

THE UNIVERSITY OF
NEW SOUTH WALES



2007 IT INVESTMENT PLAN
WEB@UNSW
PHASE 1 RECOMMENDATIONS
& PROJECT REPORT

Following acknowledgement of the poor state of the UNSW web environment, funding was approved via the IT Investment Plan for a project to assess the current situation and make recommendations to provide a new dynamic web presence for the University.

This paper sets out the findings of this “scoping” phase of the Web@UNSW project and makes a number of recommendations to be implemented in Phase 2.

“The Web@UNSW” is defined as including all UNSW websites.

UNSW OFFICE OF MEDIA & COMMUNICATIONS

Version: 6.0
Last Updated: 11/01/2008
Status: Final
Authors: Peter Moloney, Brad Hall, Jane Hunter, Judy Brookman
Approved by: Judy Brookman

EXECUTIVE SUMMARY	4
Background.....	4
Phase 1 Project Approach.....	5
Recommendations for Phase 2.....	7
PHASE 1 PROJECT REPORT.....	11
Background.....	11
Usability Evaluation	12
Gateways and the User Experience.....	14
Web 2.0 and the User Centric Web	15
ESTABLISHING THE USER-CENTRIC WEB.....	17
Recommendation 1: Prospective Students Gateway.....	17
Recommendation 2: Governance Framework.....	21
Recommendation 3: Web Unit.....	23
Recommendation 4: Staff Intranet	25
Recommendation 5: Core Content & Authoritative Data	27
Recommendation 6: Web Framework.....	28
Recommendation 7: Search.....	34
Recommendation 8: Branding & Templates Guidelines	36
ATTACHMENT 1: POLICY DEVELOPMENT	37
A. Draft Policy: Category 1 – Core Corporate Content	37
B. Draft Guideline: External and Internal Content.....	39
ATTACHMENT 2: CENTRAL DOMAIN NAME AUDIT	41
ATTACHMENT 3: ACADEMIC WEB TOOLS SURVEY	42
ATTACHMENT 4: CONTENT WORKING PARTIES – GATEWAYS & IDENTIFICATION OF KEY CONTENT.....	45
1. Prospective Student Gateway.....	46
2. Research Gateway	50

3. Alumni Gateway.....	53
ATTACHMENT 5: CONSULTATION APPROACH	55
Web Reference Group Composition.....	55
ATTACHMENT 6: PROJECT COSTS.....	57
REFERENCES	58
Work Commissioned by Web@UNSW Project.....	58
Background References	58

Executive Summary: Web@UNSW Project

“Don’t get run over by the revolution. Stay in front of it.”

Mark Pesce, Web 2.0 strategist and consultant for Web@UNSW

Dr Ross Rudesch Harley, UNSW Faculty of Arts and Social Sciences

Out of the Garden: UNSW and its Web Discontents

The Web@UNSW project is aimed at creating a dynamic and more effectively managed web environment for the University.

The current UNSW web environment is confusing for the user, lacks consistent identity and navigation and has fallen badly behind the websites of competitors, failing to exploit available technology.

Input from a number of the University’s own experts in the area of digital media and IT, as well as input from external consultants, has informed a series of recommendations that point to a broad program of change for the Web@UNSW and current web publishing practices.

These recommendations are based on the notion of a user-centric web environment that establishes clear pathways to information and exploits the latest web technologies. This will radically improve the user experience and allow unprecedented levels of engagement between the University and its external audiences and across the UNSW community. At the same time priority has been given to ensuring the accuracy of core information across corporate, faculty and school sites.

The new Web@UNSW will provide a superior online experience for prospective students and other UNSW visitors and present a vibrant, engaging University that reflects its standing as a leading research and teaching institution.

Background

In March 2007 the Web@UNSW project team initiated Phase 1 of a project aimed at laying the groundwork for a migration to a new, better managed UNSW Web environment.

The project attempts to address a long identified problem. The lack of an enterprise wide vision for the web or any overarching management of the Web@UNSW has led to a confusing web environment, with no clear pathways to key information and lack of consistency in appearance and navigation. It is also static and outdated, with little advantage taken of current web technologies, including the so called Web 2.0 technologies associated with today’s user-centric web (also known as the Read-Write Web or the social web).

The lack of an enterprise-wide staff intranet compounds the problem by adding a plethora of administration sites that clutter search results.

Extensive consultation undertaken across the University as part of the project has confirmed that there is widespread concern about the current web environment and consensus on the need for a radical overhaul.

Usability testing and site feedback also confirm major problems with the existing Web@UNSW, especially for prospective students, with the reproduction of course, fee and scholarship information across sites leaving the visitor frustrated and confused. Serious issues with information organisation, search engines and content ownership have been identified. The lack of interactive functionality offers the visitor few avenues of direct engagement with the University.

Expert consultation has indicated the need for a web presence geared to the user's needs rather than mirroring the University's organisational structure, with clear pathways to key information, and with a move away from static web pages to the read/write interactivity of "Web 2.0".

Phase 1 Project Approach

Consultation

The project team consulted widely across the University. A Web Reference Group comprised of stakeholders from across the campus was established, and feedback sought from a range of groups, including Heads of Schools, Faculty General Managers, and the Uniwide Marketing Group.

Several Working Parties were established to work on the key areas of Marketing and Student Recruitment, Research, Foundation and Alumni, Policy, and Intranet; their findings were reported to the Web Reference Group.

A web presence was set up on MyUNSW to keep staff updated and to facilitate feedback; the Project was also publicised via the staff newsletter news@UNSW.

In addition, the team contracted expertise from within and outside the University in the areas of usability evaluation, project strategy, and current trends in web technologies and practices.

Activities and issues arising

The project team addressed and explored issues identified by the business case, and conducted a number of activities, including:

1. **Domain name audit and classification** – 800 UNSW domain names were found to be centrally hosted by the University, yet no central record of these existed, and no "stocktake" of the sites these domains point to had ever been undertaken. As a result of this audit, 22 sites were taken down as they contained offensive material or were out of

date; the owners of several other sites were requested to update their content; and a list of the audit was provided to ITS for reference.

2. **Instigation of website approval process** – administered by the web project team, this aims to ensure that all UNSW websites have approval at an appropriate level before they are constructed, and that all UNSW domain names are logged in a central repository.
3. **Usability testing of the current UNSW website** – the School of Computer Science & Engineering was engaged to run usability sessions in their Human/Computer Interface Laboratory, using different types of prospective students ranging from local high school students to international postgraduates, in order to ascertain our websites' effectiveness. The testing confirmed that, owing to inconsistent design principles spread across UNSW websites, the experience was bewildering to users who are unfamiliar with UNSW's web presence. The evaluation identified the need to develop a usable information architecture that provided the prospective student with a clear "pathway to decision". Crucial to the success of positive user experience is the need to seamlessly connect information that is "owned" by various business units across the University. (See attachment 5.)
4. **Development of "gateways" concept** – after extensive consultation with working parties, and research by the project team of university websites world-wide, the concept of gateway pages was developed for the University's key external audiences. The Web@UNSW currently points users to multiple websites to retrieve key information, rather than aggregating it for them. (See attached mock-ups for Prospective Students, Research, and Alumni).
5. **Academic web tools survey** – as a result of consultation, a survey was conducted of web tools currently being used by academics for teaching and research. The results confirmed that many academics are already using Web 2.0 tools such as wikis and blogs but are having to use external companies to supply these. Additionally, although Web CT Vista is widely used there is universal dissatisfaction with it. (See Academic Survey Results, attached).
6. **Policy development** - a number of principles have been drafted to form the basis for a new web policy for the University. These include criteria to distinguish external and internal facing information, and criteria for classification of core content. Approval processes for new websites have already been instituted. Final policy development is contingent on completion of the branding guidelines project.

Recommendations for Phase 2

The User-Centric Web

It is recommended that the Executive Team endorse the move to a new dynamic user-centric web environment (Web@UNSW).

Web@UNSW will:

- Exploit the latest web and video technologies to radically improve the user experience and promote collaboration and engagement, both within UNSW and with external audiences
- Aim for a consistent identity and standards while allowing for flexibility, accessibility and innovation.
- Include a secure enterprise-wide staff intranet.

Among its features will be:

1. **A clear governance structure and a centrally placed web unit to drive change, maintain quality and coordinate resources and services (see recommendation P9)**
2. **“Gateways” targeting key external audiences**

The Gateway concept focuses on aggregating information for key audiences, according to their needs. The key audiences identified are Prospective Students, Research, Alumni, Business and Government, Current Students and Staff.

The initial focus has been to develop concepts for the Prospective Student, Research and Alumni gateways.

The Prospective Students and Research gateways will feature new browse/search functionality, employing discrete search engines to trawl authoritative data sets to ensure relevant search results. Search will be augmented by the implementation of “Web 2.0” collaborative tagging tools, such as tag clouds and folksonomies, which enable alternative methods of locating specific information.

Faculties and Schools will be encouraged to create gateways that present localised views of information that are relevant to their specific needs and that exploit authoritative data and similar search / browse functionality.

3. **The social and collaborative strengths of “Web 2.0”**

Web 2.0 tools such as blogs, wikis, forums, RSS news feeds, commenting and tagging will promote a more dynamic, interactive and navigable environment. They will allow our key audiences to directly engage with our administration, our academics, and each other, and promote dialogue and collaboration across UNSW and the wider global community.

4. A federated model - flexibility and consistency

It is envisaged that the current federated model for website management will continue, but with a clear governance framework and within the constraints of University web policy and branding guidelines.

Business units, including faculties, schools, and individual academics will be given the opportunity and the resources to employ the web tools that best suit their business needs.

Deans will continue to have responsibility for the ongoing development of Faculty websites, with possible delegation for school websites being given to heads of school.

5. Video on the web

There is currently a proposal before the Executive Team for the establishment of UNSW-TV. The extensive use of video throughout UNSW web sites, which will include student generated content, will help transform the Web@ UNSW into a dynamic and appealing contemporary site.

Establishing the User-Centric Web

In order to establish the new web environment the following steps are recommended:

1. External tenders to be called for the creation of a Prospective Students Gateway on the Web@UNSW.

It is considered that a staged approach to the reform of the UNSW Web will be more manageable and effective than attempting wholesale reform immediately. There is also an urgent need to improve the online experience for prospective students, which should not wait on wholesale implementation. In addition, this approach will also allow us to 'pilot' the introduction of Web 2.0 technologies.

