

The ECU Advantage

Ubiquitous and collaborative computing
enhancing teaching, learning and research

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Agenda

- About Edith Cowan University
- The profile of our students
- Potential and implemented solutions
- Pains
- Outcome

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About Edith Cowan University

- Origins go back to 1902 when it began as a teaching college.
- Has three metropolitan campuses in Perth and a regional campus in Bunbury, a city 200kms south of Perth.
- Has more than 300 courses are offered through five faculties.
- Western Australia's second largest university with approximately 2,500 staff and 22,500 students.
- International enrolments exceed 3,000; students originate from over 80 countries.
- ECU is a market leader in education to the service professions.

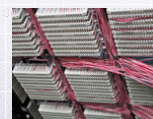


Profile: Our students

- A new generation of students – a group called the 'Millennials' or the 'Net Generation'
- Gravitate towards group activity
- Grew up with the Internet
- Believe "it's cool to be smart"
- Are fascinated by and embrace new technologies
- Were planned instead of just happening
- Fast food – fast everything – low tolerance for waiting

The 'Net-Geners' or 'Millennials' exhibit different characteristics than siblings who may be just a few years older.

Born after 1983.





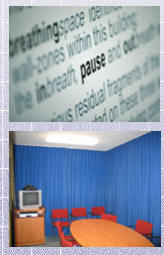
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Profile: The ECU Response

- ECU aims to be the leading technologically focussed University in the South-East Asian region.
- ECU Advantage – ubiquitous (mobile) and collaborative computing technologies for all students.
- **Problem:** How to –
 - Efficiently and effectively connect potentially 22,500 user devices (and more!) to our core network.
 - Increase collaboration using the many new communications devices in the market.
 - Improve the use of technology in the delivery of courses.

When asked what they would do differently all 'Laptop Universities' in the USA had the same response:
Install wireless.



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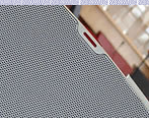
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Solutions

- Solution 1: **Laptops for students.**
- Solution 2: **Wireless network.**
- Solution 3: **Enhance teaching programmes to use the technology – 3 trial courses.**
- Solution 4: **Collaborative Communications**
 - Fully integrated – everything connected
 - Video and voice services: SIP, H.323 – Radvision equipment, Jasomi device (to allow connection from outside of the University), Asterisk server (PABX Integration)
 - Instant Messaging – Windows Live Communications Server 2005 (including integration to voice/video services)

Result: All forms of multi-media communication interoperate.


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Pains

- **Cultural**
 - My communication will go out of control
 - People will be less productive
- **Security**
 - File sharing, viruses, mp3's, P2P, etc.
- Technical skills
- "Back-shop" project
- Keeping pilot within scope
- Scalability
- Reliability





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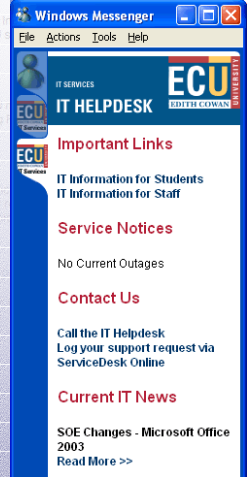
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Outcome: Instant Messaging, Chat, etc.

- **Live Communications Client**
 - Integration with ADS – "one presence"
 - Web conferencing
 - Share text, files, applications, notes, voice, video, whiteboard, etc.
 - New communication channels for students
 - Full integration with other services (PABX, video conferencing, etc.)

ECU were the 3rd company worldwide to install LCS 2005 in production – and the first University.



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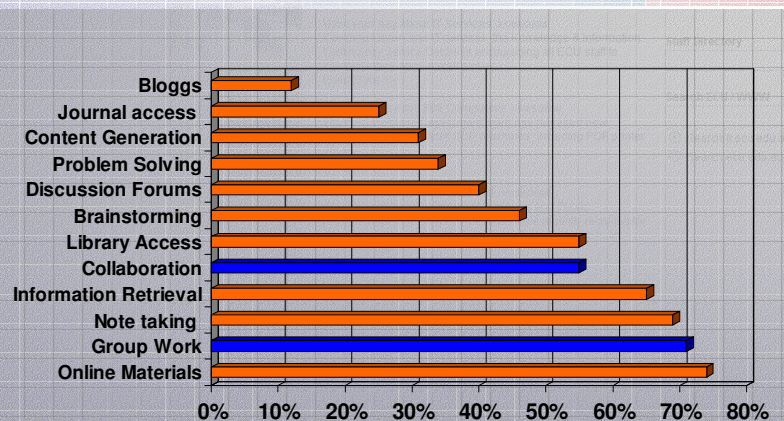
Outcome: Surveys



- 125 students were surveyed.
- How often did they use the laptops and systems?
- What they used them for :
 - Social activities?
 - Academic activities?
- Did they assist with their study?
- Where the programs more interesting?
- Did their workload $\uparrow$ or $\downarrow$?

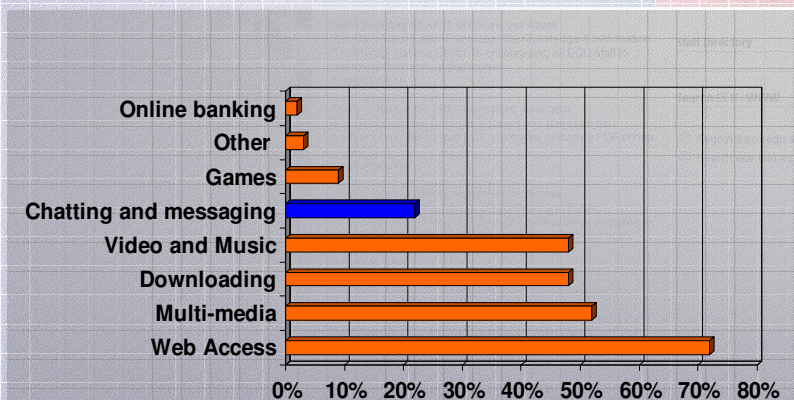


Outcomes: Academic Activities





Outcomes: Social Activities



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Outcomes: Comments

- **97%** said it enabled communication between staff and students
- **59%** said it enabled meaningful communication with other students
- **82%** said it assisted learning in their unit
- **82%** said the learning activities reflected the way knowledge is used in real-life settings



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ECU Advantage: Summary

- **Enhanced student services and learning**
 - Most cost-effective way to connect many people to the network (Swinburne Study www.caudit.edu.au/caudit/awards/)
 - Additional communication access
 - Connect to e-learning course server
 - Carry notes electronically
 - Communicate with teachers and other students via a range of mediums
 - Submit assignments and get instant feedback
 - Use voice over Internet Protocol (VoIP) chat services for library research or group study
 - More interesting/challenging courses
- **Cost benefit**
 - Possible increase in market share
 - Revenue opportunities

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