Cracking the Code

Assessing institutional compliance with the Australian Code for the Responsible Conduct of Research

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This paper provides a review of institutional authorship policies as required by the Australian Code for the Responsible Conduct of Research (the 'Code') (National Health and Medical Research Council (NHMRC), the Australian Research Council (ARC) & Universities Australia (UA) 2007), and assesses them for Code compliance. Institutional authorship policies were specifically chosen for this study as research publications are increasingly underpinning institutional income derived from the Australian Government, with publications likely to become even more important under the Excellence in Research for Australia initiative. Of the 39 Australian institutions reviewed, three universities, namely Charles Darwin University, University of Tasmania and University of Technology Sydney, did not have an institutional authorship policy, while another four universities, namely Curtin University of Technology, Flinders University, La Trobe University and University of Adelaide, had policies that were not compliant with the Code. Most universities, particularly the Group of Eight institutions, need to improve their authorship policies and management practices to avoid continual breach of Section 5.1 ('have criteria for authorship') of the Code and risk losing ARC and NHMRC research funding.

Introduction

Researchers typically find it challenging to determine authorship and author order on their publications. Authorship disputes among research collaborators, including Research Higher Degree (RHD) students and their supervisor/s, can permanently damage relationships. Early career researchers, including RHD students, are often poor negotiators as they have had little to no experience publishing or discussing authorship with colleagues. Furthermore, institutions and senior academics, who typically mentor these junior researchers, often miss a valuable opportunity to teach their early career researchers the best way to approach publishing and authorship discussions with collaborators (Morris 2008a). The outcome for many researchers and postgraduates who encounter issues in authorship assignment may be an unwillingness to collaborate or publish in the future, or even withdrawal from their postgraduate degrees (Morris 2008a).

Aside from the perceived power differential amongst collaborators, including student/supervisor interactions, the two main authorship issues cited in the literature are who can claim author status and the order those authors appear on the by-line (Jones 1999). Despite institutional policies, procedures and guidelines for determining authorship in a rational and accountable manner, authorship issues still exist. One reason for this may be that most researchers and students are unaware that these criteria and methods for author allocation actually exist (Morris 2008a; Street et al. 2010).

Moreover, it appears that institutions have not actively promoted such policies, or are yet to develop their authorship policy that would guide their researchers through the often difficult discussions regarding authorship. For those institutions that do have a policy, if inadequate guidelines and training on policy implementation are not made available to researchers, then the policy could easily be negated in practice.

On 26 February 2008, the Hon. Senator Kim Carr, Minister for Innovation, Industry, Science and Research, announced a new research quality and evaluation system (ARC 2009b). The Excellence in Research for Australia (ERA) initiative will assess research quality within Australia's higher education institutions using a combination of indicators and expert review by committees comprising internationally-recognised experts. A trial of ERA is currently underway in the Physical, Chemical and Earth Sciences and Humanities and Creative Arts disciplines.

The outcomes of these trials will inform the full ERA process in 2010 (ARC 2009c). Many commentators are predicting that the ERA will bring about a 'change in publishing behaviour by Australian academics' (e.g. Lamp 2009, p. 830), and this change could be concomitant with a rise in the number of authorship issues (Morris 2008a).

This paper will provide a review of current Australian university authorship policies and assess them for compliance with the Australian Code for the Responsible Conduct of Research (the 'Code') (NHMRC, ARC & UA 2007). Clear authorship policies and guidelines provide the first step in preparing universities for the potential rise in authorship issues that may be brought about by the ERA.

The Code

The minimum requirements for the responsible conduct of research, including authorship, have been well established in Australia. The Code was released in 2007 in an effort to promote research integrity, and provides a guide for researchers, Australian universities, and public sector research institutions on responsible research practices (NHMRC, ARC & UA 2007). The Code was developed jointly by the National Health and Medical Research Council (NHMRC), the Australian Research Council (ARC) and Universities Australia (UA), and has broad relevance across all research disciplines. Furthermore, institutional compliance with the Code is a prerequisite for receipt of NHMRC and ARC funding.

There are two parts to the Code: Part A advocates and describes best practice for both institutions and researchers, e.g. guidance on how to publish and disseminate research findings, and Part B provides a valuable framework for handling breaches of the Code and research misconduct (NHMRC, ARC & UA 2007).

Who should be an author?

