Access and Barriers to Online Education for People with Disabilities

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# A Bit of Background

eLearning and higher education

People with disabilities and eLearning

Evolving legal frameworks for accessible eLearning

The current research project

# eLearning and Higher Education

## eLearning

### What is it (don’t worry I’ll be brief)

### Blended and fully online

### Previous resistance from staff and students

### Recent growth and acceptance

## One in three students in the US is taking at least one class online

## Recent growth and developments – MOOCs

### Techno-panic and the end of the university as we know it

## History of the technology with accessibility

# People with Disabilities and eLearning

## Disability and the Internet

### Again I will be brief

## Why eLearning is attractive for people with disabilities

### Disclosure

### Accessibility

### Flexibility

## Some Common Problems

## Accessibility

### Disclosure

### People would often rather maintain their privacy than disclose an impairment to get better access

# Evolving legal frameworks for accessible eLearning

## Not always great

### Often different to other civil rights legislation (see Paul Jaeger)

## But evolving in a positive way

## The Internet is creating a highest common denominator effect

### (well at least with the US)

### Netflix – captions and audio descriptions

## eLearning and Higher Education

### MOOCs

### LMS (Blackboard Nonvisual Accessibility Gold Certification in 2010)

# The Current Research Project

## Students with disabilities and eLearning

### We don’t meet people until they graduate

## Exploring access to eLearning though Open Universities Australia

## OUA

### 15 different Higher education providers

### A wide variety of subjects and approaches to learning and teaching nd eLearning

# Survey

## October 2014

## 356 students (from 1444)

## Demographics

## Disclosure

## Effectiveness of accommodation?

## Accessibility of learning and teaching technology

# Interviews

## 2015

## Lots of survey resonant were willing to be involved in further study

## 143 interviews both through skype and phone, and exchange of emails

## Tried to gather more nuanced information from the survey’s questions

## Added an additional focus to look at accessibility of different approaches to leering and teaching across OUA

# What did we find?

## Total Survey results

## Different impairment types for both Survey and Interviews

### Hearing impairment

### Vision Impairment

### Mental Illness

### Learning disability

### Medical impairment

### Intellectual disability

### Mobility impairment

### Acquired brain injury

# Survey Results

## Demographics

### Age – slightly older (42 vs 36)

### Gender – 71.4% female to 27.5% male (1.1% preferred not to say)

#### 70.4% 29.6% Overall for student registered with disability support

#### Age – slightly older (42 vs 36)

# Previous Education

What is the highest level of school you have completed or the highest degree you have received?

