CONUL Research Support Task and Finish Group

Briefing Documents & Recommendations

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Chris Pressler, Dublin City University (2014)

1st December 2014

Introduction

The CONUL Research Support Task and Finish Group started in May 2013 and had 8 members from 7 CONUL libraries:

- Aoife Geraghty: University of Limerick (Chair)
- Niall McSweeney: National University of Ireland, Galway
- Ciarán Quinn: Maynooth University
- Jessica Eustace-Cook: Trinity College Dublin
- Cathal Kerrigan: University College Cork
- Julia Barrett: University College Dublin
- Paul Murphy: Royal College of Surgeons in Ireland
- Fintan Bracken: University of Limerick

Cathal McCauley from Maynooth University acted as the group's champion from the start until June 2014 when he was replaced by Chris Pressler, Dublin City University.

The Group's remit was to prepare a three year strategy to develop the research support capacity of CONUL libraries. The group identified key areas around which a tool kit was to be developed in the form of briefing documents. The briefing documents are collated together in the chapters and appendices of this report.

In addition to this report, the Group has organised a seminar in conjugation with the ANLTC entitled "Supporting your research community" to be held on 3rd December 2014 in the Royal Irish Academy, Dublin (See Appendix 4 for the full seminar programme).

1 Publishing Strategy

1.1 Introduction

This chapter will examine some of the ways academics can develop a publishing strategy. There are many different methods of publishing academic material including journal articles, books, book chapters, conference posters, reports and blogs. This chapter will begin with a brief look at book publishing, but will focus mainly on journal publishing and on how to increase the impact of these publications.

1.2 Book Publishing

Researchers must consider how reputable a publisher is and how suitable they are for the book they wish to get published before entering into an agreement. The Editorial Board of the publisher and the peer-review system (if any) that they operate are also very important considerations.

It is essential that the researcher know how the book will be distributed and promoted. For example, will the book be available to purchase via Amazon, and will the publisher promote it via the press, social media, etc.?

In general, the researcher can find a lot of useful information from the publisher's website but, if possible, they should also try to speak to colleagues who have dealt with the publisher for their experiences.

It is essential that authors avoid vanity presses and print-on-demand publishers for their books. This blog post lists some of these publishers http://scholarlyoa.com/2014/04/08/a-list-of-print-on-demand-publishers-self-publishingvanity-presses-and-other-non-traditional-publishers-for-librarians-and-authors/.

Many institutions have a list of approved or prestigious book publishers that should be consulted before deciding on where to publish - researchers should check with their Library and Research Office. The CERES Valuation System (http://ceres.fss.uu.nl/rating-lists/publishers/) ranks book publishers in quality from A-E and may also be used to guide academics in relation to quality publishers. The SENSE (Socio-Economic and Natural Sciences of the Environment)

Research School in the Netherlands has developed its own ranking of scientific book publishers based on CERES system and this can be found at http://www.sense.nl/gfx_content/documents/ABCDE-indeling%20Scientific%20Publishers%20SENSE_approved_May_2009.pdf.

1.3   Journal Publishing

A similar process should be conducted when a researcher is trying to decide on which journal to target for their journal article. The scope of the journal is probably the most important consideration as it is important to choose a journal that is interested in the type of research that the author wishes to publish. The researcher should also check recent issues of the journal and familiarise themselves with its content and style and the type of articles it publishes.

It is important to look at the credentials of the members of the Editorial Board to ensure that they are respected academics in their field. Other considerations include the peer-review system the journal operates and the average waiting time from submission to publication. The waiting time can be particularly important for certain fast moving disciplines.

The terms and conditions imposed on authors by the publisher can include copyright transfer agreements and the imposition of embargoes. Some journals impose embargoes which prevent authors from self-archiving their articles in institutional repositories for a certain time period, usually 6, 12 or 24 months. The Sherpa Romeo website (http://www.sherpa.ac.uk/romeo/) details the archiving policy and conditions for many publishers and individual journal titles in relation to open access institutional repositories.

As with book publishing, journal publishers' websites are very important resources on information about journals. Authors should also consult with colleagues and investigate what journals their peers are publishing in, before selecting a journal to submit their article to.

Impact factor metrics are a useful guide to help authors to select high impact journals in their field. There are a number of different metrics that can be used to find high impact journals including the Journal Impact Factor, SJR and SNIP. It should also be noted that publishing in a high impact journal does not guarantee that an article will receive high citations subsequently.

1.3.1 Journal Impact Factor

To find the journals with the highest impact in Web of Science, use Journal Citation Reports which lists the Journal Impact Factor of all journals. The Journal Impact Factor is calculated by dividing the number of citations in the Journal Citation Reports year by the total number of articles published in the two previous years. A Journal Impact Factor of 1.5 for a particular journal would mean that, on average, articles published in that journal during the previous two years have been cited 1.5 times. The Journal Impact Factor is a relative number and can only be used to compare journals in the same research field. The Journal Impact Factor uses Thomson Reuters's Web of Science citation data.

When choosing a journal an important factor to consider is its ranking in its subject area(s) e.g. whether it is ranked in the top 10 journals in the subject area by impact factor or whether it is a quartile 1 or a quartile 2 journal. In Journal Citation Reports, click into the full information page for the journal you are interested in and click on Journal Ranking at the bottom of the Journal Information section of the page.

1.3.2 SCImago Journal Rank (SJR)

The SJR is freely available on the web at www.scimagojr.com and via Scopus and uses citation data from Scopus. The SJR gives higher weight to citations from high impact journals and is calculated over a 3 year period. The SJR normalises for differences in citation behaviour between subject fields.

1.3.3 SNIP

SNIP (source normalized impact per paper) is also available at www.journalindicators.com and via Scopus and also uses citation data from Scopus. This indicator measures the average citation impact of the publications of a journal. The SNIP corrects for differences in citation practices between scientific fields, which allows for more accurate between-field comparisons of citation impact.

1.3.4 Alternative Ranking Schemes

In addition to the impact factor metrics mentioned above, there are a number of qualitative ranking schemes that are available which are particularly useful for arts, humanities and social sciences where bibliometrics do not work effectively. These include:

- Association of Business Schools (ABS) (http://www.bizschooljournals.com/)
- Washington and Lee Law Journal Ranking (http://lawlib.wlu.edu/LJ/)
- Harzing's Journal Quality List (http://www.harzing.com/jql.htm) for subject areas including Business, Communication, Economics, Marketing, Management, Psychology, Sociology and Tourism.
- European Reference Index for the Humanities (https://www2.esf.org/asp/ERIH/Foreword/index.asp)

1.3.4.1 European Reference Index for the Humanities and Social Sciences (ERIH PLUS)

The European Reference Index for the Humanities and the Social Sciences (ERIH PLUS) was created and developed by researchers under the coordination of the European Science Foundation (ESF). Initially the ERIH listed only covered humanities disciplines and were first published by ESF in 2008 and revised in 2011-2012. In 2014, responsibility for the maintenance and operation of ERIH was transferred to the Norwegian Social Science Data Services (NSD). The reference index has been renamed ERIH PLUS in order to indicate that it has been extended to include the social sciences. ERIH PLUS does not allocate journals to particular categories but to be included, scientific journals in the humanities and social sciences must meet the benchmark standards.

1.4 Maximising the Impact of Research

1.4.1 Collaborate with Other Researchers

Researchers should seek to collaborate with researchers in other institutions as research has shown that co-authored papers, especially those from outside your own country, are cited more frequently (Pislyakov & Shukshina, 2012; Wuchty, Jones, & Uzzi, 2007). Collaboration leads to more citations because each author has their own network and collaborators will also cite each other's work in their other projects. In addition, collaboration often leads to better quality research due to the complementary skills of the research team.

1.4.2 Ensure Research is Easily Identifiable

Ensuring that research is easily identifiable is very important and can be achieved by:

- Researchers always using the same version of their name consistently throughout their career e.g. always use either the English or Irish version of their name but not both, never shorten their name, and always either include or exclude their middle initial(s)
- When publishing always use the same institutional name variant
- Creating online researcher profile(s).

There are a number of researcher profiles that can be created including ORCID, ResearcherID and Google Scholar Researcher Profiles.

1.4.2.1 ORCID

ORCID (Open Researcher & Contributor ID) is a registry of unique identifiers for researchers and scholars that is open, non-profit, transparent, mobile and community-based. ORCID provides a persistent digital identifier that distinguishes an individual from every other contributor and supports automated linkages among all their professional activities. To register for an ORCID and find out more information go to https://orcid.org/. Researchers can also link their ORCID to other identifiers such as ResearcherID and their Scopus author profile so that they don't have to add new publications to each profile separately.

1.4.2.2 ResearcherID

Researchers can also create a ResearcherID which is an author identifier unique to Web of Science. ResearcherID enables individuals to manage their publication lists, track their Web of Science times cited counts and h-index, and avoid author misidentification. Their ResearcherID can also link to their ORCID account.

1.4.2.3 Google Scholar Citations Researcher Profiles

In the 'My Citations' service of Google Scholar, individuals can create a profile and track the citations to their publications. The researcher profile also computes citation metrics including the h-index. New items will automatically be added to their profile as Google Scholar finds them. If researchers make their researcher profile public it will appear in Google Scholar search results and increase the visibility of all their research outputs.

1.4.3 Increase the Visibility of Research Outputs

1.4.3.1 Search Engine Optimisation

Researchers should take care when selecting and writing the title, abstract and keywords of their article to ensure that it is picked up in the search results of databases (i.e. search engine optimisation). Then after the article is found, the author needs to hook in the reader with the Introduction and Conclusions sections, and the figures and graphs.

