are uploaded via the mobile phone email client, the cost is per byte and not per picture. As an example 1 MB worth of data costs roughly 10 kr. to upload, which is a much cheaper option for mobloggers than uploading pictures through MMS.

I played a very discrete role because I wanted the students to be as free of constraints as possible and for them to forget me as a researcher looking in on their activity. However, I did encourage the students to comment on each other's pictures in order to facilitate a minimum of activity on the pages. The level of activity unfortunately turned out to be less than expected with only a few comments added a day and most of the students uploading less than four pictures per day. The students explained afterwards that it had been difficult to keep up with all the individual pages, which is why looking back it might have been a better idea to create a group moblog. A group page might also have made the practice of moblogging less foreign to the students. After all, the week of moblogging was something I had constructed as an experiment and not a naturally occurring practice among the students. However, as mentioned above, it is important to stress that moblogging mimicks other kinds of existing practices such as sharing pictures and everyday experiences through discourse and images.

The students, like so many other young Danes, had recently made the transition into secondary education and have been met with a number of new social and scholarly challenges in high school. This is bound to affect their inner life and social life in various ways as had been apparent in my initial interviews with the students about their everyday life. The moblog experiment would be an opportunity for the students to put their everyday life experiences into pictures. In collaboration with the Danish teacher I arranged for the students to write an essay about "an experience" where they were allowed to base the essay on one or more pictures from the site, thus enabling the students to work in a learning space combining the formal and the informal as well as making the individual moblog a room for reflection and representation of daily life events.

Images of everyday life - moblogs as a reflective practicum

As soon as the students started taking pictures, it was evident that what was photographed the most was the social relations of each individual, with friends, family members or pets (75 out of 224 images). This particular category of images represented the importance of social relations to the students in terms of wellbeing and was mirrored in a pilot study I had done at the same school in preparation for my fieldwork. Here I had worked with 80 students from the freshman year, asking them to write freely from the question "when do you feel good?" The responses were indicative of the fact that the social aspects of everyday life, i.e. the close contact to friends and family, is of the utmost importance to young people. As such, most responses began with the phrase "I feel good

when I'm with my friends..." In fact, general contentment and happiness (hanging out with friends, being creative, doing good in school, being active with sports, having good experiences etc.) seemed to rank high on the students' internal scale of what contributed to the good life.



Hanging out at a warm up party



Display of close friendships



Mobile phone use during recess



Playing PC games



Going for a run



First day of snow in the winter

Fig. 2: Typical snapshots of everyday life displayed in the student moblogs.

Boys and girls differed slightly on what they chose to take pictures of. The girls seemed very preoccupied with pictures of social situations and things pertaining to the body, whether it was a pair of sneakers before a run or a bag of candy. The boys similarly took a lot of pictures of social situations but compared to the girls they focussed more on images of nature, meta-commentary (pictures of taking a picture or uploading them) and most significantly alcohol culture with pictures of beers, drunken friends and parties. Once could easily argue here what could possibly be learned from taking these kinds of pictures of your everyday life? The answer was not clear from the beginning. I had given the students a lot of freedom to be creative and I had not given any indication as to what could be a possible learning outcome, i.e. this part of the experiment belonged in the realm of the *non-intentional*. This confused some of the students who were used to doing school work with specific goals in mind as described here by Malene and Manal:

I: But perhaps that's something you've been missing, a little more information about what eh what it was supposed to be or some more guidance?

Malene: Yes, it has been very confusing at times.

Manal: It went very fast with like understanding what this was all about.

Contrary to this, it was easier for the students to incorporate the images into essays where they could write freely about an experience from their everyday life. Subjects spanned the death of a grand parent, consumerism, a bad hangover, severe illness, jogging and a great party. This might be caused by the fact that the essays were embedded in the curriculum and as such there was a clear formal *intention* for the students: handing in the essay and get the necessary credits. Most importantly, though, they could call upon their teacher for guidance. This need for guidance is consistent with the thoughts of educational theorist Donald Schön on what he refers to as the *reflective practicum*. Based on studies of architectural schools and design studios he calls for a practice-oriented type of learning, where learners educate themselves. Schön describes here the feeling of loss which this process entails:

"The experience of the students in any reflective practicum is that they must plunge into the doing, and try to educate themselves before they know what it is they're trying to learn. *The teachers cannot tell them.* The way at which they come to be able to understand what's meant is by plunging into the doing--the designing, the teaching, the examination of their own learning--so as to have the kinds of experience from which they may then be able to make some sense of what it is that's being said. But that plunge is full of loss because, if you've taken that plunge yourself, you know the experience. You feel vulnerable; you feel you don't know what you're doing; you feel out of control; you feel incompetent; you feel that you've lost confidence."¹⁶

Despite the sombre tone of this quote, it is important to stress that learning in a reflective practicum is also *fun* because you are experimenting and gaining new insight through reflection along the way. Likewise, the students described the moblog experiment as mostly fun, confusing at times but an entertaining way to look at other people's lives and frame your own life through pictures and text.