Tenders will be called for a one –stop shop web consultancy to develop for the Student Gateway:

- New information architecture
- A content management system appropriate to our needs
- Capacity to employ interactive technology
- New search functionality
- Page templates (page designs will be contingent on the development of new branding guidelines)

2. **Endorse a web governance framework for the UNSW web** as follows:
 - a. High level governance of the web to be the domain of the University's Executive Team
 - b. The Web Steering Committee, consisting of the Chief Operating Officer, the Director of Communications, the Director of IT Services and the Director of Marketing, to make recommendations to the Executive Team on significant policy and expenditure issues.
 - c. Continuation of cross-institutional Web Reference Group to develop recommendations for the Web Steering Committee.
 - d. Governance of each Gateway to lie with the relevant member of the University Executive Team, with delegation to the appropriate units within the respective portfolios
 - e. Deans to continue to have responsibility for the ongoing development and management of Faculty websites, with possible delegation to Heads of School for school websites
 - f. Web policy to be developed that will provide clear guidelines for the management and presentation of Web@UNSW, while allowing for flexibility and innovation

3. **Establishment of a permanent central web unit as a priority** to monitor and continue to develop the Web@UNSW environment and to have carriage of Phase 2 of this project.

The UNSW Web Unit will be responsible for key operational aspects of the web environment, providing a central resource for ongoing development of the Web@UNSW. The unit will be located within the Office of Media and Communications, and work closely with Marketing and IT Services to provide resources and services to the UNSW community.

Fund a separate project to further develop an enterprise-wide staff secure service (intranet).

This will involve:

- a. Expansion of the MyUNSW portal to incorporate new content and functionality
 - b. Implementation of single sign-on facility (IDAM program dependent);
 - c. A web policy that delineates external facing and internal facing content (see policy guideline attached)
4. **The University adopt a policy that essential information classified as "core content" can only be published on the web via a feed from an authoritative data source.** This would include course and fee information, policies and scholarships.

 5. **Establish a framework that will maximise the University's ability to draw on authoritative data sources for use on the web and that**

will provide views of this data within appropriate presentation guidelines.

Authoritative data sets would feed the following online resources:

- Research profiles
- Staff information
- Course and fee information for prospective students gateway
- Policies, procedures and guidelines
- Scholarships

A successful implementation of the web framework will entail:

- Completion of a detailed audit of identified data sources encompassing ownership and full scope of the data
- Assessment of the level of completeness of the data and fitness for use on the web
- A full mapping of views to target audiences
- Development of presentation guidelines

6. Commission an investigation into alternatives to the existing global search

In addition to introducing discrete search functions within the various Gateways, there is an urgent need to improve the global search function.

The web consultancy (see Recommendation 1) should be tasked with investigating alternatives to the existing free Google search engine.

7. Unified branding, page templates and usage guidelines to be developed and applied down to School level (Branding Guidelines Project dependent).

Phase 1 Project Report

Background

Phase 1 of the Web@UNSW project has been concerned with assessing the current web environment and in developing recommendations that will see a move to a more effectively managed web environment.

The overarching project objectives identified in the business case are:

- To provide UNSW with a cutting-edge website to maximise its marketing and recruitment potential;
- To provide UNSW with a staff intranet; and,
- To consolidate website operations in order to reduce the costs and risks associated with the current web environment.

In formulating its recommendations, the project team has audited the state of the current UNSW web environment and conducted a range of activities aimed at radically improving the user experience.

In today's environment, the web is crucial.

In the world of YouTube, Facebook and My Space, an organisation's website should be contemporary, user friendly and have the capacity to not only inform its key audiences but engage with them.

Where are we now?

While it is possible to find examples of excellence in many individual websites, the Web@UNSW reflects the lack of an overarching, unified business view or strategic enterprise planning. From a user's perspective the University's web presence is static, outdated, disjointed, confusing and inconsistent. Viewed from an enterprise perspective, the web is poorly planned and managed, costly and inefficient, and exposes the University to unnecessary risks.

Where do we want to be?

Web@UNSW will be dynamic, interactive and focused on the needs of its users. It will reflect the University's standing and aspirations; effectively promote the institution to prospective students and other key audiences; and help the University achieve its strategic objectives.

How do we get there?

The University must:

- reform the current environment to move to a user centric model
- take advantage of current web technologies
- allocate resources for the ongoing development of Web@UNSW
- establish a web governance framework

The risk of not doing this is that the Web@UNSW will remain locked in an outmoded world of static content delivery and will continue to incur the ongoing and costly burden of duplicated content and services.

Usability Evaluation

Using prospective student scenarios developed by the Marketing and Student Recruitment working party, the project team commissioned Daniel Woo in the School of Computer Science and Engineering School to evaluate the usability of the University's web presence using real prospective students.

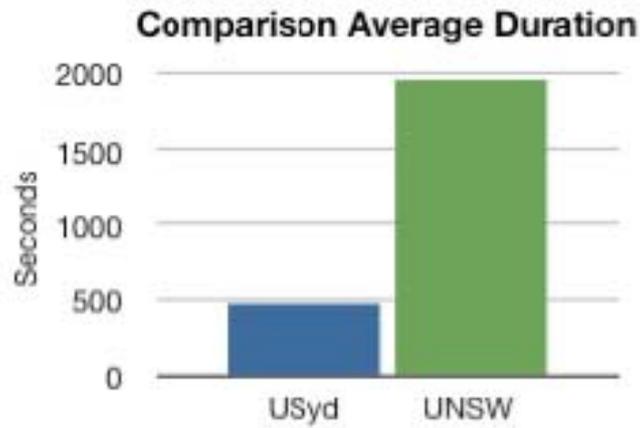
With specific reference to the prospective student user experience, the findings confirmed long-standing concerns that the Web@UNSW provides a generally poor user experience. The overriding conclusion is that the Web@UNSW currently fails to effectively support the key tasks and workflows associated with a particular user group.

The evaluation highlighted the following:

- In places, the site does not present information in a manner that the participants could easily understand
- Information was not where they expected
- New terminology is presented, that isn't always explained
- The workflow to become a student is not made clear – sequence of steps required
- The process of calculating fees is not easily understood by newcomers
- Navigation is inconsistent, especially between pages owned by different organisations
- Lots of information presented on a page that can overwhelm prospective students
- Participants did not always know where they were on the site
 - Sometimes revisited links unintentionally
- International students had significant difficulty understanding the site
 - Not familiar with the terminology
- The search engine was ineffective.

Daniel Woo states that there is clearly a “disconnect” between UNSW Handbook and the UNSW site itself. Handbook and the UNSW site need to be restructured to be “more tightly integrated and better structured” so the participant does not feel like they are going round in circles.

This assessment is compounded when comparing the performance of the Web@UNSW to selected peer institutions, specifically the University of Sydney. Task completion average durations were markedly longer on the UNSW site than on the University of Sydney site (see diagram below). The University of Sydney website course and program information is more cohesively presented, providing a richer and more meaningful array of information. It is also easier to find, taking two clicks (from the home page) instead of five on the UNSW site.



While usability testing was confined to the prospective user experience, its findings have application broadly for the entire external facing UNSW web and indicate the need to design solutions based around user's needs in such a way that brings content together rather than scattering it across a massive and amorphous web presence.

Gateways and the User Experience

“If you go to the New South web page ... there’s quite a few things which you have to actually go through to get to the point where they start talking about what the course is about.”

Engineering student, quoted in *Undergraduate student market research student*, June 2007

User Gateways

A “gateway” is defined as a high-level entry point that dynamically and comprehensively aggregates the key information for a specific audience and supports specific task-based activities. By design, a gateway would provide the appropriate links and navigational cues that would point the user to further related information.

While designed for the anonymous or unknown user, a gateway would provide the appropriate linkages that allow a user (such as a prospective student) to register and become “known” to UNSW systems.

This concept would see the Web@UNSW structured around the following major gateways:

1. Prospective students
2. Current students
3. Research
4. Alumni
5. Business & government
6. Staff

It should be noted that the MyUNSW portal already provides a gateway for current students and to a lesser extent for UNSW staff. It is understood that a separate project is underway to further develop MyUNSW for current students; it is proposed that this portal should also be developed to provide an enterprise-wide staff intranet (see recommendation 4).

To further the notion of targeted gateways, the project team formed three content working parties to assist in identifying key content items required for the Prospective Student, Research and Alumni user groups. The composition of these working parties comprised a broad base of staff from central units, faculties and schools, research centres and controlled entities. The groups then developed mock-up gateway pages for their respective areas (see attachments Content Working Parties: Gateways & Identification of Key Content.)

The Prospective Students and Research gateways will feature new browse/search functionality, employing discrete search engines to trawl

authoritative data sets to ensure relevant search results. Search will be augmented by the implementation of “Web 2.0” collaborative tagging tools, such as tag clouds and folksonomies, that enable alternative methods of locating specific information (see recommendation on search functionality below for further information).

Web 2.0 and the User Centric Web

“The immutable standalone Web site is dead. Say hello to a Web that increasingly looks like a library full of chatty components that interact and talk to one another...”

Wikinomics: how mass collaboration changes everything

Don Tapscott and Anthony D. Williams

Following an approach from UNSW experts in digital media and IT, the Web@UNSW project team commissioned industry leading “read-write web” expert, Mark Pesce, and senior lecturer in the Faculty of Arts & Social Sciences, Ross Harley, to develop two papers that would assist in setting a high-level direction for the Web@UNSW project.

Out of the Garden

The first paper, *Out of the Garden: UNSW and its Web Discontents*, highlighted the fact that staff, students and alumni are, in increasing numbers, going “off the farm” to communicate and network, share knowledge and collaborate. To do this they are using tools most often associated with “Web 2.0”, such as wikis, blogs, RSS feeds, and social networking applications, including Facebook and Linked In. As Pesce and Harley explain,

- Students trade information on blogs, using these electronic diaries to share and converse about their coursework and projects
- Researchers use wikis to capture knowledge as it is generated, linking it to other web resources
- Nearly everyone at UNSW is using external email systems (Gmail, Yahoo! Mail, HotMail, or the messaging features social networks of MySpace and Facebook) to communicate.

Not only does this trend have consequences for the University, with its knowledge capital being trapped in web systems “beyond UNSW”, but it also jeopardises UNSW’s ability to effectively engage with its audiences.

To reverse this trend, the University must transform itself into a flexible service-oriented institution by moving away from the static practices associated with the “read-only” web. It needs to “embrace the full capabilities of the Read-Write Web in order to transform institutional practices” in a way that is contemporary and dynamic.

Doing so would distinguish the University as a leader and raise its reputation as an innovative and world class institution.

Consistent Flexibility

Mark Pesce and Ross Harley's second paper, *Consistent Flexibility: Designing for the Use in UNSW Web Services*, addresses a specific issue affecting UNSW's web environment: the tendency to duplicate the University's core corporate content across numerous websites. The paper addresses the implications of mis-use of this legally mandated information and explores and recommends flexible alternatives for use of this data that provides "dynamic" connections to its primary source.

