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Online Access Map

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ABSTRACT

The Online Access Map Project was conducted to develop a concise electronic record of the access provisions for people with disabilities across seven campuses of The University of Sydney. The years of construction of the buildings varied from 1889 to 2001. The Project involved three departments of the University - The Disability Services Office, Facilities Management Office, and Information Technology Services. The Project was undertaken in two phases - initially the development of detailed topographical maps, and then the recording of digital photos, building details, pathways, and significant spaces for coded storage in a relational database. The database was then available for staff, students and visitors to visit online, from the starting point of the relevant campus map, then to the salient building, the entry points, and other significant spaces within that building for the user.

The presentation will go step by step through the process of forming the online access database, the symbols that were used for the demographic details, and will also present the final database. The presenters will provide details of how the information was recorded, and also how verbal cues were inserted into the database for the benefit of those viewing it with a vision or print disability.

1. INTRODUCTION

The University of Sydney has campuses spread from the inner city of Sydney to interstate Australia and overseas (including One Tree Island, The Great Barrier Reef and The Artists Studio, Paris). An Access Team, under the guidance of the Barrier Identification and Removal Committee (BIRC), developed the University's Access Master Plan. This plan, completed in 2000, provided scope for the provision of access to buildings and services for people with disabilities at the University of Sydney. The Access Master Plan took into account the access needs of people with physical, vision, and hearing impairment and incorporated works such as ramps, lifts, audio-loops, braille and raised signage, and auditory cues in lifts. The Master Plan documented access issues at the Camperdown, Darlington, Cumberland (Health Sciences), Mallett Street (Nursing), Kirkbride (Sydney College of the Arts), Macquarie Street (Conservatorium), Orange (Rural Management), St James (Law School), and Surry Hills (Dentistry) campuses of the University. Each Faculty and building were reviewed for access points and works to be carried out were identified as short, medium or long term priorities. A three-year Capital Works fund of \$500 000/year was initiated in 2000 to meet the recommendations of the Access Plan.

While providing detailed technical documentation of access issues, the Access Master Plan was not in a format that made lent itself to easy dissemination to staff and students. The staff of the Disability Services Office (DSO) had experienced numerous requests for information regarding access for people with disabilities, from staff, students, and visitors especially for those campuses of the inner city. DSO staff were keen to develop a record linking the information contained in the Access Master Plan with actual details of the access features of the grounds, buildings, and pathways themselves. To provide this over the Web would enable staff, students and visitors to 'virtually' locate buildings, parking spaces and services before entering the university, minimising anxiety and frustration on the day. An essential feature of this interface is the ability to 'see' or 'hear' exactly what the person would experience, through photos and audio recordings of the text information. In this way, people with disabilities can directly relate to where they are going, and recognise access points when actually visiting the campus. It was envisaged that this would also enlighten the wider University community as to the access provisions of the campuses, and would bolster their independence in scheduling lectures in accessible theatres where required.

The initial model for this project was based on web-based access project currently operating at RMIT and the University of Illinios, Chicago.

2. METHODOLOGY

A proposal was developed outlining the Project and was presented to the Disability Consultative Committee.

2.1 Proposed financial costing

In the planning stages it was not possible to reliably estimate the hours that were required to complete phase one. This primarily functioned as a feasibility project to scope the main campus for access provisions. FMO staff estimated that this could cost up to \$20 000, with any remaining monies to roll into Phases 2 and 3. It was proposed that this funding be reserved from 2001 funds and similar accommodations made in 2002 funds to allow for the commencement of Phase 2. DSO staff were currently available with relevant training to commence Phase 1. The proposed level of employment for this project was HEO4 Step 1 to ensure that staff were sufficiently able to work with a minimum of supervision, and a certain degree of expertise in the area. This hourly rate was then \$18.92.

Once funding was approved, a Project Assistant (Higher Education Officer level 4) was employed for 28 hours per week over six months to collect information pertaining to the Project. This took place in two phases:

2.2 Phase 1

Information was gathered initially on the Camperdown and Darlington campuses, and then the other seven campuses, to indicate the 'gross' access points to the University buildings. These access points included:

1. Accessible / automatic doorways
2. Ramps / stairs
3. Lifts

4. Parking (designated 'disability' parking bays)
5. Pedestrian crossings
6. Kerb Cuts
7. Emergency and internal phones
8. Grab rails
9. Suggested paths of travel for people with mobility impairments

The first stage of this phase saw a staff member (Project Assistant) collecting this information over two months. The Project Assistant then relayed information to staff in FMO for uploading into AutoCAD with the building specifications held in that system. This access information was then be available to staff in ITS and FMO to place into online maps, similar to that offered on the University web sites. At this stage DSO staff also began the development of a suitable database in FileMaker Pro.

2.3 Phase 2

The Project Assistant then gathered digital photographs and pertinent information about each access point (described above) as specified by the Model of Accessible Networks scheme employed by FMO in the Disability Access Plan. These photos and information were then loaded into the relational file database (see Equipment). This stage involved four months of photography, data collection, audio recording in addition to database and web page development.

2.4 Equipment

Digital Camera:	Kodak with A/C adapter, 128 Meg card
Computers:	iMac, OS 9
CD Burner:	LaCie (PC and Mac compatible)
Microphone:	Standard supplied with iMac; USB port connection
Software:	FileMaker Pro v5.5 EasyPhoto v1.6

The database was developed in FileMakerPro v5.5 as two file relational database with fields for each of the following parameters:

- Main entry
- Other accessible entrances
- Ramps
- Lifts
- Toilets
- Parking
- Food services
- Significant pathways
- Faculty offices
- Lecture theatres (including T-Loops)

3. RESULTS

The completed database consists of two relational FileMakerPro databases, one containing photographs (xx MB) and the other containing relevant text and audio files (xx MB). For each building, the databases contained a separate record linked by a common building code. All audio and visual files for each building were assigned the same building code and a suffix to differentiate files for easy updating.

Suffixes:

B Building

AE Accessible entrance

NAE Non-accessible entrance

R Ramp

LB Library

FO Faculty office

L Lift

SC Stairclimber

As the Project will not be completed until early August this section remains to be completed.

4. DISCUSSION

The Main File served to store data; the secondary file consisted of container fields with photos only coded according to building code and information conveyed therein (for example, L for lift, E for entry, LT for lecture theatre). This enabled reasonably smooth viewing of information in the Main file with the relevant photos linked by reference code only rather than loading the whole jpeg file. Total database size reached 210Mb.

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5. CONCLUSION

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