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SMU Institutional Repository: Knowledge Dissemination of Research and Scholarship

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**SMU INSTITUTIONAL REPOSITORY:
KNOWLEDGE DISSEMINATION OF RESEARCH AND
SCHOLARSHIP**

August 2008

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EXECUTIVE SUMMARY

In planning for the implementation of SMU's Institutional Repository, we discovered significant developments on the international research and academic scene in the area of scholarly communication. The developments cover changes in the role of governments and libraries in the support of research, the development of institutional repositories as the medium for the dissemination of scholarly communication, emerging standards and protocols for knowledge harvesting, new copyright models and new perspectives on measuring and reporting research quality and output. To be recognized as a research institution of excellence in the academic world, the University needs to decide where it wants to be in the open access space.

Open access to research, through institutional repositories, is an emerging and significant trend. The image of a repository as a place to collect, organize and preserve an institution's knowledge is being replaced by a repository as a medium of communication and knowledge sharing. Initiatives in support of open access and repository development are happening at the regional, national, institutional and disciplinary levels. Mandates requiring open access to research are increasingly being adopted. Governments are funding projects to develop guidelines and standards to speed up the development of institutional repositories. Services for aggregating scholarly content from institutional repositories around the world have taken root. Institutional adoption and user participation levels of institutional repositories are growing. Publishers and research funding agencies have started to adopt models to allow/require open access to research.

The benefits of a repository to researchers, institutions and the global community are far-reaching. An institutional repository increases the visibility and prestige of the university when the body of research of the institution is consolidated, with a central point of access. Discoverability of research increases the impact of publications and has proven to increase citation counts. The repository also serves as a marketing tool to attract faculty, students and funding into the institution. The global community benefits from the knowledge exchange and a better understanding of research activities.

Based on our research and benchmarking, SMU should realize these benefits by supporting open access to research and publishing via an institutional repository. It will enhance the University's visibility and international status as a research institution of distinction with strong research capabilities, reinforced when the research of all Centres and Institutes are assimilated into the repository. Research funding will be more forthcoming when research output is visible. Cross-disciplinary and cross-institutional collaboration is facilitated, and research management and performance reporting better supported.

For this to happen, we encourage SMU to engage its various communities in a collaborative effort to arrive at a successful formula involving policies, processes and roles, technical infrastructure, cultural alignment and performance evaluation. Strong and sustained conviction and will at all fronts and levels are needed to turn the vision into reality.

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Context and Purpose of Paper

The Library's participation at various international meetings has uncovered some common themes in the library and information landscape, with significant and pertinent implications for research and scholarship at SMU. The University Librarian submitted a preliminary update on these themes to the President and Provost in May 2008, providing initial insights on the issues and implications of new models of scholarly communication.

In recent years, there have been significant developments on the international research and academic scene in the area of scholarly communication. The developments are far-reaching, long-term, complex and central to the University's direction to strengthen its position as a research institution. The main driver behind these developments is the call for open access to research and other scholarly content. Toward this end, the interactions taking place cover new copyright models, changes in the role of governments and libraries in the support and dissemination of research, the development of institutional repositories, emerging standards and protocols for knowledge harvesting and new perspectives on measuring and reporting research quality and output.

This paper covers several themes -

- it introduces the concept of open access and institutional repositories as a new model of scholarly communication;
- it presents the value proposition for open access to research and institutional repositories;
- it highlights key developments around the world in support of open access to research;
- it posits reasons why SMU would benefit from having an institutional repository and open access to research; and
- it proposes a way forward for how SMU can respond to the new open access movement to stay relevant as a research institution and be recognized for its research and teaching.

Open Access and Institutional Repositories as a New Model of Scholarly Communication

Scholarly Communication and the Advent of Open Access

Scholarly communication is the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community and preserved for future use. One of the fundamental characteristics of scholarly research is that it is created to facilitate inquiry and knowledge.