There are many varied views about what it means to be an author. An author can be defined as 'the writer of a book, article or other text; one who writes or constructs an electronic document, such as a website; or the originator or creator of a theory or plan' (Farlex 2010). The Code and other policies and guidelines have developed their own definition of authorship. Some of these definitions are explored below.

The Code and authorship

Part A of the Code clearly defines the minimum criteria for authorship:

'To be named as an author, a researcher must have made a substantial scholarly contribution to the work and be able to take responsibility for at least that part of the work they contributed.

Attribution of authorship depends to some extent on the discipline, but in all cases, authorship must be based on substantial contributions in a combination of

- · conception and design of the project
- analysis and interpretation of research data
- · drafting significant parts of the work or critically revising it so as to contribute to the interpretation.

The right to authorship is not tied to position or profession and does not depend on whether the contribution was paid for or voluntary. It is not enough to have provided materials or routine technical support, or to have made the measurements on which the publication is based. Substantial intellectual involvement is required' (NHMRC, ARC & UA 2007, Section 5).

The Code's minimum criteria for authorship are based on the internationally accepted Vancouver Protocol (ICMJE 2006). The Code's criteria clearly describe that being an author is more than merely being responsible for writing the actual publication. Researchers who are entitled to be authors must have 'made a substantial scholarly contribution to the work' (NHMRC, ARC & UA 2007, Section 5).

Other authorship polices and guidelines

Many international associations and societies also have ethical codes of research that outline authorship criteria. The most widely known of these is the Vancouver Protocol (ICMJE 2006). The Vancouver Protocol was first developed for use in the medical profession but now has widespread acceptance across a range of disciplines. The Vancouver Protocol also forms the basis of international institutional authorship policies such as Harvard University (2010) and the University of Oxford (2010). Other international associations, including the American Psychological Association (1992) and the Computing Research and Education Association of Australasia (1999) also have widely-developed authorship guidelines.

Determining authorship in practice

Despite the existence of authorship criteria such as the Vancouver Protocol, which clearly describe who qualifies as an author, the practice of determining authorship in publications from collaborative research projects is varied. These varied practices could be explained by the fact that few researchers are aware of the existence of policies and methods for determining authorship. This is highlighted in a recent study by Street et al. (2010), where participants were 'often not aware of guidelines except as they related to specific journals' (p. 1463), with one participant commenting that their knowledge of authorship was from 'general pub discussion' (p. 1463).

To highlight the methods used to establish authorship in collaborative projects, researchers and RHD students attending an authorship management workshop were asked the question 'How have you determined authorship on your previous publications?'The following list provides a general description of their responses (Morris 2008b):

- My supervisor/boss told me who the authors were.
- My supervisor/boss was an author because he/she was my supervisor/boss.
- We did a deal.
- · We tossed a coin.
- Who conceptualised the research question.
- · Who conducted the writing.
- · Who did the work.
- · Who obtained the funding.
- Who provided intellectual input.
- Who reviewed the literature.

During the course of the authorship management workshop, several RHD students commented that they included their Professor as a co-author on their publications to 'enhance the credibility of [their] work' (Morris 2008b).

These varied authorship practices can partly be explained by discipline and cultural differences. For example, single authorship in the arts, humanities and some areas of social science is the norm, with supervisors of RHD students rarely included as an author, and in the sciences and engineering, multiple authorship including inclusion of supervisors and guest authors is more common practice (Street et al. 2010; Wuchty et al. 2007).

Institutions and the Code

In addition to defining the minimum criteria for authorship, the Code also outlines institutional requirements for ensuring authorship is managed appropriately by researchers and students. One such requirement is the responsibility of institutions to have an authorship policy:

'Institutions must have a policy on the criteria for authorship consistent with this Code, seeking to minimise disputes about authorship and helping to resolve them if they arise' (NHMRC, ARC & UA 2007, Section 5.1).

Institutional compliance

To assess how well institutions have complied with the Code's requirement for an authorship policy, a review of all 39 Australian university policies was conducted. The policies, procedures and associated supporting documents were accessed from the universities' websites and reviewed for:

- existence of an authorship policy (either as a separate authorship policy or embedded in a general policy covering research code of conduct); and
- usefulness of the policy for helping researchers manage the two major authorship issues, namely who should be an author and the order of authors (Jones 1999).

