

Final Year Project Proposal (228.485, 2011)

Title: Assignment Marking Application for the iPad

Supervisor: Dr Eva Heinrich

Project Description

The tertiary sector is in a state of transition from paper-based assignment submission and marking to electronically supported assignment submission and marking. Electronic assignment submission has many advantages over paper submission, for example in convenience for students, avoidance of postal delays and automated bookkeeping. When it comes to reading student work and marking, teachers are still divided in their preferences. Some prefer reading paper documents, while others do not mind or even prefer to read student work onscreen. One of the arguments that is brought forward in support of paper is about 'feel' and 'directness'. For example, the teacher can touch the paper, point at a section, and write directly on it. While some applications used for marking, like PDF annotation software or Word track changes, replicate the paper interaction to a certain degree, the feel for the user is very different. New devices like the iPad open up new possibilities in interacting with electronic documents. This project is about exploring how an iPad could be used to come closer to the real or perceived advantages of paper in the context of assignment marking.

One aspect of the project would be to explore how the user interface capabilities of the iPad facilitate direct interaction of student work, for reading student work, for annotating student work with information supporting the marking process and for providing feedback to students that is linked closely into the document. Marker input will be an important aspect of this work. This will likely go beyond typing and should explore the possibility of audio input.

Project Context

This project fits into the wider context of the Lightwork project (<http://lightworkmarking.org>). Lightwork is a Moodle compatible open source application for the management and marking of assignments. Lightwork is a Java-based application that provides support for marking (e.g., marking rubrics) and the management of marking teams. Lightwork contains its own PDF Annotator for the direct annotation of student work.

The final year project could interface with Lightwork, for example in providing a 'lite' Lightwork client that deals specifically with marking of student work without performing the setup or management tasks required for assignment marking.

Project Steps

The following are likely project steps.

Literature review:

- Paper-based versus electronically supported marking;
- Formative feedback and marking rubrics (not too deep, just to set the context);
- Audio feedback for assignments.

Exploration:

- iPad user interface, touch-based input and audio input;
- Direct annotation tools (PDF based, for marking and in other contexts);
- Lightwork application;
- Moodle's assignment activity.

Concept development:

You suggest how to use the iPad to provide an assignment marking tool that allows for efficient provision of high quality formative feedback (and pleases users who like to work on paper).

Implementation:

You develop a prototype application based on your concept.

Evaluation:

By interaction with users (lecturers, markers) you evaluate your concept and prototype. Potentially you include students to get their feedback on receiving audio feedback.

Other Points

As the project interacts with open source tools (Moodle, Lightwork) it will be very likely that you will work under an open source licence. An interesting aspect of this project will be to attempt to interface with the respective development communities and to create a community around what you are doing. This links into trying to make provisions for the survival of the project beyond your 'paper' duration.

Getting away from paper-based assignments would be a good environmental contribution.

An iPad is available which you will have shared access to as required for the project.