The paper proposes a solution that allows a staff or student user to "combine" user-generated content (wikis, blogs, web pages, tagging, RSS feed, etc.) with corporate content to produce new and inventive wholes: "it effectively enables each member of the UNSW community to become an information architect, as they create, publish and share a rich mixture of authoritative and personal information in the form most meaningful to them".

The recommendations of the *Consistent Flexibility* paper have been incorporated into project recommendations related to the JULIA project and the development of an Authoritative Data Set.

UNSW-TV: video online

There is currently a proposal before the University Executive Team for the establishment of UNSW-TV. The extensive use of video throughout UNSW web sites, which will include student generated content, will help transform the UNSW web environment into a dynamic and appealing contemporary site.

In keeping with the recommendation to adopt "open" communication and collaboration, UNSW-TV expresses this principle through the provision of channels to the UNSW community.

Establishing the User-Centric Web

Recommendation 1: Prospective Students Gateway

1. External tenders to be called for the creation of a Prospective Students Gateway on the Web@UNSW.

It is considered that a staged approach to the reform of the UNSW Web will be more manageable and effective than attempting wholesale reform immediately. There is also an urgent need to improve the online experience for prospective students, which should not wait on wholesale implementation. It will also allow us to “pilot” the introduction of Web 2.0 technologies.

The Prospective Student gateway is proposed as the first major redevelopment phase. The timeline would ensure that it is “live” by mid 2008. To meet this deadline, the University will need access to ready resources and expertise that would come through partnering with a web development “shop”.

The development of the Prospective Student Gateway will cut across business units and will impact on a number of web based resources. As indicated in the usability testing, the “disconnect” between the Handbook and the UNSW site needs to be addressed.

The tender process will be preceded by a Request for Proposal (RFP) process. This process will enable more detailed requirements to be built around high-level requirements for Gateway development.

High-level requirements are:

- New information architecture (IA)
The IA process will encompass a detailed mapping of user-centric information requirements and interaction needs that will be iteratively tested for usability during development.
- A content management system appropriate to our needs
This process will culminate with a detailed requirement against which the incumbent myCMS can be assessed.
- Capacity to employ interactive technology
The type of technologies used will be determined by way of the IA process
- New search functionality
- Page templates (page designs will be contingent on the development of new branding guidelines)

The Pathway from Discovery to Decision

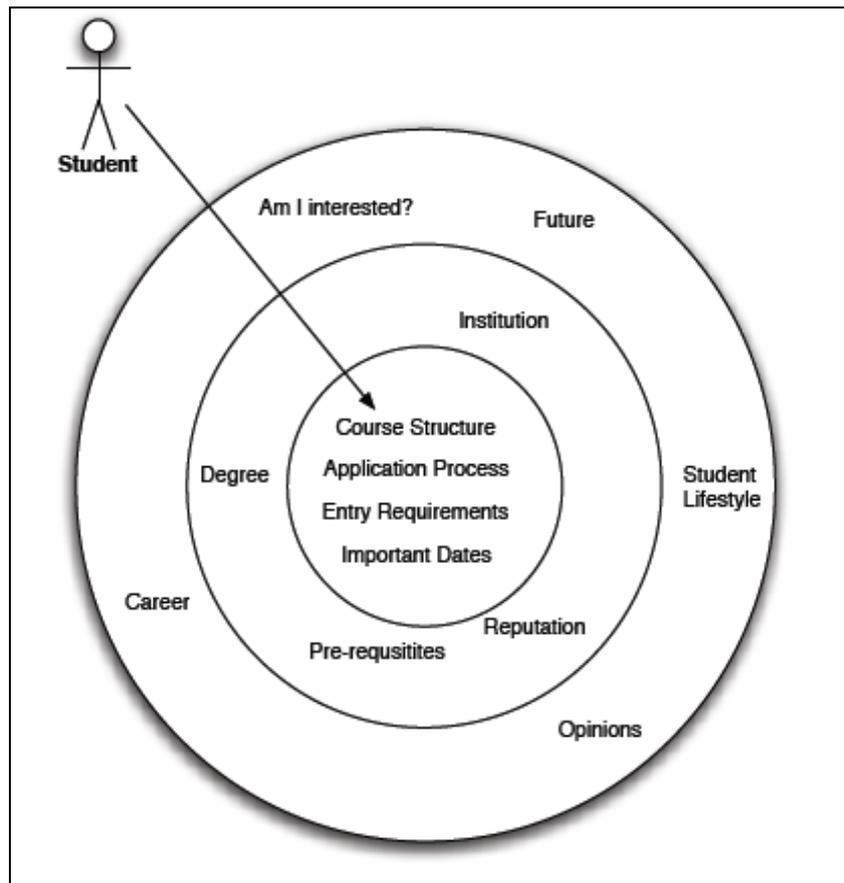
It is recommended that the Prospective Student gateway be based on a design principle that aims to guide prospective students on their path to decision-making by engaging with them and their advisers. To do this the

student’s “mental model” must be understood, which will encompass mapping their needs and behaviours.

It is acknowledged that there are indeed many types of prospective student, each with differing needs. The usability testing was conducted on 4 types of prospective student. However, the needs of all types of prospective student will need to be accounted for and incorporated into the design process. A summary of the range of variation of student types follows:

Prospective Students	Undergraduate Postgraduate Coursework Postgraduate Research Non-Award
Student Variants	International Mature Age Rural Disadvantaged Year 10 HSC Local
Student & Staff Variants	Indigenous Disabled

Daniel Woo states that “the information gathering process for the naïve student starts from a high level discovery phase that is career focused and will be refined over time as the student understands more about the options available to them...”. The illustration (below) emphasises this progression, from the preliminary or tentative questions to the specifics of enrolment. Implicit in this notion is an early engagement when the prospective student is beginning to consider their future.



Feeding this process is a range of information sources that must be structured and available in such a way that *leads* the prospective student to an understanding of what it would mean to be a student at UNSW. This information comprises:

- List of degrees / programs / domain areas
- Possible future careers
- Information about the individual programs
- Entry Requirements UAI/Advance Standing
- Drill down to get more information - per course
- How good is UNSW?
- How much will it cost
- Discuss with others
- Make a decision

The design should allow for drill-downs to further details, such as:

- List of courses - what does my first year consist of
- Choose courses
- Entry Requirements UAI/Advance Standing
- How to apply / Application Procedures
- Relevant Dates - When are forms due? Date of Offers
- Fees and Costs
- Scholarships
- Contact information

The design should also provide information on future employment prospects for particular program and course choices. Logistical information should also be readily available:

- How to get to UNSW
- Accommodation
- Living in Sydney
- Recreational Activities

Recommendation 2: Governance Framework

2. Endorse a web governance framework for the UNSW web as follows:

- a. High level governance of the web to be the domain of the University's Executive Team
- b. The Web Steering Committee, consisting of the Chief Operating Officer, the Director of Communications, the Director of IT Services and the Director of Marketing, to make recommendations to the Executive Team on significant policy and expenditure issues.
- c. Continuation of cross-institutional Web Reference Group to develop recommendations for the Web Steering Committee.
- d. Governance of each Gateway to lie with the relevant member of the University Executive Team, with delegation to the appropriate units within the respective portfolios
- e. Deans to continue to have responsibility for the ongoing development and management of Faculty websites, with possible delegation to Heads of School for school websites
- f. Web policy to be developed that will provide clear guidelines for the management and presentation of Web@UNSW, while allowing for flexibility and innovation

“Any federal organisation requires both strong parts and a strong center... Federal decentralisation requires strong guidance from the centre through setting clear, meaningful and high objectives for the whole.”

Peter Drucker, quoted in *Building enterprise information architectures: re-engineering information systems* by Melissa A. Cook

UNSW presently supports a decentralised web environment. However, the University lacks an overarching governance framework to inform, guide and support coordinated development. The results of the **Central Domain Name Audit** offered a clear indication of the need to monitor the growth of the University's web presence.

The existing Web Policy and standards have so far been ineffective in properly governing the University's web environment, due to both a lack of resources to support a proactive compliance monitoring process and the absence of a high-level governance body overseeing the management of all UNSW websites. As a consequence, compliance levels appear to be low and quality-monitoring processes are typically ill-defined, discrete or absent.

Despite past efforts to establish coordination in the form of a “web champion”, the University has been without central web coordination since 2001.

The project team’s development of a governance framework has addressed the need for a unified view of web governance at UNSW and is designed to identify ownership, roles and responsibilities that are necessary to ensuring accountability and quality on the Web@UNSW.

The Web Reference Group

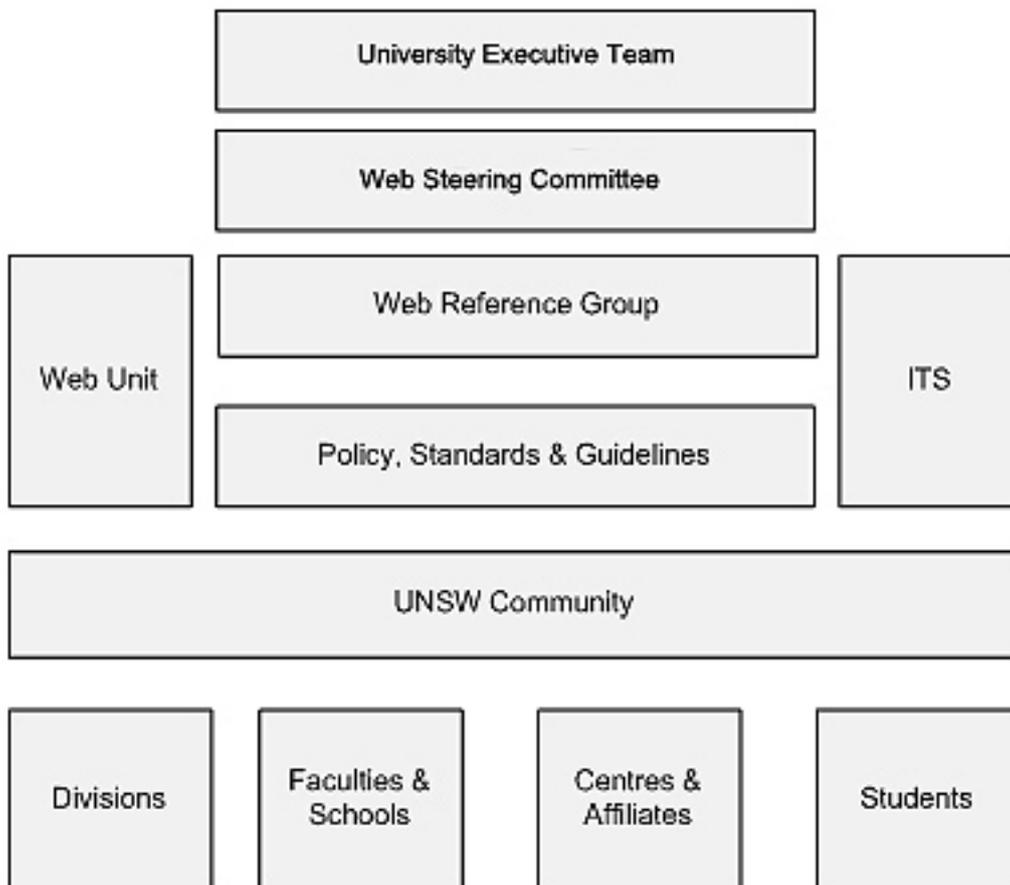
The role of the **Web Reference Group** would be to provide cross-institutional representation of the needs and opinions of the broader UNSW community. Its composition would be drawn from Divisions, Faculties and Schools, important business units, centres and affiliates. Its number and composition may vary according to needs being addressed.