After review, each university's authorship policy was rated according to the following scale:

- 1. Institutional authorship policy found. Policy included: authorship criteria as defined by the Code and a statement on determining author order.
- 2. Institutional authorship policy found. Policy included: authorship criteria as defined by the Code.
- 3. No institutional authorship policy found but the institution provided a direct website link to the Code, had guidelines on determining authorship in student/supervisor interactions, or acknowledged that they had guidelines currently under development.
- 4. No institutional authorship policy found after extensive website searching.

Each university was then placed in a group according to the rating of its authorship policy. The Group of Eight (Go8) or research-intensive universities were also highlighted in these groups because collectively research funding to these universities accounted for almost 64 per cent of the total ARC and NHMRC funding allocated in 2008 (ARC 2009a; NHMRC 2009).

Group 1

Of the 39 Australian universities, the authorship policy of 12 institutions was given a rating of 1 (Table 1). These were:

- Australian National University (ANU) (Go8)
- Central Queensland University (CQU)
- Charles Sturt University (CSU)
- Edith Cowan University (ECU)
- James Cook University (JCU)
- RMIT University (RMIT);
- University of Ballarat (Ballarat)
- University of Melbourne (Melbourne) (Go8)
- University of New South Wales (UNSW) (Go8)
- University of Newcastle (Newcastle)
- University of Notre Dame (Notre Dame)
- University of Wollongong (UOW).

An overview of the JCU authorship policy is provided herein as an example of a typical Group 1

policy. Section 5.1 of the JCU policy lists criteria for authorship as described in the Code, including those contributors who, in and of themselves, do not warrant authorship, e.g. being head of department or holding some other position of authority (JCU 2009). The JCU policy also comments that 'Collabo-

... the authorship policies of CSU and UOW were exceptional as they went above and beyond that required by the Code... [with] an explicit statement and guidelines on determining author order, and additional information to assist researchers implement the actual policy and minimise authorship disputes

rating researchers should agree on authorship and authorship order for a publication at an early stage in the research project and should review their decisions periodically' (JCU 2009). While no clear instructions are provided to assist researchers and students to determine author order, JCU, through its policy, recognises the importance of collaborators agreeing on authorship and author order, and on periodic review of authorship and author order to ensure they are satisfactorily determined. Sections 5.2, 5.3 and 5.4 of the JCU policy describes how authorship is to be accepted by co-authors, how other contributions are

to be acknowledged, and how authorship disputes are to be resolved (JCU 2009).

Of the institutions listed in Group 1, the authorship policies of CSU and UOW were exceptional as they went above and beyond that required by the Code. Their respective authorship policies contained authorship criteria as defined by the Code, an explicit statement and guidelines on determining author order, and additional information to assist researchers implement the actual policy and minimise authorship disputes. An example of the additional information provided in these two policies was the UOW Authorship Acknowledgement Form (UOW 2008) and the provision of author order determinations derived from scholarly articles (CSU 2009). To complete the UOW Authorship Acknowledgement Form, co-authors are required to provide details of their intellectual contribution, and are asked to sign the following statement regarding the publication: 'I agree to the listed individuals as being appropriate authors and the order of authorship in the above publication. I also confirm that I have made the above substantial intellectual contributions' (UOW 2008). While this form is completed after publication submission, the process of acknowledging what each co-author has contributed to the publication is a worthwhile exercise.

> Although difficult to find on the CSU website, the CSU policy provides 'three models [that] may be used as a catalyst to promote [emphasis in original] discussion about determining the order of authors or the recognition of a researcher in the author list or as an acknowledgment' 2009). In addition to arriv-

ing at author order in a rational and accountable manner, co-authors who follow such models as a guide for determining author order also gain a full appreciation for the contributions of others (Beveridge & Morris 2007).

Group 2

Of the 39 Australian universities, the authorship policy of 17 institutions was given a 2 rating (Table 1). Policies from these universities were thus rated because their policy only contained details on determining authorship as described by the Code:

• Australian Catholic University (ACU)

- · Griffith University (Griffith)
- Macquarie University (Macquarie)
- · Murdoch University (Murdoch)
- · Queensland University of Technology (QUT)
- Southern Cross University (SCU)
- Swinburne University of Technology (Swinburne)
- University of Queensland (UQ) (Go8)
- University of Canberra (Canberra)
- · University of New England (UNE)
- University of South Australia (UniSA)
- University of the Sunshine Coast (USC)
- University of Southern Oueensland (USO)
- University of Sydney (Sydney) (Go8)
- University of Western Australia (UWA) (Go8)
- University of Western Sydney (UWS)
- Victoria University of Technology (Victoria).

