Excellence in Research for Australia and sustainable data

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We are now entering the second round of assessment under the Excellence in Research for Australia (ERA) model. A number of writers have drawn attention to the problems inherent in this model for the humanities and social sciences (Cooper and Poletti 2011, Dobson 2011, Genoni and Haddow 2009) but what has not received attention (as far as we are aware) is the impact this model is likely to have on the type of work being highlighted and encouraged in this volume. ERA 2010 relied to a large extent on journal rankings and as a result of its first iteration, many academics have experienced pressure to direct their publications to highly-ranked journals. ERA 2012 will not use journal rankings, but we suggest that similar pressures will continue to affect academics under the revised system and that such pressure is disadvantageous to innovative work utilising digital data.

Prestigious journals are, by their nature, conservative institutions and, at least in the humanities, are unlikely to encourage new models for disseminating results. New journals which are published online and other alternative modes of disseminating scholarly work will inevitably have to wait some time to achieve adequate recognition in the assessment process and the ERA model will thus tend to discourage innovative modes of publication. Additionally, the model gives no recognition to the idea which underlies much of the work presented in this forum, that making data widely available to colleagues is an inherently worthy activity. The experience of the British research assessment exercise on which ERA is based was that researchers were placed under considerable pressure to ensure that their limited research time was geared to producing outputs which would be visible and valuable for assessment. Producing, curating and sharing sustainable data are activities which will struggle to meet these ERA-type criteria. Nevertheless, the revisions announced to the ERA process for 2012 present opportunities for us as a discipline to move towards more innovative publication practices.
Introduction

The Excellence in Research for Australia (ERA) initiative was introduced in 2008. A trial assessment was carried out in 2009 and the first full assessment under the program took place in 2010. The program is intended to provide an indication of the research performance of tertiary institutions in Australia, both in relation to each other and in relation to institutions outside Australia. The program replaced an earlier initiative, the Research Quality Framework (RQF), and both Australian assessment programs drew extensively on the Research Assessment Exercise (RAE) used in the UK for a number of years. The goal of all such assessment exercises is to audit the results being produced by a nation’s researchers in order to provide some assurance that money is being well spent. In the case of the UK exercise, a direct and explicit link was made between the results of the audit and future funding. This strategy has not been adopted in Australia, although the Department of Industry, Innovation Science and Research has indicated that this will change, but our experience (and that of many colleagues with whom we have spoken) is that there is a general expectation that good results in the ERA audit should lead to better outcomes for a research unit in terms of recruiting students (especially postgraduates), obtaining local institutional support, and in being able to present a stronger case for funding from the Australian Research Council (ARC). The 2011 round for ARC applications was the first in which significant weight (20% of the overall assessment of applications) was given to a section titled Research Environment, and applicants were routinely advised by their institutions to mention ERA results in this section, if these had been above average.

The idea that quality in research can be evaluated meaningfully across the entire range of scholarly activity has been criticised (e.g. Butler 2007). We do not intend to pursue these issues here, but rather to concentrate on some immediate impacts of the audit process. As noted by Cooper and Poletti (2011: 60), ‘It is widely recognised that those subject to audit regimes change according to the perceived requirements of the regime, rather than the long-held understanding as to what intrinsic quality governs their work’. A part of the audit process is a valuation of published outputs; the method

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1 Thanks to two anonymous reviewers whose thoughtful comments assisted us to improve this article.
2 Further information on ERA can be obtained from: http://www.arc.gov.au/era/default.htm
by which this was done will change in ERA 2012, but we will argue here the process will continue to exert pressure on scholars’ decisions about how and where to publish. Our aim here is to argue that the use of publication metrics acts as a considerable disincentive to new modes of disseminating scholarly work, including activities aimed at producing sustainable data, and that such disincentives increase the existing low valuation given to the activity of exposing data sets. Although the next iteration of ERA will not use ranking of journals, it is clear that assessors will still be weighting publications on the basis of some information about the type and place of publication, and we will argue that the changes do not materially affect the situation we will describe. We will suggest that one possible solution to these problems is for the discipline of linguistics as a whole, in Australia and more widely, to organise to ensure that venues exist for data-sharing and online publication which are widely accepted as authoritative.