(<http://www.ala.org/ala/acrl/acrlissues/scholarlycomm/scholarlycommunicationtoolkits/librarians/librarians.cfm>)

An Open Society Institute meeting in December 2001 launched the **Budapest Open Access Initiative**. The purpose of the meeting was to accelerate progress in the international effort to make research articles in all academic fields freely available on the internet. Driven by the old tradition of researchers seeking to disseminate their research as widely as possible and the emergence of the

Internet as a means of sharing freely and openly new knowledge, the call for open access to research now has signed up over 400 institutions.

(<http://www.soros.org/openaccess>) Peter Suber, one of the original members of the coalition, succinctly describes open access (OA) as eliminating two kinds of access barriers at once: price barriers and permission barriers. (Suber, 2007)

The Howard Hughes Medical Institute in Chevy Chase, Maryland drafted the **Bethesda Statement on Open Access Publishing** in April 2003. The aim of the statement was to “agree on significant, concrete steps that all relevant parties — the organizations that foster and support scientific research, the scientists that generate the research results, the publishers who facilitate the peer-review and distribution of results of the research, and the scientists, librarians and others who depend on access to this knowledge— can take to promote the rapid and efficient transition to open access publishing.” (<http://www.earlham.edu/~peters/fos/bethesda.htm>) The statement of the Libraries and Publishers Working Group that was drafted as a result of the meeting reads, “We believe that open access will be an essential component of scientific publishing in the future and that works reporting the results of current scientific research should be as openly accessible and freely useable as possible. Libraries and publishers should make every effort to hasten this transition in a fashion that does not disrupt the orderly dissemination of scientific information.”

Nineteen international research and cultural heritage organizations signed the **Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities** in October 2003.

(http://oa.mpg.de/openaccess-berlin/berlin_declaration.pdf)

As of July 2008, 250 organizations including research institutes, funding agencies, government institutions and institutions of higher education, from 30 countries had signed the Declaration calling for open access publishing of research.

(<http://oa.mpg.de/openaccess-berlin/signatories.html>)

Institutional Repositories

In 2002, the **Scholarly Publishing and Academic Resources Coalition** (SPARC) published a paper on the case for institutional repositories. Positioned as a response to issues faced by academic institutions, institutional repositories are seen as a critical component in remodeling the system for scholarly communication. As a new medium for scholarly communication, institutional repositories expand access to research, enable the institution to take back control over scholarship by its members, increase competition and reduce the monopoly power of journals (publishers), as well as ease the economic burden of costly journal subscriptions. Institutional repositories also have the capacity to serve as tangible indicators of a university's quality and demonstrate the relevance of its research activities, thereby increasing an institution's visibility, status and public value. (Crow, 2002)

A university-based institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the *stewardship* of these digital materials, including *long-term preservation* where appropriate, as well as *organization* and *access or distribution*. (Lynch, 2003)

An institutional repository is a locus for scholarly content, a rich source of the intellectual assets and knowledge of an institution. Institutional repositories are essentially digital collections of the scholarly output of a university, collected, organized, preserved and disseminated. In some instances, institutional repositories also incorporate the institutional records of the university to preserve its institutional heritage.

Value Proposition for Open Access and Institutional Repositories

Institutional repositories, by capturing, preserving, and disseminating a university's collective intellectual capital, serve as meaningful indicators of an institution's academic quality. Both institutional visibility and prestige are enhanced through institutional repositories. Arguing that the current system of scholarly communication results in an institution's intellectual output and value of its intellectual property being diffused through numerous scholarly journals, an institutional repository concentrates the intellectual product created by a university's researchers, making it easier to demonstrate a university's scientific, social and financial value. Institutional repositories are seen to complement existing metrics for measuring institutional productivity and determining prestige. Tangible benefits, such as funding from both private and public sources, are expected from the high quality of scholarship that comes with increased visibility. [Crow, 2002]

Benefits of Institutional Repositories to Various Stakeholders

There are numerous benefits for the researcher, the institution and the international community. These have been described in various forms under various initiatives. The list from the Repositories Support Project, a project funded by the Joint Information Systems Committee (JISC) of the UK best sums it up and is reproduced here.

