Libcitations: A Measure for Comparative Assessment of Book Publications in the Humanities and Social Sciences

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Bibliometric measures for evaluating research units in the book-oriented humanities and social sciences are underdeveloped relative to those available for journal-oriented science and technology. We therefore present a new measure designed for book-oriented fields: the "libcitation count." This is a count of the libraries holding a given book, as reported in a national or international union catalog. As librarians decide what to acquire for the audiences they serve, they jointly constitute an instrument for gauging the cultural impact of books. Their decisions are informed by knowledge not only of audiences but also of the book world, e.g., the reputations of authors and the prestige of publishers. From libcitation counts, measures can be derived for comparing research units. Here, we imagine a match-up between the departments of history, philosophy, and political science at the University of New South Wales and the University of Sydney in Australia. We chose the 12 books from each department that had thehighest libcitation counts in the Libraries Australia union catalog during 2000–2006. We present each book's raw libcitation count, its rank within its LC class, and its LC-class normalized libcitation score. The latter is patterned on the item-oriented field normalized citation score used in evaluative bibliometrics. Summary statistics based on these measures allow the departments to be compared for cultural impact. Our work has implications for programs such as Excellence in Research for Australia and the Research Assessment Exercise in the United Kingdom. It also has implications for data mining in OCLC's WorldCat.

Introduction

When national bureaucracies seek to fund academic research on the basis of performance measures—especially measures involving publication and citation counts—no one is unhappier than scholars in the humanities, arts, and softer social sciences. They read and write *books*, and their perennial complaint is that the bibliometric model being thrust upon them is taken from science and technology, where *journal articles* rule. They may also have learned that the standard databases for bibliometric evaluation, those of Thomson Scientific's Web of Science, capture citations to their books not from all forms of publication but only from certain journals (as diagrammed in Research Evaluation Policy Project 2005: 18)—a shortcoming with no end in sight. They may have learned as well that even "their" databases—Thomson's Arts & Humanities Citation Index and Social Sciences Citation Index—fail to cover many journals in book-oriented fields. Particularly likely not to be covered, because of economic constraints on Thomson or any similar publisher, are journals from the smaller Anglophone countries or in languages other than English.

A recent alternative database, Elsevier's Scopus, rivals Thomson only on the sci-tech front and is no help to people in the humanities. And while Google Scholar is promising (especially with the addition of a bibliometric front end, Publish or Perish), no one quite trusts it because of its lack of editorial quality control. So, facing crucial evaluations, humanities scholars can hardly be blamed for buttressing their natural instincts against quantification with factual anti-bibliometric arguments. They want fairness, which means that they do not want science to gain an even greater foothold in the struggle for research funding than it already has; and it is true that, bibliometrically speaking, the humanities and some social sciences are not well served (cf. Najman & Hewitt 2003; Archambault et al., 2006; Nederhof 2006; Donovan 2007).

The present article advances a new measure expressly designed for authors in the book-oriented disciplines. It is firmly bibliometric, being related to a form of the leading indicator used in evaluative citation research in Europe—the "crown indicator" of the Centre for Science and Technology Studies at the University of Leiden (CWTS in Dutch). But it also draws on data sources much less studied than the Thomson Scientific databases—that is, library union catalogs. The results are intended merely as proof of concept. The presentation is therefore exploratory, with attention paid to qualitative rather than mathematical issues.

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A political advantage of the proposed measure is that it can make an author in the humanities look good indeed, including authors who do not show up well in standard bibliometric venues such as the Web of Science, Scopus, or Google Scholar. It can also make a book-oriented academic department look good, as will be shown here. The unavoidable corollary is that it can make another author or department look less good. It permits invidious comparisons and adds to the power of evaluators on behalf of bureaucracies. Humanists, who are quite used to merciless criticism in essay form, may someday have to decide whether it is worse to have their hearts broken qualitatively or quantitatively.

The New Measure

The measure introduced here is called the libcitation, a coinage by the first author (the first "i" is long, as in "library.") It is made on books. For a particular book (that is, edition of a title), it increases by one every time a different library reports acquiring that book in a national or international union catalog. Readers are invited to think of union catalogs in a new way: as "librarians' citation indexes." The idea is that, when librarians commit scarce resources to acquiring and cataloging a book, they are in their own fashion citing it, just as scholars do when they refer to it in new works of their own; both are engaged in bibliographic speech acts. As these "librarians' citations" accrue differentially to different books in union catalogs, we gain data for a new indicator. The number of libraries holding a book at a given time constitutes its libcitation count.