1.4.3.2 Open Access

Another important method of increasing the visibility of publications is to making them Open access (OA). Open Access is an international movement to make research publications freely available in order to stimulate further research. Any person who can connect to the Internet can access OA material freely. The potential readership of OA articles exceeds that of articles where the full-text is restricted to subscribers. Research has shown that there is an open access citation advantage as open access articles receive more citations than articles published in traditional subscription-based journals (Swan, 2010c).

Open Access publishing initiatives increase access to published research, particularly publicly funded research. There are two main types of open access:

- Green open access: This is immediate or delayed open access that is provided through self-archiving. Most academic libraries provide green open access through the institution's Institutional Repository. The content is made fully and freely available in accordance with copyright holder permissions. The potential readership of open access articles far exceeds that of articles where the full text is restricted to subscribers. This increased visibility can result in raising profiles and citations for researchers.
- Gold open access: This is immediate open access that is provided by a publisher either in a fully open access journal or a hybrid journal. Hybrid open access journals provide open access only for those individual articles for which their authors pay an open access publishing fee. Publishing fees may or may not be charged to authors in fully open access journals.

The Directory of Open Access Journals (DOAJ) provides a list of open access journals. If the journal you are considering publishing in is not included in the DOAJ then check to ensure that its publisher or the journal itself is not included in Beall's List of Predatory Publishers or Standalone Journals.

For more information see the Open Access chapter.

1.4.4 Communicate and Promote Research Outputs

As the volume of publications continues to increase rapidly throughout the world, it is becoming more important for researchers to promote their research outputs to ensure that they don't go unnoticed.

Despite the increasingly digital and online nature of research, it is still very important that researchers attend and present at conferences and seminars both to communicate the results of their research and to meet potential collaborators.

If researchers share their article with people they've cited then that can have a positive impact on their likelihood of being cited.

1.4.4.1 Academic Social Networking Sites

One method for individuals to promote their research is to create a profile on an academic social networking site and add the details of their publications. There are several different sites including ResearchGate (www.researchgate.net), Mendeley (www.mendeley.com), Academia.edu (www.academia.edu) and the Social Science Research Network (www.ssrn.com). Researchers should check out the current users of the different sites and speak to colleagues before deciding which academic social networking site to create their profile in.

1.4.4.2 Social Media

Social media can be a useful means for publicising research and also engaging with audiences.
- Blogs – researchers can write about their research and other developments in their field (www.blogger.com or www.wordpress.com)
- YouTube – researchers can upload recordings of presentations or other videos to showcase their research
- Slideshare – researchers can upload slides from conferences they presented at in order to further promote their research activities
- Twitter – researchers can promote their research and receive feedback on their publications

Over 10,000 scholarly links are shared on Twitter every day. It is a very useful method of promoting their research to fellow academics and also engaging with industry, funders and the wider public. Twitter can also be used to keep up-to-date with emerging research, researchers and trends. The London School of Economics and Political Science (LSE) has produced a guide to using Twitter for academics (http://blogs.lse.ac.uk/impactofsocialsciences/2011/09/29/twitter-guide/).

The initial results of research have shown than highly tweeted articles are more likely to be highly cited than less-tweeted articles (Eysenbach, 2011).

"If you tell people about your research, they look at it. Your research will get looked at more than papers which are not promoted via social media": Michelle Terras at University College London blogged and tweeted about already published research and saw an increase in downloads from their institutional repository (http://blogs.lse.ac.uk/impactofsocialsciences/2012/04/19/blog-tweeting-papers-worth-it). It should be noted that this study looked at downloads while citations will take longer to accumulate, so we will need more time to understand the impact completely.

1.4.5 Other Methods to Increase Impact

There are a number of other ways that citations for publications may be increased including:

- Publication throughout a project may generate more citations than just one in the end (Bornmann & Daniel, 2007)
- Papers that cite more tend to be more highly cited (Corbyn, 2010)
- Sharing data, especially quantitative data, increases the likelihood of publication in high impact journals (King, 2006)

Sharing data is particularly important in studies using data that can then be reused for future research. Researchers should insert link to research data and material in the article to improve citations. In a study on 555 articles that created gene expression microarray data, Piwowar and Vision (2013) found that studies that made data available in a public repository received 9% (95% confidence interval: 5% to 13%) more citations than similar studies for which the data was not made available.

2 Open Access

2.1 Open Access – A Definition

Open Access stands for unrestricted access and unrestricted reuse. In the Budapest Open Access Initiative (2002) it is defined as follows:

By 'open access' to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

2.1.1 What is not Open Access?

Content that requires registration to get access, or which is freely available only for a limited period. Content stored in formats that prohibits downloads, storing, printing or copying. In other words, content where technology or formats obstruct text mining or web crawler indexing.

2.2 Why does Open Access Matter?

2.2.1 Benefits

Different stakeholders in the system of scholarly communications can and will benefit from no restricted access to research and data:

- Researchers as authors: immediate visibility for research output and thus increased visibility and usage of their results. Open Access may even lead to an increase of impact.
- Researchers looking for information: access to literature everywhere, not only from a campus but also from any site with wifi access.
- Funding agencies: increased return on investment (ROI), increased visibility.
- Universities & research institutes: greater visibility, clearer management information.
- Libraries: increased access for target audience, financially a more attractive model than the current subscription model.

- Teachers & students: unrestricted access to material, enriched education, allowing equality of learning in poor as well as in rich nations.

- Science: enhanced and accelerated research cycle.

- Citizens & society: access to knowledge / access to the results of publicly funded research.

- Enterprises: access to critical information.

- Publishers: transparent business model, ultimate online article distribution, ultimate visibility for articles.

2.2.2 Challenges to Open Access

- The need for researchers to maximise the dissemination and impact of their research;

- The need for readers to have access to the full corpus of relevant research literature;

- The possibility of creating a continuum of integrated scholarly information, from raw data to peer-reviewed publications;

- The development of open access models;

- The emerging technical standards to facilitate open archiving;

- The need for organisational structures to ensure access to digital archives;

- The complexities of intellectual property rights and copyright issues;

- Restrictive license conditions;

- The disproportionate levels of library budgets spent on journal subscriptions, particularly in the science, technical, and medical (STM) areas;

- The concentration of a significant part of scholarly output in the hands of a small but highly influential number of commercial publishers;

- A widespread reluctance to cancel print until electronic archiving arrangements are secure.

2.3 Open Access & Copyright – Know your rights

Copyright and Open Access are intrinsically linked. Most early career researchers are unaware they have signed away copyright to their work. It is important to achieve a balance between granting maximum access to a journal article and financial compensation for the publication by the publisher of this article. There are a number of roots a researcher can follow

2.3.1   Green Open Access - Self Archiving (Free)

Green Open Access is where the author publishes in any journal and then self archives a copy in their research into a repository for free. Most publishers allow the author's final manuscript or final post peer reviewed preprint to be submitted into the repository. (Sherpa RoMeo can be used to check individual publisher rules)

Green Open Access can happen in two ways

1. If you have already published in a traditional subscription journal? Already signed away your copyright to the publisher? You can (often) retroactively make your work OA by taking the Green Road of "self-archiving": posting a copy of the article in an open online repository.

2. You are about to submit your final preprint to the publisher. This preprint can be deposited into the repository with an embargo if the publisher requires without incurring fees.

2.3.1.1 What is a Preprint?

Often researchers are confused about which version of the article they are allowed to self-archive without breaching copyright.

Pre-print for the purposes of this document, is for the finished article, reviewed and amended, ready and accepted for publication - but separate from the version that is type-set or formatted by the publisher. This use is more common amongst publishers, for whom the final and significant stage of modification to an article is the arrangement of the material for putting to print.

Typically, this means that the author cannot use the publisher-generated .pdf file or published journal article (PJA), but must make their own .pdf version for submission to a repository.

2.3.2   Gold Open Access - Author pays model

This model is often described as the Author Pays model. When an author submits his / her article they are charged an additional open access fee which means that they can make the published journal article (PJA) available immediately in its published form. This model means that the author is paying to retain their full copyright. Charges range from 1,500 euro to over

5,000 euro depending on the journal. A list of Publishers which use the Paid Open Access model may be found here: http://www.sherpa.ac.uk/romeo/PaidOA.php.

2.3.3   Creative Commons License Chooser

Even if a researcher id not seeking to publish their work in a traditional journal, they are still automatically the copyright holder of an "all rights reserved" license as the creator of the document. If they want to post your work online, and enable its reuse according to parameters of your choosing, then try the Creative Commons License Chooser. Creative Commons (CC) is a nonprofit organization that facilitates sharing of knowledge and creativity through their free legal tools. CC licenses are standardized and widely used throughout the world. The CC License Chooser will guide you through the process of selecting the license that is right for your needs. http://creativecommons.org/choose/.

2.4   Supporting Open Access

2.4.1   International Supports Available for Open Access

2.4.1.1 SPARC: Scholarly Publishing and Academic Resources

European Projects Coalition http://www.sparceurope.org/

SPARC Europe is a membership organisation for European research libraries and research organisations. Theirs aims include:

- **Advocacy and education:** participate in workshops, conferences and advisory bodies, make presentations and provide advocacy material on Open Access.
- **Working with policy makers:** work to influence Open Access policy development at national and European level.
- **Networking:** work with other organisations to build effective networks of strong voices that can make change happen.

2.4.1.2 DRIVER: Digital Repository Infrastructure Vision for European Research

www.driver-repository.eu/

Considered the largest initiative of its kind in helping to enhance repository development worldwide, DRIVER is a multi-phase effort whose vision and primary objective is to create a

cohesive, robust and flexible, pan-European infrastructure for digital repositories, offering sophisticated services and functionalities for researchers, administrators and the general public.