For the researcher:

- Increased visibility of research output and consequently the department and the institution
- Potentially increased impact of publications as an author at the institution. Research made freely available can be disseminated more widely and have greater impact. Work done on citation analysis has demonstrated that research that is made freely available is going to be easier to cite
- In fast moving subjects such as Electronics, researchers can make preprints (as opposed to peer reviewed papers) available via a repository, to establish that they were first and to get feedback
- Helps manage and store digital content connected with research, including the underlying research data
- Helps researchers manage the likely requirements of funding bodies for publications to be made available in a repository
- Provides the possibility to standardize institutional records e.g. academic's CVs and published papers
- Allows the creation of personalized publications lists

- Offers usage metrics so researchers can determine hit rates on specific papers
- Creates the potential to undertake citation analysis through following links to papers held in other repositories.

For the institution:

- A repository can interoperate with other university systems and maximise efficiencies between them by sharing information
- Increases visibility and prestige of an institution (depending on content contained)
- Repository content is readily searchable both locally and globally
- Allows an institution to manage their intellectual property rights by raising awareness of copyright issues and facilitating the recording of relevant rights information
- A repository that contains high quality content could be used as a 'shop window' or marketing tool to entice staff, students and funding
- A repository can store other types of content that is not necessarily published, sometimes known as 'grey literature'
- Learning and teaching materials previously locked away in Virtual Learning Environments for specific courses could be stored centrally to increase the potential reuse, repurposing and sharing of the materials
- A repository may be an important tool in managing an institution's Research Assessment Exercise (RAE) submission (for SMU, this would be the management reports on research that are submitted to SMU Senior Management and the Ministry of Education)
- Repositories could provide cost savings in the long run provided that a significant amount of content is deposited in them
- Offers greater flexibility over websites with better security and preservation of various kinds of digital materials through the collection of standardized metadata about each item.

For the global community:

- Assists research collaboration through facilitating free exchange of scholarly information (this is enabled through the use of metadata harvesters of OAI-compliant institutional repositories)
- Aids in the public understanding of research endeavours and activities.

(<http://www.rsp.ac.uk/repos/justification.php>)

Researchers seek to disseminate their research as widely as possible and to have it acknowledged and cited. Institutions seek to be recognized for high scholarship and prestige. The global community seeks access to research and accountability from researchers. The significant returns from having research published worldwide, on a publicly available platform such as the Internet, to be searched and shared, are indisputable.

Key Developments in Support of Open Access to Research

While we are presently in a time of flux with debates among publishers, researchers, universities and funding agencies over the future direction of open access, various developments in support of open access have occurred. These developments span across continents and involve governments, researchers, research libraries, institutions, research funding agencies and publishers. New organizations have emerged to support the cause for open access and/or to smooth the way for adoption and repository development.

DRIVER, or Digital Repository Infrastructure Vision for European Research, is a collaboration, co-funded by the European Commission, to build a network of freely accessible digital repositories of European research. (<http://www.driver-repository.eu/>) DRIVER responds to the vision that any form of scientific-content resource, including scientific/technical reports, research articles, experimental or observational data, rich media and other digital objects should be freely accessible through simple Internet-based infrastructures.

In Australia, the **RUBRIC** Project (Regional Universities Building Research Infrastructure Collaboratively), sponsored by the Australian Commonwealth Department of Education, Science and Training (DEST), was initiated to establish and develop institutional repositories in several academic institutions. **FRODO** (Federated Repositories of Online Digital Objects) and **MERRI** (Managed Environment for Research Repository Infrastructure) are two initiatives that DEST has undertaken to support the RUBRIC objectives. (http://rubric.edu.au/packages/RUBRIC_Toolkit/docs/About.htm#id2)

OpenDOAR is a service with a directory of open access repositories around the world. (<http://www.opendoar.org/>) To date, the site allows you to search repositories and repository contents of 1,175 repositories from 886 organizations. The OpenDOAR website provides the latest data on profiles of the repositories and their contents, such as by repositories by country, by continent, by subject and by content types.

The initiatives mentioned above are only a sampling of developments in the area of open access. Appendix A provides a more comprehensive summary of key developments on open access and institutional repositories.

