The University of Melbourne
Faculty of Economics and Commerce
response to Consultation paper

Scholarly Information in a Digital Age:
Choices for the University of Melbourne

The University's Consultation Paper on *Scholarly Information in the Digital Age* posed a number of complex and far-reaching questions around how the University could develop information and technologies, services and infrastructure to achieve research, learning, teaching and knowledge transfer aspirations goals the next decade. The following responses are

1 Response on Research

1.1 Collection and Storage of, and Access to, Research Data

The Faculty undertakes research that is primarily empirical in nature (although a small number of researchers are engaged in 'analytical' research (mainly in the Department of Economics)).

Below is a brief summary of the main types of data that are collected by academics engaged in this research:

a) Share price data. This data is used by academics engaged, primarily in capital markets research (mostly in the Department of Finance and the Department of Accounting and Information Systems). This data is not usually collected from primary sources but rather through subscribing to commercial databases.
    - We would expect research using this type of data would continue over the next decade and that the faculty would need to continue to subscribe to these databases.

b) Corporate financial data. This data is used primarily by academics in the Department of Accounting and Business Information Systems, Department of Finance, and (possibly, to a lesser extent) the Department of Management and Marketing. This data is contained in databases subscribed to by the university. Some of the data is in a form that enables simple extraction. Other data needs to be 'hand collected' before it can be analysed.
    - This data will continue to inform research over the next decade.
    - An issue for the future is the extent to which this data can be converted into a form that allows easy access and interrogation.

c) Other corporate data. This data typically describes non-financial attributes of entities, for example, members of company boards, the names of auditors, etc. This data is stored on commercial databases but much of it is currently not in a form that can be extracted easily and so requires 'hand collection'.
    - This data will continue to be used for research over the next decade.

- Most of this data is currently in a form that is ‘non readable’ (i.e., non digital).
- A challenge over the next decade is to develop the means of storing this data in a ‘readable’ form.

d) Survey data. This data is typically collected for research done by academics in the Departments of Accounting and Finance, Management and Marketing, the Melbourne Institute of Applied Economic and Social Research, and (possibly, to a lesser extent) the Department of Economics.
   - This data will continue to be collected and used for research over the next decade.
   - While most survey data is till currently collected using mail survey questionnaires, its future collection is likely to be through ‘electronic’ means.

e) Interview data. This data is collected mostly through field research. Typically, it is captured through note-taking, questionnaires, and/or electronic recording.

f) Experimental data. This data is collected via ‘pencil and paper’ or, in more recent times through networked computer systems where subjects interact with software. The Department of Accounting and Business Information Systems, the Department of Management and Marketing, and the Department of Economics engage in this type of research.

1.2 Issues and challenges using, storing and managing over the next decade

One of the largest datasets that will be used over the next decade will continue to be data about capital markets, i.e., share price data and company data. Almost all of this data will be accessed via commercial databases. Because of this, copyright, intellectual property rights regarding derived data, disclosure, access issues will need to be addressed.

Much of the collected data described in 2. – 6. above remains in the custody of the individual researcher. To the extent that this data is currently stored and maintained consistent with university policy and best practice is problematic and creates a major challenge over the next decade. For example, to what extent do researchers have the capacity to access data stored in departments other than their own? Or, for that matter, to what extent are researchers aware of the complete set of research data held across the faculty? And, to what extent is data collection duplicated within the faculty? These questions pose issues that must be addressed in the near future. In all likelihood, data collection (and therefore its storage) is likely to grow rapidly over the next decade. Failure to address the issues identified above could lead to a wasting of resources through duplication, a threat to the security of collected and stored data and breaches of copyright through a lack of appropriate governance structures.

1.3 Collection and Storage of, and Access to, Research Output

The Faculty engages in high quality research. This research leads to knowledge acquisition and dissemination primarily through academic outlets such as internationally peer reviewed publications. A challenge for the faculty over the next decade is to identify ways of collecting and storing the output from this research that will allow greater access from a broader group of interested parties than just the researchers from the particular discipline in which the research is being done. Research informs teaching and learning. In what ways can research output be stored to allow the integration of research into the teaching program of the faculty? This is an issue that needs to be addressed over the next decade.

The Federal Government, through its Minister, Kim Carr, has signaled that it wants greater accountability associated with the funding of research and is keen to ensure that resources are directed to research that provides the best outcomes for the nation. Consequently, over the next decade there will greater demands on the Faculty to measure and record the extent and quality of its research output. The challenge it faces is to provide its staff with simple mechanisms that enable them to store the outputs of their research (i.e., publications, etc.) that enables efficient retrieval of information on research productivity by the Faculty.

The University, and in particular, the Faculty over the next decade wishes to engage more with its external communities to develop, exchange, and apply knowledge and expertise for mutual benefit. An important factor in further developing this knowledge transfer action over the next decade is to create a means by which external communities can access and understand the research that's being done by the Faculty. The challenge here lies with the latter issue of creating 'lens' through which external communities can discover the research output that is of interest and benefit to them.