After this article had been submitted to JASIST, we learned that the same parallelism between citation counts and library holdings counts has also been proposed in a conference paper, Torres-Salinas & Moed 2008. (They present data at a "macro" level; ours are relatively "micro.") The appearance of similar proposals in wholly independent projects suggests that this is an idea whose time has come.

The libcitation count as theorized is deliberately similar to the citation count for journal articles—that is, the number of times an article has been cited in other works. Whereas traditional citation counts reflect judgments by authors' peers on publications useful to them, libcitation counts reflect judgments by librarians on the usefulness of publications for their various audiences of readers. The libcitation measure thus resembles a citation impact measure in discriminating values of publications on a defined ground. It rewards authors whose books (or other publications) are seen by librarians as having relatively wide appeal.

A book's absolute appeal can be determined simply by counting how many libraries hold it, but it can also be gauged in relation to other books in its subject class. Books today are mainly classified in the Library of Congress (LC) scheme, the Dewey Decimal scheme, or both. The present study makes comparisons within LC classes, which are to books what journals are to articles. LC classes can also be taken to indicate the subject specialties of authors. Accordingly, libcitations can answer the question, "To what extent have authors written library best sellers in their specialties?"

We anticipate the cry, "But librarians aren't like citers; they don't know anything!" It is true that librarians rarely make new knowledge claims and are seldom considered the peers of the scientists and scholars who do. Nevertheless, what they acquire and record in union catalogs involves the wide cultural literacy that is at the heart of librarianship. On the service front, libcitations reflect librarians' knowledge of audiences—their approximate sizes, the topics that interest them, their degrees of expertise, and their localized concerns (for example, what is important to Australians as opposed to non-Australians). On the book front, libcitations reflect what librarians know about the prestige of publishers, the opinions of reviewers, and the reputations of authors. The latter may be colored by, for example, authors' academic affiliations, previous sales, prizes, awards, distinguished appointments, mass media coverage, Web presence, and citedness. All of these are signals of what readers are likely to want, and librarians must be attuned to them.

Mining Union Catalogs

A book's libcitation count is thus its holdings count in a union catalog seen in a different light. Holdings counts are an unobtrusive measure that cannot be altered by researchers changing their behavior. They cannot easily be "gamed," assuming current standards of record-keeping. They may change over time, but data on them have already accumulated for many years in several union catalogs, and millions of them are by now quite stable.

To date, holdings counts have been used mainly for evaluating library subject collections (see, e.g., White 1995, 2008; Missingham & Walls 2003). Journal-oriented scientometricians have largely ignored them, and union catalogs are not mentioned as possible data sources in a long line of reports on evaluative bibliometrics in the humanities and social sciences (e.g., Nederhof & Noyons 1992; Moed, Luwel, & Nederhof 2002; Archambault & Vignora-Gagne 2004; Moed 2005; Research Evaluation and Policy Project 2005; Council for the Humanities, Arts, & Social Sciences 2005; Archambault et al. 2006; Nederhof 2006; "Use of research metrics…" 2006; Evidence Ltd. 2007; Norris & Oppenheim 2007; Dolan 2008). Yet in sufficiently large aggregates, holdings counts exhibit powerlaw distributions much like citation counts, and they are here adapted for a purpose parallel to that of mainstream CWTS-style citation analysis—the evaluation of authors' academic units.

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For many readers, the most familiar example of holdings counts for given titles may be those in OCLC's WorldCat, where they can range from zero to several thousand. In any retrieval in WorldCat, the default display of titles is by number of holding libraries in descending order. Because the libcitation idea was introduced in a talk by the first author in Australia and the present research team was formed there, the data in this article come from another union catalog, the Australian National Bibliographic Database, available on the Web under the name

Libraries Australia. While less elaborate than WorldCat, Libraries Australia shares many of its features, including the default display of retrieved titles ranked high to low by how many Australian libraries hold them. As of mid-2008, contributors to Libraries Australia number about 850: OCLC's membership is much larger—more than 60,000 libraries in 112 countries.

The data in catalogs like Libraries Australia and WorldCat can be put to new purposes, just as they are in the Web of Science and its newer counterparts. For most humanists and many social scientists, mining libcitations is attractive (if still laborious) because:

- They are a means of gauging the impact of books, book chapters, and nonbook media.
- They can be used with works typically not cited at all, such as textbooks and reference books.
- They can be used with fiction, poetry, drama, sound recordings, films, and so on, as well as typicalresearch monographs and nonfiction.
- They are not biased as to style of research (as some claim citation indexes are) and accrue to worksranging from the heavily quantitative to the completely qualitative.
- They may be the *only* feasible measure for monographs and nonfiction books that are scanted by the citation databases.
- They vary greatly over all works in prolific authors' *oeuvres*, which produces strong rankings.
- They can be used for authors with any degree of productivity or seniority, including "early career researchers."
- They are not limited to first authors of co-authored works.
- They can be gathered for authors' whole careers or for a set rating period.
- They are already all in one place, like the citation data in the Web of Science.

