**THE RESPONSIBLE PUBLICATION AND DISSEMINATION OF RESULTS**

**by Simon Moss**

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| **Introduction** |

The following table recounts a series of scenarios. Which of these scenarios raise concerns?

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| Scenario | Details |
| 1 | * Ann a health researcher, submits a paper. * To conserve space, the paper excludes the measures in the study that did not yield significant results |
| 2 | * In this article, Ann includes the sentence “Research has shown that carrots improve eyesight (Brown, 2010; Jones, 2009; Smith, 2015)” * The articles published by Brown, Jones, and Smith are opinion pieces rather than empirical studies |
| 3 | * Bob, an environmental scientist, discusses on radio the results of a paper he submitted to a journal a few days ago |
| 4 | * Cathy, a researcher in education, published a study that was funded by the Australian Research Council * Cathy does not refer to the Australian Research Council in the paper. |
| 5 | * David, a social scientist, published four papers that utilized the same data set * However, none of the papers reported the same combination of measures—and each paper explored a distinct hypothesis. |
| 6 | * Enid, a management researcher, realized that one of the statistics she reported in a recently published article was slightly incorrect * Unfortunately, the paper has been published, so she cannot correct the error. |
| 7 | * Frank, a sport scientist, was the sole author of his recent paper * His colleagues, George and Helen, helped Frank complete the studies. However, because they did not contribute to the drafting of this paper, Frank did not acknowledge these individuals in the paper. |

All of these scenarios illustrate common practices. Yet, all these practices, although not especially disconcerting, could be construed as irresponsible or unethical. This document presents some guidelines about how to publish and disseminate findings responsibly and appropriately.

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| **Relevant guidelines** |

**2018 Australian Code for the Responsible Conduct of Research**

Many laws, policies, and codes offer guidelines on how researchers can publish and disseminate research findings responsibly. For example, the 2018 Australian Code for the Responsible Conduct of Research stipulates the key principles that institutions and researchers should apply to conduct research responsibly. In particular, this code stipulates

* 8 overarching principles of responsible research: honesty, rigor, transparency, fairness, respect, recognition, accountability, and promotion of responsible research practices
* 13 practices that institutions should apply, and
* 16 practices that researchers should apply

One of these practices that researchers should apply—Principle R23—is especially relevant to this document. The following box presents this principle.

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| Disseminate research findings responsibly, accurately and broadly. Where necessary, take action to correct the record in a timely manner. |

Nevertheless, other laws, policies, and codes are relevant. For example, researchers should also consult their media policy, social media policy, responsible conduct of research, and code of conduct policy.

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| **Common concerns** |

This section revisits the scenarios that were presented earlier. In particular, the following table outlines some of the complications that each scenario could elicit and the principles that researchers should follow instead

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|  | Scenarios | Complications | Principles to follow |
| 1 | * Ann a health researcher, submits a paper. * To conserve space, the paper excludes the measures in the study that did not yield significant results | * Readers prefer to know how many of the results did not support the hypotheses * If some of the results are excluded, readers may overestimate the extent to which the hypotheses were supported * If researchers develop hypotheses after they know the results, called harking, the likelihood these hypotheses are actually correct is not especially high. | * Report all results. * Alternatively, outline the measures or findings you omitted * If you develop hypotheses after you know the results, you need to test these hypotheses in a subsequent study. |
| 2 | * In this article, Ann includes the sentence “Research has shown that carrots improve eyesight (Brown, 2010; Jones, 2009; Smith, 2015)” * The articles published by Brown, Jones, and Smith are opinion pieces rather than empirical studies | * The sentence implies that at least three studies have shown that carrots improve eyesight * But, because these articles were opinion pieces, perhaps fewer than three studies have shown that carrots improve eyesight * The sentence, therefore, is perhaps misleading | * Ensure your citations could not be misconstrued * Sometimes, you can add words to prevent misinterpretations. * To illustrate, if you want to imply that a citation is a review instead of an empirical study, you could write , “…for a review of this topic, see Brown…” |
| 3 | * Bob, an environmental scientist, discusses on radio the results of a paper he submitted to a journal a few days ago | * After the review is completed, the authors might need to modify or discard some of the results * Therefore, some of the results that Bob presented on radio could be misguided and thus mislead the audience | * Do not disseminate results before the publication has been reviewed * You can, however, discuss an impending study, because you are not presenting misleading results |
| 4 | * Cathy, a researcher in education, published a study that was funded by the Australian Research Council * Cathy does not refer to the Australian Research Council in the paper. | * Readers need to know which organizations funded the research; they need to be able to judge whether the funding body could have biased the author and hence distorted the interpretations | * Disclose the funding body and conflicts of interests * Most journals will request this information while you submit the paper. |
| 5 | * David, a social scientist, published four papers that utilized the same data set * However, none of the papers reported the same combination of measures—and each paper explored a distinct hypothesis. | * If the data set contained flaws, four misleading papers may be published | * Do not publish too many papers from the same data set; more than two papers may be risky * To prevent redundancy, minimize overlap between papers as well; each paper should be as distinct and original as possible, according to the guidelines of most journals. * Indeed, some researchers have developed Déjà vu, a database that can be used to identify redundant papers. In particular, the database identifies pairs of papers that included very similar citations. * Whenever you submit two or more papers that utilize the same data set, you should inform the editor |
| 6 | * Enid, a management researcher, realized that one of the statistics she reported in a recently published article was slightly incorrect * Unfortunately, the paper has been published, so she cannot correct the error. | * Even if the results are only marginally inaccurate, this error could affect the findings of future meta-analyses | * If you discover an error, contact the journal as soon as possible. * The journal can then publish a correction |
| 7 | * Frank, a sport scientist, was the sole author of his recent paper * His colleagues, George and Helen, helped Frank complete the studies. However, because they did not contribute to the drafting of this paper, Frank did not acknowledge these individuals in the paper. | * According to the Vancouver protocol, George and Helen should not be assigned authorship * Nevertheless, George and Helen may have been offended they were not acknowledged at all | * See the document on authorship agreements, in the section on ethics, integrity, agreements, and conflict to decide who should be granted authorship * In the acknowledgement section, refer to individuals who contributed substantially to the design, collection of data, analysis of data, or writing but were not granted authorship |