During the policy review process, it was revealed that Schools and Faculties of several institutions also had authorship policies in place. One such policy that was found was the USQ Faculty of Business' Code of Good Practice in Research Degree Supervision (USO) 2004). Of particular interest in this policy were the statements that, in the case of publications arising from a student's research, 'the supervisor has a right to co-authorship; [but] the supervisor need not take up the right to co-authorship' (USQ 2004, Appendix B). This Faculty policy sends a mixed message to USQ researchers: for example, the USO institutional policy is endorsing the Code's authorship criteria that authorship is based on substantial intellectual contribution to 'conception and design; analysis and interpretation of data; and drafting significant parts of the work or

Table 1. Authorship policies obtained from the 39 Australian universities.

University	Authorship policy title	Rating	Authorship policy URL	Accessed
ACU	ACU National Code of Conduct for Research	2	http://www.acu.edu.au/about_acu/research/for_ researchers/code_of_conduct_for_research/	2/10/09
Adelaide	Responsible Conduct of Research Policy	3	http://www.adelaide.edu.au/policies/96/	6/10/09
ANU	Responsible Practice of Research	1	http://policies.anu.edu.au/policies/responsible_practice_ of_research/policy	15/9/09
Ballarat	Code of Good Practice for the Conduct of Research	1	http://policy.ballarat.edu.au/research/code_of_good_ practice_for_the_conduct_of_research/ch01.php	2/10/09
Bond		n/a	http://www.bond.edu.au/student-resources/student-administration/policies-procedures-guidelines-and-forms/index.htm?myListType=1	2/10/09
Canberra	Guidelines for Responsible Practice in Research and Dealing with Problems of Research Misconduct	2	https://guard.canberra.edu.au/policy/policy.php?pol_id=3136	2/10/09
CQU	Assignment of Authorship Policy	1	http://policy.cqu.edu.au/Policy/policy.jsp?policyid=518	2/10/09
CDU		4		2/10/09
CSU	Authorship of Research Publications	1	http://www.csu.edu.au/research/policy/authorship.htm #authorship	2/10/09
Curtin	Information Regarding Authorship and Joint Authorship for Higher Degree by Research Students and their Supervisors	3	http://research.curtin.edu.au/forms/policies.cfm #authorship	7/10/09
Deakin		n/a	http://theguide.deakin.edu.au/TheDeakinGuide.nsf/Web+V isitors?OpenFrameSet&Frame=WebContent&Src=WI2.1?O penPage&Choice=0&Access=Visitor	2/10/09
ECU	Authorship, Peer Review and Publication of Research Policy	1	http://www.ecu.edu.au/GPPS/policies_db/tmp/ac073.pdf	2/10/09
Flinders	Policy on Research Practice	3	http://www.flinders.edu.au/ppmanual/research/resprac. htm	2/10/09