Web Policy

Current web policy will be fully reviewed, with new policy to be developed by the Web Unit in consultation with the Web Reference Group. In addition to covering legal and statutory obligations, new policy will take into scope the following:

- The delineation between internal and external content
- The definition of Category 1 Core Corporate Content and its use
- Branding guidelines

The diagram (below) illustrates the proposed governance structure.



Recommendation 3: Web Unit

3. Establishment of a permanent central web unit as a priority to monitor and continue to develop the Web@UNSW environment and to have carriage of Phase 2 of this project.

Role of the Web Unit

It is recommended that the Web Unit be placed in the Office of Media and Communications to align it closely with business priorities. The Web Unit would liaise closely with Marketing and IT Services to provide resources and services to the UNSW content producing community.

The Web Unit would be responsible for key operational aspects of UNSW's web environment. It would assist in ensuring consistent identity and standards across the Web@UNSW. It would assist divisions, faculties and schools in accessing resources and tools that best suit their business needs.

Key business functions would include:

- Policy, standards and guidelines development
- Assisting business units, faculties and schools, with the implementation of web policy and branding guidelines

- Providing advice and assistance with the development of new websites
- Coordination of website approvals and website tracking
- Quality maintenance and monitoring
- Training, support and documentation
- Log analysis and performance reporting
- Advice and assistance on resources and tools

A key function of the Unit could be to run a quality improvement initiative addressing key quality challenges for the Web@UNSW. The Unit would host workshops and forums that draw on the University's collective expertise, such as:

- Search engine optimisation
- Writing for the web
- Web analytics
- Graphics development

While the final composition of the Web Unit may be defined, to some degree, by the outcomes of the ICT Change program, at an operational level it should comprise the following staff:

- Web Unit Administrator (new position)
- Web Editor (existing part time position)
- Journalist (new part time position)
- Web Officer (current position)

It is also strongly recommended that the following positions be either included with or co-located with the Web Unit, particularly for the implementation of Phase 2 of the project. These could be new positions or involve a transfer of existing personnel from ITS.

- Systems programmer
- Business analyst

For Phase 2 of the project, it is envisaged that the external development partner would provide project management in collaboration with the Web Unit and ITS.

Recommendation 4: Staff Intranet

4. Fund a separate project to develop an enterprise-wide staff and student secure services (intranet):

This will involve:

- a. Expansion of the MyUNSW portal to incorporate new content and functionality
- b. Implementation of single sign-on facility (IDAM program dependent);
- c. A web policy that delineates external facing and internal facing content

While students are supported with a broad range of secure services, staff are not as well supported. While a growing range of services are on offer to general staff, with more to academic staff, the portal requires further development. Rather than hosting a range of information and services, the current portal merely links to the many organisational or administrative sites that exist in the UNSW domain space.

In response to the plethora of content that focuses on internal users (staff and students), the project team developed a policy guideline for designating content. This guideline requires that the appropriate criteria be applied when designating content for either internal or external use on the Web@UNSW. Additionally, the guideline would enable the University to “clean up” its external presence so that it might better focus on its external audiences.

The project team also acknowledges existing local intranets that serve local communities. There is a need to ensure that interfaces be developed that enable integration between local and enterprise services.

The LEX intranet in the Faculty of Law (see screenshot below) has been designed in a way that aggregates business processes and personalises the workplace.

A challenge currently facing many intranets is a tendency for them to be neglected. Ensuring participation by making them meaningful, useful, even fun places to interact with other staff are current trends.

UNSW LAW Extranet Homepage - Windows Internet Explorer
 http://www.law.unsw.edu.au

UNSW LEX Law Online **ALIX** Faculty Staff Directory Search UNSW Staff Directory

Home Teaching Research Administration IT Resources Committees & Governance UNSW Links Logout

“There is no other safe guide to judicial decisions in great conflicts than a strict and complete legalism. Sir Owen Dixon”

Greetings Kanishka

Meet the Faculty
 Deborah Healey
 Director, Academic Services
 Meet the Faculty

Bulletin Board
 Courses and Centers Day is this Saturday! We'd love to see a few more academic engineering enquiries in the Roundhouse. Please add your name to the event calendar. Your involvement would be most welcome! (Kowena Tupak)
 Development Officer
 Welcome to Hilary Blackman, who joins us today as the Faculty's Development Officer. Hilary is the long-awaited replacement for Amanda Hansen and will be revitalising the Law Campaign (David Dixon)
 Looking back on the Wooden Lecture
 Speaking for the Faculty, I'd like to thank everyone involved in the organisation of this wonderful lecture on the occasion of the 50th anniversary of the Faculty's 50th Anniversary.
 Submit Your Bulletin Board Message

Submit your Staff Profile

DID YOU KNOW? The extranet is Faculty-wide and includes information on the Faculty, Law School and ALIX and further information is being added on the Content.

Quick Links
 Events Calendar Research Visitors Location & Map New Staff
 Building Contacts WebCT Sirius LIBRARY UNSW AustLII

This week's events w/c: 27-Aug-2007

North	Year	w/c
27 Aug Monday	12:00pm - 2:00pm	SEMINAR ON ARC LINKAGE ROUND 2 2006 - More Posted By: Jeanne Palmer
28 Aug Tuesday	12:45pm - 2:00pm	RDP: the Submission process - More Posted By: Jeanne Palmer
29 Aug Wednesday	12:00pm - 2:00pm	SEMINAR: "GETTING STARTED WITH ARC LINKAGE" - More Posted By: Jeanne Palmer
	12:30pm - 2:00pm	Law School Seminar Series: "Collective claims" - More Posted By: Kanishka Hari
30 Aug Thursday	12:00pm - 2:00pm	NEW SEMINAR: "ARC LINKAGE STRATEGIES" - More Posted By: Jeanne Palmer
	5:30pm - 7:00pm	European Law Centre Inter-Disciplinary Roundtable - "Judges, Rights, and Moral Reasoning" - More Posted By: Kanishka Hari
31 Aug Friday	12:00pm - 1:30pm	ALIX Research Seminar Series: "Topical Issues in International Tax" - More Posted By: Chris Astorlee
1 Sep Saturday		
2 Sep Sunday		

Add Event

Recommendation 5: Core Content & Authoritative Data

5. The University adopt a policy that essential information classified as “core content” can only be published on the web via a feed from an authoritative data source. This would include course and fee information, policies and scholarships.

Inefficient information management practices feeding the Web@UNSW have led to a high degree of duplication and reformulation of content on websites across the University.

In general this causes inaccuracy because content is frequently re-written from a definitive source and then falls out of date. For the end user this is frustrating and confusing; for the University mis-use of its core content presents serious legal implications. This situation occurs for numerous reasons – the perceived need to “customise” content, and the dissatisfaction with linking to other sites, for example, to the Handbook to present course information.

Compounding this problem is the obligation put on web site developers to also develop interfaces with which to present core data. Faculties frequently present their own versions of staff listings and research profiles despite that fact that much of the content can be sourced from central repositories. This duplication of effort occurs because the University currently provides no easy way for staff to source and use core content from its source. To date, the University has not been successful in utilising this data for the web at an enterprise level, despite efforts at faculty and school levels (see references following Recommendation 6, below). The Online Staff Directory is a case in point as it has no dynamic connection with its primary data source in HR.

Core Corporate Content

It is considered essential to identify core corporate content on the web that should only be published via a feed from the authoritative data set. This category one content should include:

- Acts
- By-laws
- Directory information (staff & organisation)
- Course fees
- Program & course information, including rules
- Principal dates & events (University calendar)
- Policies, procedures & guidelines
- Scholarships, prizes and awards

(See Draft Policy: Category 1 – Core Corporate Content attachment)

Recommendation 6: Web Framework

6. Establish a framework that will maximise the University's ability to draw on authoritative data sources for use on the web and that will provide views of this data within appropriate presentation guidelines.

Authoritative data sets would feed the following online resources:

- Research profiles
- Staff information
- Course and fee information for prospective students gateway
- Policies, procedures and guidelines
- Scholarships

A successful implementation of the web framework will entail:

- Completion of a detailed audit of identified data sources encompassing ownership and full scope of the data
- Assessment of the level of completeness of the data and fitness for use on the web
- A full mapping of views to target audiences
- Development of presentation guidelines

Underpinning the proposed user-centred architecture and interaction model is the development of the capability to serve up data dynamically from its true source. Implicit in the success of such a proposal is the ability to manage data in a way that is distinct and separate from the way it is presented over the web. In terms of web technology solutions, this may break down to three layers:

Application	The technique by which the data is "pulled" and then presented (e.g, PHP, AJAX)
Connective	The store upon which the application directly draws
True data	The "true" data source that feeds the connective layer

It is understood that there may be more than one type of connective layer depending on the nature of the data (structured or unstructured). The success of a move to serve data up in this way has three capability dimensions:

- Interfaces that provide appropriate access levels to maintain the data to ensure ongoing accuracy of data
- Interfaces that allow re-use of data by authorised users (i.e., embedding data in new interfaces using APIs)
- The ability to search effectively within specific data sets

The following table provides a **preliminary summary** of known sources of authoritative data that could be effectively used on the web.

It should be noted that the items in this table extend beyond **core corporate content**. This is because the range of information that could be served up dynamically is much broader. It is possible that, in developing gateway solutions, more than one data repository may need to be created.