The Australian Context

The libcitation idea is a response to the nonexistence or inadequacy of metrics by which people in the humanities and social sciences can be judged in formal reviews. It was introduced in Sydney and Brisbane in August 2007, at a time when Australian universities were gearing up for nationwide assessment of selected groups of researchers under what was called the Research Quality Framework or RQF (Department of Education, Science and Training 2006; Sandström & Sandstrom 2007). This initiative of the Liberal/National coalition government then in power was aimed at linking new governmental funding to evidence of successful research by intra-university teams over designated rating periods, the first one being 2001-2006. For academics in science and technology, standard bibliometric measures could be submitted as evidence to panels of reviewers. The metrics that academics in the humanities and social sciences could submit, if any, were much less clear; hence the libcitation proposal. As it happened, after the Labor Party won the election of 2007 and formed a new government, the RQF was terminated; its deadlines had been controversial at best. Labor nevertheless announced a new version of the same initiative called Excellence in Research for Australia (ERA) in 2008. It may be more accommodating to hard-pressed professors but still involves metrics and review panels. "The current ERA," says the Australian Research Council (2008), "will start with those disciplines where the metrics are most widely accepted, for example, in the physical and biological sciences."

The misgivings of Australian book-oriented academics that apparently bought some time were expressed in a report by the Council on the Humanities, Arts, and Social Sciences (2005). Donovan's (2005: 60) appendix to thatreport is worth quoting because the views she summarizes go well beyond Australia: "The core concern for HASS [Humanities, Arts, Social Sciences] is that citation indicators are likely to be strongly advocated as a replacement for the current publication count, and these measures will be based purely upon the SET-friendly [Science, Engineering, Technology] model of journal publishing. HASS research will not be favoured by such arrangements... For HASS this would not be so much a case of throwing the baby out with the bathwater, but keeping the bathwater and throwing out the baby."

Alluding to the databases of Thomson Scientific, formerly the Institute for Scientific Information (ISI), Donovan adds (p. 69), "A further issue for Australian HASS is the relatively small number of Australian-oriented journals covered by ISI's databases, which lose visibility alongside predominantly American and European publications. In a study of Australian university bibliographies, Bourke et al. found that by excluding non-source items (and due to the under-representation of the 'periphery' of Australian and regional journals), journal-based indicators in the social sciences and humanities used as a 'surrogate for total publications citation rates will be more misleading than in the sciences' (1996, 54)."

In ISI parlance now taken over by Thomson, source items are journals from whose articles citations are gathered for the Web of Science; they are said to be "covered by ISI." The non-source items are publications such as books, conference proceedings, technical reports, and journals from which citations are *not* gathered; they are "not covered by ISI." Linda Butler of the Research Evaluation and Policy Project at Australian National University has recently sought to test how well ISI citation data can be marshaled on behalf of the Australian HASS community. In the past, many bibliometric studies have been based only on citations *from* articles in ISI-covered journals *to* articles in ISI-covered journals. In contrast, Butler analyzed citations *from* articles in ISI-covered journals *to* books, book chapters, and articles in journals not covered by ISI when the latter were by Australian historians or political scientists. (These data are all in the Web of Science.) Her results for departments of history and political science at Australian universities were endorsed in workshops attended by senior academics from the two disciplines. They largely agreed that the rankings produced by the new citation data accorded with their impressions of the quality of the departments (Butler & Hendeera 2007).

Mention should also be made here of citation research done in connection with the RQF's predecessor, the Research Assessment Exercise (RAE) of the United Kingdom. In RAEs, university departments or other units arerated by national funding bodies based on evidence submitted to panels of academic peers. RAEs have been conducted every few years since 1986. Both RAE and RQF guidelines call for panels to give their ratings only after reading or at least familiarizing themselves with up to four publications per researcher in units being evaluated. Obviously this is very labor-intensive. RAE critics have claimed that the labor can be greatly reduced by adroit use of citation counts, which have been shown to correlate well with peers' ratings of departments, including some in the humanities and social sciences (Seng & Willet 1995; Oppenheim 1997; Holmes & Oppenheim 2001; Smith & Eysenck 2002; Oppenheim & Norris 2003; Norris & Oppenheim 2007; Oppenheim & Summers 2008).