DRIVER has established a network of relevant experts and Open Access repositories. DRIVER-II will consolidate these efforts and transform the initial testbed into a fully functional, state-of-the art service, extending the network to a larger confederation of repositories. DRIVER is integral to the suite of electronic infrastructures that have emerged in the worldwide GÉANT network and is hence funded under the e-Infrastructures call of the European Commission's 7th framework programme. It aims to "… optimise the way the e-Infrastructure is used to store knowledge, add value to primary research data and information making secondary research more effective, provide a valuable asset for industry, and help bridging research and education."

DRIVER search portal - http://search.driver.research-infrastructures.eu/

Access the network of freely accessible digital repositories with content across academic disciplines with over 3,500,000 scientific publications, found in journal articles, dissertations, books, lectures, reports, etc., harvested regularly from more than 295 repositories, from 38 countries.

2.4.1.3 DART: The DART-Europe E-theses Portal

http://www.dart-europe.eu/

DART-Europe is a partnership of research libraries and library consortia who are working together to improve global access to European research theses. DART-Europe is endorsed by LIBER (Ligue des Bibliothèques Européennes de Recherche), and it is the European Working Group of the Networked Digital Library of Theses and Dissertations (NDLTD).

The DART-Europe partners help to provide researchers with a single European Portal for the discovery of Electronic Theses and Dissertations (ETDs), and they participate in advocacy to influence future European e-theses developments. DART-Europe offers partners a European networking forum on ETD issues, and may provide the opportunity to submit collaborative funding applications to achieve DART-Europe's vision for ETDs.

2.4.1.4 OpenAire

https://www.openaire.eu/

OpenAIRE aims to support the implementation of Open Access in Europe. It provides the means to promote and realize the widespread adoption of the Open Access Policy, as set out by the ERC Scientific Council Guidelines for Open Access and the Open Access pilot launched by the European Commission.

OpenAIRE is a three-year project, which is establishing the infrastructure for researchers to support them in complying with the EC OA pilot and the ERC Guidelines on Open Access. It has a European Helpdesk System, based on a distributed network of national and regional liaison offices in 27 countries, to ensure localized help to researchers within their own context. There is an OpenAIRE portal and e-Infrastructure for the repository networks which works to explore scientific data management services together with 5 disciplinary communities. It provides a repository facility for researchers who do not have access to an institutional or discipline-specific repository.

2.4.2 Open Access Support Websites

The following are a useful list of websites which are supporting Open Access in different ways.

2.4.2.1 SHERPA Services

SHERPA is investigating issues in the future of scholarly communication. It is developing open-access institutional repositories in universities to facilitate the rapid and efficient worldwide dissemination of research. SHERPA services and the SHERPA Partnership are both based at the Centre for Research Communications at the University of Nottingham.

2.4.2.2 ROMEO

www.sherpa.ac.uk/romeo/

RoMEO is part of SHERPA Services based at the University of Nottingham. RoMEO has collaborative relationships with many international partners, who contribute time and effort to developing and maintaining the service. Current RoMEO development is funded by JISC.

RoMEO provides details on publishers' copyright rules for Open Access.   It summarizes publishers' conditions and categorizes publishers by colours, indicating level of author rights Journal information is provided by

- the British Library's Zetoc service hosted by MIMAS

- the Directory of Open Access Journals (DOAJ) hosted by Lund University Libraries

- the *Entrez* journal list hosted by the NCBI.

Publisher information is updated by SHERPA Partners, DINI, and Nereus and through community contributions. Publishers allowing use of their PDFs in repositories can be found here.

2.4.2.3 JULIET

www.sherpa.ac.uk/juliet/

Provides summaries of funding agencies' grant conditions on self-archiving of research publications and data. It provides a quick summary of different funders' policies. This allows researchers to compare details of policies between different funding agencies and clearly see what, where and when material is to be archived

2.4.2.4 OpenDOAR

http://www.opendoar.org/

OpenDOAR is an authoritative directory of academic open access repositories. Each OpenDOAR repository has been visited by project staff to check the information that is recorded here. This in-depth approach does not rely on automated analysis and gives a quality-controlled list of repositories.

As well as providing a simple repository list, OpenDOAR lets you search for repositories or search repository contents.

2.4.2.5 Open Repository

www.openrepository.com/

Open Repository is a hosted solution from BioMed Central that builds and maintains customized DSpace repositories on behalf of institutions and organizations. This allows an institution to preserve and showcase its intellectual output to a larger and unrestricted audience.

2.4.2.6 ROAR

http://roar.eprints.org/

ROAR is a searchable international **Registry of Open Access Repositories** indexing the creation, location and growth of open access institutional repositories and their contents. ROAR was created by EPrints at University of Southampton in 2003. To date, 2500 institutional and cross-institutional repositories have been registered in ROAR

2.4.2.7 Research Information Network

www.researchinfonet.org/

The Research Information Network is a policy unit funded by the UK higher education funding councils, the seven research councils and the three national libraries.

We aim to:

- enhance and broaden understanding of how researchers in the UK create and use information resources and services of all kinds
- support the development of effective policies and practices for researchers, institutions, funders, information professionals and everyone who is involved in the information landscape.

2.5 Institutional Repositories and RIAN

2.5.1 Institutional Repositories

Institution	Name of Repository	Access URL
Dublin Business School - http://www.dbs.ie/	*DBS Esource*	http://esource.dbs.ie/
Dublin City University (DCU) - http://www.dcu.ie/	*DCU Online Research Access Service (DORAS)*	http://doras.dcu.ie/
Dublin Institute of Technology (DIT) - http://www.dit.ie/	*ARROW@DIT*	http://arrow.dit.ie/
Dundalk Institute of Technology - https://www.dkit.ie/	*DkIT-STÓR*	http://eprints.dkit.ie/
National Documentation Centre	*National Documentation Centre on Drug Use*	http://www.drugsandalcohol.ie/

Institution	Name of Repository	Access URL
Health Research Board - http://hrb.ie/	*LENUS (Irish Health Repository)*	http://www.lenus.ie/hse/
Marine Institute - http://www.marine.ie/Home/	*Marine Institute Open Access Repository (OAR)*	http://oar.marine.ie/
Mary Immaculate College - http://www.mic.ul.ie/	*Mary Immaculate Research Repository and Digital Archive (MIRR)*	http://www.dspace.mic.ul.ie/
National University of Ireland - http://www.nuigalway.ie/	*ARAN (Access to Research at National University of Ireland, Galway)*	http://aran.library.nuigalway.ie/xmlui/
National University of Ireland, Maynooth (NUI Maynooth) - http://www.nuim.ie/	*NUI Maynooth Eprint Archive*	http://eprints.nuim.ie/
Royal College of Surgeons in Ireland (RCSI) - http://www.rcsi.ie/	*e-publications@RCSI*	http://epubs.rcsi.ie/
Teagasc - Agriculture & Food Development Authority - http://www.teagasc.ie/	*T-Stór*	http://t-stor.teagasc.ie/
Trinity College Dublin - http://www.tcd.ie/	*TARA (Trinity's Access to Research Archive)*	http://www.tara.tcd.ie/
University College Cork - http://www.ucc.ie/en/	*CORA (Cork Open Research Archive)*	http://cora.ucc.ie/
University College Dublin (UCD) - http://www.ucd.ie/	*Research Repository UCD*	http://researchrepository.ucd.ie/
University of Limerick - http://www.ul.ie/	*University of Limerick Institutional Repository*	http://ulir.ul.ie/
Waterford Institute of Technology (WIT) - http://www.wit.ie/	*Waterford Institute of Technology Repository*	http://eprints.wit.ie/

2.5.2 RIAN

RIAN is the outcome of a sectoral higher education project supported by the Irish Government's 'Strategic Innovation Fund'. Project planning was carried out by the seven Irish university libraries, DCU, NUIG, NUIM, TCD, UCC, UCD, UL and was supported by the Irish Universities Association (IUA).

The project aim is to harvest to one portal the contents of the Institutional Repositories of the seven university libraries, in order to make Irish research material more freely accessible, and to increase the research profiles of individual researchers and their institutions. It is intended to extend the harvest to other Irish research institutions as RIAN develops.

The aggregation of this content will have significant benefits. It will be the primary source for Irish Open Access research publications. Jointly agreed metadata standards will facilitate more accurate searching and retrieval. The aggregated content will make further value-added features, such as statistical analysis, possible. RIAN will allow other agencies, for example DRIVER, to harvest normalised metadata for better search results.

2.6   Open Access, Bibliometrics and Qualitative Measures

While bibliometrics are covered in another briefing document, it is important to note that Open Access does impact on these figures. Open Access has been proven, by increasing readership, to increase the likelihood of citation. Success stories on Open Access can be found here: http://www.oastories.org/.

2.7   Funders

2.7.1 Main Irish Research Funders

This table provides a list of the larger funders of research within Ireland. It is not intended to be exhaustive.

Funders Name	Description
Science Foundation Ireland http://www.sfi.ie	Science Foundation Ireland, established in 2000, is the largest funder of research in Ireland and its primary focus biotechnology, green energy, information and communications technology. Science Foundation Ireland (SFI) invests in academic researchers and research teams who are most likely to generate new knowledge, leading edge technologies and competitive enterprises in the fields of science and engineering underpinning three broad areas.
Health Research Board http://www.hrb.ie	The Health Research Board funds both direct medical research and also health economics and delivery. It also provides advice on health policy and practice.

Funders Name	Description
Higher Education Authority http://www.hea.ie	The Higher Education Authority (HEA) is the state agency that funds the core budget for the universities. Over 75% of the core grant is used to fund salaries. As part of the academic contract, the salary supports involvement in research in addition to teaching and other activities. In addition to this core function the HEA is responsible for the management of the Programme for Research in Third Level Institutes.
Irish Research Council http://www.irc.ie	The Irish Research Council was established in January 2012 and is a merger of the two research councils for Science, Engineering & Technology and Humanities & Social Sciences. The Council funds both individual scholars and projects/programmes across all disciplines.
Teagasc http://www.teagasc.ie	Teagasc is an agency of the Department of Agriculture and Food and its objective is to support science-based innovation in the agri-food sector and the broader bio-economy that will support the profitability, competitiveness and sustainability of associated Irish enterprise in these areas.
Enterprise Ireland www.enterpriseireland.ie	Enterprise Ireland is the government organisation responsible for the development and growth of Irish enterprises in world markets. they work in partnership with Irish enterprises to help them start, grow, innovate and win export sales on global markets.

