

“...whether we like it or not,

whether we are ready for it or not,

Mobile learning represents the next step in a long tradition of technology-mediated learning.”

Ellen D. Wagner, *Educause Review* vol 40, no. 3 May/June 2005 pp. 40-53

iPads in tertiary education

Starting in:

00:02:12

1

iPads in tertiary education



Peter Mellow
eLearning Advisor, Curtin University

www.petermellow.com

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eLearning Advisor, Curtin University

Senior Lecturer AUT - 1997 - 2011

Teaching at AUT for 25 years - MEdL, postgrad cert eLearning, Grad Dip Teaching (Tertiary)

2007- National tertiary teaching awards for sustained excellence (NZ)

2007- Apple Distinguished Educator (ADE) award

2006 - “recognised leader in Mobile Learning in New Zealand” eFest

2004 - Named in the first group of Flexible Learning Leaders in NZ

2001 - Distinguished teaching award AUT



Landmark projects:

- NZ Sign Language CD - NZSL 1
- 'Whakahihiho te Hinengaro' CD and website
- Produced 50 CDs and 3 DVDs for AUT
- Set up StudyTXT mLearning service

AUT Student

Satisfaction Survey:

- 2003-Anatomy paper ranked 3rd
- 2002-Anatomy paper ranked 2nd



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Learning Interchange

Content Conversations Groups People Search

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Password: [password]
Login

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Create an account >

Site News

New Tools in the Interchange

New Profiles and Discussion Forums

Celebrate Poetry With U.S. Post Laureate Don Hall

Home > Member Submissions > Higher Education > Teaching, Learning, & Research

mLearning and the Three Ps: iPods, PDAs and (mobile) Phones

Introduction

PETER MALLOW
Auckland University of Technology

Learn More

Learning with mobile devices (mLearning) is now recognized as a subset of eLearning and provides another flexible delivery option for our students. In an effort to take the first step in establishing an mLearning base, Auckland University of Technology (AUT) developed StudyTXT. It is an innovative use of an existing technology.

StudyTXT is a mobile phone based short message service (SMS) using a 'pull' system. Students order text messages from a central database and receive them on their mobile phones to store, review and swap. To our knowledge, it is the first use of 'pull' SMS for education in the world. SMS in education to date has focused on 'push' modes where lecturers send out group messages relating to study and the pastoral care of their students. This is an effective tool, however the institution incurs costs.

A 'pull' system, where the student decides on what they download, uses the same model as ordering a ring tone or screen wallpaper for their mobile. Students are familiar with these services. The StudyTXT system is currently offered free to other interested institutions, thus decreasing barriers to its uptake, although it has to be stressed that it is a user-driven system, and does impose a cost on their students. Currently eight tertiary institutions are using StudyTXT in New Zealand and a secondary school trial is now underway.

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4. Reflections and Feedback
5. Research References

Printable Version

Author

Peter Mallow
Auckland University of Technology

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4.4 of 5, 7 ratings

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Charles Hagen's favorites
David Breen's favorites
Cyprien Lemaire's favorites

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Challenger
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Courses Short Courses Site

SEARCH

Login

- Moodle
- Blackboard (CEB)
- ChallengerLive (coming soon)
- Student Portal

Help

- Terms of Use
- Trouble Logging In?
- Wireless Access

Recognition of Prior Learning (RPL)

The skills you have may count towards the qualification you need

Services

- Bookshop
- Career Development
- International Students
- Library
- Student Services
- Study Help

ABOUT US

- Organisational Structure
- Mission & Culture
- Governing Council
- Publications
- Library Resources
- Employment Opportunities
- Challenger News

COURSES

- Full Time
- Short Courses
- Apprenticeships & Traineeships
- Cadetships
- Calendar & Important Dates
- Fees & Charges

STUDENTS

- New Students
- International Students
- Student Services
- Enrol Here
- Frequently Asked Questions
- Customer Comment Form

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Our Students?

