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In Memoriam Alex Moon (1970 - 2010), the founding editor of the journal.

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My iPad and i

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Abstract

The first part of this review reports on the impressions of a (not particularly technology savvy) first-time user of iPad about this gadget generally. The second part of the review reports on attempts to use the iPad within an educational context – for the provision of electronic feedback via PebblePad and SoundNote. The difficulties (including impossibilities) are discussed and alternative approaches suggested. The review focuses on efficiency rather than effectiveness in the provision of feedback using the two iPad applications.

Keywords: iPad, SoundNote, e-feedback, electronic feedback, PebblePad, audio feedback, e-assessment

Part 1 - My review of the iPad

I Love My iPad

It is light. The iPad1 weights 680g for a Wi-Fi model, nearly six times lighter than my 4kg Dell laptop and it has become even lighter for iPad 2 – 601g for a Wi-Fi model. I slip it in my handbag and carry it around and I do not even notice it is there until I decide to use it. This is a significant improvement on the extra bag that I used to carry around for my laptop (and all its batteries/cables and other accessories) leaving my shoulder aching by the time I got to my destination.

It lights up. I do not need an extra light source to use it. Even at night an insomniac can “flip it open” and use without disturbing anyone else sleeping in the darkness of the same room – the iPad is its own light bulb.

It allows me to check all my three sets of email (work, personal and charity work ones) in one place (I am sure there is a way for my laptop to do the same, but a technical “dinosaur” like myself has never quite worked out how to do that and continues to access different sites with different log-ins). For me, the iPad definitely does it better.

It has proved advantageous for my personal learning by being my iTutor. I took up Italian as a New Year’s resolution and was able to download a great deal of free Italian pod- and vod-casts from iTunesU to access on the go whenever I had a moment to dedicate to language study. Admittedly, I had already discovered that possibility with my iPhone and have only truly been m-learning Italian with the iPhone in my hand rather than the iPad – size matters for m-learning.

The iPad has been revolutionary for my reading habits. I did not think reading electronic books would catch on with me, but after the first free book that came on iBook with the iPad (and which, by a very happy coincidence, happened to be my favourite book) – I was a convert. I love the fact that I can get books I want to read

within seconds. On one occasion I even downloaded a book while a conference presenter was still recommending it as part of their presentation.

I love the fact that I can highlight important sections or great quotes (even when I forget to slip a highlighter in my handbag); that I can annotate and record thoughts and reflections while I read (without needing to carry a notebook); and most of all – that if I, the foreigner, come across a word I do not know, I can tap on it and a dictionary pops up to tell me the meaning. This alone improves my experience and enriches both my vocabulary and understanding of the book, as well as increasing the levels of pleasure from reading. This is a superb feature and as a foreigner and an avid learner of foreign languages, I cannot speak highly enough of it.

I soon also discovered that I could download a Kindle application to my iPad (rather than buy the separate Kindle gadget) and download the many, many classics which are freely available as they are out of copyright. So overall, I read more now because a selection of books is always in my handbag, if not quite in my pocket like the Kindle.

The iPad has also turned out to be my best kids' "iNtertainer". With a selection of cartoons and free games/apps always at hand the iPad has been useful to me a number of times and not just in my personal life: 1. to silence my own kid when I need him to calm down and let me finish something I am working on, or 2. to engage the kids of students if they accompany their student-parents when we meet up for feedback or other study-related discussions.

Most importantly, this portable iNertainment machine is light and its battery lasts the whole length of a European flight. Priceless.

So What's Not To Love?

It does not support Adobe Flash Player which has made viewing videos at times annoyingly impossible. Although applications released for BBC iPlayer, ITV Player and 4oD have largely reduced the frustration and limit it to occasional content on YouTube.

It was meant to be wireless – no more metres and metres of cables and a truly mobile, on the go, anytime, anywhere experience. It isn't. Yes, there are no cables (so that is good) but I promptly discovered there is also no connectivity to the web unless you are close to a Wi-Fi source. This pretty much confines me to browsing on the iPad in my garden, a cafe with free wifi access, or the Middlesex University Quad area – overall not particularly bad places to be confined to, but still – a limitation. There are, of course, 3G iPads – only slightly heavier, but somewhat more expensive – an option which was not open to me at the time. A 3G iPad does sound ideal though.