Category* (web)	Content	Data Source	Responsible Division	Delegated Office	Known Issue	Scope	Used on Web
Core Corporate Content (web)	Staff	NSS** HR (Oracle)	COO	HR	Accuracy and quality not properly maintained in HR; completeness	Name, Position title, Contact details, Organisational details, Email, Qualifications, ...	No
	UG, PG coursework & Co-Op Scholarships	NSS Student (scholarships module) Co-op database (MS Access)	DVC (A)	Scholarships Office	Completeness,		No
	PG Scholarships	Database in development	DVC (R)	Graduate Research School			No
	Courses & Programs	NSS Student (Oracle) myCMS	DVC (A)	SSABS		Course & program descriptions, Entry requirements, ..	Yes
	Fees	myCMS	DVC (A)	SSABS		Course Fees	Yes
	Policy	Database in development	COO	Policy Management Unit		Policies, procedures, guidelines, ...	No
	Calendar	myCMS	DVC (A)	Student Services		Term dates, ...	Yes

Category* (web)	Content	Data Source	Responsible Division	Delegated Office	Known Issue	Scope	Used on Web
Other (not classified)	PhD Candidate information	NSS Student**	DVC (R)	Graduate Research School	Thesis Exam. Management Module in development; will replace current GRS MS-Access database	Supervisor, Thesis title, ...	No
	Research grants & contacts	InfoEd	DVC (R)	Grants Management Office	Completeness	Research Grants & contracts, RFCD codes, Projects, Awards, ...	No
	Research Publications	Publications Collection (Research Master)	DVC (R)	Library	Completeness Limited to DEST?	Publications / Works, ...	No
	Maps	Website	Operations	Facilities		Campuses	NA
	Accommodation	Database (FileMaker)	Operations	Facilities		Colleges, rental accommodation	NA
	News	Website	Operations	Media	Faculties/schools maintain own sets		NA
	Events	Website	Operations	Marketing	Faculties/schools maintain own sets		NA
	Transport	Website	Operations	Facilities			NA

* Category – working classification for web policy, which refers to use on web and is not a designation of intrinsic value.

** NSS [New South Solutions] sometimes referred to as PeopleSoft

Barriers & Success Factors

Regardless of which data ultimately is selected to serve the new web, a more detailed audit would need to be carried out that identifies the data, its true source and owner.

At UNSW the data identified as being useful to populate websites (such as the information specified as useful to the prospective student as part of the usability evaluation) is scattered among numerous repositories and in various formats. While the project team have identified core corporate data to be controlled at a policy level, this grouping does not necessarily encompass all possible types of information, and it is apparent that some of the core corporate data itself may not be collected in a store that would allow it to be easily exploited.

To date, the University has not been successful in utilising this data for the web at an enterprise level, despite efforts done at faculty and school levels (see references below).

The following questions and issues need further exploration.

- **View ownership.**
- **Scoping.** Which data set should be addressed first? And in what order? It is understood that the IDAM program has plans (presently unfunded) to establish a dynamic connection between HR and the Online Contacts Directory.
- **Process.** Primary data is captured and used routinely for different purposes. How can the existing data be effectively used and interacted with without affecting these business processes?
- **Technical.** How can data be properly identified? Computer Data Integration solutions could be further explored. What methodology of dynamically “feeding” aggregative solutions would best suit the university environment?
- **Accuracy of primary data.** The accuracy and reliability of this data may be questioned in some quarters. The IDAM program is conducting “data cleansing” activities on staff and student data to improve its accuracy and usefulness. It is expected that this process will benefit usage on the web.
- **Accessibility & Usability.** How do we ensure that the user can engage with the information? How do we provide the ability to edit data? Can data be augmented with additional data? The ability to freely, yet securely, access and edit the data, where appropriate, will be key in its uptake
- **Avoid multiple entering of same data.** University academics, in particular, are frequently called upon to provide information about their research activities and outputs to central data repositories in order to fulfil the University’s reporting requirements. The key to the success of any solution is to support the principle of single entry for any data set and to foster in staff a sense of ownership over the data that will stimulate its ongoing maintenance.

Web Resource References

The following resource provides an example of current best practice use of authoritative data for the web:

- **Find an Expert / University of Melbourne**
<http://www.findanexpert.unimelb.edu.au/>

The following UNSW units currently use authoritative data to feed website content:

- **Staff List / School of Maths.** Data updated via myUNSW.
<http://profiles.unsw.edu.au/maths/stafflist>
- **Research Interests / Faculty of Medicine.** Data updated via Faculty website.
<http://notes.med.unsw.edu.au/medweb.nsf/page/Research+Interests>

Recommendation 7: Search

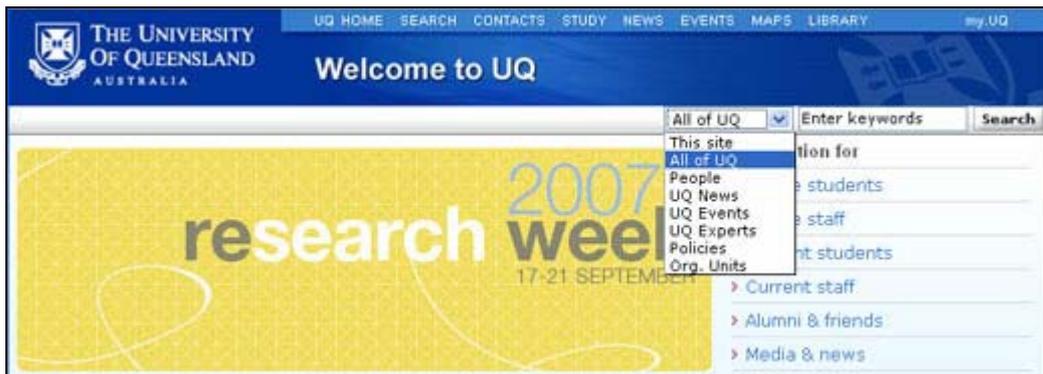
7. Commission an investigation into alternatives to the existing global search

Findability is a cornerstone of the user centric web. However, UNSW does not cater well to a user's search needs.

The search page is confusingly presented, with two engines (Google and Verity), that provide a set of options that water down the effectiveness of the engine overall. Moreover, these options only become available when the user gets to the "results" page. The drop-down options associated with the Verity engine are inconsistent and provide variable behaviours – some provide a discrete search within a particular data set, while others inexplicably redirect the user to another site. Using the Google engine yields a plethora of search results that overwhelms the user with "countless and often irrelevant information"¹.

The free Google syndicated search facility effectively means the search engine cannot be configured or customised, thus providing no way of ordering or ranking pages. Inconsistent search engine optimisation across the Web@UNSW leads to results where pages of little importance are listed above pages that are deemed more important.

The Project Team noted that leading universities in Australia and abroad provide discrete searching options that are simply presented and enable users to search effectively within specific content areas. The University of Queensland, illustrated below, provides an effective means of searching within specific content areas through a simple drop-down device (see below).



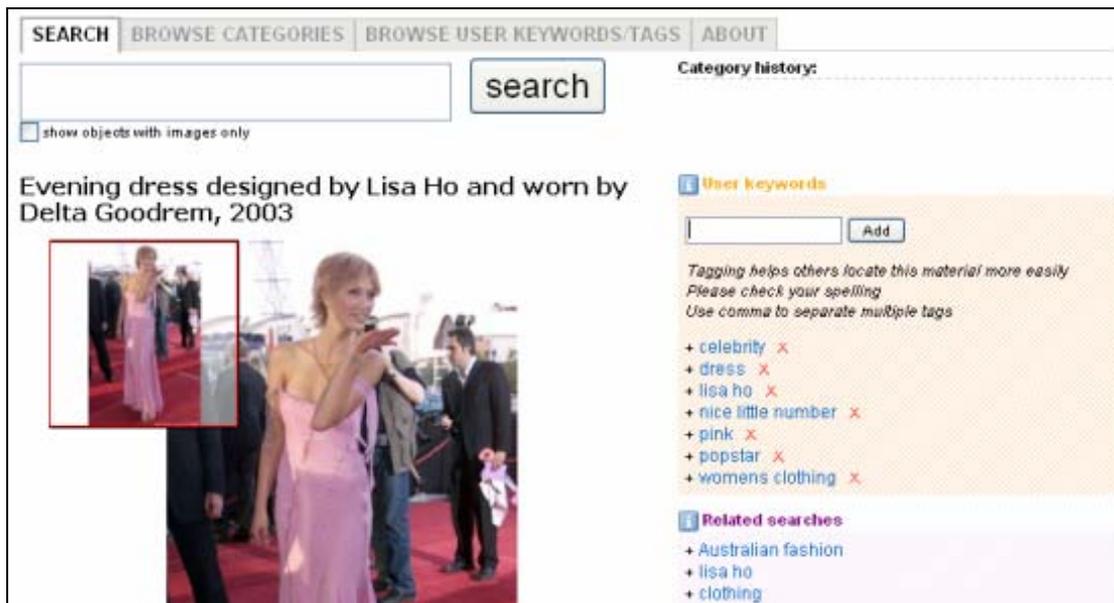
New forms of "social tagging", such as tag clouds and folksonomies, have emerged over the past few years that support and encourage user interaction, thus extending user interest and engagement. They provide alternatives to locating information that enhance standard search capabilities.

¹ Undergraduate student market research study, page 70.

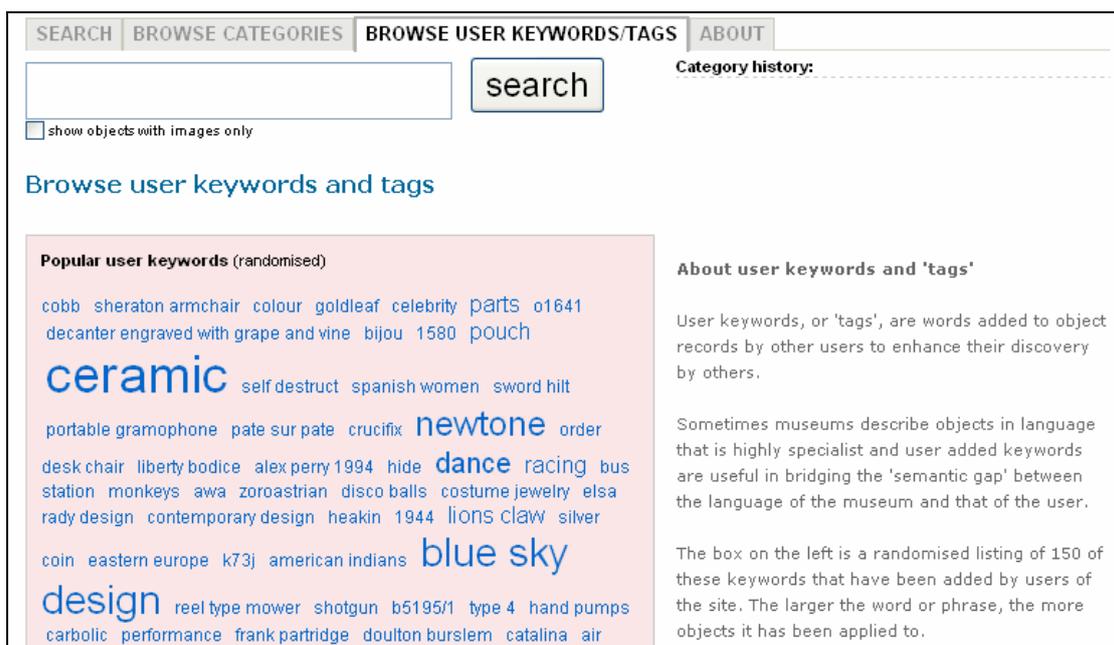
Tag clouds are graphical representations of popular terms, whether they are used in searching or for tagging information items, such as bookmarks, videos, and so on.