University	Authorship policy title	Rating	Authorship policy URL	Accessed
Griffith	Griffith University Code for the Responsible Conduct of Research	2	http://www62.gu.edu.au/policylibrary.nsf/xmainsearch/e78 52d226231d2b44a25750c0062f457?opendocument	2/10/09
JCU	Statement and Guidelines on Research Practice	1	http://www.jcu.edu.au/policy/research/practices/ JCUDEV_009786.html	2/10/09
La Trobe	Publication of Research Findings Policy	3	http://www.latrobe.edu.au/policy/documents/publication-of-research-findings-policy-2009-07-14.pdf	2/10/09
Macquarie	Code of Conduct for Responsible Research Practice	2	http://www.research.mq.edu.au/researchers/funding/documents/Codes_Res_Conduct_12_05.pdf	2/10/09
Melbourne	Code of Conduct for Research	1	http://www.unimelb.edu.au/ExecServ/Statutes/r171r8.html	15/9/09
Monash		n/a	http://www.monash.edu.au/research/statements/ opmanual/res2914.html	2/10/09
Murdoch	Code of Conduct for Research	2	http://www.research.murdoch.edu.au/management/policies/codeconres.html	2/10/09
Newcastle	Authorship of Research Policy	1	http://www.newcastle.edu.au/policy/000856.html	2/10/09
Notre Dame	Code of Conduct for Research	1	http://www.nd.edu.au/downloads/research/20071123/ POLICY%20Code%20of%20Conduct%20for%20 Research%2007%20OCT.pdf	2/10/09
QUT	QUT Code of Conduct for Research	2	http://www.mopp.qut.edu.au/D/D_02_06.jsp	2/10/09
RMIT	Responsible Conduct of Research Policy	1	http://www.rmit.edu.au/browse;ID=oav5mr677mm7z	2/10/09
SCU	Policy on Quality in Research Practice	2	http://www.scu.edu.au/research/ethics/download. php?doc_id=355&site_id=31	2/10/09
Swinburne	Conduct of Research	2	http://policies.swinburne.edu.au/ppdonline/default.aspx?m ode=glossary&word=Research	2/10/09
Tasmania		4		15/9/09
UNE	Code of Conduct for Research	2	http://www.une.edu.au/policies/pdf/ codeofconductresearch.pdf	2/10/09
UNSW	Procedure for Authorship and for Resolving Disputes between Authors	1	http://www.policy.unsw.edu.au/procedure/authorship.htm	2/10/09
UQ	Procedures for the Conduct of Research	2	http://www.uq.edu.au/hupp/index.html?page=25156	15/9/09
UniSA	Authorship Policy	2	http://www.unisa.edu.au/policies/policies/resrch/res12.	2/10/09
USQ	Teaching, Research and Scholarship	2	http://www.usq.edu.au/policy/calendar/part7	2/10/09
Sydney	Code of Conduct for Responsible Research Practice and Guidelines for Dealing with Allegations of Research Misconduct	2	http://www.usyd.edu.au/ro/documents/research_ forms/00000af.pdf	23/9/09
UTS		4		23/9/09
USC	Code of Conduct for Research	2	http://www.usc.edu.au/University/AbouttheUniversity/ Governance/Policies/Research/Code.htm	23/9/09
UWA	Guidelines on Research Ethics and Research Conduct	2	http://www.research.uwa.edu.au/policies3/guidelines_on_research_ethics_and_research_conduct#3	15/9/09
UWS	Research Code of Practice	2	http://policies.uws.edu.au/view.current.php?id=00166#p2	23/9/09
Wollongong	UOW Authorship Policy	1	http://www.uow.edu.au/about/policy/UOW058654.html	23/9/09
Victoria	Code of Conduct for Research	2	http://research.vu.edu.au/ordsite/ethics/Code_of_ Conduct.pdf	23/9/09

critically revising it so as to contribute to the interpretation' (USQ 2008).

However, the Faculty of Business policy claims that supervisors have a right to co-author their students' publications irrespective of their actual contribution to the publication. Modification of the USQ Faculty of Business policy to reflect the Code and USQ guidelines for authorship determination would be required to ensure a single and unambiguous message is being sent to USQ researchers regarding who has a 'right' to authorship.

Group 3

Of the 39 Australian universities, four institutions were given a rating of 3 for their authorship policy (Table 1). University of Adelaide (Adelaide) was the only Go8

university represented in Group 3. The other universities given a rank of 3 were Curtin University of Technology (Curtin), Flinders University (Flinders) and La Trobe University (La Trobe). These four institutions did not appear to have an authorship policy,

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but provided a direct website link to the Code from their Code of Conduct policy, where researchers were to locate guidelines on determining authorship (Adelaide), had guidelines on determining authorship in student/supervisor collaborations (Curtin), or acknowledged that their authorship guidelines were currently under development (Flinders and La Trobe).

Group 4

Despite extensive searching, no stand-alone authorship policy or overarching Code of Conduct policy could be found on the Charles Darwin University (CDU), University of Tasmania (Tasmania) and University of Technology Sydney (UTS) websites. Therefore, these three institutions were given a rating of 4 (Table 1).

It is currently unknown whether Bond, Deakin and Monash Universities have an authorship policy as their institutional policies were not available for perusal on their respective public websites.