1. ERA v1

Journal rankings played an important part in the first version of ERA. The ARC, in consultation with the various research communities, produced a list of journals classified into four categories. The original aim was to have predetermined proportions of journals assigned to each category: the A* category was intended to comprise the top 5% of journals, the A category included the next 15%, 30% of journals would be ranked as B, and the remaining 50% as C. Although this numerical division was attempted, it was in the end abandoned when, amongst other things, significant variation across disciplines became problematic. Although assessment panels examined a range of research outputs in the ERA 2010 process, journal rankings were very important in evaluating the outputs of different researchers and groups of researchers.

This focus of ERA 2010 on journal rankings attracted a good deal of comment and criticism (including internationally: see for example ‘Controversial Journal Rankings in Australia Affect Research Funds and Careers’ Chronicle of Higher Education, May 8 2011 [57.36]). There were the inevitable cases of journals whose

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ranking did not reflect their true importance. In our discipline, an obvious example of this was the *Journal of Linguistics*, which was ranked in tier C. The reason for this ranking is unclear, but possibly the result arose because few Australian researchers publish in this journal. The journal is published by Cambridge University Press which would suggest *prima facie* that it would be of high quality. There were also cases where journals were treated as being interdisciplinary and were therefore ranked by scholars who were not the normal audience of the publication. An example of this was the *International Journal of the Sociology of Language*, which while originally ranked as A/A+, was deranked to tier C on the basis that it was a sociology journal, although apparently not one which is of great value to sociologists, in contrast to sociolinguists. And as mentioned earlier, it proved impossible to maintain the proportional split of journals across tiers when many disciplines were involved. But in addition to these superficial problems with the journal ranking exercise, there were also more profound criticisms which cast doubt on the rationale of the whole exercise, particularly its application to humanities research (see Genoni and Haddow 2009, Pontille and Torny 2010 for details).

2. ERA v2

In the previous section we have mentioned some of the problems with the role of journal ranking in ERA 2010. At the end of May 2011, the ARC announced that a different approach would be used in ERA 2012:\(^5\):

> The Australian Research Council (ARC) will use a refined journal quality indicator for ERA 2012. Evaluation committees will assess the appropriateness of the journals used as publication outlets for research, taking into account any regional or applied focus of the disciplinary unit concerned. For this purpose, evaluation committees will be presented with a profile of the journals (or other relevant publications) used most frequently by the unit under evaluation.

> “The change empowers committee members to use their expert judgment to take account of nuances in publishing behaviour,” said ARC CEO, Professor Margaret Sheil.

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“This approach will allow experts to make judgments about the quality of journals in the context of each discipline.”

“It is clear from the ERA 2010 evaluation and subsequent feedback that journal quality is an important indicator of research quality,” Professor Sheil said. “This change enables journal quality to remain an indicator for ERA 2012, while ensuring that assessments of journal quality do not assume an importance beyond their role as an ERA indicator.”

As a consequence of this change, journals will no longer be assigned a prescriptive rank.

It is not obvious from this statement exactly how the new assessment method will be implemented, but some aspects of the new process are clear. Firstly, it is explicitly stated that journal quality will still be an important part of the ERA assessment process. Exactly what the profile of a journal will be and how (and by whom) this will be prepared is left uncertain, but it is clear that where scholars choose to publish will still be important in influencing the rankings achieved by units. One interpretation of this change would see it as very disturbing: rankings will still be important, but the rankings will now be decided in a non-transparent manner internal to the workings of the ERA assessment panels. The frequency with which a particular outlet is used by scholars in a unit is now important, and we will suggest below that this approach may also lead to distortions in scholarly practice, as has also been argued for the use of rankings. We will also suggest, however, that the use of frequency information may open up some more hopeful possibilities. The prescriptive ranking of journals cannot be completely erased from the collective memory of the scholarly community, and it is hard to imagine that the rankings will not still influence the minds of scholars in making such decisions. Indeed, if pushed, most of us would probably admit that the rankings were by and large a reasonable reflection of our own picture of the relative importance of journals in our respective fields. The problem is the influence exerted by such rankings, as we now discuss.