Battery life, I thought, would be "top notch". It is significantly superior to the battery life on my laptop (which is supposedly 3 hrs 33 min but I have never had the laptop battery "live" that long). The iPad is definitely better, but on a number of occasions I have used the iPad to make notes and record conversations at conferences and after about 6-7 hours the iPad battery "dies" and pen and paper for note-taking are still required as a back up, hardly the paperless experience I had envisaged. There are spare battery accessories for iPhone and while I have not seen one for iPad yet,

as and when these become available it might be possible with their help to achieve that even better battery life experience.

Part 2 - Using the iPad for Learning and Teaching

Introduction

Having embraced the iPad for personal use it was possible to experiment with its capabilities in an education context. I already regularly used it for work email, synchronising diary and contacts, note-taking and recording of meetings. I was particularly interested in exploring ways of providing electronic feedback.

In the academic year 2010/11 Middlesex University embarked on a project of embedding electronic submission, electronic marking and provision of electronic feedback (Middlesex University, 2012) where possible on all year 1 (level 4 under the Framework for Higher Education Qualifications) modules (DirectGov, 2012).

In my Introductory Financial Accounting module (at level 4) in the academic year 2009/10 I had already experimented with electronic submission and electronic allocation of marks via PebblePad, a personal learning and portfolio system integrated with the University's VLE. At the time I noted that PebblePad's functionality allows for the provision of electronic feedback to individual students and this was the aim of the project described here. I wanted to use the iPad to access electronically submitted pieces of coursework by students, review them, mark and provide individual tailored electronic feedback. Moreover, I wanted to do all this where possible "on the go" so as to increase my efficiency.

The original aim of the project was not successfully completed as:

- I had never envisaged that the use of the iPad would replace my use of traditional laptop/desktop computers, however, I had envisaged that the iPad would make possible the marking of student work and recording feedback "on the go" (during downtime, while travelling/waiting in queues, etc.) This was not possible. The iPad is not truly mobile and it is not possible to access resources on the internet unless one is within the reach of Wi-Fi (a limitation discussed earlier). As pointed out Wi-Fi was reliable at home or at the University where I had access to a laptop or desktop computer anyway and the use of the iPad became redundant.
- I was unable to access websites which require Adobe Flash Player (another limitation discussed earlier). PebblePad is one such website so it was not possible to access it for marking purposes via the iPad. A PebblePad iPad application exists but that was found to only allow users to create and add assets/upload files. It does not have the functionality needed by the tutor to access gateways where students have submitted parts of their work portfolios.

These two limitations put an end to the experimentation with the use of iPad to review, mark and provide feedback on student work submitted on PebblePad. [Editor's note: The recent upgrade to PebblePad will likely enable access via mobile devices and without the need for Flash.]

Plan B: SoundNote

The focus of the project shifted in that it sought to explore if an inexpensive iPad application called SoundNote (version 1.7.3) could be used for the efficient provision of electronic audio feedback to students on the basis of a mock test they had completed in seminars (something that had previously been done face to face and was very time consuming).



Figure 1: Screenshot of SoundNote, accessible through iTunes (Apple Store)

Recorded audio feedback is a relatively recent development. Livesey's (2009) review of literature around the use of technology for feedback does not refer to audio feedback at all. A review by Bond (2009) in the same year makes reference to a small number of audio feedback studies (including ones experimenting with iPods and iPhones to record audio feedback). He comments from a summary of the literature that students prefer audio feedback over other forms of feedback for a number of reasons. These are ones perhaps intuitively expected: the ability of the spoken word to be more detailed than written feedback, the ability of feedback to be replayed over and over, as well as the fact that an audio recording can convey the tutor's empathy more successfully.