Discussion

The review of institutional policies conducted in this paper revealed that seven out of 39 Australian institu-

tions do not have authorship policies as required by Section 5.1 of the Code (NHMRC, ARC & UA 2007). This number may increase pending review of the currently unknown institutional policies (Bond, Deakin and Monash Universities). Taken literally, institutional non-compliance with even the smallest part of the Code should mean complete withdrawal of NHMRC and ARC funding from those institutions because compliance with the Code is a prerequisite for receipt of NHMRC and ARC funding (NHMRC, ARC & UA 2007). If the NHMRC and ARC funding was withdrawn from the seven currently non-compliant universities, namely Adelaide, Curtin, Flinders, La Trobe (rated 3), and CDU, Tasmania, UTS (rated 4), then the total research funding to be withdrawn from those institutions would be \$107,630,712 in 2008 (ARC 2009a; NHMRC 2009),

> with just under half of this amount withdrawn from Adelaide alone. Although outside the scope of the present study, it would be interesting to see whether other publicly funded institutions receiving NHMRC and ARC funding, such as the Medical Research Insti-

tutes and CSIRO, indeed have authorship policies as required by the Code.

It is currently unclear why so many institutions are not complying with the Code's requirement for an authorship policy, which is found in Part A of the Code. The Hon. Senator Kim Carr, Minister for Innovation, Industry, Science and Research, has indicated that some institutions are concerned with the adequacy of the Code for resolving specific disputes (Lane 2008), namely Part B of the Code, but this should not mean that institutions should ignore Part A altogether. In September 2008 the Go8 released a draft consultation paper on the Code to assist its member institutions to implement Part B of the Code (Go8 2008). In this paper, the Go8 welcomed the revised Code, 'particularly in relation to the improvements and broader scope of the matters covered by Part A of the Code' (Go8 2008, p. 1). Given that the Go8 seemingly endorsed Part A of the Code, and that research funding to these universities was \$714,783,885, or almost 64 per cent of the total ARC and NHMRC funding allocated to Australian research institutions in 2008 (ARC 2009a; NHMRC 2009), it is surprising that the Go8 have not led the way in major policy reform at least related to Part A of the Code.

A review of the Go8 institutions' authorship policies revealed that ANU, Melbourne and UNSW authorship policies were rated 1, Sydney, UQ and UWA policies were rated 2, Adelaide was rated 3, and any Monash policy was not available to be reviewed. Moreover, the two best-rated policies were from smaller, less-research intensive universities, namely CSU and UOW.

More than two years have passed since the release of the revised Code, so it is now timely for all institutions to review and revise, if required, their authorship policies to ensure full compliance with the Code. It is vital that Australian institutions do this before implementation of the ERA to avoid greater authorship tension amongst collaborators. Revision of institutional authorship policies and subsequent compliance is particularly important for student/supervisor collaborations as in the ERA Submission Guidelines 2009 released by the ARC (2009c), publications by RHD students are not eligible for inclusion in the scheme unless the RHD students are also an employee of the institution (on a full-time, fractional full-time or casual basis) (ARC 2009c, p. 21). Moreover, research conducted by RHD students can account for up to 70 per cent of university research (Siddle 1997). The ERA may lead to an increase in collaborative conflicts as academic supervisors could insist they be first or a named author on the student's publications where previously they were not a co-author or only a minor author on these publications.

Institutions should take time now to prepare for the potential rise in authorship issues from the ERA and adequately manage authorship of their research publications by developing good policy (e.g. UOW 2008), practical guidelines (e.g. CSU 2009) and appropriate training (e.g. Morris 2008b, 2009; Wilkinson et al. 2010). In combination, policy, guidelines and training have the power to significantly reduce tension in collaborative research projects and encourage ethical authorship practices amongst researchers at all stages of their careers.

Afterword

Following a pre-publication web search on 20 July 2010, the following update can be offered:

- Monash University now has a publicly available authorship policy (http://policy.monash.edu.au/ policy-bank/academic/research/research-outputsand-authorship-policy.html).
- Deakin University also has a publicly available

- authorship procedure (http://theguide.deakin.edu. au/TheDeakinGuide.nsf/Web+Visitors?OpenFram eSet&Frame=WebContent&Src=WI2.1?OpenPage& Choice=0&Access=Visitor).
- Bond University, however, still does not appear to have a publicly-available authorship policy.

The search conducted on 20 July 2010 also revealed that some of the websites examined in 2009 have now been updated or have changed URLs.

Acknowledgements

I gratefully acknowledge the support of the CRC for Sugar Industry Innovation through Biotechnology for their assistance in making this work possible. Thanks also to Rachel Budden for assistance locating institutional policies, and to Celeste Bennett, Christa Critchley, Sue McKell, Benjamin Morris, and Lygia Romanach for useful comments on the manuscript.

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