☒ Please tell me about YOUR students...

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“The goal is an organisation that is constantly making its future rather than defending its past.”

Hamel & Valikangas, 2003

In a turbulent age, the only dependable advantage is a superior capacity for reinventing your business model before circumstances force you to. Achieving such strategic resilience isn't easy. Four tough challenges stand in the way.

The Quest for Resilience

by Gary Hamel and Liisa Valikangas

Call it the resilience gap. The world is becoming turbulent faster than organizations are for coping with it. The evidence is all around us. Companies are failing more frequently. Of the 10 largest U.S. corporations in the past year, 10 have failed in the last 10 years. Corporate earnings are more erratic. Over the past five decades, shareholder value (as measured by the average growth rate of S&P 500 companies) has increased by nearly 10%—but corporate earnings have declined by nearly 10%.

In the turbulent times, established companies could rely on the flywheel of momentum to sustain their success. But IBM and American Airlines, were threatened from competition by superior innovation and disruptive practices. Others, like General Motors and Coca-Cola, missed a critically subtle product paradigm—the move from a century-old car to a new car. And a century-old car to a new car. And a century-old car to a new car.

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Students



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Australasian Journal of Educational Technology
2007, 23(2), 171-186.

[AJET 23](#)

Australian undergraduates' use and ownership of emerging technologies: Implications and opportunities for creating engaging learning experiences for the Net Generation

Beverley Oliver and Veronica Goerke
[Curtin University of Technology](#)

Studies and commentary from the United States suggest that current undergraduates, part of the so called Net Generation, are high end users of emerging technologies such as mobile devices and new communication tools. This paper reports results from an Australian study of first year undergraduates which confirms these assertions: ownership of laptops, mobile phones and music devices appears to be growing rapidly among this group, along with their use of tools such as instant messaging, blogs and podcasts. Discussion of these results include suggestions as to how teachers of first year undergraduates can incorporate these tools and devices into extramural learning experiences in order to increase engagement and exploit the Net Generation's desire for 'connectedness'.

Introduction

Undergraduates' "digital backpacks" are likely to hold all manner of convergent mobile devices and tools (Millea, Green, & Putland, 2005) designed to keep the multi-tasking Net Generation connected and 'always on' (Oblinger & Oblinger, 2005). The contents of these students' "digital backpacks" are interesting not just in themselves, but because of what they indicate about their owners' electronic habitats and the activities they find potentially engaging. Oblinger and Oblinger, drawing on studies in the United States, claim that today's Net Generation (born between 1982 and 1991, making them currently between about 14 and 23 years of age) began using computers between the ages of 5 and 8; in their teenage years, they used the Web extensively for school research (Oblinger & Oblinger, 2005). Convenience, connection and control are claimed to be the factors driving the Net Generation's take-up

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Table 5: Number and percentage of students who reported owning devices

	Year	n	No	Yes	Not sure
Laptop	2005	412	51.9%	47.6%	0.5%
	2007	290	50.0%	48.6%	1.4%
Handheld computer	2005	409	91.0%	8.1%	1.0%
	2007	288	93.1%	5.6%	1.4%
Mobile phone	2005	412	2.2%	97.6%	0.2%
	2007	289	3.1%	96.2%	0.7%
iPod or MP3	2005	409	59.2%	40.6%	0.2 %
	2007	288	28.5%	70.1%	1.4%