1.4 Access to the Broad Bodies of Knowledge of the Disciplines in the Faculty

Repositories and collections of works relevant to the disciplines within our Faculty are expanding at (most likely) exponential rates. The University currently provides an excellent service through its library network to enable access to these collections. However, a major challenge facing Faculty researchers (including staff and RHD candidates) over the coming years is how they can access and extract the information they need from these ever expanding collections. It is likely that more and more repositories, collections, and archives will need to be 'digitised' so that these researchers can gather information without incurring greater transaction costs.

2 Response to Teaching and Learning

The student cohort in the Faculty of Economics and Commerce is very diverse, with students coming from over 70 different countries. These

students could be further segmented by prior education background, language ability and level of professional experience. This segmentation should be considered when considering how students utilise learning spaces and scholarly information sources. For some students the library is a home, and an important meeting place that augments virtual communities. Similarly, we have observed the high usage of the wireless lounges available for graduate students and how this facilitates their group interaction and project work. In the future, our Faculty will continue to cultivate leadership, interpersonal and teamwork skills as these continue to be in very high demand from employers.

In thinking about the priority that is placed on virtual student experience vs the physical it is recommended that current usage patterns be examined to help inform any plans.

For example, statistics provided by Trish Wilson, Giblin Library, show that staff and students of the Faculty of Economics and Commerce accounted for 11% of the total number of items borrowed across the University in 2007, second only to the Faculty of Arts (27% of the total). This indicates a high level of demand for the *physical*, ie print, collections of the library. It will be important to ensure that students' and researchers' direct access to print resources is not compromised.

The solution to competing priorities for space within library buildings is usually to move "low use" print materials to other locations and offer a retrieval service, which can take hours or days, depending on the proximity of the storage facility to the source library and frequency of access to it. Unfortunately, this reduces the all-important convenience factor for the user, and begins a cycle of "low use" materials becoming even less used. For many students and researchers, the ability to immediately consult a work to check a fact or compare it with other sources, or to browse shelves and individual works for that serendipitous discovery, provides a dimension to their study not catered for by the narrowly targeted approach required by off-site storage, which assumes that the user knows exactly what they want and in which work to find it.

The same can be said for most electronic resources. No figures comparable to the above were available to indicate the extent of use of the electronic collections – full-text and other databases, e-books and e-journals – by students and staff of the Faculty, but it is generally the case that heavy print users are also heavy users of electronic resources.

The range of resources available is impressive and has expanded enormously the opportunities for students and researchers to engage with scholarly literature. However, *effective* use of electronic resources requires the user to have good information literacy skills, beginning with some knowledge of the sources relevant to their discipline, the ability to select the appropriate one to use for a particular purpose and the ability to frame a query in a form that is correctly interpreted by the retrieval system to provide the required response.

The Faculty considers one of its key challenges to help students gather, analyse, process and critically assess data. The great majority of material currently available only in print form will never be digitised. Although technically feasible, it is not cost effective and is why 'digitisation projects' generally focus on classics (out of copyright) and popular materials, not textbooks and the like. This may become less of an issue by the end of the next decade, when we can expect that new materials will most likely be published in both forms, or only electronically, but the transition period will require consideration.

The information resource requirements of undergraduate students and research students/academics are also quite different. Undergraduates require basic texts, explanatory works providing context to their studies, within a fairly limited scope; given information about subject and course content it is reasonably easy to predict what will be required and purchase material accordingly. Researchers' needs are much less easily predicted and therefore more difficult to cater for – the nature of research is that it requires original thinking and the bringing together of previously unrelated knowledge, often eclectic and from multiple discipline areas, and inclusive of both current and historical works. A recent inspection of electronic holdings (fulltext and other databases) of Australian university libraries revealed a high degree of uniformity between collections, possibly a result of cost-saving consortial purchasing, but also reflecting similarity in the perceived information needs of each library's users. The consultation paper described in detail the evolution of the University's library and its current position as "…one of the greatest library, cultural and archival collections in Australia." A collection containing large numbers of unique titles could be seen as an additional point of differentiation between universities seeking to attract the best students and researchers. It will be important to consider how these disparate needs can be accommodated when planning the continued development of the University's collections to support teaching and research.

A major challenge for the future is to ensure that all students, and all academics, have the requisite skills to benefit from the considerable investment made on their behalf by the university in these resources.

While whole-of-university infrastructure could provide the foundation for developing social networking, utilization of wireless reading devices such as *Amazon Kindle*, all of the market research we have done about on-line technologies have shown that students continue to value face-to-face contact and view technology as enabling rather than as a replacement.

3 Response to Knowledge Transfer

The Faculty launched *Insights*, a knowledge transfer journal that has been published in print and on-line from April 2007. The publication's aim is to record condensed and edited versions of important public lectures, conferences and seminars that are presented by distinguished visitors and academic staff to the Faculty. In some cases, reference will be made to

where the lectures are printed in full and in addition where recordings or other resources are available, these are linked via the on-line site.

In less than a year, the web statistics show that there were over 12,000 visitors to the on-line site from a diverse range of countries. This means that developments in various disciplines within the Faculty, new findings and ideas relevant to the profession and the community more generally are made openly available for others. Utilisation of on-line publishing is an extremely cost effective way of making this output available more broadly.