NOTTINGHAM TRENT UNIVERSITY

PUBLICATION GOOD PRACTICE GUIDELINES: JOURNAL ARTICLES

Background

These guidelines support and underpin the requirements outlined in NTU's Publications <u>Strategy</u> and have been produced within the wider context of:

- <u>HEFCE Policy</u> stating that journal articles and conference proceedings accepted for publication after 1 April 2016 should be made open-access in order to be eligible for submission to the next Research Excellence Framework (REF).
- A greater emphasis on citation metrics expected for the next Research Excellence Framework (REF) exercise (<u>BIS Green Paper</u> and pending <u>Stern Review</u>).
- A drive to influence NTU's ranking in international league table by improving levels of citation.

Purpose

These guidelines provide information on how to prepare and disseminate journal articles in a way which helps to maximise their intellectual, scientific, economic, social and cultural impact, and increase the visibility of research publications produced by NTU staff. The guidelines include three main sections which provide tips and advice on how to:

- 1. Decide where to publish
- 2. Prepare your publication for maximum citation
- 3. Disseminate your research for optimal visibility

It is anticipated that the guidelines are used as a framework to help researchers develop a publication strategy; some of the advice provided in the guidelines may not be applicable for all discipline areas, and so academic judgment on the most suitable source to publish, and the most appropriate way to disseminate research outputs, remains paramount.

1. Decide where to publish

When deciding where to publish your research, consider:

1.1 Quality of the publication.

Choice of publication may be influenced by many things such as personal invitation or recommendation, the discipline and the purpose of the article, but the most common factors are the reputation of the journal and the visibility it will afford your article. Selecting a journal in which to publish is complex. Journal citation data may give a quantitative measure of the relative importance of a journal within your discipline, but you also need to consider other factors, such as themed issues, links to conferences etc.

 Impact and ranking factors of journals are one of the many indicators of journal quality. Publish in the highest quality refereed journal that you can - your paper will then have a better chance of having a high impact too; as Bourne¹ suggests, it is better to publish one paper in a quality journal than multiple papers in lesser journals. Although you may be aware of the best regarded journals in your discipline, if you are branching out into a less familiar subject area then tools such as <u>Journal Citation Reports</u> (JCR) may prove useful.

SCOPUS (owned by Elsevier) has a 'Compare Journals' tool which offers a range of citation metrics which provide information regarding the citation potential of indexed scholarly journals. Their principal measure (also available independently at CWTS Journal Indicators) is the Source Normalized Impact per Paper (SNIP) which adjusts for variant citation behaviour across different disciplines based on previous citation activity, enabling meaningful comparison. The CWTS journal Indicators website will allow you to view the SNIP Rankings by subject area so that you can ascertain the position of a publication by subject area/subject category.

1.2 Open access and copyright restrictions.

Many of the major research funders, including RCUK, require grant holders to deposit publications arising from research they fund in an open access archive such as the NTU Institutional Repository (IRep), or to use an open access journal.

There is growing evidence that making your article open access will increase readership and the potential for citation (see Aitchson & Bull² and Koler-Povh, Juznic & Turk³). Progressively publishers will allow authors to archive a full text version of an article for free in the form a 'post-print' (final author-accepted manuscript, post peer-review but without journal formatting) or the publisher's version/PDF on IREP. Generic publisher policies on self-archiving are available via the Sherpa/Romeo database.

A growing number of publishers are adopting a mixed method of publication, or "hybrid model", offering an option for authors to make their individual article open access for an additional fee or article processing charge (APC); other articles in the journal will remain accessible only through subscription.

Some journals impose fees for reviewing an article, or the use of color images or other special media formats, and it is not uncommon to have a considerable range in article processing costs among journals with similar scope and focus. All of these issues should be considered when choosing a journal to publish in. Further information on open access publishing can be found on the <u>NTU_Library_web_pages</u>

1.3 Author Rights.

Certain journals will allow authors to retain rights to their work in order to be able to reuse or disseminate the work after publication, but within the 'traditional' publication agreement, copyright will usually go to the publisher. However, you may want to include sections of your article in later work, distribute copies among colleagues, post the peer-