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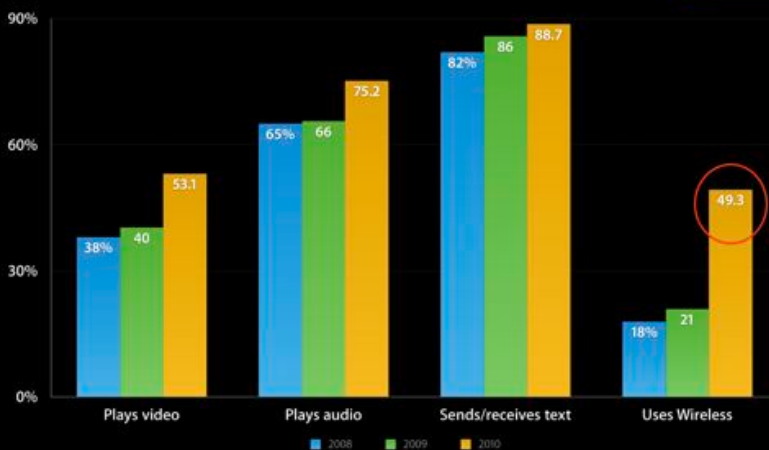


Stephen Atherton

National Development Executive
(Higher Education) at Apple Australia

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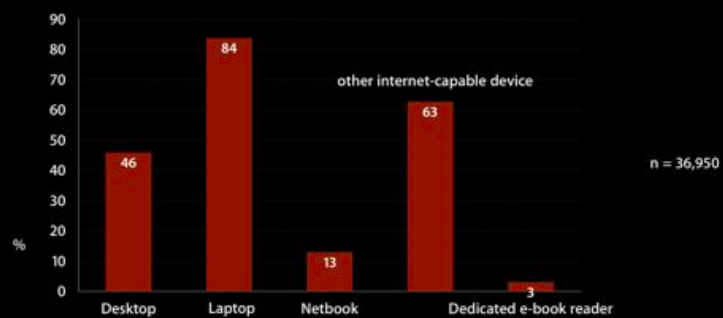
Apart from a laptop, do you have a portable device that ...?



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ECAR 2010 Study

EDUCAUSE | CENTER FOR APPLIED RESEARCH



ECAR Research Study 6, 2010 Students and Information Technology

ECAR Research Study 6, 2010 Students and Information Technology

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Students



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Teachers



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Digital Literacy



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Technology Support

“Current generation of students expects seamless technology use.”

Brown, Oblinger. (2005)

“Many teachers steer clear of engaging with technology - they leave it to the technologists and get on with the business of teaching. This is no longer an acceptable position, however.

Teachers must reach a point where they are exploiting the full benefits of technology to support their learners.

They need to combine subject expertise with deep knowledge of the technology to become **educational technologists** or **technological educators**.”

Good, M. On the way to online pedagogy. (2001)

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- **Massey (2000) and Blandin (1997) see four levels of skill:**
- **Level 1:** Competent in a few tools that are used in everyday working, for example word processing.
- **Level 2:** Competent in a wider range of everyday tools to a higher level - able to use advanced word processing features to enhance productivity; able to log on to and use a conference area; still a victim of many of the problems that will happen and dependent on others to solve them.
- **Level 3:** Autonomous explorer - engaged with technology and able to solve own problems and look out for new opportunities as things change and develop.
- **Level 4:** Expert.
- “Many teachers are at levels 1 and 2. They all need to be at level 3 and far more need to combine subject expertise with deep knowledge of the technology to become **educational technologists** or **technological educators**.”
- **Good, M. (2001). On the way to online pedagogy.**

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1903



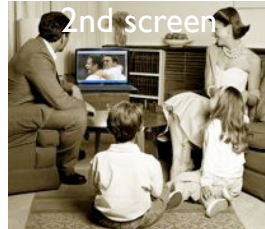
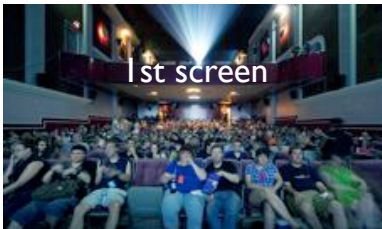
2008



“The teaching of typing was hindered by the lack of typewriters” George George, Director of Auckland Technical School 1902-1922

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The 4th screen



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[Karen Cator, US Dept of Education, LWF Talk, London, 2011](#) | [Main](#) | [JISC Online Conference](#)

iPad - a game changer for learning?