2.7.2 Mandates

A growing number of research funders are now making it a condition of grant that a duplicate of any research paper be placed on a repository for open access. RoMEO's companion listing, JULIET, analyses these mandates and recommendations: www.sherpa.ac.uk/juliet/.

These mandates are applied as a condition of grant, so resulting research papers can have archiving conditions already attached before submission to any journal. This can mean that where publishers neither allow archiving nor comply with the mandate's requirements, that authors are unable to submit material to their journals.

2.8   Support Groups / Lists

2.8.1   Repositories Support Ireland (ReSupIE)

www.irel-open.ie/

About the Irish Open Access Repositories Support Project...At the inception of the project, Irish universities had received government funding to build open

2.8.2   Digital Commons

http://digitalcommons.bepress.com/repository-research/

This website provides a central location to find research on Institutional Repositories in articles and presentations.

2.8.3   UK Open Access Implementation Group

http://open-access.org.uk/

The aim of the UK Open Access Implementation Group is to add value to the work of the member organisations to increase the rate at which the outputs from UK research are available on OA terms.

2.8.4   Research Professional

http://www.researchresearch.com/

Research Professional is a platform for tools to help researchers and managers within an organisation work together more effectively. And increasingly it integrates with internal systems such as Current Research Information Systems to give users a seamless experience.

2.8.5   Repositories Support Project (RSP)

http://www.rsp.ac.uk/start/

This section of the Repositories Support Project (RSP) website provides in-depth advice on: how to implement a repository, pre-implementation planning, potential legal issues, and resources for sustainability. It provides an introduction to Open Access and sets in the context of repositories.

3   Bibliometrics

3.1   Introduction

Bibliometrics is well defined by the contents of the MyRI- Measuring your research impact material as MyRI is a comprehensive introduction to the metrics, tools and resources.

3.2   MyRI

- MyRI is a comprehensive and successful bibliometric toolkit that has been widely accessed since 2008. The resource has been well tested and utilised with global interest and traffic. The continued development of MyRI is critical to the provision of bibliometric support in CONUL libraries.

- The issues arising may concern not least the maintenance and sustainability of MyRI. The original funding for MyRI has expired and future development and access rests with the four libraries (DCU, DIT, NUIM, UCD) who share responsibility for updating MyRI. The original platform NDLR is effectively defunct as its funding has expired and the most pressing issue for MyRI is to develop a new platform and to migrate content.

3.2.1 Issues Arising

- How can MyRI's future be secured?
- What supports / resources may be needed to extend the potential of MyRI?
- What further marketing and advocacy might be needed?
- What should CONUL's role be in relation to MyRI?

3.3   Topics for Further Consideration

3.3.1 National and Funder Levels

- Performance based allocation of research funding was a key driver of bibliometric activity elsewhere: is this yet so in Ireland? The National Research Prioritization exercise did not really result in a research support framework (Forfás and Department of Jobs, Enterprise and Innovation 2011).

- Irish National Research Data 2009-2012: This SIF funded project driven by IUA Director of Research Conor O'Carroll resulted in purchase of TR's InCites but further progress in

co-ordinating analytics and reporting seems to have stalled. Author and institutional datasets have been refined but the potential to deliver national reporting as per the Forfás and Higher Education Authority (2009) study is unclear.

- Research quality frameworks elsewhere (REF UK) incorporate - at least partially - bibliometric indicators.

3.3.2 Institutional level

- Bibliometrics as an instrument of research management and performance reporting: owned by VP's for Research?

- Extent of library involvement / collaboration with institutional research management?

- Incorporation of bibliometric data into Current Research Information Systems?

- Library support for quality / performance reviews at school / college / faculty level.

3.3.3 Bibliometrics for individual researchers

- Information skills approaches: supports and interventions

- Growth in open access portals presenting bibliometrics for individual researchers Google Scholar / ResearcherID / ORCID

- The Corrall survey 2013 reported "the nine Irish libraries are currently the most active in providing bibliometric support arguably the result of the groundbreaking collaborative MyRI project" (Corrall *et al.* 2013).

 MyRI Measuring your research impact

Last update: May 2013

Live Audacity programme 3 modules of content
Tookit of worksheets, presentations, factsheets, videos

MyRI Module 1 : Bibliometrics	
Introduction and definition	
Research assessment and evaluation – stakeholders	Government and funding agencies Institutional management and administration College, faculties, schools Individual researchers
The main metrics	Publication counts Citation counts H-index Journal impact factor
The main tools	Web of Science Scopus Google Scholar + Publish or Perish
Data integrity	
Bibliometrics- uses and limitations	

MyRI Module 2 : Track your research impact	
Citation analysis tools	Citation searching SWOT of Web of Science, Scopus, Google Scholar Checklist of additional tools, all disciplines Checklist of additional tools, Computer Science
Using citation analysis tools	Search for your publications How many citations? Most highly cited paper? Setting citation alerts
Introduction to the H-index	Calculating your H-index (by database)
Other metrics	Altmetrics Metrics from institutional repositories
Publication and citation data for a group or department.	Retrieving group data – search tips Institutional affiliation
Benchmarking research performance	Tools and tips Essential Science Indicators InCites InCites case studies
World University Rankings	

MyRI Module 3: Journal ranking and analysis	
Journal ranking and analysis	Journal Citation Reports Journal Impact Factor calculations High impact journals Journal metrics by category Individual journal metrics
Emerging ranking tools	Issues and limitations
Other ways to choose a journal	
Conclusions about bibliometric analyses	

MyRI Toolkit Worksheets, lesson plans, powerpoint slides, videos, researcher interviews, posters	
Brief guide	Using the toolkit
Introductory overview booklet	
Lesson plans with powerpoint slides attached	Lesson plan - 3 hours - bibliometrics general coverage (pdf, doc, ppt) Lesson plan - short course on Journal Rankings (pdf, doc, ppt) Lesson plan - short course on Bibliometrics for Researchers (pdf, doc, ppt) Presentation – Bibliometrics Overview - slides and text for 10-15 minute snapshot presentation (pdf, doc, ppt) Presentation – Journal Rankings - slides and text for 10-15 minute snapshot presentation (pdf, doc, ppt) Presentation – Bibliometrics for individuals - slides and text for 10-15 minute snapshot presentation (pdf, doc, ppt) Presentation – Bibliometrics for institutions - slides and text for 10-15 minute snapshot presentation (pdf, doc, ppt) Presentation – Bibliometrics for Librarians - slides and text for 10-15 minute snapshot presentation (pdf, doc, ppt)

Worksheet templates	Worksheet – Bibliometrics for Journal Ranking – 1.5 hours (doc, pdf) Worksheet – Bibliometrics for Journal Ranking for advanced users – 1.5 hours (doc, pdf) Worksheet – Bibliometrics for Personal Impact – 2 hours (doc, pdf) Worksheet – Bibliometrics for Personal Impact for advanced users – 2 hours (doc, pdf) Worksheet – Web of Science Worksheet – setting up Citation Alerts in Web of Science Worksheet – Scopus Worksheet – setting up Citation Alerts in Scopus Worksheet – Google Scholar and Publish or Perish Using Journal Citation Reports
Datasheets	Datasheet – Bibliometrics overview (pdf, ppt) Datasheet – Bibliometrics for your CV (pdf, ppt) Datasheet – Scopus for bibliometrics (pdf, ppt) Datasheet – Google Scholar and Publish or Perish for bibliometrics (pdf, ppt) Datasheet – the Thomson Reuter ISI range of products for bibliometrics (pdf, ppt) Science Indicators; ScienceWatch. Datasheet – Journal Ranking bibliometric tools (pdf, ppt) Datasheet – the h-index (pdf, ppt)

MyRI Toolkit **Worksheets, lesson plans, powerpoint slides, videos, researcher interviews, posters**	
Videos	Video – the importance of bibliometric data for the individual Video – the importance of bibliometric data for the School or academic/research unit Video – the importance of bibliometric data for the University and academic institution Video – the application of Bibliometrics in the Social Sciences An academic discusses the limitations of bibliometrics 1 An academic discusses the limitations of bibliometrics 2 An academic discusses the limitations of bibliometrics 3 An academic discusses the limitations of bibliometrics 4

Posters	Poster – the MyRI project Poster - Which product to I need? Decision chart Poster – Journal Ranking Poster – Bibliometrics for Individual Researchers Poster – An overview introduction to bibliometrics
Product Profiles	Product profile – Bibliometric products decision chart: what products do you need? (pdf, doc) Product profile – Scopus (pdf, doc) Product profile – Web of Science (pdf, doc) Product profile – Essential Science Indicators (pdf, doc) Product profile – ResearcherID (pdf, doc) Product profile - CWTS Leiden and SCOPUS free websites (pdf, doc) Product profile – HighlyCited (pdf, doc) Product profile – Journal Citation Reports (pdf, doc) Product profile – ScienceWatch (pdf, doc) Product profile – EigenFACTOR.org (pdf, doc) Product profile – InCites (pdf, doc) Product profile – Publish or Perish (pdf, doc) Product profile – SCImago (pdf, doc)
Discipline specific content	Geography, Computing Science

4 Digital Content

4.1 Digitisation Activities by Libraries

Libraries' digitisation activities to date include:

- Migrating physical collections/items into digital format.
- Digital repositories have allowed libraries to collect, manage, preserve, and provide access to a broad range of content such as e-theses, researcher output.
- Managing Online Course Readings
- Responding to requests to digitise library material or content owned by an individual or department or a non-digitised library item. This would generally have a created a selective or ad-hoc approach to digital content provision. This approach is probably not compatible with a consistent digitisation environment or for larger digitisation projects.