The Case for Open Access and an Institutional Repository for SMU

The benefits of open access and institutional repositories for the researcher, the institution and the global community are described in an earlier section of this paper. These benefits apply to researchers at SMU and to SMU as an institution. The more significant benefits are set in context here.

Enhances SMU Visibility and International Recognition

SMU aims to be to be a premier University, internationally recognized for its world class research and distinguished teaching. An open access institutional repository would serve as both a “window” to showcase the research of the

University as a whole and as a “door” to discovery and access to such research by the world. For research that is not published in international journals, there needs to be alternative outlets for dissemination. The institutional repository is an alternative channel by which knowledge dissemination by SMU is made possible. Making research visible contributes to the University’s direction to be recognized and motivates staff to strengthen its position as a research institution.

Strengthens SMU Identity as a Research Institution through Assimilation of Research by Centres and Institutes

Assimilating the research of the Centres and Institutes into the repository will further enhance SMU’s visibility and international status as a research institution of distinction. The research capabilities of the University are pulled together and represented in a central point of access.

Enables Knowledge Discovery

Content deposited in the repository can be harvested by web search engines such as Google, Google Scholar and OAISTER (<http://www.oaister.org/>) when agreed standards for content organization and technical programming are adopted i.e. the Dublin Core Metadata Initiative for Scholarly Communication and the Open Access Initiative Protocol for Metadata Harvesting (OAI-PMH) respectively. These search engines harvest the repository metadata and helps ensure that repository articles have higher relevance ranking in search engine results.

(<http://www3.imperial.ac.uk/library/digitallibrary/digitalrepository/benefitsofopenaccessandrepositories>)

Invites Research Funding and Publishing Opportunities

Publishing research via an institutional repository provides to foundations and other funding agencies with information on research projects and faculty that are suitable for research funding support.

The discoverability of research via a repository also enables publishers to locate high quality research and researchers that would be of interest. Publishers may invite researchers to submit future publications to their journals or on to their editorial committees.

Increases Citations and Improves Research Impact

The visibility resulting from research published in open access repositories also brings with it the increased likelihood of research papers being discovered and cited. Citation linking provided by an institutional repository, coupled with bibliographic citation statements and with author name authority control, allows for new methods to gauge research quality and measure researcher productivity (Crow, 2002). It has been reported that citation counts have increased by up to 300% as a result of publishing in an open access repository (OpCit Project).

A ten-year cross disciplinary comparison of open access (OA) and non-open access (NOA) articles in the same journal/year showed that OA articles have consistently more citations, the advantage varying from 25%-250% by discipline and year. (Hajjem and Harnad, 2005)

Encourages Cross-Disciplinary and Cross-Institutional Research

Research published in repositories also opens up an avenue to discover like minds and interests, and therefore potential collaborators, across disciplines within SMU, across SMU communities. For research published in open access repositories, there would be potential for cross-institutional research collaboration.

Leverages External Collaboration Opportunities

In 2005, PRDLA [Pacific Rim Digital Library Alliance] of which the SMU Library is a member, launched the **Open Access Initiative (OAI) Pilot Project** to harvest metadata of digital collections created by PRDLA member institutions. The archive, hosted by Hong Kong University, contains the metadata only (not complete digital objects) of at least one digital collection from 24 of the PRDLA member institutions. (http://prdla.ucmercedlibrary.info/?page_id=7) The SMU institutional repository will enable us to be the 25th member of the PRDLA's OAI project and be a part of the consortium of open access repositories.

The NUS and the NTU have initiated work on their institutional repositories. The National Library Board (NLB) has published the first edition of **the Directory of Researchers** in Singapore. Several SMU faculty members are currently listed in the directory. The repository, if diligently populated, will be able to feed information into the university's Integrated Faculty Information System (IFIS) which can then provide a more complete listing of SMU researchers and their research work to the NLB. NLB has also invited the SMU to participate in their **Research Collaboratory** initiative. These initiatives will be explored separately although they signify for now initial efforts at the national level to bridge the research communities in Singapore.

