Equipping Students with Assistive Technology Skills and Knowledge to achieve Tertiary Success

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Griffith University
The Education Revolution…but for who?

‘Higher education is integral to achieving the Government’s vision of a stronger and fairer Australia’ (DEEWR, 2009)

‘All Australians will benefit from widespread equitable access to a diverse tertiary education sector that allows each individual to develop and reach their potential’ (DEEWR, 2009)
Diverse Approaches to meet Individual Needs

Griffith University has a dedicated Disability Support Advisor (INS), who works collaboratively with the Disabilities Service Officer (Assistive Technology), to meet the strategic and operational needs of students with a disability. This is achieved through:

- Multi campus service delivery model
- Assistive Technology Labs with identical software images and supporting hardware
- Comprehensive assessments of individual student needs
History

Over the past 7 years Griffith University has been involved with various Assistive Technology projects:

- 2006, CAUDIT project with Monash University, to ascertain current assistive technology practices in the university sector
- 2006, USB project, to develop JAWS and MAGic on dongles for use in common use student labs – innovative technology (not yet available commercially)
- July 2009, the Disabilities Service funded a 12 months trial position for a dedicated Assistive Technology Support person, based within Information Services
  - The trial was an outstanding success, a permanent position is now being developed
Information Services (via Melissa Wortel) and Academic Administration (via Sharon Garside) work collaboratively together with the following areas, to assist students requiring assistive technology.

- Information Services
  - Learning and Teaching Systems - Melissa Wortel (Disability Support Advisor)
  - Learning and Teaching Systems - Digitisation and Distribution
  - Information and Communication Technology Service - Client Technology Services - Student Computing
  - Information and Communication Technology Service - Collaboration and IT Access - Web and Content Management Systems
Structure – Flow Chart (explanation)

- **Academic Administration**
  - Student Services - Student Equity/Disability Services - Sharon Garside (Disabilities Service Officer)
  - Exams and Timetabling
  - Equity Committee and Disability Advisory Committee

- **Faculties, Schools and Centres**
  - School Convenors/Tutors
Griffith’s Assistive Technology Labs

- Griffith University is comprised of 5 campuses spread from Southbank to the Gold Coast (known as the Brisbane-Gold Coast Corridor)

- There are 7 Assistive Technology (AT) labs over 5 campuses

- All labs have an identical image in terms of hardware and software and cater to wide range of disabilities
What we have now!

- Standard image with three partitions
  (essentially the computer is broken into 3 hard drives)

  » 1\textsuperscript{st} partition: Screen Reader
  
  » 2\textsuperscript{nd} partition: Magnification/Screen Reader

  » 3\textsuperscript{rd} partition: Speech Recognition/Literacy Support
Benefits of a Single Image

- Less computers – one computer can do the work of three
- Less physical space required – allows more room for other assistive hardware (MyReaders, Braille printers, etc)
- Reduced costs in terms of additional computers and software is only purchased for one computer instead of three
- Remote management of all AT pc’s, able to remotely update virus and windows updates from one central location
AT Labs – Assistive Software

The standard image allows the following assistive software to be loaded onto one computer:

» JAWS

» ZoomText

» Read and Write Gold

» WYNN Wizard

» Dragon NaturallySpeaking
AT Labs – Standard Software

The AT image has the following standard software loaded onto each partition of the computer:

» Internet Explorer, Mozilla Firefox, Opera
» Adobe Reader
» Microsoft Office Suite
» OmniPage (Scanner software)
» Student software installed on common use pc’s eg. SPSS
AT Labs – Student Configuration

- All student computers including our AT lab pc’s have the Deep Freeze software installed (software designed to restore the pc to its configured state after a reboot)
  » this ensures all software is operational for all students

- As our assistive software is often required to be configured for each student, we thaw the pc’s for one month at the beginning of each semester to allow students time to make the necessary changes
AT Labs – Standard Hardware

AT labs have the following standard hardware:

» Scanner

» MyReader, Magnification Lamp or CCTV

» Laser printer

» Braille printer (3 in total, Emprint printer easily relocatable)
AT Labs – Keeping up with Technology

- We aim to keep up with software trends in the market:
  - trialling new or different assistive software to ensure we are best meeting the needs of our students
  - fostering relationships with product suppliers
  - trialling new hardware
    - Kindles
    - iPad
    - Smart pens
What we have now!

Information Services and Disabilities Service
Video Clip of AT Image

Access to
JAWS and a
Braille Printer
Partition Breakdown

- **1st Partition – JAWS**
  - Automatically selected
  - At the login screen, JAWS speech is enabled and the student is asked for their username and password
    - After login, JAWS will informs the student that the computer is ready for use

- **2nd Partition – ZoomText/WYNN Wizard**
  - Partition must be selected at the start-up screen
  - At the login screen, students need to enter their username and password
    - After login, ZoomText will automatically load
Video Clip of AT Image (accompanying text continued)

Partition Breakdown

- **3rd Partition – Dragon/WYNN/Read and Write Gold**
  - Partition must be selected at the startup screen
  - At the login screen, students need to enter their username and password
    - After login, no software loads automatically so students can choose the software they require
Griffith’s Common Use/School Labs

- Screen Reader/Magnification Software
  » Jaws11
  » MAGic

- USB Solution
  » students are able to access JAWS or MAGic in any lab via the use of a specially loaded USB key
  » after the USB key is inserted into the pc, the software will automatically load ready for the student’s use
What else do we do…

- Configure laptops for:
  » Examinations – with assistive software and hardware, enabling exams to be held anywhere at any time
  » Students – with individually configured assistive hardware and/or software specifically where their needs exceed the use of the AT lab

Information Services and Disabilities Service
Assessing Individualised Needs?

Marlena is a current Bachelor of Communication student at Griffith University who uses facilitated communication.

To ensure we are providing the best possible support I liaised with Rosemary Crossley (DEAL) to develop a multi-faceted approach which involved:

- **Staff training:**
  - Disabilities Service Staff attending basic Facilitated Communication Training
  - Facilitators attended basic Facilitated Communication Training
  - The primary Facilitator is developing a Validation Portfolio, prior to attending the Advanced Facilitated Communication Training
Assessing Individualised Needs? continued

- **Speech Therapist Assessments:**
  - To independently verify Marlena’s communication and assess her word output rates using the Alphabet Board, and Assistive Devices

- **Occupational Therapist Assessment:**
  - To assess the suitability of assistive hardware and software

- **Modifications to Assignments and Exams:**
  - Assignments with a reduced word count
  - Multiple choice exams that Marlena can independently complete
Assessing Individual Needs continued

Assistive Technology is vital to improving Marlena’s independence. Griffith University is undertaking on-going research and testing of assistive hardware and software.
Assessing Individual Needs  continued

Where did we start?

- 17 inch laptop, with joystick
- Read and Write Gold with word prediction
- DynaVox, personal speech aid

What have we achieved?

- Automated program start up for email, internet, Microsoft Word, on screen keyboard
- Marlena has purchased an iPad which has become a successful aid for independent social communication and email access

Where to from here?

- Communication between chair joystick and laptop
- Switch with Tobii Communicator Software (Viking)
- DynaVox, upgrading to latest model
Questions?

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