Publishers too are digitising back-files of some journals

Many Libraries need to engage with the digital environment by taking a more strategic approach to their digitisation output i.e. University of Manchester's *New Directions Strategy* (John Rylands University Library: University of Manchester 2009).

A more strategic approach can:

- Enhance digital reputation of The Library
- Enrich teaching and learning support options
- Enable deeper and more flexible research with our collections
- Widen participation of our stake-holders
- Open up new markets
- Open up new roles for the Library
- Open up new partnerships within the University, including researchers, digital technicians.

4.2 Some Strategic Themes

4.2.1 Access

- Digitising collections can provide fast, easy and equitable access for all potential users.

- Digitisation may be the only possible way to access some collections/items in poor physical state.

- Digitised content can be easily available through Google and Open Web. Google search technology, if applied, can help accessibility of digitised material.

- Advanced search and browse capabilities are vital for enhanced manipulation of digital content.

- Digital content needs to be accessible also through inter-operability between different systems.

- Metadata standards will need to be applied to any digitised content, to facilitate better search experience.

- Storage infrastructure for digital resources will need to be planned for in a wider digitisation strategy.

- Cloud technologies offer opportunities to speed up the entire access and engagement process.

- With API services, users can supplement library's descriptions of digitised content, so a RIGHTS STATEMENT would be needed to show what re-use can happen. If this is facilitated it can create or facilitate a more extensive usage of digitised material.

4.2.1.1 Key Issue:

- What is the best practice route for providing access? Should it be delivered via a Digital Collection Repository? An example of this would be University of Leeds's *Leeds Digital Library* (University of Leeds Library 2012). A seamless interface for resource discovery is important.

- Our digital collections need to be available in as flexible a manner as possible. We need to take advantage of new technologies to give people remote and mobile access. A coherent content discovery strategy would be very beneficial.

4.3   Collections

- Digital collections can be complex varying from library's own collections, or research outputs submitted to an institutional repository or can be part of the University's corporate records.

- An effective digitisation strategy will un-lock the research potential in existing collections. Priorities such as high value and impact or need for prioritisation will need to be established.

- Some library's collections are so vast, that not all can be digitised. A selective approach would be needed in these scenarios. Analysis of research need of particular collections is worth eliciting.

- Collections in need of digitisation may need to be prioritised sometimes for preservation purposes or also caution can be needed for some as they may be damaged in digitisation process.

- Collections of distinctive value added research and teaching usage should be developed.

- Statistical usage of collections should be monitored.

- An overall strategy for digital content can feed into a wider Collections Management policy.

4.4 Communications

- Any digital strategy needs to be communicated to stake-holders using a variety of methods. A marketing strategy could be an excellent way of marketing digitised collections.

- No overall clear knowledge yet of user need for digitised content or recognition of its relevance. Based on this, clear communication and marketing of digital content initiatives will be needed.

- Feedback from researchers can be analysed to inform future projects.

- Partner role vital with researchers in terms of digital content being placed in wider research infrastructure.

- Clear policies needed in terms of acceptance of requests for digitisation and submission process involved.

- Social media should be used more widely in terms of easy access route with context for digitised output.

4.5 Content

- Work in partnership with academics to ensure priorities for digitising content are aligned to the research objectives of the University.

- Libraries are increasingly being offered partial or full born-digital collections and need steps and processes to deal with them in best way possible. For instance establish work-flows for dealing with born digital content.

- Provide good quality scans to enhance student experience. Mechanisms need to be established to deal with requests for content scans and any pricing structure.

- Most content digitised is in Arts, Humanities and Social Sciences subject areas.

- Audio material, especially from Archives will often be worth digitising.

- Increase and continue number of online course readings each year.

- Engage with publishers for more backruns.

- Continue to manage e-theses submission.

4.5.1 Key Actions

- Decide what type of digitisation service do we want to offer? Should there be standard fees and pricing structure for access to digital content, especially if produced in-house?

- Decide what technology infrastructure is needed to provide digital content?

- Decisions on digital content ideally need to be part of a wider Digital Library strategy and careful prioritisation is often needed.

4.6   Re-use and Augmentation of Content and Metadata

- Participation in the wider research environment facilitates research libraries to make their content and metadata accessible and useable by others.

- APIs facilitate this process fairly easily. Examples such as UCD and National Archives, UK.

4.6.1 Key Actions

- Investigate how we can more systematically facilitate such access and describe infrastructure needed.

4.7   Data Curation

- Can we take a role in preserving and making accessible digital assets such as research data? Researchers often struggle with storage and management of documents and various types of data-sets.

4.8   Delivery Methods

- A variety of possibilities exist here such as VLE, an institutional repository, digital library web-site, or contents management system or indeed out-sourcing.

4.9   Funding

- Increasingly libraries have to balance whether better to outsource digitisation, as developing skills-sets and infrastructure may be more timely and expensive.
- However, lack of funding or expertise internally can be a serious impediment to growth.

4.10   Information Literacy

- Digitisation gives users new ways of accessing content. A digital assets management policy will facilitate new discovery routes.
- It will make it easier for libraries to deliver resource and training material.
- It will increase usage of e-books
- Embed digitised resources in learning experience.

4.11   Institutional Repositories

- There needs to be a shift from just loading content on repositories, to using them to provide a broader set of scholarly communication services such as data curation, open access publishing advice etc.

4.12   Preservation

- Content available digitally will protect items that are physically deteriorating

4.13   National perspective: Some thoughts

- Should there be a national repository of digitised library resources or is the NDLR the key driver in terms of national resource?
- We need to define a digital assets management policy. This could look at issues such as content from researchers and teachers and what to do with these in terms of availability.

- Funding perhaps more likely if different universities work together, but still lack of an over-arching structure to manage digital content.

- Can libraries take on the range of digital teaching and research assets and geospatial data generated in each institution?

- Should there be more usage of aggregation services such as Archives Hub, Europeana? How many of our users know of these services?

- Should there be institutional and national digital libraries?

- Look at costs and pricing models to help national position.

- Libraries need to take cognisance of Google initiative of digitising textbooks. Overall, a positive development if we have good use of metadata and access

5   Research Data Management

5.1   Key Deliverables from Data Management Strategy Support

- Guidance on the development of a RDM policy for your organisation

- Guidance on the Librarian Role and limitations with regard to RDM

- Training toolkit on RDM for Library Staff

5.2   Data Management - What is it?

DAMA: *Data Resource Management* is the development and execution of architectures, policies, practices and procedures that properly manage the full data lifecycle needs of an enterprise.

> *"Research data management concerns the organisation of data, from its entry to the research cycle through to the dissemination and archiving of valuable results."* (Whyte and Tedds 2011) (Taken from RDM Rose Project: Session 1.2 PowerPoint)

5.3   Digital Curation Definition

> *"Digital curation, broadly interpreted, is about maintaining and adding value to a trusted body of digital information for current and future use."* (Digital Curation Centre n.d., p.1)
> - o Linking content
> - o Managing digital material from the point it is created
> - o Destruction
- Beyond archiving and preservation

> *"Digital curation is concerned with actively managing data for as long as it continues to be of scholarly, scientific, research and/or administrative interest, with the aim of supporting reproducibility of results, reuse of and adding value to that data, managing it from its point of creation until it is determined not to be useful, and ensuring its long-term accessibility and preservation, authenticity and integrity."* (Digital Curation Centre n.d., p.3) (Taken from RDM Rose Project: Session 1.2 PowerPoint)

5.4 Why Manage Data?

- Understand what data you have and what direction you might go in the future
- Increasingly required by funders and mandates
    - Re-use and re-purpose research data
- Increases research efficiency and saves money
- Data is more secure
- Planning the selection and release of data (allowing for licensing terms)
- Data is more accessible/more discoverable
- Facilitates continuity of research as staff/researchers change
- Avoid duplication in research
- Data is maintained allowing validation of research published
- Data sharing leads to more collaboration and advances research
- Research is more visible and increases impact
    - Increases citation by other researchers

5.5 Why is RDM Important?

- Good data is critical to good research
- Improves research income
- Data management is one of the essential areas of responsible conduct of research
- Research Data can be used and re-used for future scientific and educational purposes
- Good practice in data management is one of the core areas of research integrity, for the responsible conduct of research
    - Including for example keeping a record of the contextual information around research in case the researcher moves on.
- Avoid Data Loss
- Data Protection Issues
- Useful for promoting the visibility of young researchers
- Validation of data

5.6 The Library Role in RDM

5.6.1 Liaison role

- Collection development/Metadata development
- User queries
- Management (Information management good practice)
- IL Training
- Advisory
- Facilitators (knowledge of discipline networks & contact with Researchers/Students/Research Funders)
- Collaborator/Building links
- Marketing

5.6.2 Research Support

- IL Training
- Bibliometrics advice and training
- Explaining the impact of shared data and how to cite it
- Advocacy for Open Access/Institutional Repositories
- Data advice (Writing Data plans & RDM in projects)
- Archiving advice
- Copyright / Licensing advice
- Supporting University research office

5.6.3 Identify Possible RDM Challenges

- IT storage
- Data storage
- Consent forms prohibiting sharing
- Providing context to data to ensure correct interpretation
- Time issues/management
- Motivation
- Willingness to share data!