Improves Research Management and Supports Performance Reporting

With SMU research organized in a repository using appropriate metadata, the data held in the repository can be mined for various purposes. For example, the data could feed into various reports to produce profiles of research portfolios and output performance of SMU. There could also be better internal management of research outputs, particularly through lifecycle management of research via a repository, and to provide information on research for updating faculty profiles. (http://www.jisc.ac.uk/uploaded_documents/QandA-Doc-final.pdf)

Today there is less push from local government and stakeholders for open access to research. We envisage that the pressures and influences from the international academic and research community will soon be felt. The escalating costs of sustaining research, research libraries and research institutions when contrasted against the benefits from publishing research via open repositories, is leading to initiatives for standardization and new models of measuring research quality and faculty productivity. This is the time for SMU to prepare, while it is still small and nimble.

The SMU Institutional Repository for Knowledge Dissemination

The institutional repository envisaged for SMU will be a collection of scholarly content created by the various SMU communities including the Centres and Institutes, as well as by postgraduate students. The content will include journal articles, working papers and reports, conference papers, conference proceedings, electronic theses and dissertations, books and teaching and learning objects. In its full implementation, it will also hold other digital assets such as the institutional records and administrative documents of the SMU.

The mission of the SMU institutional repository is

To provide relevant services for the acquisition, organization, preservation and dissemination of scholarly and intellectual assets, and the institutional records of the SMU.

The objectives of the SMU institutional repository are

- to create visibility and raise the impact of the research output of the SMU;
- to facilitate collaboration and sharing across disciplines, institutions and industry through supporting the interactions of social networks and communities of practice;
- to preserve the institutional heritage of the SMU; and
- to serve as a central digital repository for the management of the intellectual assets and institutional records of the SMU to support core business processes and fulfill statutory obligations.

When initially approved in December 2006, the project sponsors of the SMU institutional repository were the President and the Provost, with the co-project champions being the University Librarian and the Director of the Office of Communications and IT (CIT). The development of the institutional repository is a joint effort of the Library and CIT, in collaboration with the various SMU communities.

SMU Going Forward

The concept and services of an institutional repository are easily understood. Targeted communications and dialogue to engage the various communities to bring about awareness and encourage participation are needed. The implementation strategy is to stage a pilot for an initial proof of concept, and to adopt a coordinated and scalable approach in bringing on board individual communities and scholarly collections. By working collaboratively towards a successful formula involving policy, processes and roles, technical infrastructure, cultural alignment and performance evaluation, the vision can be made a reality.

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SUMMARY OF DEVELOPMENTS IN SUPPORT OF OPEN ACCESS TO RESEARCH

National Initiatives

SHERPA (Securing a Hybrid Environment for Research Preservation and Access) is an organization that aims to establish open access repositories in UK universities. With a membership base of 24 higher education institutions including the University of Oxford and the University of Cambridge, SHERPA has initiated or collaborated on several initiatives to promote and support open access to research. In helping universities adopt open access as a publishing strategy, SHERPA introduced **ROMEO** (Rights Metadata for Open Archiving), a site that provides a list of publishers grouped by the permissions that are normally given as part of their copyright transfer agreement. (<http://www.sherpa.ac.uk/romeo.php>) A companion listing is provided in **JULIET**, a site with a summary of policies on open access publishing of various research funders as part of their grant awards. (<http://www.sherpa.ac.uk/juliet/index.php>)

DRIVER, or Digital Repository Infrastructure Vision for European Research, is a collaboration, co-funded by the European Commission, to build a network of freely accessible digital repositories of European research. (<http://www.driver-repository.eu/>) DRIVER responds to the vision that any form of scientific-content resource, including scientific/technical reports, research articles, experimental or observational data, rich media and other digital objects should be freely accessible through simple Internet-based infrastructures.