Folksonomies allow users to “tag” items with a descriptor that is relevant to them, thus enhancing the discovery of these items by other users.

The following examples are taken from the Powerhouse museum website. Users of the Powerhouse collection are encouraged to “tag” items in the collection as shown, below.



The tags generated by users then appear in tag clouds (see the pink box) where the larger words represent the more popular tags, as shown below.



Recommendation 8: Branding & Templates Guidelines

8. Unified branding, page templates and usage guidelines to be developed and applied down to School level (Branding Guidelines Project dependent).

To date UNSW has lacked strong ownership of the UNSW brand across the web environment which has led to dilution through mis-use of the existing Identity Standard across University sites.

Non-alignment of web branding with the print and publication arena has exacerbated this dilution. UNSW has not had a comprehensive branding guide in recent years.

Integrated and structured page and design guidelines for all of the UNSW web presence have never been achieved. (2003 guidelines rejected by the web community led to rudimentary and poorly implemented “versions” of the identity standard.)

UNSW is behind peer institutions (University of Queensland, University of Sydney, University of Melbourne) for web branding and publishing.

An issue with the current environment is how design becomes an obligation for people (administrators, web coordinators, IT staff) who are not themselves page designers. There is a need to remove the presentation layer from these users so that the focus can rightly fall on content.

With the creation of a comprehensive guideline of web templates, a grading system would need to be developed that delineates a progression from heavily branded pages down to minimally branded pages. The guidelines will result from a consultation process involving major stakeholders.

Attachment 1: Policy Development

The focus of this development has been to address the uncontrolled nature of content served up by UNSW websites and to underpin the University's move to providing a positive user experience. This has been developed, but not finalised, through the Policy Working party and the Web Reference Group.

The two areas of development have focused on:

- a. Core or enterprise content identification & use
Aim: to set controls around how enterprise content is developed and deployed; who owns and has authority over it; and how it may be used.
- b. Internal / external facing content
Aim: To ensure that content developed is audience focused.

It is expected that these policies will be made effective during phase 2 of the project.

A. Draft Policy: Category 1 – Core Corporate Content²

Core corporate content used on UNSW websites must be published in or from an approved authoritative source. Websites on the UNSW Web are only permitted to display Category 1 information by means of a feed from an authoritative source.

Category 1 – Core corporate content will sit along side a set of other categories of content that will be developed.

Purpose

The purpose of the Category 1 – Core Corporate Content Policy is to ensure that:

- The currency, accuracy and integrity of Category 1 information is preserved;
- Category 1 information is only published in or from the approved authoritative source on the UNSW Web; and,
- Authorising Officers and Owners of Information understand the conditions of use in relation to the publication of Category 1 information.

Scope

Category 1 – Core Corporate Content Policy only applies to the publishing of UNSW information that has been classified as Category 1 information.

- Act
- By-law

² This policy has been adapted from the University of Technology's Web Publishing Policy. The "Category 1 – Core UTS Information Web Standard" is available at – <http://www.uts.edu.au/web/standards/category1information.html>

- Directory information (staff & organisation)
- Course fees
- Program & course information
- Principal dates & events
- Policies, procedures & guidelines
- Scholarships, prizes and awards
- Rules

Definitions

The following definitions include those that form part of UNSW Web Policy.

- **Authorising Officer** refers to all persons who have delegated authority to publish pre-approved information on a webpage or website housed within the UNSW Web.
- **Feed** refers to a method of including up-to-date information taken directly from a data source such as a database, website or blog.
- **Information** means the content of web pages; parts of web pages; files such as PDF, Excel and images; or any other files that can be downloaded or viewed from the UNSW Web.
- **Owners of Information** refers to all persons who have delegated authority to both author and approve the content of information that is to be published on the UNSW Web.
- **UNSW Web** includes all websites that contain the domain name unsw.edu.au, or other domain names as registered by UNSW from time to time.

Note – Further Content Categories (to be developed)

Further categories of information to be developed that have their own rules and responsibilities covering the following areas:

- **Category 2 – UNSW business information** refers to all information relating to the official business of UNSW's executive, divisions, units, faculties, institutes and centres.
- **Category 3 – UNSW teaching and research information** refers to all materials, which UNSW staff are authorised to use for teaching purposes.
- **Category 4 – UNSW staff and student information** refers to all information published on websites or web pages by UNSW staff and students that relates to their role and /or area of teaching, research or study at UNSW.
- **Category 5 – UNSW controlled entities information** refers to all information associated with the official business activities of UNSW

controlled entities that is published on websites of controlled UNSW entities or within Category 2 information.

- **Category 6 – other organisations associated with UNSW information** refers to all information on any of the organisations that the University has agreed to host their websites or web pages on the UNSW Web.

B. Draft Guideline: External and Internal Content

This guideline requires that the appropriate criteria be applied when designating content for either internal or external use on the UNSW web.

Purpose

The purpose of the External and Internal Content Guideline is to ensure that:

- Content is targeted to a defined audience
- Content is designed for a defined purpose.

Criteria for external-facing site(s)

Criteria for information to be featured on external-facing websites:

- Legally required (e.g. By-laws, Acts, Annual Report, certain policies);
- Essential to key UNSW target groups (e.g. fees information for prospective undergraduate students);
- Essential for the promotion of UNSW's strategic goals;
- Essential for the successful marketing of UNSW as one of Australia's leading universities in terms of:
 - Academic standing
 - Student life
 - Community engagement
 - Workplace
 - The Environment
- Presents UNSW as a transparent organisation;
- Presents UNSW as an institution committed to certain principles (e.g. Equal Employment Opportunity)

Criteria for secured service/intranet only

- Relevant to current staff *only*;
- Not appropriate for access by unknown external users (e.g. Council papers).

Criteria for information appropriate external-facing sites and intranet

- Relevant to staff and also relevant to one or more target groups.

Criteria for extranet

- Secured information required by known external users (e.g. research collaborators, board members).

UNSW Key External Audiences

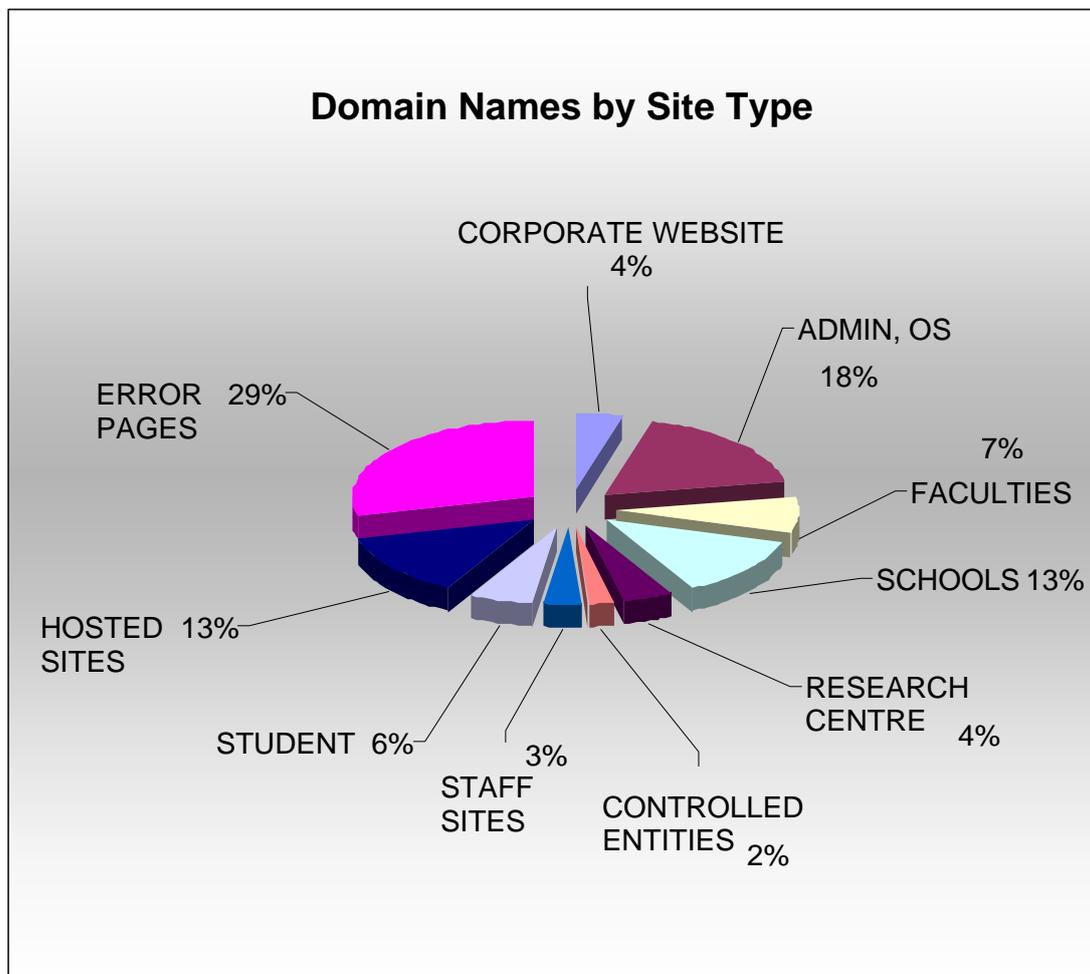
Category	Group
Future Staff	General Teaching Research
Future Students	Undergraduate Postgraduate Coursework Postgraduate Research Non-Award
Student Variants	International Mature Age Rural Disadvantaged Year 10 HSC Local
Student & Staff Variants	Indigenous Disabled
Community	High School Principal High School Counsellor High School Teacher Parent Collaborator Client Partner Business Government Media NGO Alumni Donor Affiliated Institute Peer Institutions Professional Organisations General Public Mentor International agents International UNSW offices International recruitment offices Board Member

Attachment 2: Central Domain Name Audit

An audit of all centrally-hosted website domains was conducted to gain a full picture of the University's current web presence. The audit highlighted a proliferation of site domains and the lack of quality control over site content, which raised legal, compliance and cost issues. A total of 892 domain names were audited. Since completing the audit, 28 websites have been taken down, including those in breach of our ISP agreement due to links to offensive material; more are expected to follow.