3. Publication pressures

The structure and methods of ERA were based to a considerable extent on the UK Research Assessment Exercise (RAE). One widely reported impact of that process has
been that pressure is placed on researchers to publish only, or as far as is possible, in highly ranked journals. The aim is to maximise the ranking achieved by any given research unit. In the UK such rankings had direct consequences for funding; this is not immediately the case in Australia, but high rankings are nevertheless seen as conferring a competitive advantage in what is conceptualised as an education marketplace. As noted previously, it is widely assumed that such an advantage will translate to improved success in national competitive funding and to improved institutional support, and there is an abundance of anecdotal evidence that administrators are taking this view. For example, a presentation from the Monash Research Office giving advice on applying for ARC grants in 2011 contains the following lines:

Research Environment
Describe the existing, or developing research environment at Monash and/or Collaborating Organisation(s)

• ERA results announced on 31 January 2011

The implication is that good or excellent ERA results will strengthen the case an applicant can make in this section of their proposal.

These pressures have been claimed to have various consequences:

• Journals which fill a distinctive niche, either by being very specialised in their subject matter or by filling the needs of a geographically local community tend to suffer. It was very hard for such journals to be ranked in the top two tiers, no matter how important they were to their specific communities. (Genoni and Haddow 2009)

• Scholars may feel they have therefore to present their work in a way that will be acceptable to a more generalist journal in order to achieve highly ranked publication. Their first preference might be to give a specialised presentation, but the journal where such a presentation would be appropriate would be less prestigious. (Cooper and Poletti 2011)

• The ranking process is essentially conservative in that it privileges journals which have existed for a long time and have established a role as gate-keepers. Perversely, this consequence of the audit process comes at a time when
technology is reducing hierarchical effects in access to information, and there is good evidence that the practice of researchers is following this trend. (Haglund and Olsson 2008)

This volume is concerned with the sustainability of data and with methods for improving research outcomes by better use of technology; this seems clearly to indicate an intention to investigate new methods for scholarly practice. However, we would like to suggest that the influence of the ERA audit process (V1) was conservative, and that ERA V2 may have equally inimical effects on innovative scholarly practice.

We have suggested that the ranking process is conservative, but there are two separate aspects to this. One is that the journals which are highly-ranked (or generally respected in less quantitative terms) tend to be well-established and to have been published for some time. Such journals are in themselves conservative: they have attained a position by doing things in one way and are not likely to change this radically. Although most such journals are now available as online publications, in our field there has been no rush to embrace the new possibilities which are offered by such modes of dissemination. Which of the established journals is permitting the use of sound files to accompany examples used in published material? Very few, to our knowledge. An honourable exception is the journal *Sign Language & Linguistics* which allows video clips to be embedded in electronic versions of papers, to great effect. Another exception is *Language Documentation & Description*, but crucially this is a recently established journal. These are possibilities which are now increasingly easily realised and which could have a significant effect on the level of accountability in linguistic analysis, but the possibility is not being embraced. Even at a rather simpler level, linguistics is behind best practice in other disciplines. The first author (SM) of this contribution recently published a response (Donohue et al. 2011) to a paper introducing an important methodological experiment in historical linguistics (Dunn et al. 2008). The authors of the first paper had earlier published results in *Science* (Dunn et al. 2005) and in that case were able to make extensive background material available online through the journal’s website. No such possibility existed for the exchange in the disciplinary journal. Admittedly, the stringent space limitation associated with publication in *Science* did not apply, but there was nevertheless material which would
have cluttered the presentation for many readers, but which was important and should be accessible for the interested scholar. (We used an appendix, but this was not really satisfactory especially for the presentation of data matrices which were the input to computer analysis.)