A printed and electronic publication titled "**Open Access-Opportunities and Challenges – A Handbook**" was released this year by the European Commission and the German Commission for UNESCO, translated from the original German edition published by the German Commission for UNESCO. (http://ec.europa.eu/research/science-society/document_library/pdf_06/open-access-handbook_en.pdf)

ECHO, the European Cultural Heritage Online is an open access initiative funded by the European Commission to create IT-based infrastructure for the humanities in Europe. (<http://echo.mpiwg-berlin.mpg.de/home/pdfs/echo-flyer>) The network of the ECHO knowledge weavers consists of more than 70 scientific and cultural institutions worldwide, that contribute cultural heritage content as well as scholarly metadata. (<http://echo.mpiwg-berlin.mpg.de/network>)

Institutional Repository Infrastructure for Scotland, **IRIScotland**, was initiated by the Scottish Confederation of University and Research Libraries (SCURL), a cross-sectoral organization representing the Scottish HE libraries, the National Library of Scotland and the two major public reference libraries in Glasgow and Edinburgh. IRIScotland was conceived as a means to provide the organizational and technological framework for a Scotland-wide institutional repository infrastructure for research. (<http://www.iriscotland.lib.ed.ac.uk/>)

The **Repositories Support Project** (RSP), funded by the NSF and the JISC, aims to coordinate and deliver good practice and practical advice to institutions of higher education in UK for the implementation, management and development of institutional repositories. With investment in Higher Education repository and digital content infrastructure, it funds the development of digital repositories for the purpose of preservation, including cross-searching facilities across repositories; funding for institutions to develop a critical mass of content, preservation solutions and advice for the development of repositories. (http://www.jisc.ac.uk/media/documents/programmes/reppres/rspprojectplanfinal_bh&at.pdf)

CARL, the Canadian Association of Research Libraries, launched an Institutional Repository Project in 2003. With the goal of providing support for Canadian implementers of institutional repositories (IRs), 80% of the members of CARL now have an institutional repository in place. (http://www.carl-abrc.ca/projects/institutional_repositories/canadian_projects-e.html)

In Australia, the **RUBRIC** Project (Regional Universities Building Research Infrastructure Collaboratively), sponsored by the Australian Commonwealth Department of Education, Science and Training (DEST), was initiated to establish and develop institutional repositories in several academic institutions. **FRODO** (Federated Repositories of Online Digital Objects) and **MERRI** (Managed Environment for Research Repository Infrastructure) are two initiatives that DEST has undertaken to support the RUBRIC objectives. (http://rubric.edu.au/packages/RUBRIC_Toolkit/docs/About.htm#id2)

Aggregator Services

OpenDOAR is a service with a directory of open access repositories around the world. (<http://www.opendoar.org/>) To date, the site allows you to search repositories and repository contents of 1,175 repositories from 886 organizations. The OpenDOAR website provides the latest data on profiles of the repositories and their contents, such as by repositories by country, by continent, by subject and by content types.

Another example of aggregator service provider is **OAIster**, a union catalogue of digital scholarly content. Access to OAIster is made possible through harvesting the metadata records using the Open Archives Initiative Protocol for Metadata Harvesting (OAI_PMH). The catalogue currently has almost 17 million records from about 1,000 contributors. (<http://www.oaister.org/>)

DOAJ is a directory of open access journals. In 2007, 486 peer-reviewed journals were added bringing the number to 3,487 journals and 190,754 articles of date. (<http://www.doaj.org/>)

Mandated Open Access

Open access mandates are also being introduced at the national and institutional levels.

In December 2007, the **Scientific Council of the European Research Council** released its **Guidelines on Open Access**. The guidelines require all peer-reviewed publications from ERC-funded research projects to be deposited into an appropriate research repository where available, such as PubMed Central, ArXiv or an institutional repository, and subsequently be made open access within 6 months of publication.

(http://www.erc.europa.eu/pdf/ScC_Guidelines_Open_Access_revised_Dec07_FINAL.pdf)

The **National Institutes of Health** (NIH), the medical research agency of the US Department of Health and Human Services, instituted the NIH Public Access Policy which seeks to give the public access to published results of NIH funded research. As of April 7 2008, all final peer-reviewed manuscripts arising from NIH funding are required to be submitted to **PubMed** Central, an open access digital archive, within 12 months of publication.