Noting gaps in current web policy and standards, the project team developed an approval procedure (effective 13 July 2007) for new websites and domains to be hosted on UNSW web infrastructure. The team also recommended development of a repository for ongoing tracking, as the University had not kept formal records of websites.

Domains by Site Type



Attachment 3: Academic Web Tools Survey

Background

The Web@UNSW Project team set up an online survey to ascertain the type of web tools UNSW academics are using for teaching and research.

The survey ran from 31/8 to 25/9. Academics were alerted to the survey via broadcast email. In all, 254 responses were received, featuring input from every faculty.

Survey Questions:

1. In which School are you currently working?
2. How satisfied are you with your School's web publishing system?
Please provide any comments, including the type of system (if known) in the box below.
3. What web tools are you using for teaching/research collaboration?
 - a. Web CT
 - b. Wikis
 - c. Blogs
 - d. Extranet (external-facing website that requires a log-in)
 - e. Other (please specify)
4. Are these tools provided internally or by an external supplier?
5. If you have any comments on how new web technologies could be used at UNSW, or on the current provision of services, please write them in the box below.

Key issues arising:

- 1. Web CT Vista widely used but unpopular**
- 2. Lack of knowledge as to what's available**
- 3. Alternative systems are being used by those in the know**
- 4. Issues with access to web pages**
- 5. Support issues**

1. Web CT Vista widely used but unpopular

Although 82.1% of respondents said they use Web CT Vista, nearly all feedback was negative, with comments regularly referring to the system's clunky user interface and unreliability. Specific issues included:

- i. problems with access for sessional staff;
- ii. difficulty in navigating/uploading files;
- iii. lack of IT support;

- iv. training takes ½ day - “no time for that!”;
- v. “takes 7 or 8 clicks to get to the discussion area”;
- vi. poor graphics handling;
- vii. browser issues;
- viii. “can’t sort the Assignment dropbox by class or group number”;
- ix. changes (such as lecturer, allocated room, etc) have to be manually updated.
- x. Does not “mesh” with MyUNSW or eMed.

2. Lack of knowledge as to what’s available

Many respondents indicated that they were unsure as to what web tools were available to assist them in teaching and research. There were several requests for more information, best summed up by a respondent from the Faculty of Engineering:

“The greatest help would be for UNSW to clearly identify and describe new web technologies or services and make sure this information is a) circulated to all staff via their Schools and Faculty committees and b) set up a system whereby staff can be assisted to use them. Right now if people are not on top of new technologies through their own personal interest there is no way they can receive enough useful training or experience to make it friendly enough to bother.”

3. Web tools are being used by those in the know

Those academics that are aware of web tools are making use of them, whether these are provided by their local web support teams, external suppliers, or themselves.

The breakdown of respondents using wikis, blogs or extranets (external-facing websites that require a log-in) is as follows:

Wikis	15.9%
Blogs	12.4%
Extranet	19.9%

Externally provided systems in use include Moodle, Olive, Multiply, Blogger, Seedwiki, Del.icio.us, and Google Groups.

Several respondents pointed to the “under the counter” measures they had to take in order to get tools up on the web:

“Setting up really useful tools such as wikis for research collaboration must be done in a clandestine way...if any sensible university can trust their academics to run and produce web-tools, why not UNSW??!”

4. Issues with access to web pages

There was a certain level of frustration as to the lack of access to course information and personal profile pages when these needed updating. For some academics the problem is a lack of profile pages altogether:

"I find it appalling that I am excluded from having a personal UNSW site to promote my research. As a result I have the lowest online profile of all my international peers."

5. Support issues

The level of satisfaction with the provision of web services and their support appears to be very school specific. One respondent wrote:

"Outstanding. Because of the specialised support available in physics, colleagues and I have been able to win several awards and high praise from Scientific American, Science, SMH, Sunday Times (UK) etc"

While for others the situation is less helpful:

"We don't have sufficient support staff to even post notes etc on the web."

"Resource limitations have meant delays, inability to quickly update, this has persisted for so long that I have gotten used to it. I am no longer dissatisfied because I have come to accept that the web system cannot be relevant to my needs."

There was general concern as to the prospect of web support being either outsourced or centralised.

Attachment 4: Content Working Parties – Gateways & Identification of Key Content

The project team formed three content working parties to assist in identifying key content items required for a defined user group. The composition of these working parties cut across business unit boundaries, comprising of staff from central units, faculties and schools, research centres and controlled entities.

1. Prospective Student
2. Research
3. Alumni & Foundations

The items listed are to be considered as indicative only, and will be fully mapped out during the IA process.

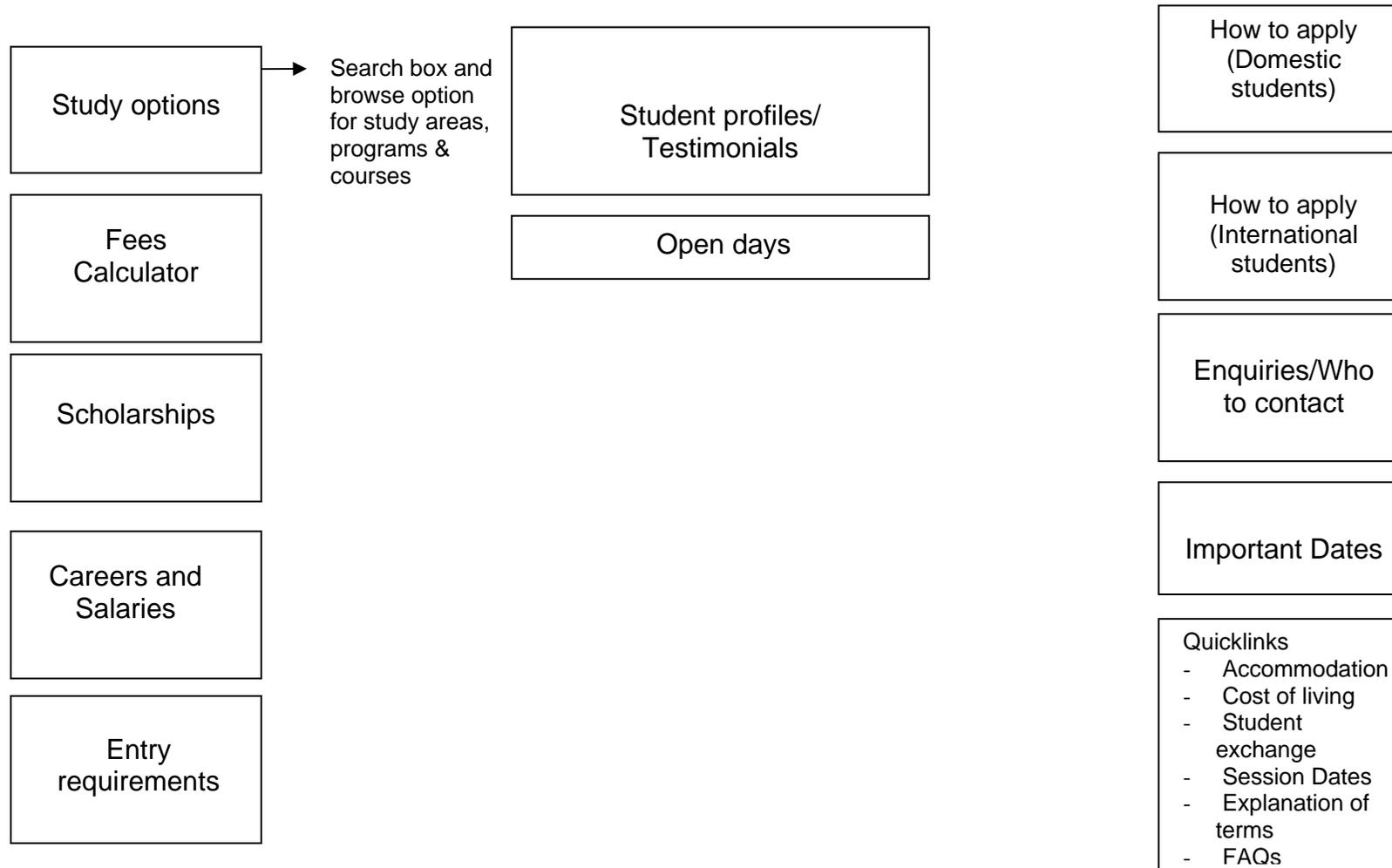
Gateway Definition

A “gateway” is defined as a high-level entry point that dynamically and comprehensively aggregates the key information for a specific audience.

In identifying key content, there is an acknowledgement that further levels of detail would need to be established between main or gateway entry points and school and faculty sites, as users may enter at any point.

In a secure environment a gateway would be called a “portal”, as the end user is registered or known thus allowing server or user side customisation. The secure services interface would be much more customisable.

1. Prospective Student Gateway



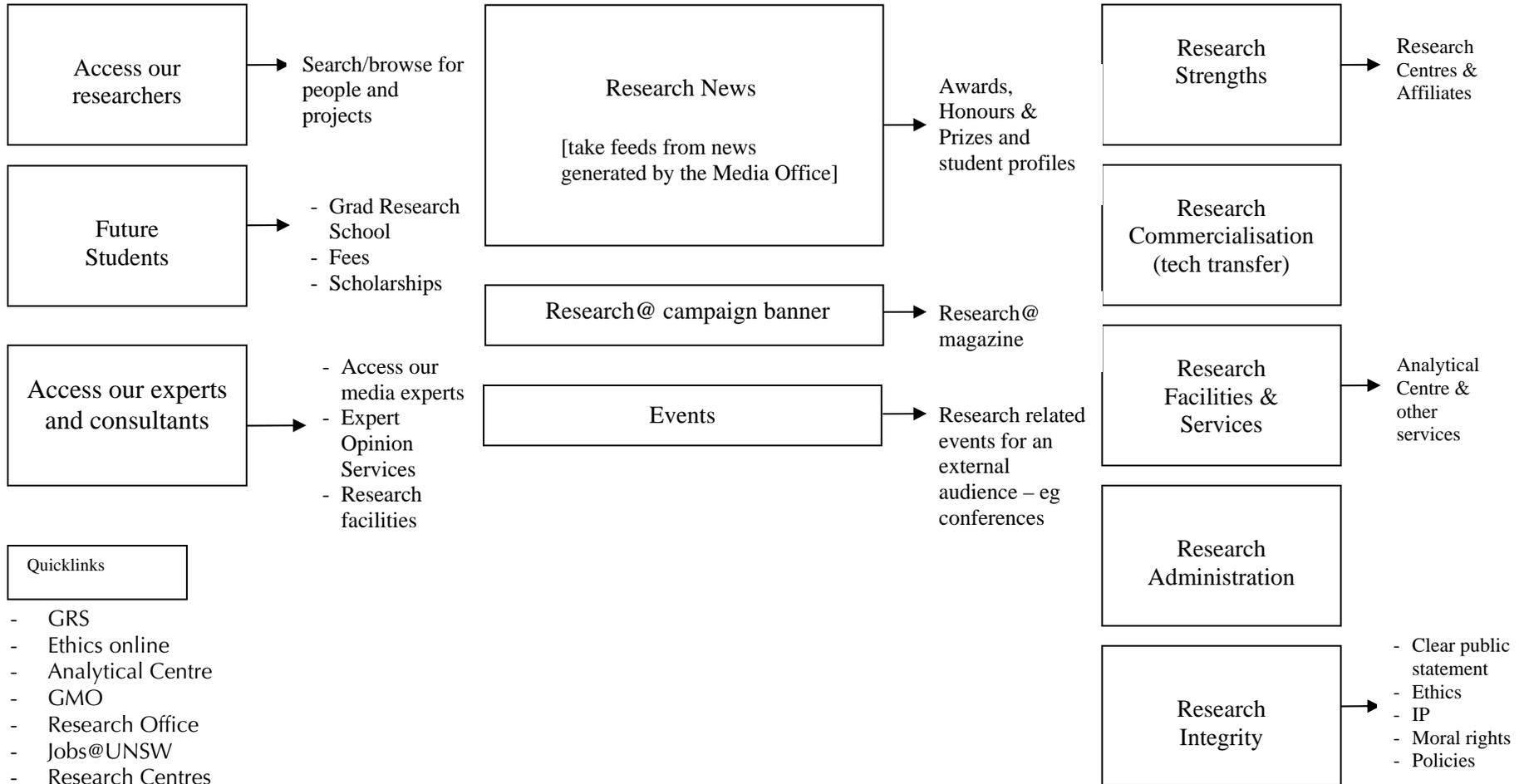
Prospective Student Gateway (Details)