The second aspect of the conservatism of an ERA-style process is that it inevitably takes time for new journals (or other publication venues) to establish a track record. This is not in itself problematic, but when scholars are pressured to publish in the shortest time possible for maximum effect in the audit, then new venues may have trouble attracting good manuscripts. Such a situation could easily result in vicious circle effect: by the time a new journal has existed long enough to be recognised in the audit, it will already be perceived as being of low quality and to be avoided in the search for high rankings and even fewer good submissions will flow. The revision of the process for ERA 2012 at least removes a potentially even more pernicious possibility. Under the previous system of rankings, with set proportions of journals in each tier, the attainment by a new journal of a higher ranking would normally mean that another journal would be reduced in ranking (assuming the total number of journals ranked did not expand constantly).

None of our comments so far address another profound problem for linguists today, that of achieving appropriate institutional and professional recognition for making primary data available to a research community. Such work has been seen as problematic within the institutional structures where we work since early in the move towards documentation as a major field of activity for linguists, but it is, we think, obvious that audit processes such as ERA can only make it more difficult for such work to be pursued. Preparing a data set for archiving and exposure to the research community is time-consuming work, but if it yields no benefits for the audit (as is now the case), it will become increasingly hard to defend such activity and increasingly hard to encourage it for new scholars seeking to build an academic career. This despite the fact that preparing data in this fashion involves a considerable amount of analytic work in, for example, deciding on a principled division of the media stream and then

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6 A reviewer rightly points out that the problem is even broader in that the development of technologies for researchers receives little or no institutional support or recognition.
inserting time codes, or in deciding on appropriate orthography and glossing practice to accurately represent a language.

4. Possible solutions

A desirable situation for any discipline is that the group of scholars should have a set of research and publication methods which are appropriate to their discipline and which can be defended to outsiders as a coherent set of practices. A discipline which can achieve this is in a position to influence the approach taken by outside assessors; in effect it should be possible to say: ‘This is how we do things and you must assess us on these terms’. We acknowledge that the discipline of linguistics in Australia is eclectic, but we think that it is nevertheless possible to work towards such a position. Achieving that end should be accomplished in two stages: first, we need to decide what sort of practices are appropriate to our discipline in the early 21st century, and then we need to develop ways of working with (or at least towards) those practices. In what follows, we discuss issues relevant to the topic of this volume in this framework.

We take it as common ground here that at least two ways of working with rich digital data are desiderata in our scholarly practice today. Firstly, we should be working towards modes of dissemination which permit us to link primary data (audio and video) to the presentation of data in support of analyses and secondly we should be ensuring that our data sets are accessible to other researchers both now (sharing data) and into the future (archiving data). The first of these aims is easily achievable from a technical point of view. It implies that we will move away from paper-based publication. It is our impression that most of us increasingly rely on the electronic version of journals nowadays anyway, so this means a change to the practices of journals more than a change to our research practices. Publication of larger works (still books at this point) may be more problematic, but again the technical resources exist. Secondly, we need to ensure that suitable value is accorded to the practice of archiving and sharing data. In this case again, technical challenges are already being dealt with and the problems to be addressed are also at the level of institutional change.

Before making some specific suggestions as to how changes might be encouraged in each of these areas, we would like to make a more general point about the strategy which can be adopted. The rather vague description of the treatment of
journal information in ERA 2012 suggests that there is scope for scholarly practice in a discipline to influence the assessment process. Assessors will have profiles of the publication outlets used most frequently by the unit under evaluation. Presumably, the outlets used most frequently will be taken, de facto, to be important to the discipline and this allows the research group to influence the process\textsuperscript{7}. If many scholars from the group are using the same outlets, the process in place for ERA 2012 would be forced to grant the importance of those outlets, whatever their place might be in some other ranking scheme. In effect, this situation would be close to the one which we have proposed as a desirable endpoint, with the discipline defining its own practices and having these accepted by the assessors.