(<http://www.pubmedcentral.nih.gov/>)

On February 12 2008, the provost committee at **Harvard University** mandated open access for the published research results of the **Faculty of Arts and Social Sciences**. This was to address growing concern among faculty that their research was not receiving maximum access when traditional modes of publishing were used.

(http://www.fas.harvard.edu/home/news_and_events/releases/scholarly_02122008.html)

In May 2008, the **Harvard Law School** mandated that each faculty member will provide an electronic copy of the final version of articles authored while with the University to the Provost Office, and that the Provost Office may make the article available to the public in an open access repository.

(http://www.law.harvard.edu/news/2008/05/07_openaccess.php)

The **Wellcome Trust**, an organization that promotes and funds research for human and animal health, believes that maximising the distribution of these papers - by providing free, online access - is the most effective way of ensuring that the research they fund can be accessed, read and built upon. This will, in turn, foster a richer research culture. The organization, therefore supports unrestricted access to the published output of research as a fundamental part of its charitable mission and a public benefit to be encouraged wherever possible.

(<http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Open-access/Policy/index.htm>)

Research Councils UK, a strategic partnership of UK's seven research councils, requires that their funded researchers, should where required to do so, deposit the output from research that are funded by the research council in an acceptable repository as designated by the research council.

(<http://www.rcuk.ac.uk/cmsweb/downloads/rcuk/documents/2006statement.pdf>)

Collection and Discipline Level Initiatives

At the collection level, theses and dissertations appear to be research that is most amenable to open access publishing. Denmark, the Netherlands, UK, Sweden and Germany are working on the **European e-Theses** portal, harvesting content from local, interoperable open access repositories. (Suber, 2007). In Australia, the DEST has launched the **Australian Digital Theses** or ADT program to aggregate Australia's higher degree theses. The **Hong Kong Dissertations and Theses** collections is an online union collection of Hong Kong postgraduate students' doctoral and master dissertations and theses indexed in the online catalogues of seven university libraries in Hong Kong.

There are also open access repositories that are disciplinary in nature. For example, **RePEc**, is an open access repository for research papers in Economics. (<http://repec.org/>) The repository is a collaboration of volunteers from 63 countries. **CiteSeer^x** is a repository developed by the Pennsylvania State University for documents in computer and information science. (<http://citeseerx.ist.psu.edu/>) NELLCO is a consortium of 100 organizations composed of academic (ABA accredited), private non-profit, and government law libraries to provide a mechanism for resource sharing and mutual benefit between law libraries. The **NELLCO Legal Scholarship Repository** provides open access to scholarship content created by faculty at NELLCO member schools on a variety of scholarly materials throughout the academic and legal research communities. (<http://lsr.nellco.org/index.html>)

Advocacy Initiatives for Open Access Publishing

At **Stanford University**, the community has been asked to consider supporting publications produced by non-profit professional societies and institutional repositories which are viable alternatives to the for-profit journals. Stanford authors are also asked to negotiate with journal publishers to retain certain copyrights. http://library.stanford.edu/scholarly_com/

In 2004, **Harvard University** eliminated some \$350,000 worth of journals published by Elsevier. This move was driven by both the financial realities and the need to reassert control over collections and to encourage new models for research publication at Harvard.

http://hul.harvard.edu/publications/hul_notes_1317/verba.html

At **Cornell University**, a scholarly publishing resolution was passed on 11 May 2005 to address the escalating costs of journal subscriptions. The resolution states "The Senate strongly urges tenured faculty to cease supporting publishers who engage in exorbitant pricing, by not submitting papers to, or refereeing for, the journals sold by those publishers, and by resigning from their editorial boards if more reasonable pricing policies are not forthcoming." Researchers were also encouraged to move to open access publishing. "The Senate strongly encourages all faculty, and especially tenured faculty, to consider publishing in open access, rather than restricted access, journals or in reasonably priced journals that make their contents openly accessible shortly after publication."

<http://www.library.cornell.edu/scholarlycomm/resolution.html>