Tuesday, November 23, 2010 at 11:26AM

Article first published May 11th 2010 [here](#) if then recently updated.

The Apple iPad ushers in a new era of computing that leaves the world of offices behind, a profound paradigm shift that is difficult to appreciate until one has had the opportunity to live, play, work and learn with one. Graham Brown-Martin, founder of Learning Without Frontiers, explains why he thinks this is the most exciting development since the original Mac and why the education sector should take note.

I've been enjoying the benefits of an Apple iPad since early April and whilst Steve Jobs made it clear when launched that it was not intended to be a replacement for a laptop I wondered how close it could get. Could I dump the day to day laptop and just use this wafer thin marvel? After all, over the past years I have developed the knack of being able to run a lot of my day to day concerns via my iPhone whilst on the move rather than carrying a laptop in a saddle bag.

Of course, life wasn't always like this.

I used to pack a MacBook Pro 17" that frankly weighed a ton and was embarrassing to use in a train or plane let alone the underground or on a 453 from New Cross Gate into town. Of course, it

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Tim Cook, CEO Apple Inc @ Apple Special Event 4th Oct 2011

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Bloom's Taxonomy for iPads

Creating	Audoboo	iMovie	ComicBook!	ReelDirector	SonicPics	Animoto	Puppet Pals	Toontastic	Doink
Evaluating	HootSuite	Skype	Mobile RSS	Science 360	Zite	FlipBoard	Instapaper	Goodreads	Wunderlist
Analyzing	iThoughts HD	Lino	Popplet	Today's Documents	Diigo	Explain Everything	3D Cell Simulation	GoSky Watch	GoDocs
Applying	ShowMe	Poetry Creator	Keynote	Visualize	Posterous	ZigZag Board	Presentation Link	Xperica	GearHD
Understanding	ScreenChomp	Motion Match	123 Charts	Idea Sketch	Corkulous	Bloggy	Good Reader	Touch Draw	Pages
Remembering	iBook	Noteshell	Stack the Countries	Evernote Peek	NesApp 4Kids	Ansel & Clair's Adventure	Word Seek HD	eClicker	Globe

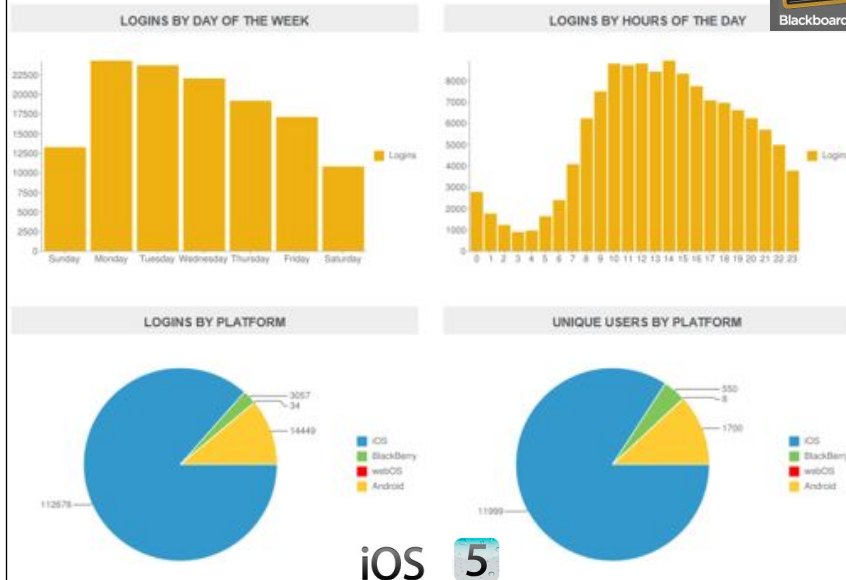
Silvia Rosenthal-Tolano - GloballyConnectedLearning.com - adapted from Kathy Schrock's Blooming iPad