The "Sounds Good" JISC project led by Rotherham (2009) aimed to investigate if audio feedback saves educators time (as well as providing richer content). The findings of that project were that such efficiency can be achieved where:

- The educator engaging with audio feedback is comfortable with the technology
- They type slowly but speak quickly
- There is a need for large volume of feedback to be generated
- There is a way to quickly and easily distribute the recorded feedback to students

Most of the 38 lecturers from four institutions who were involved in the "Sounds Good" project (Rotherham, 2009) indicated that they would continue exploring the use of electronic feedback which suggests that there are some perceived benefits

and that the challenges around efficiency in doing so are not impossible to deal with. A number of Middlesex University lecturers have also been experimenting with electronic feedback and their positive findings were presented as part of the University "Assessing with Ease" presentation series in May 2012. These included projects for the provision of audio (Davis, 2012) and even video feedback (Barter et al., 2012) which claimed to have produced benefits in terms of the quality of feedback and improved student experience and did not report inefficiencies for the tutors involved. This project adds to that body of knowledge and experience sharing by addressing the efficiencies and inefficiencies in the provision of audio feedback using SoundNote in particular.

General Review Of SoundNote

Strengths

Written and Audio record: SoundNote allows the user to make freehand or typed-up notes via a keyboard as well as record audio. Recording is at the touch of a button and there is no additional equipment required (such as microphones and headphones which are required to record audio with Audacity on the computer).

(Targeted) Replay: It allows replay of the audio and thus gives power to the user to listen to it over and over until feedback is fully understood, as well as listen to it wherever convenient (home, university, on the go via a mobile device).

In addition, SoundNote allows the user/recipient to click on a particular part of the written notes taken which directs the audio replay to the time in the meeting/presentation when that note was taken (thus allowing better recall of/addition to the details in the notes). It was the first time I had experienced such interrelation between written and audio notes/feedback and I view this feature as one of the main strengths of the application.

Weaknesses

Archive organisation: The application allows the user to create a name and store each new SoundNote in consecutive order but there is no functionality to organise those thematically or in any other order of folders subsequently.

Note-taking on the iPad

Strengths

Light: The lightness and brightness features of the iPad discussed earlier. This makes it convenient and visible in any environment.

Weaknesses

Touch-screen keyboard: The iPad keyboard was found somewhat cumbersome to use in comparison to a conventional computer keyboard. The size of the keyboard (smaller), positions of characters (different) and the need to switch between three different keyboard options (to cover all letters, numbers and symbols found on a conventional keyboard) make typing on iPad slower and the result includes many more spelling mistakes (which are not autocorrected).

Spelling: The need to go over what has been typed and to correct spelling or typing mistakes is time consuming, but necessary if the product is to be shared with others. To deliver the typed draft with spelling mistakes would be unprofessional.

Free-hand writing to avoid both of the above problems: The application allows for free-hand note-taking, as well as a combination between typed and free-hand. The technology, however, is not as developed as one would have liked, even though free-hand note-taking, as a functionality, has been around for a number of years now. The resulting best effort looks very similar to what one's very first attempt at writing on paper might have looked like:

	Total	Credit	Cash
A. Revenue (sales)	107	7	100
-COS: (opening stock +purchase -closing stock)	(20)	0	(20)
-operating expenses	(17)	0	(17)
Operating profit (before interest/tax)	70	-7	63

Trade Debtors 2010

1/10 Bal 40
d/d

7

Figure 2: A screen shot of a mixture of typed and (as carefully written as can be) free-hand notes in SoundNote

The use of an iPad stylus was found not to produce any significantly better results either and the conclusion was that the stylus accessory is unnecessary as it does not do anything that the rubber end of a pencil cannot do.

Using SoundNote For Electronic Feedback Provision

The application allows the recording of individual audio feedback which can then be emailed to students as a link.

Strengths

Size: Before the start of the experiment, it was a concern whether the size of files recorded might be too big to send to recipients. After recording the audio feedback the file recorded is shared with students as a link to a Dropbox location where they can access the file (note: keep the "Email Audio Using Dropbox" option "On" under the "File Sharing" link within the application). The size of the emails was therefore not a problem.