Items	Extra Info	Rank (1,2,3)		Target Audiences	
Accommodation	Dorm room tours, menu options (this is available on Berkeley site)	2		Future Students	Undergraduate
Alumni					Postgraduate Coursework
Careers & Salaries	expand to Career pathways	1			Postgraduate Research
Childcare					Non-Award
Cost of Living		2			
Eating and retail				Student Variants	International
Enquiry/Who to contact		1			Mature Age
Entry requirements		1			Rural
Environment @ UNSW					Disadvantaged
Explanation of Terms	Sue-Anne suggests this be located on every page that uses 'UNSW academic' terms such as units, programs, courses etc	2			Indigenous
Faculty hobbies					Disabled
				Community	High School Principal
					High School Counsellor
					High School Teacher
					Parent
					General Public
					International agents
					International UNSW offices
					International recruitment offices
FAQ					
Fees Calculator		1			

Financial Assistance		2		
Get to know the campus (see also Eating and Retail)	Cafes, 'spots' like library lawn, Green trail, percolation pit?, sports grounds/gym, library, accom, parking (from Berkeley site)			
Get to know the faculty	Includes links to programs search, research search, teaching (from Berkeley site)			
Getting to know Sydney, Australia				
Getting to know UNSW		2		
High School Careers Advisers		2		
How to apply (domestic)		1		
How to apply (international)		1		
Important Dates		1		
Indigenous support		1/2		
Information for Parents		2		
International student support		2		
IT services				
Library		2		
Life at...				
Maps				
Meet Staff at Events				
News				
Online Tour		2		
Open Days		2		
Parking				
Programs & Courses Search & Browse	See UQ, Melb uni, Syd uni	1		
Rankings	Graduate program rankings (from Berkeley site)			
Religious facilities				
Request Brochure		1		

RSS feeds					
Scholarships		1			
School Visits Calendar		2			
Session Dates		2			
Special Entry	Rural students, indigenous students, financially disadvantaged, mature age	1			
Student exchange		2			
Student Fashion	See Berkeley site for example - <i>CALstyle</i> (photo slideshow)				
Student Journal	See Berkeley site for example - journal of students field trips/travel etc				
Student Media (newspaper/magazine/TV)					
Student Organisations					
Study Options	Short courses, student exchange, external study etc	1			
Teaching awards					
Testimonials/Student profiles					
What good teachers say about teaching	See Berkeley site				

2. Research Gateway



Research Gateway (Details)

Items	Extra Info	Rank (1,2,3)	Target Audiences	
Affiliates			Future Students	Postgraduate Coursework
Awards & Honours	Listing?			Postgraduate Research
Consultancy	Engage a consultant, Expert opinions service		Community	Collaborator
Ethics				Client
Events		1		Partner
Experts (search & browse) [source data through JULIA - see David McPherson]	Contact Details, Awards & Qualls, Grants & Contracts, Publications, Gov't Research Classifications (cross browse) Cf. UniMelb, Projects (in infoEd)	1		Business
Fellowships				Government
Future Students		1		Media
Graduate Research School	Future and current students (v popular with them)	1		NGO
Grants	Applications, management, etc.	1		Alumni
International Students				Donor
News		1		Affiliated Institute
Partnering				Peer Institutions
Programs & Courses (search & browse)	Source data through JULIA	1		Professional Organisations
Publications	Part of Experts Db?			General Public
Research Centres				Mentor
Research Quality Framework (RQF)				International agents
Scholarships/Stipends				International UNSW offices
Strategic Goals & Policies				International recruitment offices

Research strengths				Board Member
			Questions	
		1	USyd split by discipline area (x3)	
			Split by audience - for UNSW Researchers,	

3. Alumni Gateway

About Alumni

Alumni
Activities

Benefits and
Services

Alumni
Networks

Alumni
profiles/Testimonial

Events

Latest News

Donate online

Supporting
UNSW

Stay in touch

Quicklinks

- Update your details
- Alumni reunions
- President's Report
- FAQs

Alumni Gateway (Details)

Items	Extra Info	Rank (1,2,3)	Target Audiences
Publications	UNSW		Alumni
Online Donations	UNSW		Donor
President's report	UNSW		General Public
Alumni Awards and Scholarship winners	UNSW		Board Member
Alumni graduand awards	UNSW		Business
Supporting UNSW	UNSW - Scholarships, Research, Faculty projects, Vice-Chancellor's annual appeal		Media
How to support UNSW	UNSW - Donations, bequests, corporate sponsorship,		Professional Organisations
Alumni Benefits and Services	UNSW		Government
About Us	UNSW Vision and mission Constitution By-laws Board of governors Awards Faculty alumni contacts Memories (ie alumni profiles) Scholarships Survey on financing 3 minute survey Board elections		
Latest News			
Events			
Alumni profiles			
Alumni networks			
FAQs			
Keep in touch			

Attachment 5: Consultation Approach

The Web@UNSW has many thousands of users drawn from every aspect of the UNSW community, including students, researchers, academic and general staff, alumni and other supporters of The University.

The following have been identified as major audiences of the Web@UNSW. Underlined items refer to the consultation groups that will serve as communication channels for these audiences, as detailed in the accompanying table.

Prospective domestic students

- **Undergraduate and Postgraduate Coursework students:**
 - usability testing conducted by the Marketing & Student Recruitment Working Party;
 - focus groups via market research implemented by UNSW Marketing;
 - representation from Student Recruitment and UNSW Marketing on the Web Reference Group.
- **Postgraduate Research Students:**
 - usability testing conducted by the Marketing & Student Recruitment Working Party;
 - representation from the Office of the DVC (Research) and Graduate Research School on the Web Reference Group.

Prospective international students

- representation from the International Office on the Web Reference Group and Marketing & Student Recruitment Working Party;

Current students

- representation from Student Services on the Web Reference Group;
- briefing session with Office of the DVC (Academic);
- briefing sessions with ARC and UNSW Sports Association.

Alumni & Supporters

- briefing session with UNSW Foundation.

UNSW Academic Staff (Research and Teaching)

- Faculty and School representation on the Web Reference Group;
- representation from the Office of the DVC (Research) and Graduate Research School on the Web Reference Group;
- Briefing session with VCAC;
- Briefing sessions with Faculty Heads Of Schools; Faculty General Managers, Faculty Web Coordinators and Marketing Reference Group.

All UNSW Staff

- Project announcement in News@UNSW;
- Project page on MyUNSW .

Web Reference Group Composition

1. Chair – Director of Media & Communications (Judy Brookman);
2. HR Manager Systems & Benefits (Brian Vassie);

3. Deputy University Librarian (Howard Amos);
4. Director of Communications, Faculty of Business, (Marie Kelly);
5. Deputy Director, Student Services (Robert Morrell);
6. PVC International (Chris Cox *for* Jennie Lang);
7. Student Liaison Manager, Graduate Research School (Iona Reid);
8. Enterprise Architect, IT Services (Adam Goc);
9. Director, UNSW Marketing (Sue-Anne Chew);
10. Executive Officer, DVC Research Office (Bronwyn Greene / Stella Vasiliadis);
11. Senior Lecturer, School of Computer Science & Engineering (John Shepherd)
12. Corporate Web Site Coordinator (Brad Hall);
13. Web@UNSW Project Manager (Peter Moloney)
14. PVC (Students) & Registrar (Joan Cooper).

Attachment 6: Project Costs

Item	Cost
Salaries	\$ 110,220.00
Consultants	
Project strategy (Two Step Designs)	\$ 2,382.00
Read / Write Web (Future Street)	\$ 9,800.00
Usability evaluation (CSE)	\$ 12,000.00
Hardware (1 computer)	\$ 1,792.00
Catering	\$ 900.00
Vouchers for usability testers	\$ 1,400.00
Misc (printing, comms works etc)	\$ 210.00
TOTAL	\$ 138,704.00

References

Work Commissioned by Web@UNSW Project

These papers are available on request.

Usability Testing

Dr Daniel Woo (School of Computer Science & Engineering)

1. *Prospective Student Usability Evaluation* (August 2007)
2. *From Discovery to Decision* (October 2007)
3. Further reports: *Local High School Year 12 Student Observations* and *Foundation Year Observations*

Expert Consultancy on Read–Write Web

Mark Pesce & Dr Ross Rudesch Harley (School of English, Media & performing Arts)

4. *Out of the Garden: UNSW and its Web Discontents* (September 2007)
5. *Consistent Flexibility: Designing for Use in UNSW Web Services* (October 2007)

Background References

1. *Wikinomics: How Mass Collaboration Changes Everything* by Don Tapscott & Anthony D. Williams (Portfolio, New York, 2006)
2. *Undergraduate Student Market Research Study* by Robert Lawrence (June, 2007)
3. *JULIA Overview* by James Dawson
4. *Building Enterprise Information Architectures: Re-engineering Information Systems* by Melissa A. Cook (Prentice Hall PTR, 1996)
5. *Usability of New South Wales Corporate web site usability evaluation* by Gary Bunker (2005)