¹⁶ Quote taken from Donald Schon's Presentation "Educating the Reflective Practitioner" to the 1987 meeting of the American Educational Research Association Washington, DC.

Reflectivity can be defined as a mental prerequisite of key competencies (Salganik & Rychen 2003: 82), which means that it is an underlying framework of both thought and action. To be reflective and thus act within the reflective practicum requires relatively complex mental processes. The OECD project DESECO which has as its goal to define key competencies, states that:

"(...) reflectiveness implies the use of metacognitive skills (thinking about thinking), creative abilities and taking a critical stance. It is not just about how individuals think, but also about how they construct experience more generally, including their thoughts, feelings and social relations. This requires individuals to reach a level of social maturity that allows them to distance themselves from social pressures, take different perspectives, make independent judgments and take responsibility for their actions." (DESECO 2003: 9)

These elements of reflectivity described by DESECO were all present in the moblogs which I why I will argue that the entire moblog experiment can be seen as a multiple, reflective process illustrated by the model below:

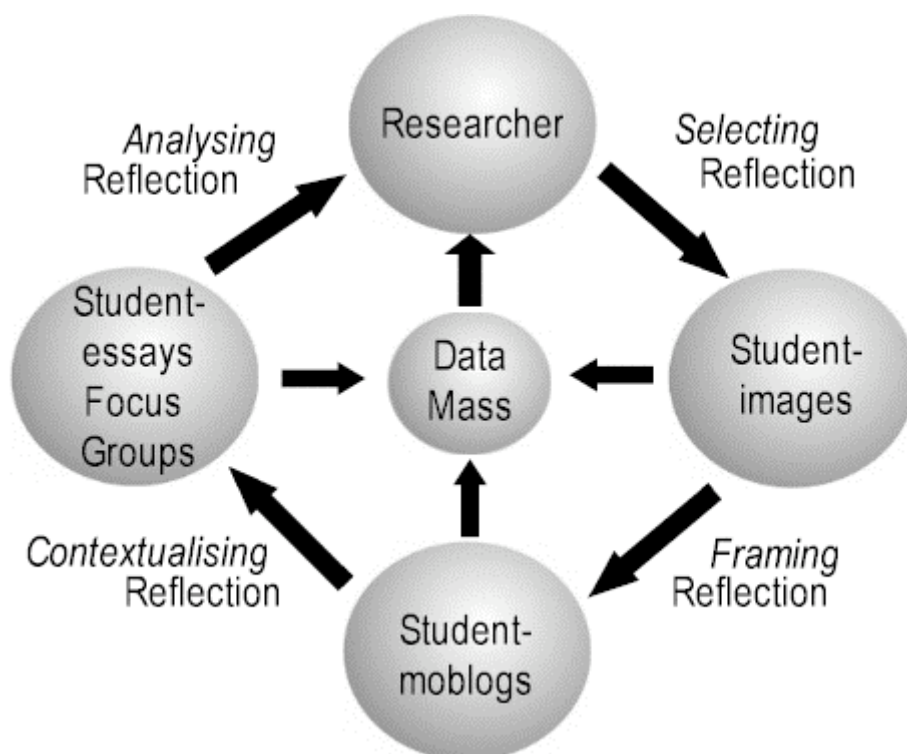


Figure 4: Reflective passages in the process of the moblog experiment.

This process can be divided into four stages of reflection: *Selecting, framing, contextualising* and *analysing*. When I first asked the students to take pictures of their everyday life, they began a conscious reflective process of selecting images to capture in order to portray their everyday life. As one girl phrased it: "When I took a picture, I thought 'is this interesting for others to look at?'" (Line, 16 years). This would indicate that the students have been very much aware that they were acting in a community of practice, where they could perform and create for each other. This awareness of other people 'looking in' on your creations was also evident by the way the students chose to *frame* their pictures.