Less than high school degree 0.0% 0 10.8%

High school degree or equivalent 40.0% 2 18.3%

Some college or university but no degree 60.0% 3 52.0%

Associate degree 0.0% 0 3.1%

Bachelor degree 0.0% 0 12.1%

Graduate degree 0.0% 0 3.7%

Other (please specify) 2 69

answered question 5

skipped question 1

# Disability or Impairment Type

Hearing impairment 10.2%

Vision impairment 7.2%

Mental illness 44.9%

Learning disability 8.7%

Medical impairment 39.2%

Intellectual disability 1.8%

Mobility impairment 25.3%

Acquired brain impairment 4.5

# OUA’s stats on impairment types

Hearing impairment 4.8%

Vision impairment 5.3%

Learning disability 7.5%

Medical impairment 37.3%

Mobility impairment 16.9%

Other 54.2

# Length of study

Less than 1 year 34.2%

1 year 14.4%

2 years 18.9%

3 years 17.2%

4 years 7.1%

5 years 2.8%

6 years 1.4%

7 years 1.7%

8 years 0.6%

9 years 1.1%

10 years or more 0.6%

# Field of study

Arts & Humanities 57.4%

Business 13.3%

Education 6.7%

Health 5.5%

IT 6.7%

Law & Justice 11.0%

Science & Engineering 5.5%

Not specified 1.4%

# Accommodation and Disclosure

# Awareness of any accommodation offered

Yes 28.7%

No 43.9%

Unsure 27.3%

# Had received any accommodation?

With all units of study 6.6%

With most units of study 7.5%

With some units of study 16.1%

With no units of study 69.7%

# Was it adequate?

Yes, always 9.7%

Mostly 10.3%

Sometimes 9.2%

Never 0.9%

Have not received any accommodation 69.9%

# Disclosure “Have you informed the institution(s) where you are studying that you have a disability”

Answer options Yes No Percent

yes

Curtin University of Technology 100 53 65.4%

Griffith University 115 47 71.0%

Macquarie University 77 39 66.4%

Monash University 6 15 28.6%

RMIT University 33 25 56.9%

Swinburne University of Technology 56 40 58.3%

University of South Australia 51 37 58.0%

Australian Catholic University 6 7 46.2%

Charles Darwin University 4 11 26.7%

La Trobe University 1 8 11.1%

Learning Network Queensland 3 5 37.5%

Murdoch University 40 25 61.5%

Polytechnic West 1 5 16.7%

The University of New England 3 7 30.0%

The University of Western Australia 4 5 44.4%

Total Response 504 334 60.1%

# Why?

I did not think it would help 51.8%

I did not know I could 13.1%

I did not know how 13.9%

I did not need any accommodation 26.5%

I did not want any accommodation 9.0%

I did not want to disclose my disability/impairment 17.6%

# Access to technology and learning platforms

# How do you access the Internet?

Desktop computer 46.2%

Laptop computer 74.9%

iPad / tablet 27.3%

Smartphone 23.9%

# “Have you had any problems accessing online learning platforms due to your disability/impairment?”

Yes 17.9%

No 82.1%

# “If yes, which platforms have you experienced difficulty with?”

**Not Used ,No problems, Minor problems ,Major problems, Unusable Percent with problems**

Moodle 99 26 13 1 0 35.0%

Blackboard 17 68 51 12 1 48.5%

Facebook 58 63 13 3 1 21.3%

Twitter 92 37 3 1 1 11.9%

Slideshare 116 15 0 2 0 11.8%

Prezi 110 20 2 1 1 16.7%

Lectopia 105 18 7 5 0 40.0%

Echo 360 / Echo Centre 64 39 28 8 1 48.7%

PDFs 22 81 27 6 1 29.6%

Blogger 105 21 6 1 0 25.0%

WordPress 100 27 4 1 0 15.6%

WebCT 118 12 1 2 0 20.0%

YouTube 37 78 14 6 1 21.2%

University websites 14 78 42 17 1 43.5%

# “Would you recommend Open Universities Australia (OUA) as a place to study for people with disabilities?”

Yes 75.9%

No 3.1%

Maybe 21.0%

# Slide 27

##  “Would you will be willing to participate in later stages of this research, including online focus groups or interviews? If so, please leave your email address. Please note this is not part of the survey and further participation is strictly voluntary (you can also change your mind and decide not to participate further at any point).”

## 226 students, or 63.4% of respondents indicated yes

# Interviews

Impairment type Survey

responses

Interview

responses

Total responses 352 143

Mental illness 149 54

Medical impairment 130 64

Mobility impairment 84 43

Hearing impairment 34 8

Learning disability 29 8

Vision impairment 24 16

Acquired brain

impairment

15 5

Intellectual disability 6 3

# Interview responses: accessibility

## How does your disability impact on your daily life

## How does your disability impact on your study?

## In terms of online learning and teaching technology – what works well and what doesn’t?

## In terms of teaching and instruction methods – what works well and what doesn’t?

# Interview responses: disclosure of disability

# Interview responses: future directions

## Have your learning experiences changed your future study choices?

## What are your biggest challenges?

## What would you change to make study easier?

## What other recommendations would you make?

# Impairment types

# Mental Illness

## I don’t really like the language

## Largest Group of students

## This is new – only 15% of students with disability in the US in 2008 reported having a mental illness

## 23.5% also reported Medical Impairment

## Notably lower rate of disclosure – 48% against 60% for total survey

### Did not know how and did not want to disclose notably higher responses as to why

## Less problems with access to technology

# Page 34

## 54 interview respondents

### 27 depression

### 23 Anxiety

### 10 PTSD

### 7 bi-polar

### 5 schizophrenia

### 1 Obsessive compulsive disorder

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## Less impacted by access to technology

## Greater impact of Learning and Teaching design

## Disclosure and stigma

### Problems wish multiple disclosure processes in existing system

# Medical Impairment

## Second largest group at 36.5%

## Complex range of specific impairments and varying conditions

### Multiple sclerosis

### Fibromyalgia

### Chrohn’s Disease

### Chronic Pain

### Chronic Fatigue

## More likely to have received accommodation

## More likely to disclose disability – 77% to 60% overall

## Mixed results on access to technology (some harder some easier)

# Slide 37

## This group was very keen to talk about their varied experiences of eLearning

## Variations (mostly unpredictable) in impact of disability was an important theme

## Lack of understanding of their condition

# Mobility Impairment

## Strong overlap with medical impairment (76.6%)

## High rate of disclosure at 74% (60% overall)

## Mixed responses to access to technology

# Slide 39

## Wide range of specific impairments

## Results of this study broadly in light with previous research into these impairment types

## Again highlight the importance of Learning and Teaching design

# Hearing Impairment

## Significant research has been conducted on this group

## More aware of accommodation offered and more likely to make use of it

## Standard rate of disclosure

## Generally less problems with learning technology

### Recorded lectures presented more of a problem

## Less likely to recomend OUA as a place to study for people with disabilities

# Learning Disability

## This group seems to be under represented in this study based on previous research

## Less likely to receive accommodation and when provided it was generally less effective

## Higher rate of disclosure at 68%

## More likely to have problems access learning technology

## Mainly Dyslexia nominated as specific impairment

# Vision Impairment

## More likely to seek accommodation - although slightly less likely to disclose impairment to institution at 59%

## Not a noticeable level of extra difficulty accessing learning technology

## A very high rate of participation in interviews (two in three survey respondents)

# Acquired Brian Impairment

## Only 15 survey responses and 5 interviews

## Mainly stroke survivors

## High overlap with Medical impairment and mobility impairment

## Notably high use of tablets to access the internet 46.7% to 27.3% overall

# Intellectual Disability

## Very small sample with 6 survey responses and 3 interviews

## All autism spectrum

## Extremely high rate of disclosure

## Issues around communications and interaction very significant for this group in a learning and teaching environment

# Recommendations

## Policy and compliance

## Staff Training

## Unit Design

## Assessment design and implementation

## Future directions

# Policy and compliance

## Information distribution

## Disclosure

## Study period organisation and implementation

## Promoting a disability friendly environment

## Online forums for students with disabilities

# Staff training

## Policies and procedure for working wish students with disabilities

## Appropriate use of learning technology

# Unit Design

## Learning technology

## Multiple access pathways

## Learning and teaching

### Synchronous and asynchronous communications styles

## Trigger warnings

# Assessment Design and Implementation

## Exams

## Essays and assessment pacing

## Group work assignments

## Assessment extension policies

# Future Directions

## Universal design in eLearning

## Staff Voices

# Current further research

## Global study for survey

### Curtin results are already in

# Further reading and resources about this research and that have informed this presentation

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# Questions or Comments?

# Thanks You All Very Much

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