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11295 UNIQUE VISITORS



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Podcasting



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AUT Podcasting



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App Store

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iTunes U Higher Ed

Live Sites

Institution	Public	Private	Both
Australian National University			
Curtin University of Technology			
Deakin University			
Endeavour College of Natural Health			
Griffith University			
La Trobe University			
RMIT			
Southern Institute of Technology			
Southern Cross University			
Swinburne University			
The University of Melbourne			
The University of Queensland			
The University of Western Australia			
University of New South Wales			
University of Otago			
University of Sydney - Medicine			
University of Waikato			
Victoria University			
TOTAL = 18	13	2	3

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Southern Institute of Technology > Language > Intensive English - Video (iPod)

Intensive English

Last Modified: 14 Apr 2010
Tracks in Video (iPod): 12

DESCRIPTION
This series, which is abundantly illustrated throughout with clips, takes you from an elementary level right through to advanced English language.

TELL A FRIEND

PROGRAMME LINKS
View English Programmes at SIT

BIT ON DEMAND LINKS
View this Series on BIT on Demand
About BIT TV Production Unit
Visit BIT on Demand

GENERAL LINKS
How do I Enrol?
About Zero Fees Scheme
Visit SIT Homepage

200,000 Downloads a week

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iTunes

Bed of Nails - part 2
Odds and Sods from the School of Physics

Pauline Turnbull's Library

PLAYLISTS

- iTunes DE
- Centre
- ACTV
- ABC on iTunes
- Chapman University
- Griffith University
- RMIT
- National Science Digital Library
- Open University
- Oxford University
- Swinburne University of Tech...
- UCL - London's Global Univer...
- University of Otago
- University of Sydney, Faculty ...
- UNSW

Odds & Sods from Physics

UNSW

Bed of Nails - part 2
<http://www.physclips.unsw.edu.au>

2 items, 41 seconds, 3.8 MB

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App Store

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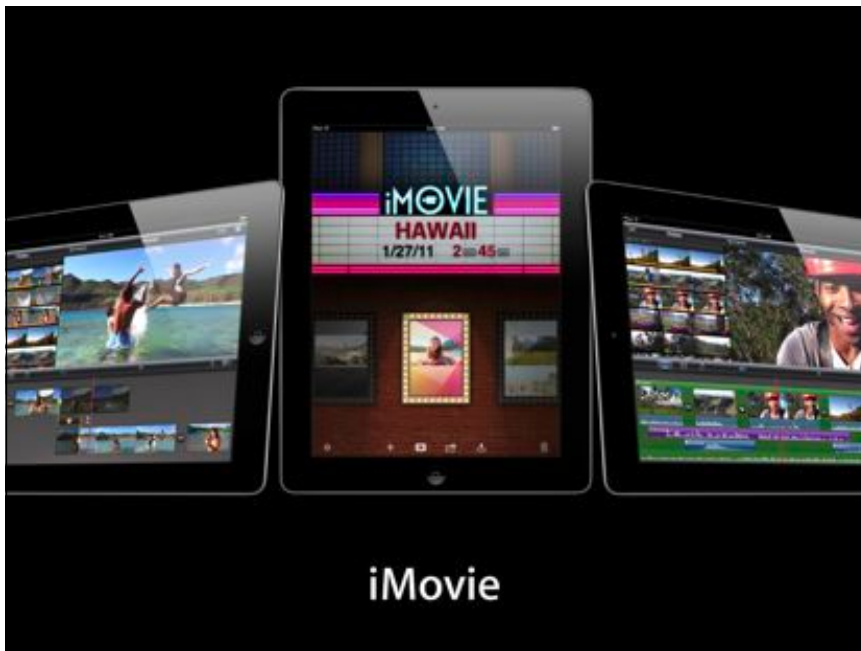


