

# 'A Trip Down Memory Lane: Using Mobile Devices to Capture Transformative Learning'

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## ABSTRACT

This paper investigates the role of Personal Digital Assistants (PDAs) in encouraging reflective learning amongst a group of first year medical students as part of the JISC funded ELP2 project. All first year students were required to produce a digital story of their visit articulating their emotions before, during and after the visit. The images taken were remotely uploaded into a social networking area and repurposed as a digital story which was subsequently presented to their tutorial group. This paper will report the findings from focus group interviews focusing on the use of the PDA's in the creation of the digital stories. The findings highlight the need for tutors to recognise that the ubiquity of mobile devices provides a powerful tool which can be used, with direction, to engage, encourage and facilitate reflective and transformative learning. The use of mobile devices to enable the capture and subsequent sharing of images presents many areas for further development and research: What direction do tutors need to provide? What confidentiality issues arise in the use of images? How should such work be assessed? What assessment balance needs to be struck between form and content?

## Author Keywords

PDAs, reflection, medicine, pictures, digital stories

## INTRODUCTION

We all take pictures. They act as a snapshot of time and of our lives. Images have the power to enable us to express feelings when words are not sufficient; they can be powerful tools of recollection and can evoke memories of emotions attached to people, places and events. The power of images and the ability of mobile devices to capture these memories was utilised, within the undergraduate medical curriculum at the University of Leeds, as part of the JISC funded Enhancing Learner Progression 2 project (ELP2): A project investigating the role of web 2.0 technologies and social networking within the sphere of learning and teaching.

This paper will explore how by incorporating this simple function into the creation and sharing of digital stories the ability to take 'of the moment' images can be posited as a powerful pedagogical tool to aid reflective learning and how these stories can also contribute to the conditions necessary to facilitate 'communicative action' (Habermas 1987) and create an open emotional discourse.

Through an ethnographic approach we will outline:

- The key role played by the PDA supplied to students
- The use of pictures in the reflective and transformative learning
- The impact watching others' presentations played in the learning process
- The student view of assessment

We will then highlight points for future discussion and describe how the work is being taken forward into the next academic year

## THE PROBLEM

Engaging medical students in reflective learning has, for many years, been an aim of medical education. (GMC 2003)

Various methods have been utilised in an attempt to develop the skills needed to produce the reflective medical practitioners of the future. Log books, blogging tools, e-portfolios etc ( Murray 2006, Braidman et al 2008 ) have all been introduced into medical schools' curricula in an attempt to, initially engage and then enhance the reflective qualities of medical students. The use of e-portfolios in foundation year training and in some speciality areas provides trainees and doctors with access to all their assessments and to reflective spaces but no firm evidence has yet been supplied to confirm that the use of such technological tools impacts on the reflective process of students.

The use of moblogging also provided a platform for the sharing of artifacts, thoughts and comments. To date the PDA group have taken part in a focus group in which their use of the device for this purpose was examined. The findings of this group reveal the potential of mobile devices as a tool for encouraging reflective and transformative learning. The project will also investigate the use of the PDAs as a tool to assist learning throughout the first year of the medical course. We wish to measure the extent to which the PDAs have been utilised to enable students to access work, materials and manage the academic demands of the course. The evaluation has so far revealed important data centered around the use of images taken with the PDA and their importance in facilitating the creation of a disorientating dilemma in which students recalled, repositioned and repurposed the images used in their stories.

## **METHODOLOGY**

As part of the JISC-funded ELP2 project at the University of Leeds, a mobile learning and teaching method was piloted in an attempt to engage students in the reflective learning process. All of the 242 first year students on the medical degree (MBChB) would create a digital story of their first patient visit focussing on their feelings, before, during and after the experience.

A sub-group of 12 students were provided with PDAs and encouraged to take their own photographs for use in their stories. Strict guidelines were provided and no photographs of the patient or of their property were to be used.

Students were asked to use the Leeds University blogging area, LeedsBlogs, to upload their photographs and share the representation of this photograph with another student. The completed stories were created using PowerPoint and shared with their tutor group of approximately 15 students.

The stories were not assessed but each student received feedback from their peers after their presentation.

The study is currently being evaluated but data so far received from the sub-group of 12 students, through a focus group, has highlighted the power of the mobile device to enable students to take pictures at the moment of activity and to then use these pictures to rewrite, reorganise and repurpose their stories.

## **FINDINGS**

A short ethnographic account is presented in an attempt to convey more effectively the view of one of the students, Joanne, who participated in the pilot project. Further research will be carried out from the ongoing evaluation investigating how students used the PDAs to support their learning and organise their time.

### **The Context**

Joanne is a first year medical student and like the rest of her cohort is required to undertake the personal and professional development module of the MBChB (undergraduate medical degree). One of the aims of the PPD (Personal and Professional Development) ICU (Integrated Core Unit) is to focus students on reflection and the importance of personal reflection in their professional medical careers. At the start of the term Joanne was introduced by her tutor to the digital story aspect of the course. She would be required to create a digital story charting her emotions before, during and after her first patient visit. Joanne and the rest of the students in her group were also given a PDA with free 3G connectivity and the ability to receive phone calls and text messages (SMS). Joanne is a frequent user of mobile technology. She spends more time texting her friends and family than actually speaking to them and uses her mobile phone to update her status on the social networking site, Facebook.