¹ Bourne PE. (2005) Ten Simple Rules for Getting Published. *PLoS Computational Biology* 1(5): e57. Available at: http://www.ploscompbiol.org/article/info:doi/10.1371/journal.pcbi.0010057

² Atchison, A., & Bull, J. (2015). Will open access get me cited? An analysis of the efficacy of open access publishing in political science. *PS: Political Science & Politics*, *48*(01), 129-137. Available at: http://scholar.valpo.edu/cgi/viewcontent.cgi?article=1020&context=ccls fac pub

³ Koler-Povh, T., Južnič, P., & Turk, G. (2014). Impact of open access on citation of scholarly publications in the field of civil engineering. *Scientometrics*, *98*(2), 1033-1045.

reviewed version or final published article on your web page or in IRep etc. These are all ways to give your research wide exposure, but they are inhibited by the 'traditional agreement'. The Scholarly Publishing and Academic Resources Coalition (SPARC) identifies the rights researchers have as copyright holders and encourages you to retain the rights you need to ensure the broadest practical access to your research:

http://www.sparc.arl.org/theme/author-rights

It also provides details of how to use the SPARC <u>Author Addendum</u> to secure your rights as authors of journal articles.

1.3 Reaching the right audience.

Certain subject disciplines, topic-specific journals or journals published by a specialised society may disseminate research results more efficiently to a desired audience than general journals. More specialised journals, even with a potentially smaller readership, may offer an author broader dissemination of relevant research results to their peers in their specific field of research.

1.4 Journal information.

Factors such as the circulation count, the number of years in publication, the language/s of the journal, frequency of publication, number of articles published per year, and availability of electronic or print formats can be helpful in determining a journal for publication

Its indexing status by citation databases. One indicator of journal quality is whether it is indexed by any major citation databases and if so, how far back does the indexing date to?

Acceptance/Rejection rate. Acceptance rates provide a measure of determining how competitive a particular journal is. Locating acceptance rates for individual titles or for specific disciplines can be difficult, and the method of calculating acceptance rates varies among journals. The following link (from Fairfield University in the USA) includes a list of resources and further information on acceptance rates for scholarly journals in specific disciplines: http://librarybestbets.fairfield.edu/content.php?pid=176112&sid=1482966

<u>Ulrichsweb</u> is an invaluable source of detailed information on more than 300,000 periodicals of all types: academic and scholarly journals, e-journals, peer-reviewed titles, popular magazines, newspapers, newsletters etc. covering more than 900 subject areas. Ulrich's records provide data such as ISSN, publisher, language, frequency, start year, subject, abstracting & indexing coverage, full-text database coverage, tables of contents, and reviews written by librarians.

2. Prepare your paper for maximum citation

2.1 Use a consistent form of your name

Changing your name, for example upon marriage, makes it much more difficult to track citations longitudinally. The use of Open Researcher and Contributor ID (ORCID) is now mandated at NTU, but it is also worth making sure all your other researcher identifiers such as ResearcherID and Scopus ID are consistent and linked to your ORCID.

2.2 Optimising your article for search engines

Marashi et al.⁴ (2013) found that citations to an article might strongly depend "on the visibility rather than the merit of the article" and Ebrahim et al.⁵ (2013) identify steps that could greatly improve the discoverability of your article and thus increase its chance of being viewed and/or cited in another work; these include the formation of a concise, well-constructed title and abstract.

Ensure you assign keyword terms to the manuscript and formulate a concise, well-constructed title and abstract. Research undertaken by Paiva, da Silveira and Ribeiro⁶ (2012) suggests that short-titled articles had higher viewing and citation rates than those with longer titles; in addition, articles with results-describing titles were cited more often than those with methods-describing titles. For further information on search engine optimisation, see publisher's guidance for authors e.g. Wiley-Blackwell Optimizing Your Abstract for Search Engines.

Library staff have experience of advising users on the best keywords to use to find articles in databases. Your Research Support Librarian will be able to help you to assign keywords to your research outputs to raise their ranking in search engines and databases.

