21st Century Tools for 21st Century Learners

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Abstract

This poster considers the use of 21st century tools, and in particular the use of a mobile device that allows a lecturer more time to engage in activities with their learners. This has the advantage of reducing housekeeping activities such as taking attendance, scheduling, emailing, content creation and lesson planning.

Keywords

Mobile device, IPad, IPhone, IPod Touch, AppleTV, Airplay

Introduction

Having come from IT Management background, lecturing was a new career path I needed to familiarise with quickly. In past employments I spent time to learn the processes being used and looked for efficiency gains that would benefit the business and myself. I decided to take the same approach to lecturing.

Often when a lecturer enters class they can spend anywhere from 5 to 10 minutes booting up the class computer. The lecturer may use the computer for presenting PowerPoint's, navigating to technical website, Youtube videos and/or taking attendance either with an excel spread sheet or some other program or some other form of attendance taking.

I wanted to explore ways to make use of current technologies to improve my lecturing process while exploring other avenues to incorporate this technology into the class room.

Methodology

The methodology focuses on computing and IT education and how we can better improve our processes. In essence a Business Process Reengineering (BPR) methodology was used to better align how I managed, delivered and created content for my lectures.

Then the assessment of hardware and software was evaluated for suitability for use in a lecturing environment.

Finally, I went through the process to procure the required hardware and software.

Structure

The activities that were carried out included:

- Attendance
- Calendar Scheduling
- Emailing
- Content Creation
- Lesson Planning

Results (or Findings)

I have been using the IPad for the last 10 months in class with the following assessment; initial attendance taking was time consuming until the introduction of the IPad and the use of the application Attaché. Attaché can be used for a number of solutions; Attendance, Scheduling of activities, storage location for class resources. For example, PowerPoint or Excel or Word files to name a few. Photos of students can be attached to each student within Attaché to help speed the attendance taking. Assessment marks and notes can be stored for each student, with all data exportable into a usable 'CSV' file.

Attaché was used for the management of lectures and practical sessions.

Keynote was a very useful product to create visual content for lecturers.

Numbers was used to create lesson plans for the semester.

Pages was used to create exercises for practical sessions.

Mail was used to contact students.

Safari was used to research products and topics.

The use of these technologies has help improve my working environment and has ensured that the resources I require are readily available.

Conclusion

Mobile technology such as the IPad provides a robust solution for lecturers and learners. With further development and research, the incorporation of AppleTV and Airplay could be used to project PowerPoint or Keynote slide or navigate to key web sites. Activities could be created for lectures allowing students to further engage and participate in class activities, provided student have access to IPad's, IPhones or IPod touches. (Maybe the cost of one of these technologies could be incorporated into enrollment fees).