These principles apply to all publications, including articles, books, conferences, creative works, webpages, and repositories. Likewise, these principles can also apply to the dissemination of results in public arenas, such as radio, print, social media, and seminars.

**Media and social media policies**

At CDU, the media and public commentary policy as well as the social media policy also offer guidelines that govern the communication of research findings. Broadly, your communication will comply with these policies if

* you abstain from critical or offensive remarks of specific individuals or groups
* you abstain from profane language or sexually implicit topics
* your comments are true—or you indicate these comments are merely opinions rather than definitive
* all the opinions you communicate are related to your field of expertise
* you imply your opinions are your own and not necessarily representative of the university

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| **Caveats** |

Although you should publish all the key results whenever possible, you need to be mindful of some constrains or sensitivities. The following table outlines these constrains or sensitivities.

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| Constraint or sensitivity | Details |
| Refrain from defaming, offending, or hurting an identified person or community | * Before you disseminate findings that relate to a specific person or community, seek advice. * For example, inform this person or community—and negotiate how you can present your findings without impeding their needs |
| Comply with ethical, legal and contractual arrangements | * Sometimes, confidentiality agreements, designed to protect intellectual property, could prevent you from publishing findings, at least for a specific duration |

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| **Inadvertent deviations from responsible behaviour** |

Sometimes, researchers inadvertently deviate from the practices and standards that are regarded as responsible and appropriate. The following table illustrates some of these deviations. Before you submit a manuscript, confirm that you have avoided these deviations.

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| Issue | Inadvertent example |
| Falsification—manipulating materials, procedures, or analyses to distort the results | * The researchers continue to collect data until they achieve a significant result; instead, researchers should identify the amount of data they will collect before they analyze the data (see the work of Uri Simonsohn) * The sample size is too small to identify outliers; the results, therefore, might be unreliable * The researchers continue to include or exclude control variables or other data to generate significant results—sometimes called hacking p values; instead, researchers should report all measures and conditions in the methods section, regardless of the results. In addition, researchers should report the results that were obtained before and after control variables were included or outliers were excluded. * A funding body requests a change to the methods—a change that could bias the results in their favor. |
| Fabrication—concocting information | * The researcher includes an argument, with citations to support this argument, but disregards the bulk of evidence that challenges this argument |
| Plagiarism—reporting the ideas or words of an author, without acknowledging this person appropriately | * The researcher does not cite the original or primary source of some argument, but cites only more recent variations, called citation plagiarism, or more renowned authors, called the Matthew effect * Researchers sometimes forget they had derived an idea or argument from someone else, called inadvertent plagiarism. * Researchers occasionally plagiarize themselves and, for example, publish a similar article in a different journal, called salami slicing, or in a different language * Researchers might utilize an idea or argument that is not public, such as information they learned as a reviewer |
| Inaccurate authorship | * Occasionally, researchers do not report one of the authors, because they are concerned this person might be perceived to experience a conflict of interest, called ghostwriting * Sometimes, a person, such as the manager of a research institution, is granted authorship but does not deserve this acknowledgement * Researchers sometimes do not inform a person that he or she was included as a co-author |