- 1. Where it is appropriate, acknowledge and cite your own previous work and that of your research group. Cooke and Donaldson⁷ (2014) argue that self-citations should not always be "considered as a form of narcissistic behaviour, and instead could be indicative of a cohesive research program, in which authors refer to their previous relevant works in order to enhance their subsequent contributions to knowledge". Although very high levels of self-citation are not advisable if your own prior research is pertinent then cite it. Although different subject disciplines will have variable citation patterns, there is evidence that suggests (see Webster, Jonason and Schember⁸) that articles that cite more references are in turn cited more themselves.
- 2. Write with one or more co-authors. Across a broad range of subject disciplines co-authored outputs tend to generate more citations; not only do multiple authors provide multiple opportunities for promoting the work, but they are also more likely to cite the work. If your co-author already has a high profile then early interest in the work is almost guaranteed. If the collaboration is international then so much the better; evidence from a 2011 UK Government commissioned report, *International Comparative Performance of the UK Research Base*⁹, indicates that international collaboration on articles boosts impact through

⁴ Marashi, S.-A. et al. 2013. Impact of Wikipedia on citation trends. EXCLI Journal, 12, 15-19. Impact of Wikipedia on citation trends. *EXCLI Journal*, 12, 15-19.

⁵ Ale Ebrahim, N., Salehi, H., Embi, M. A., Habibi, F., Gholizadeh, H., Motahar, S. M., & Ordi, A. (2013). Effective strategies for increasing citation frequency. *International Education Studies*, *6*(11), 93-99.

⁶Paiva, C. da Silveira, J. and Ribeiro, B. (2012) Articles with short titles describing the results are cited more often *Clinics* 67 (5), 509-13. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3351256/

⁷ Cooke, S. and Donaldson, M.R. 2014. Self-citation by researchers: narcissism or an inevitable outcome of a cohesive and sustained research program? Ideas in Ecology and Evolution. 7(1).

⁸ Webster, GD. Jonason, PK. Schember, T (2009) Hot Topics and Popular Papers in Evolutionary Psychology: Analyses of Title Words and Citation Counts in Evolution and Human Behavior, 1979 – 2008. *Evolutionary Psychology* 7(3): 348-362. Available at: http://www.epjournal.net/wp-content/uploads/ep07348362.pdf

⁹ Department of Business, Innovation and Skills (2011) *International Comparative Performance of the UK Research Base*. Elsevier. Available at: http://www.bis.gov.uk/assets/biscore/science/docs/i/11-p123-international-comparative-performance-uk-research-base-2011.pdf

citations and adds to the UK's position as a 'world-class' research nation. A useful summary of the report can be found here:

http://blogs.lse.ac.uk/impactofsocialsciences/2011/11/14/evidence-from-the-latest-bis-report/

Entity ≜	Citation Count	International collaboration (%)
m Manchester Metropolitan University	22,092	37.8
♠ Nottingham Trent University	13,649	27.7
☆ Sheffield Hallam University	13,160	29.9

Table 1. SciVal data 2010-2014 showing a positive relationship between international collaboration and citation levels.

Frenken et al. (2010)¹⁰ carried out a study on collaboration in scientific research and found that international collaborations tend to receive more citations than national or regional level collaborations. Furthermore, Nomaler et al.¹¹ (2013) found that citation impact increases as the geographical distance between the collaborating authors increases. The authors suggest that the combination of dissemination opportunities, resources and skills of the collaborating research institutions and less overlap between personal networks of the authors can help to increase citation impact.

2.3 Research Data

Making your data available enhances the visibility of your research outputs and increases the number of citations. Research data, if correctly formatted, described and attributed, will have significant ongoing value and can continue to have impact long after the completion of a research project. A "robust citation benefit from open data" was found by Piwowar and Vision¹² (2013)

2.4 Different types of publication

Research suggests that different publication types traditionally attract varying levels of citation; review articles tend to be more heavily cited than original research and rapid communications (highly original, short papers prioritised for peer review) tend to accrue citations more quickly¹³. For more information on different publication types, see the Springer guide 'What type is my paper?'

Alongside your scholarly journal article, consider publishing your results in a more popular magazine or journal, thus increasing the impact of your research beyond the academic community (see 'Disseminate your research for optimal visibility' below).

¹⁰ Frenken, K. et al. 2010. The citation impact of research collaboration in science-based industries: A spatial-institutional analysis. *Papers in Regional Science*. 89(2), pp.351-271.

¹¹Nomaler, Ö. et al. 2013. Do more distant collaborations have more citation impact? *Journal of Informetrics*. 7(4), pp.966-971.