A technical training session was provided on how to use the devices, take pictures and upload these pictures to the students' personal spaces on the institutional blogging platform, LeedsBlogs. Students were also expected to share their pictures and thoughts with one other person through the use of the platform. The students were told that they would present their stories at the end of term.

### **Experiencing**

The day of the visit arrived and Joanne and her study partner took pictures of each other using their PDAs on the way to the patient's house, they also took some pictures of the surroundings as they approached the property and after the visit had been completed. These pictures were then uploaded remotely to Joanne's blogging area. "Using the PDA was natural" said Joanne "It was just like an extension of using my mobile phone but with better quality pictures."

### **Creating**

Joanne admitted that when the task was first presented to her she thought it wouldn't take that long but she states that she "...ended up spending a lot more time putting the story together than I thought I would. You think it will only take 5 minutes but I put a lot of effort in to actually choosing the pictures to show how I actually felt at that particular point"

she continues “when I started to write it I looked at the pictures and they made me remember how I was feeling at that point. I would think no, that picture isn’t right. It doesn’t say what I want it to say. So a couple of days later, when I had had time to think about it I ended up going out again and retaking lots of pictures to capture the emotion correctly.” Her sentiments capture the feelings of others in her group who stated that they only used a few of the pictures originally taken.

For Joanne and some other members of the group the use of pictures also enabled them to express their feelings through the familiar. Joanne likes nature and enjoys walking when she needs to think. Her story contains many images of the environment and of nature. She noted how one of the other students had used food to convey his emotions in his presentation, “Everything was about food! He told us how certain foods made him feel and how this linked to the patient visit.”

### **Presenting and Watching**

When presenting her story Joanne stated that through the use of pictures ‘You go greater into depth as well to be more honest and show your feelings. You didn’t have to actually verbalise them, you just show them and when everyone is doing it around you are so more relaxed.’ Joanne also felt that watching the digital stories and use of pictures enabled her to take in more than she would have from a traditional text-based presentation. She admitted that normally when she watches presentations she very rarely looks at what is on the screen and find herself listening more to the presenter than actually looking at what is being presented. When pictures were being used she felt that she concentrated more on the actual presentation and linked it to what was being said. “I looked at the picture compared to what they were saying...you actually listen a bit more and it’s more entertaining.” Joanne, like other members of her group, constantly used the word ‘fun’ to describe her experience of the task.

### **Assessment**

Joanne, however, expressed concern over how the stories could be assessed ‘I think it really worked for PPD because PPD is not focusing on grades and it’s more to do with your own development but if they were to use it for a marked presentation I don’t think it’s going to work because people are going to look for the best pictures but if its not going to be assessed then people are going to engage with it.’ Joanne was not alone in expressing this concern other students within the group felt that if such stories were ever going to be assessed then form should not take precedence over content and if the stories were to be assessed would this remove the engagement with the process?

### **DISCUSSION**

Joanne’s experience highlights the process of reflective story creation through the use of everyday technology. Through the taking of pictures the technology provides a means to record the ‘here and now’ and provides a visual artefact for future reflection.

Her experience of the exercise points to a transformative learning experience as articulated by Jack Mezirow (1991). The taking of the pictures of the experience and the subsequent creation of the story triggered a ‘disorientating dilemma’ (Mezirow 1991), the sharing of these pictures, through the blogging platform and face to face, and the associated emotions or story associated with the images create an arena for discussion and critical reflection.

The PDAs were an extension of the students’ normal use of technology. The ubiquity of mobile devices and the students’ knowledge of their use can be harnessed to encourage students to use pictures to chart their experiences and then further utilised, with direction, to focus on one particular learning task. Tutors can utilise the power of this ubiquity to encourage and facilitate the ‘type’ of learning required.

The viewing of stories was just as important to students as the creation. Does the use of pictures help to create the environment necessary for communicative action as outlined by Habermas (1987)? Do students feel more able to discuss their feelings and experiences through the medium of the visual? How can tutors create the physical environment necessary for stories to be shared?

How can digital stories be assessed? Will quality override actual content and what is being said? Can existing rubrics be adapted?

### **Future Work**

The findings of this pilot will feed into the work being carried out by the JISC-funded Reflect 2.0 project currently being carried out with the University of Leeds and Leeds Metropolitan University. This project will enable the work to be embedded in the curriculum and for the forthcoming academic year all first-year students will be expected to use their own pictures in their stories. A further group of 12 medical and 34 Dietetics students will be provided with PDAs to facilitate the process and second year students will be provided with the choice of either submitting a digital story or a written account for their end of year assessment. These PDAs will also enable students to carry out mobile assessments and the evaluation of this project will enable a more holistic view of the student use of mobile devices in professional education to be explored

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