Tailored feedback: In line with the findings of Bond (2009), it was felt that the ability to address students makes the feedback sound very personal and possibly the next best thing to one-to-one feedback from the tutor face to face. No comments were collected from the students who received personal feedback to validate the hypothesis above, although some wrote back indicating that the e-feedback was appreciated. This is also supported by the claims of Davis (2012) that audio feedback is “affirming”.

Weaknesses

Time to record: Looking through each mock test script and recording the audio feedback on a large cohort of 250 students would be very time consuming. Early on in the experiment it was discovered that students tend to make the same mistakes and it became a very repetitive process for the tutor to record effectively the same (or very similar) audio message many times. With each subsequent audio feedback message recorded the tutor became less detailed in the explanation and less encouraging in the tone of voice. As such the first students to receive the feedback would have received a much better quality feedback than the last. This is not a problem confined to individual feedback provision by way of SoundNote recording on iPad; it is equally a problem with a face-to-face individual feedback experience.

Time to send: After the time to make the recording, each separate file (with the student number as title for identification purposes) was emailed to the student. This required:

- Looking up the student’s email address on the University student information management system
- Typing it into SoundNote’s “Send by Email” screen
- Waiting for the file to upload/send, which took the longest

On average for each student the recording of the audio and the administrative time spent on sending it totalled approximately 10 minutes. On a cohort of 250 students, this activity of provision of individual e-feedback would take an entire week of the tutor’s time. This finding is in line with that of Bond (2009) who states that while recording the audio feedback may be easy, the whole process of feedback provision could be onerous. It also supports the findings of the JISC “Sounds Good” project (Rotherham, 2009) which concluded that audio feedback could be efficient provided four conditions are met, one of which is the availability of a quick and easy distribution method from educator to learner. This was not the case here.

Although there may be arguments as to why a week of recording and distributing feedback might be time well spent in reaching out to individual students and providing a very personal developmental feedback, it was deemed an inefficient use of time given other demands on the tutor time. This is why the experiment was abandoned after individual audio feedback was sent to 13 out of 250 students and afterwards only generic feedback was recorded and provided to the rest of the students in the cohort.

Alternative Solution

E-feedback in respect of common errors can be provided where oral explanations are recorded to accompany written notes. The audio .m4a file can be emailed to the whole class or the file uploaded from [Dropbox](#) to the class VLE space. This would be

a more efficient use of time and achieve the same outcome. The only thing compromised would be the tailoring and personalisation of the feedback as there will always be a trade-off between that and efficiency.

An alternative would be to pre-record audio feedback in respect of each type of common error that students tend to make and to email individual students what looks like a personalised message which links to the pre-recorded feedback only for the errors that particular student made.

Example email

Hi Sarah, Good effort in the mock test! These are explanations of the top 3 mistakes you made and what you could do to improve:

Link 1 xxxxxxxxxxxx (link to audio commentary re error X)

Link 2 xxxxxxxxxxxx (link to audio commentary re error Y)

Link 3 xxxxxxxxxxxx (link to audio commentary re error Z)

This will again be time consuming but could be delegated to administrative support staff if their workload allows.

This approach is similar to a practice I had already adopted in respect of personalised written feedback where a grid of common errors is prepared and then sections copied/pasted into individual emails or the VLE grade book for individual students.

Conclusions

It was exciting to experiment with new technology, in this case an iPad and one particular iPad application: SoundNote. The time required to produce individual tailored audio efeedback is prohibitive on large size cohorts, but the technology could be used for delivering e-feedback on common errors for the whole cohort.

Where audio and visual (written) output is required to demonstrate a technique, for example in the Introductory Financial Accounting course, neither the keyboard nor freehand writing capabilities of the iPad are ideal for delivering a professionally looking output. It is anticipated that the use of a LiveScribe Pen would achieve a much better (audio + visual) result and that would be the subject of the next experiment with technology on this course.

iPad and SoundNote could, however, be very effective tools for recording and delivering audio feedback, briefings, debriefs, or messages to whole cohorts of students. The ease of recording audio and the high quality of recording output makes it a recommended option.

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