¹² Piwowar, H and Vision, T. 2013. Data reuse and the open data citation advantage. *PeerJ.* 1:e175. Available at: https://doi.org/10.7717/peerj.175

¹³ De Bellis, N. (2009). Bibliometrics and citation analysis: from the science citation index to cybermetrics. Scarecrow Press.

2.5 Disseminate your research for optimal visibility

Effective dissemination relies on the use of varied channels, including publications and reports, web sites and social media, meetings and conferences, person-to-person communications, formal collaborations and information networks. You will need to ensure that you orient toward the needs of the audience, using appropriate language and information level. Many publishers include dissemination advice and suggestions for authors, e.g. Sage, Elsevier and Taylor and Francis. RCUK provides comprehensive information around public engagement.

In creating a dissemination strategy, researchers should consider several key questions:

- Goal: What are the goals and objectives of the dissemination effort? What impact do you hope to have?
- Audience: Who is affected most by this research? Who would be interested in learning about the study findings? Is this of interest to a broader community than fellow researchers?
- Medium: What is the most effective way to reach each audience? What resources does each group typically access?
- Execution: When should each aspect of the dissemination plan occur (e.g. at which points during the study and afterwards)? Who will be responsible for dissemination activities?

When answering these questions, researchers might want to consider some of the following activities:

- 1. Create a Google Scholar author profile for your published research outputs. Google searches return hits from Google Scholar and displays them near the top of the list (often at the top). Google provides comprehensive <u>guidance</u> on how to do this, and how to add your citations to your profile
- 2. Free media coverage can be an easy way to get results out to as many people as possible. Use your local newspaper, television and radio outlets press releases offer one of the most efficient and effective ways to disseminate information, particularly to the media and other organisations. Consider arranging a media or press junket. This is an effective and efficient way of broadcasting your research to multiple media channels as it involves conducting interviews to those channels from one place. The BBC invites researchers to come to a studio and several stations phone in to interview them at allotted times this is usually for expertise on a breaking news story, for example, Professor Mark Griffiths gave 20 radio interviews (two live, 18 pre-recorded) on 30 March 2016 about commissioned research on children's use of technology. The NTU Communications Team can help you disseminate research findings widely through public media.
- 3. Develop a "research summary document" which clearly and concisely summarises the key conclusions of your research. Alternatively, flyers, posters, brochures, or research briefs about research projects and findings offer a concise and visually-appealing way to disseminate information to broad audiences. If funded, check to see if your funder publishes summaries or research reports of research projects. These are often aimed at target groups, for example, The Joseph Rowntree Foundation publishes a series of research reports on topical social issues.
- 4. Become an author for <u>The Conversation</u>. The Conversation is an independent source of news and views, sourced from the academic and research community and delivered direct to the public. The team of professional editors work with university and research institute experts to unlock their knowledge for use by the

wider public. The Conversation also acts as a media resource, providing free content, ideas and authors to follow up for press, web, radio or television. You can write about your research in general terms for the public, and then either link out or provide a reference to the scholarly article which sits alongside this, as this example illustrates. This Conversation article links out to two related open access articles by the same author, both of which have received citations, and an article in an professional journal. The Conversation also captures social media mentions, so you can see the reach and proliferation of discussion arising from your research.