5.6.4 Other Roles

- Develop a RDM policy
- Develop training tools for RDM or use existing tools!
- Auditing datasets available
- RDM Advisory role
- RDM awareness and advocacy
- Identifying datasets for archiving and RDM needs
- Managing access to data collections
- Promote open data
- Metadata schemas and frameworks

5.6.5 Impact on the Library

- Need influential pilot partner
- Synergies with Schools/Depts./Faculties
- Demands may exceed the Libraries skills
- Demands on other services may be too great e.g. IT
- Opportunity to get more datasets
- Need to develop a LibGuide/Flyers/Web based promotional material
- Staff skills (do we need to develop more specialist roles?) and knowledge requirements for the many different aspects of RDM
- Funding/Staff pressures

5.7 What do we Need to do?

5.7.1 Identify the Need in Your Organisation

- How does your institution deal with research data
- Find an audience to pitch your message to/build a case for RDM
- Does your organisation have a RDM policy? Does it need to be defined? Do we need subject specific policies?
- Develop a RDM plan for each of the different disciplines and identify the benefits to each group
    - o Identify the groups already involved in data analysis

- What data is available? Do researchers know about it?

- Can the data be stored safely/ securely?

- Can the data be made available

- Identify user needs and specific cases

- Identify cooperation opportunities

- Identify and coordinate other service providers that may be useful e.g. IT. Develop a coordinated approach.

- Look at IT and Ethics issues

- Corporate & Legal aspects

    o Look at consent precluding archives for secondary usage and ethics and confidentiality

- Publishers

- Research Institutes/Faculties

5.7.2 Support RDM in Our Institutions

- Identify what resources are available in our institutions

    o What datasets are currently available and what potential material is there.

- Libraries can show Leadership in this area

- Look at the end of the process to look at how you might organise

- Identify a champion/advocate (e.g. for the Institutional repository) in one of your departments and work with them

- It is clearly an issue that needs to be tackled and is currently underdeveloped in Ireland

- Develop a central information resource on what data is available and data management policies of various organisations

- Investigate relationship with Institutional repositories/digital archives e.g. National depositories for qualitative and quantitative data the Irish Social Science Data Archive (ISSDA) and Irish Qualitative Data Archive (IQDA). The IQDA (which includes the "growing up in Ireland" longitudinal study located at NUIM (NIRSA) http://www.iqda.ie/content/about-us and ISSDA at UCD Library http://www.ucd.ie/issda/.

5.7.3 Tools/Outputs

Do we need to develop a distinctly Irish tool or can we use RDMRose or MANTRA. Output would be a policy and how to progress it in Universities.

5.8   Drivers

- **Benefits of RDM**
    - o   Validation of research
    - o   Re-use
    - o   Credit
    - o   Visibility
- **Data and Institutional repository mandates**
- **Corporate and Legal Institutional Mandates**
- **Research Office**
- **DRYAD:** The Dryad Digital Repository is a curated resource that makes the data underlying scientific publications discoverable, freely reusable, and citable. Dryad provides a general-purpose home for a wide diversity of data types http://datadryad.org/pages/organization. It includes data files associated with any published article in the sciences or medicine, as well as software scripts and other files important to the article.

5.9   What are Irish Academic Libraries Currently Doing?

An interesting study was recently conducted that looked at RDM & Bibliometrics services at libraries in Ireland, UK, Australia and New Zealand (Corrall *et al.* 2013). The Study looked at 9 Irish Institutions and all of them responded.

With regard to Research Data Management there was currently no RDM guidance but 37.5% planned to provide it. Support in the area of Technology Infrastructure was at 44.4% and a further 44.4% were planning have this. 50% had institutional repositories (37.5 planning to), 14.3% had external deposits (57.1% planned to) External Datasets were 25% in place, 37.5% planned to. 25% had digital curation (50% planned to). RDM Planning Tool 0% in place but 37.5% planned to. Tool development was 14.3% (42.9 planned to). Institutional Policy was 12.5% (75% planned to).

So overall though we are currently weak in this area especially in terms of Institutional Policies and RDM Guidance we are clearly moving in the right direction and there is interest in making improvements.

The results of a very quick survey of Irish academic libraries are presented below.

5.9.1   UCD

Data management checklist (Julia Barrett)

http://www.ucd.ie/library/supporting_you/research_support/data_management/

Planning for your data management needs will help save you time and resources. UCD Library, in conjunction with other UCD units, has drawn up a checklist to guide you in your on-going data management activities. As part of this the relevant UCD policies and other information are included.

UCD Staff Development run courses on 'Data Management, Data Protection and Freedom of Information in UCD.

UCD Office of Research Ethics: Guidelines on the security and retention of research data

5.9.2   DCU

Assets Management Policy: Information Assets

DCU's information assets include data such as student data, employee data, financial data, and research data which are important to the University's academic and research mission. The classification of information assets is governed by DCU's Data Classification Policy. Asset Registers will be maintained locally within the Faculty or Unit responsible for the asset.

RSS (Research Support System): Store Research Output plus Grant proposals.

5.9.3   UL

Glucksman Library - Research Support but no mention RDM

5.9.4 NUIG

Research support but no mention of RDM

5.9.5 QUB

NO RDM or Research Support. Have Subject Librarians

5.9.6 TCD

Not from Library. TILDA data (longitude aging project) available via the Irish Social Sciences Data Archive (ISSDA) at UCD.

5.9.7 Digital Repository of Ireland

Digital Repository for Ireland's social and cultural data. Includes Online Resources for projects http://dri.ie/digitisation-resources but not RDM!

5.10   Useful Resources

5.10.1 Article

"Research data management and libraries: Current activities and future priorities": Andrew M. Cox and Stephen Pinfield. *Journal of Librarianship and Information Science*. Published online 28 June 2013. http://lis.sagepub.com/content/early/2013/06/28/0961000613492542 The online version of this article can be found at: DOI: 10.1177/0961000613492542

- Libraries offering a limited range of RDM services
- Large research intensive institutions do best
- Challenges include: Skills gap, Resourcing. Cultural change (extending their jurisdiction and increasing collaboration with other stakeholders)
- Recognised as part of the future role of Libraries and now working towards it
- Currently prioritising RDM advisory services and training services

5.10.2 Training Resources Currently Available

- Three-hour introductory RDM session for librarians. This was developed in collaboration with the University of Northampton as part of the DCC institutional engagement programme.

- http://www.dcc.ac.uk/training/rdm-librarians

- **Mantra** (University of Edinburgh) is an online course designed for researchers or others planning to manage digital data as part of the research process. http://datalib.edina.ac.uk/mantra/

- **UCD Research Support** http://www.ucd.ie/library/supporting_you/research_support/

- **RDMRoseProject** http://rdmrose.group.shef.ac.uk/

  "There is recognition of the growing scale and fragility of digital research data; funders and publishers mandate RDM; and a promise of increased impact through open data. Researchers are currently ill positioned to undertake long term stewardship of data (Pryor 2012). Libraries have a part to play in supporting RDM, but librarians need to acquire new skills.

  RDMRose has been creating Open Educational Resources on RDM tailored for information professionals."

- **UK Institutional Data Research Management Policies**

  http://www.dcc.ac.uk/resources/policy-and-legal/institutional-data-policies/uk-institutional-data-policies

5.11   Examples of Best Practice for RDM

- **The Engineering & Physical Sciences Research Council (EPSRC)**

  http://www.dcc.ac.uk/resources/policy-and-legal/epsrc-institutional-roadmaps

  Lists the Data Management Roadmap projects of a number of UK Universities.

- **University of Queensland: Research Data Management and Data Sharing**

  http://www.library.uq.edu.au/research-support/research-data

- **DCC (Digital Curation) UK Case Studies** http://www.dcc.ac.uk/resources/case-studies

- **EPSRC (Engineering & Physical Sciences Research Council) Policy Framework on Research Data**

  http://www.epsrc.ac.uk/about/standards/researchdata/Pages/policyframework.aspx

- **JISC Managing Research Data Programme**

  http://www.jisc.ac.uk/whatwedo/programmes/mrd.aspx

6 Managing Community Relationships

6.1 Topics for Consideration

6.1.1 What can the Library bring to Campus Relationships?

Be clear about the value and benefits the Library can bring to the individual researcher, School, research office, institution.

Examples:

- relevant services – based on identified need and priority research areas in Institution, areas of strategic importance in Institution; contribution to high value projects (so not supporting the entire user population)
- expertise e.g. the various open access options available, advice on how to manage research data, data stewardship, data visualisation, measuring your research impact, using technology in the humanities to make it more engaging and accessible and to add value, bringing traditional information retrieval skills to assist with systematic reviews....
- integration of services and skillsets into researchers' workflows and also wider University workflows
- neutrality
- coordinator of fragmented services to achieve more effective and efficient services (e.g. GIS)
- collaborator and partnership with others – connecting, coordinating , collaborating, consulting with other to provide new services and/or existing fragmented services (e.g. GIS); funding applications support etc.

Issues:

- need to move from generalist to development of specialist expertise; and/or employ specialists to undertake work and/or skill up library staff; contract out.
- need to prove that they are solid partners in newer more specialised fields – need more staff with (e.g.) a science or statistics background? (Embedded librarian).
- need to be aware of and understand researchers' workflows and where our services could integrate
- need to be able to move proactively and opportunistically to avail of opportunities to partner with others – within overall strategic parameters

- need to scan the environment to be aware of trends (e.g. compliance issues, Horizon 2020) to be able to advise on these areas; keep up-to-date with developments

- need to be able to articulate value/benefits - need to be able to demonstrate how we can add value to the research process

- need to tailor training offerings to needs of particular groups and to explore training formats such as webinars, drop-in clinics and interactive self-paced tutorials. Providing just-in-time training is far more beneficial than scheduling classes and is another way to establish the expertise of library staff

- need to consider the existing library structure and its ability to design and deliver services; to facilitate the growth of expertise; and also the degree to which such services are project / mainstreamed

- what are the implications for our spaces? Some research libraries, anticipating increasing and developing partnerships, have established centres/spaces to facilitate digital work e.g. Scholars Lab at Univ. Virginia http://www.scholarslab.org/ and Digital Scholarship Commons at Emory Univ. http://digitalscholarship.emory.edu/ with an invitation to "Partner with us" .