After selecting the images, the next step for the students was how to make the most of the pictures when they were to be uploaded to their moblog. The keyword here was *fun*. All of the students insisted that the most important feature of the moblog was the humour, and sometimes the text would become more important than the actual picture because it lend a fun quality to something banal. Humour was also very evident in the small commentaries to the pictures where students often teased each other or made in-jokes. Peter explains here about the humorous framing of the pictures: "You wanted to make them funnier than they really are, those pictures right? Because there's a picture of some weird object and then when you write something funny above it, it makes it a little more exciting to look at. And like cool" (Peter, 16 years).

Going from the informality of selecting and framing pictures of their everyday life outside of school, the students were then asked to incorporate the pictures into an essay, thereby converting the informal to the formal through a reflective process of *contextualisation*. For most of the students this process went fairly easily as for Morten who used pictures of his clothes to illustrate an essay about the vast differences between developed and undeveloped countries and how this related to the spoiled Danish youth: "I thought okay what are my options [for writing an essay] from these pictures and then I thought we've just learned about Generation Y and then I could relate it to shopping and consumerism and all of that. Eh and I had taken some pictures of my clothes so I just took that. So I didn't think it was that hard" (Morten, 16 years).

Finally came the stage where I sat down with the students for focus group interviews and asked them to reflect on and *analyse* the entire experience. Overall, the students were critical of several things: the amount of time they had to moblog (7-9 days), the number of pictures they had to upload

and the demand that they had to do commentary on each other's moblogs. This critique of the framework for the experiment can be related to the normal time pressures of high school kids who suddenly find themselves burdened by homework and extracurricular activities and therefore would have little patience for a time consuming experiment like this. On the other hand, the students agreed that the process had been fun as well as it had been entertaining to look at the actual moblogs. Peter describes here: "You found out something about each other, I mean, by seeing a lot of those pictures from different lives, right?" (Peter, 16 years). Likewise, Mette notes that: "(...) it's been fun to see what the others have taken pictures of and things like that" (Mette, 16 years), again underlining the important fun element of this kind of informal activity.

Considering the above, it is safe to argue that the student moblogs functioned as a sort of learning resource in the sense that it was a reflective practicum where students could unfold the key elements of reflectivity that lie at the heart of all competencies: to be able to distance yourself from social pressures, take different perspectives, make independent judgments and take responsibility for your actions. So what is the perspective for using blogging as a learning resource? If blogging is to be used as a tool for mobile learning in schools, there are some necessary prerequisites for success. First of all there has to be *access* to the technology. This has often been a problem with computers¹⁷, but would be less the problem with mobile devices that most students privately own and which are less expensive to invest in. There is, however, the running costs of e.g. moblogging through email or MMS to consider, unless all students have an opportunity to transfer pictures from their phone to their PC and thus upload them for free. Secondly, to embed a phenomenon like blogging in a *curricular* setting requires adequate teacher preparation (to understand and make use of the affordances of blogging) and relevant assessment. Finally, it requires *support* from the school administration as well as families. These challenges, however, is not enough reason to exclude mobile technologies from school. The moblog experiment showed that it can be both fun, stressful and enriching for students to express themselves through this medium. It is only a matter of being creative with what the technology can do and not being afraid of taking the plunge into the non-intentional and unknown, thereby blurring the invisible lines between the formal and the informal.

Conclusion

¹⁷ As an example the US ration of students to computers is 5:1 in urban areas and 9:1 in rural areas.

In the coming years, children will be coming into classrooms with increasingly powerful mobile technology that has the potential to disrupt classrooms as environments of carefully managed conversation. This is a real conflict, because for now it results in the exclusion of mobile technology in the classroom. At the same time, however, these devices have the potential to create new worlds through enriched interaction. Such interaction is expressed e.g. through the means of talking, texting and taking pictures with a mobile phone. Although part of the moblog experiment was situated in a formal context there was not much difference between the kinds of moblogs the students produced and any other moblog found throughout cyberspace: moblogging is about having fun, being creative, and sharing your life through the means of image and discourse, thereby mimicking established social practices. When students communicate through mobile media, social knowledge is produced which in turn require reflectiveness to be exercised, something that was clearly visible when analysing the moblog data. Further research and analysis is clearly needed in the field of mobile learning, but my experiment with students performing as mobile bloggers indicates that mobile phones indeed can have some value in the cross spectrum between the formal learning space of the school and that of informal or rather *everyday* learning spaces.

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