- 5. Speak at your discipline's key conferences; present preliminary research findings at a meeting or conference and consider making your figures available through <u>FigShare</u> and your presentation materials on a sharing site such as <u>SlideShare</u> so that others may discover and share your materials post-event. You might also consider submitting your content to a permanent, citable archive such as <u>F1000Posters</u>
- 6. Set up a web site or start a blog devoted to the research project. Research by Shema, Bar-llan and Thelwall¹⁴ found that research papers receiving blog citations close to publication tend to receive higher journal article citations. Academic blogging gets your work and research out to a potentially massive audience at very low cost, very quickly and with a relative amount of effort. The Impact of Social Sciences Project based at the LSE suggests that setting up a multi-author blog is the best way to achieve consistently strong posts and a dedicated readership; it also states that it is important to ensure that every article has a narrative title, so that readers can quickly understand what the article is about and why they should read it - narrative titles can also be easily re-tweeted on Twitter, a potent means of spreading knowledge of key messages. Blogs can be interactive and participatory; they can be set up so readers can comment on posts and engage in dialogue with the author. This is good, both for attracting potential collaboration and for demonstrating public engagement. For an example of a research group blog, see the blog created by the John Van Geest Centre at NTU. It is a mixture of promotional events and research activity. Wiley Exchanges offers advices on how to promote your research through blogging. In addition, the University of Warwick have produced a number of useful guides to blogging including, Blogging about your research: first steps, Blog readership: Build and maintain an audience and Writing research for different audiences: Key points to consider.
- 7. Taking advantage of search engine optimisation tips to enhance retrieval of your research project web site by search engines. Add meta tags in the page header section that include appropriate keywords to describe the content of the page. Search engines look at this "hidden" content and use it to determine search results page rankings. For tips on how to promote online content see the Google Search Engine Optimization Starter Guide. Your Research Support Librarian will be also able to help you to assign keywords to raise retrieval and ranking in search engines.

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¹⁴ Shema, H., Bar-llan, J, & Thelwall, M. (2014). Do blog citations correlate with a higher number of future citations? Research blogs as a potential source for alternative metrics. *Journal of the Association for Information Science and Technology*. 65(5): 1018-1027

- 8. Register with social media profile sites and starting a library of publications related to a research project (or by author) so that you can share the research project library with users. Sites to consider include:
 - Academia.edu
 - Kudos
 - <u>LinkedIn</u>
 - Mendeley
 - Piirus
 - ResearchGate
 - Selected Works
 - Zotero

It is recommended that you add listings of your publications on numerous sites, but rather than uploading the full text of papers to external sites, you should include reference details only and link back to IREP for the full text. Kelly and Delasalle 15 provide evidence which suggests that the search engine ranking of a page will be boosted if there are lots of links to it from an external domain, so as well as raising awareness of your research, you can use profile sites to help drive traffic to the repository and increase the number of downloads. A summary of this paper is available as a one-minute Vimeo clip. As well as being indexed by Google, IRep offers many advantages including a permanent archive and a persistent URL.

- 9. Communicate information about your research via Twitter. Twitter provides an efficient platform for communicating and consuming research. Research by Eysenbach¹⁶ concluded that tweets can predict highly cited articles within the first three days of article publication. For practical guidance on getting started and background information on the benefits of using Twitter, see the LSE Public Policy Group's guide to <u>Using Twitter in university research</u>, teaching and impact activities. Also, see Melissa Terras' post: <u>Is blogging and tweeting about research papers worth it? The Verdict</u>; this provides evidence that the papers that she tweeted and blogged about had at least more than 11 times the number of downloads than their sibling paper which was left to its own devices in the institutional repository. An <u>article</u> tweeted the day after it was published (16 March 2016 received 40 views, 11 Twitter mentions and 1 Mendeley mention within three weeks of online publication. You can tweet as an individual or set up a Twitter account for a research group. Some journals are now encouraging Tweetable abstracts.
- 10. Create a Facebook page relating to your area of research, or contribute to an existing one. A study by Ringelhan, Wollersheim and Welpe¹⁷ found that, on the whole, the more Facebook likes a paper receives, the more citations it receives. The post 'How to create a better Facebook Group that thrives' offers tips for creating a Facebook group. The Facebook page for The Institute of Cancer Research is an example which includes posts about research conducted by the Institute.

¹⁵ Kelly, B. and Delasalle, J. (2012) Can LinkedIn and Academia.edu enhance access to open rRepositories? In: *OR2012: the 7th International Conference on Open Repositories*, 9.7.12-13.7.12, Edinburgh, Scotland. Available at: http://opus.bath.ac.uk/30227/

 ¹⁶ Eysenbach, G. 2011. Can tweets predict citations? Metrics of social impact based on Twitter and correlation with traditional metrics of scientific impact. *Journal of Medical Internet Research*. 13(4):e123. doi: 10.2196/jmir.2012
 ¹⁷ Ringelhan S, Wollersheim J, Welpe IM (2015) I Like, I Cite? Do Facebook likes predict the impact of scientific work? PLoS ONE 10(8): e0134389. doi: 10.1371/journal.pone.0134389