- Overall, need a research support strategy to encompass the above. A strategy should be informed (through evidence) by what researchers need in their respective disciplines.

6.1.2 Where are the Key Relationships and who should Manage them?

Examples:
- Units: Schools, Colleges (Departments and Faculties), research institutes, researchers, Research offices/administrators, IT services

- Committees: e.g. research strategy boards, task and finish groups such as those whose purpose is to make a case for a new service, new infrastructure, advisory boards

- External: e.g. publishers, repositories, funders, HEA etc.

- Liaison Librarians – with Schools, Colleges (Departments and Faculties), research institutes, researchers

- Front-facing specialist librarians e.g. data librarians, GIS librarian - with Schools, Colleges (Departments and Faculties), research institutes, researchers

- Other specialist staff e.g. IT, digital, metadata – generally support staff so mainly with LLs, front-facing staff and

- Research librarians - with Schools, Colleges (Departments and Faculties), research institutes, research offices, other Campus support services, specialist library staff, LLs, front-facing specialist staff, external organisations, other libraries

Issues:

- how to rationalise possible multiple points of contact between the Library and its users – confusing for users. This may depend on the extent of service specialisation whereby a specialist librarian is available (e.g. GIS, bibliometrics) and the degree to which services are project /mainstreamed. Mainstreaming needs to be proactively managed, staff need to be clear about their respective roles and communication needs to be organised rather than adhoc. Paul adds: This is really important but problematic: how are the library's research support relationship managers to be organized? Currently they are more likely to report vertically to different heads of function (liaison v collections v systems); can this be co-ordinated better laterally?

- at a wider level need to consider the existing library structure and its ability to design and deliver specialist services at a time when recruitment options are very limited

- need to know which are the powerful/influential Committees and how to gain their ear

- need to be aware of the optics of close relationships with areas of the Campus that might be viewed with a degree of suspicion by academic units; in any partnering arrangement there needs to be clarity around respective roles and where appropriate the use of MOUs to define these

- need to understand that one size doesn't fit all (e.g. humanities v. science) and that different types of supports are needed in different areas.

6.2   Examples of Types of Relationships

6.2.1 Understanding what the Research Community wants from the Library

Rather than assuming specific services, discover what the research community would like, what would make their lives easier, what are their daily frustrations and top concerns, what they would like the library to provide. Run a survey - NUIG led a survey several years ago – other examples include Newcastle University (Webb *et al.* 2007, p.128).

Take stock of where the Library is currently with regards to researcher support, listing the services and resources, and then following a survey combine this listing with ideas and

opportunities for new services, collections, space provision etc. Policy-making will have to prioritise the allocation of resources in defining the extent and depth of research support.

6.2.2 Assisting Researchers

Make it easy for researchers to get assistance through a one-stop-shop approach, e.g. research portal, LibGuide. Provide them with a package of services in a framework, no matter from where the service originates (and this includes outside of the Library itself). Examples:

- http://www.ncl.ac.uk/library/research-support/informed-researcher/
- http://www.lib.sfu.ca/research-commons/research/research-lifecycle

This then facilitates research areas within the Institution (e.g. Graduate Schools) to link to this from their webpage.

6.2.3 Partnering with School / Institute / Non-academic Unit(s) / External Organisations

As we develop library services and expertise to meet the demands of the use and adoption of technologies and technical innovations to support existing and new forms of research there will be opportunities to partner with both academic and non-academic units; and external organisations, including funders and organisations responsible for setting research policies. Examples of these are shown below.

6.3 Collections and Digitisation

- Preparation of collection development policies by School/discipline to establish on what basis (School / Institution research activities and priorities) should collections be built, developed and reviewed. Formal and proactive mechanism/relationship between the Library and academic representatives within School to establish priorities for develop based on strategic aims and priorities, even with limited budgets. Opportunity to include and highlight Institutional Repository, existing library digital collections/datasets, special collections etc. as well as unearth School collections that might be future candidates for (e.g.) digitisation. For this to be effective there must be a collaborative and cooperative relationship between library and academic community, built on trust and respect (Webb *et al.* 2007, p.85). Library staff will need to understand

the specific subject and disciplinary needs and that these will vary between disciplines. UCD example: School Collection Policies.

- Library/Faculty partnerships in the area of creating online archives e.g. Rossetti Archive of the University of Virginia: http://www.rossettiarchive.org /; Walt Whitman archive at University of Nebraska: http://www.whitmanarchive.org/ and Emory's Women Writers Resource Project: http://womenwriters.library.emory.edu/. UCD Digital Platform for Contemporary Irish Writing: Advisory Board – Library invited to join this new Board in order to offer their expertise.

  The UCD example demonstrates a joint approach with a School on a voyage of discovery in this area. US examples - provide worldwide free access to valuable collections. Adds value to the collections through the use of technology; demonstrates library expertise in assisting in such areas.

- The library as curator of institutional identity: possible partners are Archives, Office of the President, Buildings, Communications/PR.

  Linked to a digitisation project will create a visible record. Uses Library's neutral, central position to coordinate with several units on Campus to bring together relevant material. Assists in building relationships with powerful non-academic units. Helps to demonstrate Library expertise in creating both accessible and curated digital collections.

- Library role in partnering with internal repositories (e.g. Archives, Special Collections) to digitise making available via a Digital Library, unique historical collections

  Provides an opportunity to make visible and accessible key collections; assists in the preservation of fragile print archives; can be great PR for an institution and the Library; helps to demonstrate Library expertise in creating both accessible and curated digital collections. Can add value to the collection e.g. through the application of geospatial functionality.

- Partnering with external high-profile organisations – to create, make available digital collections. E.g. OSI, Abbey Theatre, INMO etc.

  Helps to demonstrate Library expertise in creating both accessible and curated digital collections. High value, high profile partnerships.

6.4   Data Services

- Library role in assisting with the design and delivery of fragmented across the Campus services e.g. GIS. UCD example is in a partnership with Library, Earth Institute and IT Services where a joint case for an all-campus service is being made.

  GIS is an example of a service where there is activity and expertise in pockets located in Schools and Institutes. This fragmented approach means that there is an opportunity for the library to spearhead action within this partnership and to lobby for the employment of relevant personnel to deliver streamlined and more effective and efficient services in this fast changing area, and one that has relevance to virtually all disciplines.

- Managing your data service – offer a pilot service identifying key School/s ; other partners: IT Services, IP expertise, research ethics.

  Helps to build relationships with key Schools and to develop expertise within Library around this area. Opportunity to establish what the key roles are in this area. Library roles: assistance with metadata,file organisations, provides a place to store datasets, and also DOIs thereby assisting with visibility, retrievability and citeability; informing researchers of the developments and changes in this area vis a vis funders' mandates etc.

6.5   Open Access Publishing

- Connecting and integrating with various campus stakeholders to assist researchers in relation to open access requirements

  Open access requirements from funding bodies provide an opportunity for libraries to play new roles in supporting researchers at various stages of their workflows, connecting with grants and research administration areas through to ethics, legal and computing services, as well as well as with researchers, Schools and the institution, thereby integrating into research activity and management within the university.

6.6   Institutional Repositories

- Partnering with research office to provide seamless integration to author profiles and full-text repository. Mainstreaming of repository advocacy to frontline library staff.

This approach to the provision of repository services creates opportunities to build relationships with research administration and also to mainstream what might have been a project-based service to key library staff. It also saves authors time and provides them with easy access to assistance using the key channel between academics and the Library (e.g. Liaison Librarian).

- Institutional Repositories – partnering with publishers – upfront agreements to make (e.g.) book chapters available – possible partnerships with institutional publisher.
  This helps to address issues around facilitating the visibility of research output in humanities and social sciences.

6.7   Research Impact and Bibliometrics

- Assisting a wide range of stakeholders (including authors, Schools, research institutes, research administration) to track research impact
  The development of bibliometrics services provide opportunities to partner in a number of different areas and for different purposes, e.g. individual researchers applying for promotion, Schools undergoing quality reviews, research administration areas to assist in the development of new indicators to serve a university's specific needs e.g. University of Southern Queensland library which is attempting to capture academic, political, industry, social and community impact.

- Integration of services and skillsets into researchers' workflows and also wider University workflows
  Examples: assistance with grants/funding applications provides an opportunity for a research impact service to be highlighted at the point of information need in the application process. Similarly with an internal promotions round where research impact details will be required. The Library can not only be called upon to assist but can also advise on appropriate indicators.

6.8   QA/QI

- Partnering with Research Office and Quality Office to offer a coordinated approach to supporting Schools/Institutes on research areas for Quality Reviews

Library and research administration to bring together in a framework a "one-stop shop" outlining the supports and information available for Schools/Institutes undergoing quality reviews. Schools input on recent experiences in this area to help inform the framework. Demonstrates a proactive approach on the part of research office and library in presenting in one place the types of information and support available from a variety of areas, and also caveats around what can be contentious areas (e.g. bibliometrics).

- Partnering with academic units in funding applications
  Examples: digitisation projects where a collection is housed in a unit external to the Library. Successful funding could be used to employ e.g. metadata librarian or to fund an existing staff member thereby creating an opportunity for growing skillset.

- Literature searching support and advice at the start of a new research project

- Systematic reviews partnerships
  May extend to co-authorship.

