2011-12 Duke iPad Course Investigations

During the 2011–12 academic year, participating Duke faculty investigated how the use of iPads impacts students' educational experience in the following ways:

• By allowing students to access online interactive materials, etextbooks, iPad applications such as Inkling or Kno, or other new media sources in place of traditional textbooks, coursepacks, and other printed materials.

• By using the iPad2 camera to highlight ways in which the use of camera-equipped iPads can support course use of traditional types of media equipment such as web cameras, video cameras or still cameras. Examples include videoconferencing applications and student-created multimedia.

Proposed Uses

Courses that were supported by CIT typically used iPads in multiple ways rather than a single use. Areas that faculty and students explored with iPads are listed below:

Honors Chemistry - Steven Craig
This course abandoned the traditional "textbook/lecture" classroom format in favor of team-based learning and open educational materials accessed via the iPad.

Contemporary Turkish Composition - Erdag Goknar
Students used iPad apps and multimedia capabilities to record, observe, and work with dialogue and visual expression to help think of language in cultural contexts as dramatic performance.

Clinical Anesthesia Practicum (School of Nursing) - Sharon Hawks
Nurse Anesthesia students used e-textbooks delivered via the Kno iPad app. They also explored using iPad apps and information access in the clinical setting.

Marine Megafauna - David Johnston
Dr. Johnston's custom-designed iPad app, Cachalot, was used by students to access all course materials. They also used several mapping applications like ArcGIS and Google Earth.

Marketing Management - Cheryl Lin
The course textbook was made available to students using the Coursesmart iPad app. They also accessed a number of course materials online that were, in the past, distributed on paper.

CIT-Supported iPad Courses 2011-2012

Fall 2011

Course No.	Course Title	Instructor	No.of iPads
Chemistry 43	Honors Chemistry	Steven Craig	30
Markets and Management 161	Marketing Management	Cheryl Lin	13
Documentary Studies 211S	Documentary Writing	Duncan Murrell	11
French 101	Advanced Grammar/Writing Workshop	Deb Reisinger	25
Nursing N442	Sexual and Reproductive Health	Kathy Trotter	8
French 119	Reading for Pleasure	Clare Tufts	20

Spring 2012

Course No.	Course Title	Instructor	No. of iPads
Turkish 102S	Contemporary Turkish Compositions/Readings	Erdag Goknar	3
Nursing 529	Clinical Anesthesia Practicum	Sharon Hawks	28
Biology 127	Marine Megafauna	David Johnston	60
Theater Studies 185A	Theater Studies Production	Jules Odendahl-James	16

Theater Studies Production - Jules Odendahl-James
Students used the devices to capture and organize entries for a production blog as they produced the musical "Ragtime."

Documentary Writing - Duncan Murrell
iPads were used as the primary course tool. Students used the devices to consume information from the web, course readings, marked-up assignments, etc. They also used the devices to create both traditional text-based and multimedia-enriched assignments.

French Grammar/Writing - Deb Reisinger
Students used the devices for writing and submiting assignments, and the instructor used hers for providing feedback to students using applications like Noterize. Students could also purchase an electronic version of the class textbook.

Major Findings

1. iPads as e-textbook readers

Most students find the iPad to be a supplement to, rather than a replacement for, their course textbook. Students like the fact that the iPad offers them the ability to "carry" multiple textbooks inside one relatively light device. Many mentioned that they didn't feel that the annotation tools provided by e-textbook publishers matched the act of writing in the margins of a physical textbook. Also, some students expressed that they were confused by the process of having to obtain e-textbooks from multiple publishers using different apps.

2. iPads as devices for accessing content

The number of applications being developed for the iPad continues to grow, and faculty are increasingly able to find useful specialized applications that they can incorporate into their course curricula. We have found that this is typically a more successful approach than attempting to adapt iPad apps that weren't necessarily designed for a particular activity.

> **Teaching Turkish using iPads**
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> **Erdağ Göknar** in Turkish Studies used iPads to teach the Turkish language in a number of ways, including using the iKaragöz and Karagöz & Hacivat Turkish Shadow Play apps to use traditional storytelling art to create scenes through character. The goal was to introduce this traditional art form as a means of developing cultural understanding while practicing language in scene/context.
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> More Information: http://bit.ly/KMvWnj
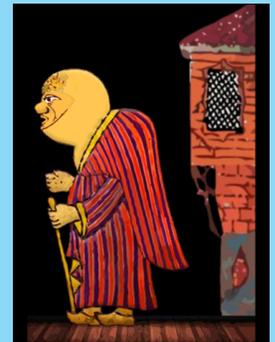
This year, CIT's program did not include funding for iPad apps; most projects used free apps or other types of content typically purchased by students. Some faculty did identify apps that they wanted students to purchase. and some students expressed concern about these additional course expenses, despite the fact that these apps were typically inexpensive.

The ability to access the internet quickly and easily on the device is seen as a very positive feature of the iPad, and students use it for this purpose quite frequently. Students found it difficult to navigate some websites that had not been optimized for use on mobile devices, and also to access some course materials that weren't formatted for, or saved in file formats that could be used on, an iPad.

3. iPads as devices for creating content

When entering text on the iPads, many users preferred an external keyboard to the "soft" keyboard that is native to the device. Also, some mentioned that they had difficulty "writing" on the screen (when this was an option) because of the thickness of the line that was drawn. This was true regardless of whether or not they used a stylus.

The cameras on the iPad2 are useful tools for capturing audio and video quickly and easily. Faculty and students whose courses involve creating high quality multimedia projects have found that the resolution of the camera is not sufficient for creating pictures and video that is considered to be "professional quality."

Looking Ahead

During 2012-2013, instructional use of the iPad will be investigated in the following ways:

1. Using iPads to Engage Students In Class
CIT will loan iPads to faculty (and students enrolled in their class) who agree to integrate apps designed specifically for use inside the classroom into their curricula. Faculty whose applications are accepted will be asked to participate in specific project planning and evaluation activities, and to share information about their experience using the iPads with CIT.

Additionally, the Link will offer faculty teaching in classrooms within that space the ability to use an iPad cart for a single class period at a time. CIT will provide assistance with planning and assessment to faculty who wish to take advantage of this cart.

2. e-Textbooks – Producing and Consuming

CIT will loan iPads to faculty who agree to use iBooks Author, or a similar program, to build an e-textbook to use with future classes, or to faculty (and students enrolled in their class) who agree to use e-textbooks to replace traditional course materials. Faculty whose applications are accepted will be asked to participate in specific project planning and evaluation activities, and to share information about their experience using the iPads with CIT.

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