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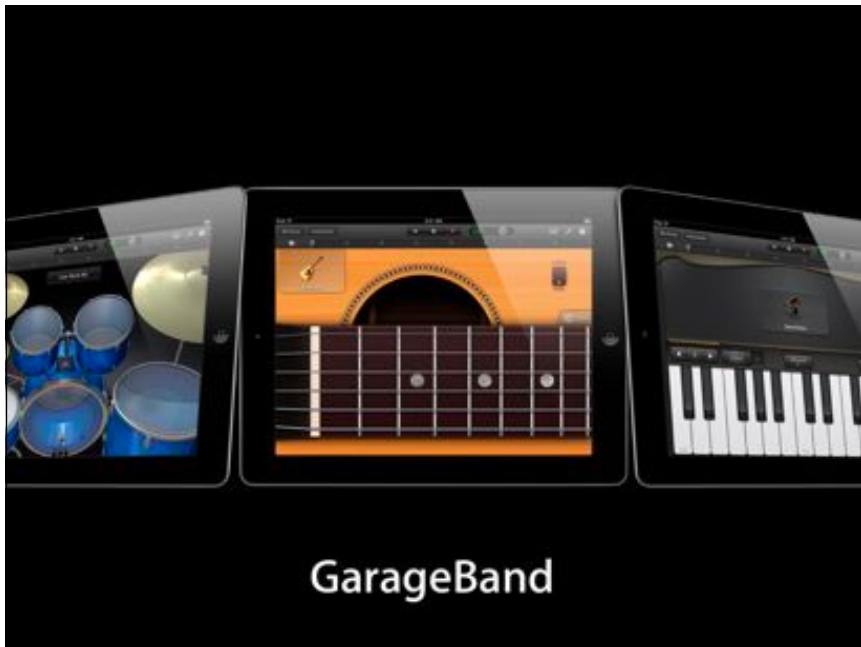


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[illegible][illegible][illegible]



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Administrative tasks

Waikato University, Education Faculty



"Student assessment whilst on practicum: move from paper based carbonless forms entered into database to "Air Forms" which can also be used as a field research tool with "Survey Monkey" and "Lime Survey"



Steve Leichtweis. "Making a traditional university website mobile-ready: 15 months after go-live" mLibraries Conference, Brisbane, May, 2011

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Multi-media

Many lecturers wish to use a variety of media types in their teaching

Infrastructure

Hardware

Software

Bandwidth/storage

Skills/Abilities/PD


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U.S. DEPARTMENT OF EDUCATION



Evaluation of Evidence-Based Practices in Online Learning
A Meta-Analysis and Review of Online Learning Studies

“The meta-analysis found that, on average, students in online learning conditions performed better than those receiving face-to-face instruction.”

May 09




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PLE - Personal Learning Environments



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THE UNIVERSITY OF MELBOURNE

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[Learning](#) > [Foundation Studies](#) > [Academic Program](#) > [iPad Step Forward Program](#)

IPAD STEP FORWARD PROGRAM

In 2010, Trinity College Foundation Studies (TCFS) was one of the first education institutions in the world to conduct a formal trial of iPads as a teaching and learning device in the classroom and as a mobile tool for students and staff.



The trial involved all students and teachers in one of our intakes and they overwhelmingly recommended the use of iPads to other TCFS teachers and students. Staff found that students were highly engaged and enthusiastic and were developing certain skills at a faster rate than expected. Through the trial, a range of educational advantages were identified, including:

- active learning
- individualising content for students
- real time access to information

OVERVIEW →

RESIDENTIAL COLLEGE →

FOUNDATION STUDIES ↓

Academic Program

- Why Choose Trinity College?
- **iPad Step Forward Program**
- Course Information
- Who Can Apply?
- Intake Information
- Dates & Fees

Academic and Personal Support

Apply & Enrol

Accepting Your Offer & Orientation Information

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REPORT ON THE STEP FORWARD IPAD PILOT PROJECT

14 JANUARY 2011

Oliver Jennings, Trent Anderson, Mark Dorset and Jennifer Mitchell

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ACU iPad vs. iPhone research finds Statistics students' use-patterns differ due to form factor

http://www.acu.edu/news/2011/11/13/22-IpadPhone.html



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Abilene Christian University > ACU News > Recent News > ACU announces iPad vs. iPhone research findings