- 11. Contribute to a wiki in your area of work or research. Wikis can focus on a particular subject area, enabling researchers in the field to develop a specialist resource such as a community of practice, online manual, etc. Wikipedia has a broad range of topics to which you can contribute, but if there isn't a page in existence, why not create one? You can find out how here:

 http://en.wikipedia.org/wiki/Wikipedia:Your_first_article. As wikis are generally easy to use, they are a great way of enabling members of the public to contribute to a research project, such as 'crowdsourcing'. They can be configured to allow as much editorial control as required. Examples include:
 - <u>Transcribe Bentham</u> UCL project transcribing Jeremy Bentham's manuscripts, which invites assistance from members of the public
- 12. Post to discussion lists to reach a wider audience, and to start conversations about your research. <u>JiscMail</u> is widely used by UK academics and was developed to further communication of research interests, as set out in its <u>mission</u>. Search for specific lists or browse categories to find relevant email lists.
- 13. Appeal to different learning styles by creating audiovisual material. Dr. James
 McQuivey of Forrester Research says a minute of video is worth 1.8 million words. Create a podcast describing the research project and submit it to YouTube or Vimeo. See the Washington University YouTube channel for examples of podcasts describing research projects. Another option for dissemination of podcasts is through a subject repository such as BioMed Central recognises that video is an increasingly important way for researchers to communicate their results and welcomes submissions of podcasts from authors and editors. Links to podcasts are located on the BioMed Central YouTube website. NTU research into homelessness has been disseminated through video and a contribution to a podcast as an integral part of the Joseph Rowntree Foundation's research round-up document.
- 14. Many publishers recommend creating video abstracts as a way of introducing people to your article and provide guidance and examples to help authors create their own, e.g. <u>Taylor and Francis</u>. Elsevier invites authors to create <u>AudioSlides</u>, which then display alongside their article in <u>ScienceDirect</u>. Don't forget to link to any audiovisual research promotional material from your website, blog, Twitter account, etc.
- 15. Create visual representations of your research by using one of the many free infographic packages such as <u>Canva</u> or <u>Piktochart</u>.
- 16. Share the data generated by the research and depositing them in an appropriate repository such as the <u>UK Data Archive</u>, <u>GenBank</u>, etc, or with publishers of journals who are willing to post the data. Studies suggest that sharing detailed research data is associated with increased citation rate; for example, Piwowar and Vision¹⁸ demonstrated a correlation between shared research data and increased citation impact.

Further support

The <u>Library Research Team</u> is able to provide you with advice and guidance on all elements of the NTU Publications Strategy and the Publication Good Practice Guidelines.

¹⁸ Piwowar, H and Vision, T. 2013. Data reuse and the open data citation advantage. *PeerJ.* 1:e175. Available at: https://doi.org/10.7717/peerj.175

The team delivers events on open access publishing, developing an effective publication strategy, increasing citations, and how social media can help you to increase the impact of your research. A 'Citation Improvement Suite' of professional development sessions/workshops is provided via the NTU Researcher Development Framework (RDF). The 'Citation Improvement Suite' consists of the following modules which will be available to researchers as individual one hour sessions, or as a single half day 'block'/workshop:

- Deciding where to publish
- Prepare your publication for maximum citation
- Disseminate your research for optimal visibility

Please check the library research support web pages for more details, and information on how to book onto an event:

http://www.ntu.ac.uk/library/research_support/training-support/index.html

Good Practice Guidelines series

NTU Good Practice Guidelines: Monographs

NTU Good Practice Guidelines: Non-standard outputs

Library Research Team Listing

Research Support Librarian	Subject responsibilities	
Victoria Boskett	Animal, Rural and Environmental SciencesScience and Technology	
Heather Parsonage	 Architecture, Design and the Built Environment Art and Design Arts and Humanities 	
Sharon Potter	BusinessEducationLawSocial Sciences	
Research Data Management Officer	Subject responsibilities	
Benjamin Veasey	All Schools	

Other supporting documents

- NTU Freedom of Speech Policy
- NTU Publications Strategy

Responsibility

Document Owner Pro V		Pro Vice-Chancellor for Research

Document Review

The Guidelines will be reviewed by the Pro Vice-Chancellor for Research in association with the University Research Committee in June 2017.