6.9   Partnering with Other Libraries

Libraries co-operate for the benefit of our users/researchers on projects such as MyRI, PADDI, RIAN. Other projects would be possible, depending on resources (staff, skills). CONUL libraries might also look into the strategic partnerships that Ireland's universities have formed (UCD/TCD, NUIM/DCU/RCS) and team up with the respective libraries, again to the benefit of researchers.

6.10   Buying in Expertise/Skills from a Specialist Campus Area

New service development may require expertise and skills not possessed by library staff. There may be opportunities therefore to buy-in expertise from specialist areas on campus (e.g. via "training" or consultancy approaches) to actually assist in developing the service or to assist in skilling up library staff – these options may provide opportunities to tap into different funding streams. They may also provide opportunities for creating alliances with such partners, e.g. CSTAR. Expertise elsewhere needs to be identified and access mechanisms and relationships established (e.g. service agreement, consultancy, adhoc linking in to internal expertise within an academic department, etc.)

6.11 Training Researchers

- Need to tailor training offerings to needs of particular groups and to explore training formats such as webinars, drop-in clinics and interactive self-paced tutorials. Researchers may or may not be physically present on campus – increasingly working at a distance.

- Target not only groups but also research projects, particularly at the start.

- Investigate embedding into PhD programmes.

- Work with supervisors – train the trainers – supervisors have the most important relationship with research students.

6.12 Do Researchers know what Academic Libraries are Doing? (And Vice Versa)

- Don't wait for users to come to the Library; get out into the community to get a sense of what people are working on.

- Attend events put on by Departments/Schools – especially those where researchers are presenting their work e.g. colloquia.

- Sign up for email lists or ask to be added to such lists, and keep up with social media if that is used in particular Schools. Contribute to these channels by announcing resources, projects, new services, events.

- Contribute to School newsletters e.g. (Clare Thornley).

- Investigate the relevant Committees, Boards and offer to contribute information, expertise, etc.

- Use formal channels and relationships to push for appropriate campus-wide mandates.

- Leaflets and posters – visually appealing and available throughout the campus.

- Draw up a research support plan /strategy highlighting strategically aligned services and the importance of relationships in achieving these (e.g. http://www.usc.edu.au/university/library/about-the-library/library-research-support-strategy). The extent of library management buy in and commitment is defined by having a research support strategy. Is there scope for a CONUL level statement / policy here?

- Build on successes but also manage expectations as services are developed; state what cannot be offered as well as what can. Under promise and over deliver, start small and build incrementally in the context of an overall research support plan. Be flexible

enough to take advantage of any opportunities that may present themselves, in a coordinated way.

7 Recommendations

The Research Support Task and Finish Group recommend the following:

1. The development of a national policy on the research support mission and on the value that libraries bring to research.

   - State that libraries are central co-ordinators, collaborators and partners with researchers both nationally and within institutions, and that libraries can deliver innovative research services which can connect existing disparate research activities.
   - Assert that libraries and librarians contribute significantly to all stages of the knowledge lifecycle, bringing expertise to information discovery, retrieval, creation, management, dissemination and evaluation, and to impact assessment, output capture, data management and enrichment, and data curation.
   - Recommend that institutions and stakeholders formally incorporate libraries within the research decision making frameworks at national and institutional levels.
   - Recommend that research support and knowledge management issues be included on CONUL's advocacy agenda.
   - Consider the emplacement of librarians embedded in research teams following the clinical informationist model widely adopted in healthcare institutions.

2. The development of a national strategy for enhanced engagement with stakeholders and key organisations.

   - Develop collaborative and shared services and infrastructure, working with other CONUL and non-CONUL groups.
   - Develop a policy to consolidate national bibliometric reporting and research impact assessment.
   - Continue to systematically explore potential shared infrastructure and shared service opportunities, actively supporting member institutions in various types of collaborative and shared service. (Successful previous collaborations – MyRI and RIAN - are examples of what can be achieved collaboratively.)

- Develop a shared resource mechanism to enable development teams to sustain and refresh collaborative products e.g. the primary information skills tool - infoliteracy.ie

- Actively capture and share information on research data sets and emerging digital collections within institutions.

3. Survey researchers.

- Survey researchers to get a better understanding of their information needs and of their data management practices. (Note - Sheffield U. are undertaking a big RDM survey, so a survey would not need to cover RDM.)

4. Work together with CONUL and with CONUL groups to maximise benefits to Irish research.

- Consolidate a research support focus by continuation of this group (which has to date been a task-and-finish group), and the expansion of the group to include the other research-rich CONUL libraries.

- Change the title of this group to *Research Environment and Services (RES)* to allow for a focus on Infrastructure - e.g. maintenance of Irish databases – as well as on Services.

- Consider the information flow to, from and within CONUL, including how best to tap into the knowledge pool e.g. for advice on how to apply for cultural heritage funding.

  - Consider merging of and/or working more closely with, groups with similar interests e.g. the Digitisation group and the Collections, Preservation and Conservation group, while continuing to work with other groups to identify and deliver continuing professional development and staff training needs across the range of research support topics.

- Consider best ways of working with non-CONUL groups, including inviting others to events, running events *with* others, and networking e.g. via a LinkedIn group.

- Maximise the unique make-up of CONUL through engagement with museums and the archives sector.

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Appendix 1 - Information Skills Support - Ideal Module Outline

Introduction

This appendix will give the outline of what an ideal module for researchers in information skills could look like. The document is broken down into sections for each potential section on the module and gives the outline of its potential content. The content is taken from UCD's Knowledge Lifecycle model (UCD Library 2014) and the Graduate Information Literacy Module (www.informationliteracy.ie) with reference to the outline of UCC's Graduate Information Literacy Skills module. It should be noted that some of the content of the modules may be delivered in conjunction with other units of the institution such as the research office.

Research Information Retrieval

The Research Information Retrieval section of the module could include teaching researchers how to:

- Apply best-practice techniques for identifying, locating and searching key resources and discovery tools in their research area
- Find information and data relevant to their research
- Conduct a literature review (and possibly a systematic review)
- Develop a search strategy
- Keep current with research in their field (e.g. set up alerts in databases, RSS feeds etc.)
- Identify funding opportunities, funding bodies and policies.

Information Management

The Information Management section of the module could include teaching researchers how to:

- Organise and manage the research data they generate
- Organise and manage their references using bibliographic management tools such as EndNote, Mendeley and Zotero.

Ethics in Using Research Information

The Ethics in Using Research Information section of the module could include teaching researchers how to:

- Identify the legal and ethical issues relating to the use of information

- Describe Intellectual Property and how it is protected
- Summarise what Freedom of Information is
- Outline what Data Protection is
- Explain what Plagiarism is and how to avoid it.

Creating New Information

The Creating New Information section of the module could include teaching researchers how to:

- Use specialised software and tools to enhance and facilitate their research e.g. SPSS, GIS and API tools
- Understand what they can use within copyright and licencing restrictions.

Dissemination / Publication

The Dissemination / Publication section of the module could include teaching researchers how to:

- Evaluate where they might publish, bearing in mind changing publishing models and the increasing importance of Open Access
- Identify best practices in effective networking, both virtual and non-virtual, and the effective use of web technologies.
- Showcase their research in the their institution's research management (information) system, in the institutional repository and via social media networks
- Ensure long-term access to their work by archiving their research outputs in the institutional repository, digital library, etc.
- Comply with funders' mandates.

Evaluating Information and Research Outputs

The Evaluating Information and Research Outputs section of the module could include teaching researchers how to:

- Apply criteria for critical appraisal
- Use an analytical approach to evaluating information
- Use citation analysis tools when evaluating research
- Evaluate the impact of their research through citation analysis and altmetrics.

Appendix 2 - Seminar Programme

CONUL (Staff Training and Development)

Supporting the activities of your research community – issues and initiatives

9:45-10:15 – Registration

10:15 Chair: **Aoife Geraghty**, University of Limerick Library

10:15 - 10:30 – *Introduction*, **Chris Pressler**, Director of Library Services and the Humanities Archive Research Centre, Dublin City University

10:30 - 11:30 – Keynote – *Research data management and libraries: Relationships, activities, drivers and influences* – **Dr Stephen Pinfield**, Senior Lecturer, Information School, University of Sheffield

11:30 - 12:00 – Tea/Coffee

12:00 - 13:00 **–** *What do we mean by re-use: Library Content on the Open Web,* **Alastair Dunning**, Programme Manager, The European Library

13:00 - 14:00 – Lunch

14:00 Chair: **Paul Murphy**, Royal College of Surgeons in Ireland

14.00 – 14.30 *Relationship Building & Advocacy for Research Support Across the Campus* **Julia Barrett**, Research Services Manager, The Library, University College Dublin

14.30 - 15.00 *Publication Strategy: Helping Academics to Increase the Impact of their Research* **Dr Fintan Bracken**, Research Services & Bibliometrics Librarian, Glucksman Library, University of Limerick

15.00 -15.30 *Archival Interventions – Integrating and Embedding Archival Material into Research* **Barry Houlihan**, Archivist, James Hardiman Library, National University of Ireland Galway

15.30 - 15.45 Q&A

15.45 - 16.00 Wrap up for the day and final thoughts – **Paul Murphy**, RCSI

Course code: ANLTC 2014:06

Date and venue: Wednesday **3 December 2014**

Royal Irish Academy, 19 Dawson Street, Dublin 2

Appendix 3 - Briefing Document Authors

Each briefing document or chapter was written by an individual Group member and the rest of the Group commented on the document subsequently.

The list of authors is as follows:

- Publishing Strategy – Fintan Bracken
- Open Access – Jessica Eustace-Cook
- Bibliometrics – Paul Murphy
- Digital Content – Niall McSweeney
- Research Data Management – Ciarán Quinn
- Managing Community Relationships – Julia Barrett
- Recommendations – Paul Murphy and Aoife Geraghty
- Information Skills Support - Ideal Module Outline – Fintan Bracken