ACU iPad vs. iPhone research finds Statistics students' use-patterns differ due to form factor

Posted February 22, 2011

Last semester, ACU and Dallas Learn On, an Austin-based educational software company,

Preliminary findings showed that 60 percent of students reported that for studying and test preparation, they preferred the iPad version because of the larger screen size; however, students reported having the iPhone/iPod Touch version was equally important because the device is always with them

iPhone/iPad Touches and iPads

Preliminary findings showed that 60 percent of students reported that for studying and test preparation, they preferred the iPad version because of the larger screen size; however, students reported that having the iPhone/iPod Touch version was equally important because the device is always with them.

"The Statistics 1 app was useful on both devices, but I bring my phone with me everywhere I go, so it was a lot more practical to use the app on my iPhone," said one student. Another student relayed that, although the size of the iPad allowed for easier navigation, the iPhone app had for more useful "Statistics 1 on-the-move screenshots and slides with me."

In a questionnaire given to the class at the end of the semester, 60 percent of students involved in the study reported that using the "Statistics 1" textbook app helped their study sessions. The specific parts of the app that were reported to be most helpful included the examples in the lessons, access to feedback, definitions, glossary, and the Statistical Distribution calculator.

"We're witnessing an educational revolution, one defined by students harnessing the power of smartphones and mobile devices to drive their own learning," stated Priya Mahajan, CEO, DFL's Chief Research Officer. "Our findings confirm our hypothesis that use patterns differ based on the form factor of the device."

Connect Online

Facebook Twitter LinkedIn YouTube

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NOTRE DAME


"First, our findings suggest the greatest value of the iPad may not be its ability to function as an eBook reader."

Takeaways:

- 1) Expectations were high due to the incredible hype surrounding the release of the iPad, but performance appeared to live up to the hype.
- 2) Usefulness (PE) was very consistent throughout the entire study and it did not "wear off" even after the iPads were returned, suggesting this was not a transient effect that went away when the students were back to the "traditional" way of working.
- 3)
- 4) helps students more effectively manage their time."


Angst, C. and E. Malinowski (2010). "Findings from eReader Project, Phase 1: Use of iPads in MGT40700, Project Management," University of Notre Dame Working Paper Series, Mendoza College of Business, University of Notre Dame, http://www.nd.edu/~cangst/NotreDame_iPad_Report_01-06-11.pdf, pp. 1-17.

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Pros



Legibility - Participants were enthusiastic about the size, contrast, and resolution of the iPad's LCD screen.

Touch screen - The quick response time of the touch screen was highly praised


Form factor - The iPad's size and weight made it very portable; students reported that they took their iPads virtually everywhere they went, both on and off campus, and found them easy to use in a variety of settings.

Durability - No iPads suffered any significant damage in the study; most students found the devices to be very durable.

Paper savings - Students found that using the iPad allowed them to avoid printing thousands of pages during the semester;

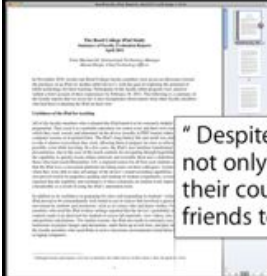
Single-function benefit - The iPad differs significantly from the Kindle DX in that it is designed (and effective) for a variety of functions, including web browsing, email, video playback, and (limited) content creation, while the Kindle DX is primarily an eReader."

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NOTRE DAME

Cons



PDF distribution and syncing - The study participants found that loading PDFs onto the iPad, and subsequently transferring annotated versions of the PDFs to a computer, was somewhat challenging.

"Despite these drawbacks, students in our study reported not only that they hoped to continue using the iPad in their coursework but that they would encourage their friends to adopt the iPad for academic purposes as well."

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John Dewey