There are two possibilities which we think can be pursued in order to move towards new modes of publication. We suggest that when preparing material we should always work on the basis that full linking of data will be possible. Then, in the first case, we can submit our work to established outlets and express polite disappointment when we are informed that linking to data is not possible. If sufficient numbers of submissions of this nature come to journals, editors must start to realise that their approach needs to change. In the second case, where publication in the manner which we desire is not available in established journals, we can withdraw our submissions and send them to new outlets which can accommodate our preferences. In terms of the assessment metrics, this may mean some short-term loss, but such moves would be very defensible in exactly the kind of terms which are basic to assessment exercises such as ERA. Presenting primary data in support of analysis improves the accountability of scholarship in the discipline and therefore improves the quality of work. If established journals are unable to support this improvement, then a move to alternative outlets is a rational decision in favour of higher quality research. In addition to these strategies which we can adopt as producers of scholarly output, we can of course also exert pressure as consumers by making direct representation to journals and editors and by directly and indirectly supporting journals such as *Language Documentation & Description*. This can be achieved through regular submission to them, by subscription

\textsuperscript{7} We assume here that there will be some continuity in the approach taken from ERA 2012 to whatever follows it; this may well be a dangerous assumption. However, our general point that a research community can recalibrate its publication practices is not crucially dependent on details of the assessment carried out in any one nation or year.
to them, as well as by expanded cross-referencing to publications in them when publishing in other journals.

The question of archiving and sharing data has been a recurring source of anxiety within our own discipline of linguistics with the development of the important new research paradigm, language documentation, which aims to ‘to provide a comprehensive record of the linguistic practices characteristic of a given speech community’ (Himmelmann 1998:166). Among the aims of this paradigm are providing a thorough record for posterity and creating a citable set of materials on which claims about the structure of languages can be based. We suggest that again the importance given to the frequency of use of outlets in ERA 2012 offers a possible way forward. As argued above, if a sufficient number of scholars are using an outlet, the assessment mechanism must accord that outlet value\(^8\). The key problem then becomes how to have an outlet or outlets for this type of activity which will achieve the required level of frequency of use. We suggest that a possible approach to this problem is to aim for some degree of co-operation between the major language archiving institutions. This would have to be an international effort, but we believe that the benefits for the discipline as a whole would be so important that such an effort would be worthwhile.

What we have in mind is some process of aggregation and validation managed by the archives as a group. Aggregation would mean bringing together metadata and making it accessible at a single point, and validation would mean giving some guarantee that data accessible in this way met basic standards. This would not necessarily be equivalent to peer review; but we would not envisage that archives would include all the material which they held in the aggregation. Some quality control would be imposed and listing of a data set in the aggregated catalogue would be a form of publication. As with the case of alternative forms of publication, if a sufficient number of scholars are claiming such exposure of their data sets as a form of publication, a process which took account of frequency of use of outlets would have to take account of this form of dissemination. And, also as argued previously, this would

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\(^8\) We ignore here the issue of exactly how frequency should be understood in this context. As a reviewer points out, there are inherent problems for the audit process in comparing journals which appear monthly with those which appear quarterly, for example. The proposal which we are advancing here involves a publication mode which would not be tied to a specific schedule, and these issues are not relevant.
be a defensible move in terms of the basis of the assessment exercise: exposing data sets improves accountability and opens up new opportunities for better quality research, with the added advantage that sustainability of data would also be improved. We would also suggest that there is an opportunity here for us to exert consumer pressure on existing journals. Previously, several highly respected journals would publish contributions which were largely bodies of primary data; journals such as *Oceanic Linguistics*, *Anthropological Linguistics* and the *International Journal of American Linguistics* come to mind. Such practices are deserving of revival, particularly if the journals embrace the possibilities which we have already discussed of linking written data and media.

5. Conclusion

There is little doubt that we can expect our research activity to be subject to some sort of assessment regime in the foreseeable future. The exact structure and methodology of such assessment will change over time, but the general outlines are unlikely to differ greatly from the two versions of ERA which we have experienced and are experiencing. Although we can as researchers have legitimate reservations about the accuracy and impact of such exercises, as pragmatists we must develop strategies to accommodate our work practices without sacrificing what we value. We have argued here that the revisions to ERA introduced this year for the 2012 assessment are of a nature which allow us to attempt to influence the way outlets are ranked, and that in doing so we can also pursue legitimate goals for developing publication practices in our discipline, linguistics. Such developments are closely linked to the use of data stored sustainably in digital formats and to the possibilities for rich modes of dissemination offered by such data. We suggest that this coincidence of desirable developments in two separate areas is an opportunity which we, as a discipline, should engage with actively.
References