However, according to Butler & Visser (2006: 342), "In fields where journals are not the most important media for disseminating research and/or where ISI coverage of journals is not comprehensive, there may exist an entirely separate communications network, carried out through other media, that is missed completely even when the analysis is extended to non-source items. We are, after all, still bound by the conversation that takes place within the confines of the ISI world." (See also Phelan 1999, Najman & Hewitt 2003, and Donovan 2007 on citation indicators for assessing Australian research.)

Analysis of libcitation counts is proposed as one solution to the problem Butler identifies. Such analyses would complement, not replace, peer or panel evaluation. We see them as part of an ensemble of indicators old and new (cf. Carr et al. 2006). They would complement, for example, traditional citation indicators—especially in the humanities and social sciences, where citation data for books and book chapters, as opposed to articles in journals covered by ISI, are often missing or inadequate. They can be used as well, of course, with books in science and technology—perhaps another underdeveloped part of evaluative bibliometrics.

A Lack of Metrics

Past funding is always a metric for judging academics, but that applies across all disciplines. Have any special metrics for book-oriented types been proposed? Under the heading "Possible metrics for non-science disciplines," Drummond (2007), an Australian librarian, lists "the number of books published with high-quality publishers," an option discussed in more detail by Donovan & Butler (2007). But since bibliometric indicators for the humanities are still so questionable, British and Australian writers in this area have proposed use of "indicators of esteem."

These latter indicators are not really metrics, but rather meritorious items from résumés. As examples, the Australians give membership on editorial boards and election to learned academies, invitational and keynote addresses at conferences, and receipt of prizes, fellowships, and awards (REPP 2005; CHASS 2005; Donovan & Butler 2007). The similar British list adds being invited to contribute to or co-author books and organizing international conferences (Use of Research Metrics 2006). Such criteria are no doubt useful, but the CHASS (2005) report admits: "Of course, indicators of academic standing and esteem are subjective, and their interpretation is highly dependent on the discipline. There are no meaningful ways to aggregate esteem data to provide comparable numerical measures, particularly between academic fields."

Our conjecture is that libcitations *are* a comparable numerical measure that can reflect any or all of the criteria of esteem, as well as the quality of publishers, because librarians jointly constitute a measuring instrument that is sensitive to them. It does not matter if library acquisitions are made on automatic pilot through arrangements such as approval plans; librarians set up those plans to favor some publishers and not others. It does not matter if faculty members rather than librarians determine acquisitions (as in some Australian universities); libcitations then reflect the judgment of persons with even more subject expertise than librarians. It does not matter if librarians contributing to union catalogs work in different types of libraries; that simply broadens the measuring instrument's scope. Nor does it matter if librarians sometimes imitate the buying patterns of peer institutions, because that is only one more criterion in their decision making. Libcitation counts for books are highly varied, and there is no reason to suppose that librarians are less discriminating than publishers, booksellers, or citers in responding to the expectations of their audiences.

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Another way of looking at "indicators of esteem" is to ask why the esteem is given. Although monetary values can seldom be placed on academic achievements in the humanities, arts, and social sciences, esteem goes to researchers for their perceived impacts on culture and the life of the mind. A report of the RQF Development Advisory Group (Department of Education, Science and Training 2006: 4) defines the *Cultural Benefit* criterion thus: "Adding to the cultural capital of the nation. For example, supporting greater understanding of where we have come from, and who and what we are as a nation and society; understanding how we relate to other societies and cultures; stimulating creativity within the community; contributing to cultural preservation and enrichment; and bringing new ideas and new modes of experience to the nation."

Bibliometricians cannot, of course, measure global achievements like these directly. But a crude, indirect measure of them is the extent to which publications addressing these goals have been placed before various audiences by librarians. Libraries Australia has data on the reception of publications in Australia. The Copac Academic & National Library Catalogue may function in the same way in the United Kingdom. WorldCat has data on the reception of publications in North America and other countries overseas—"the world." These union catalogs serve to concentrate the implicit evaluations of publishers, reviewers, and librarians in a single place and in minable format.

Three with Books

It is instructive at this point to look briefly at three Australian academics who have enjoyed distinguished careers and can be said to have added to "the cultural capital of the nation." They are the historian Cassandra Pybus, University of Sydney; the historian Marilyn Lake, La Trobe University; and the political scientist Ian McAllister, Australian National University. Their degrees of success in getting librarians to buy copies of their books (and other writings) for permanent public distribution is an indicator of the impact of their research. Their libcitations can also be taken as an indicator of perceived cultural benefit. Looking first at Pybus and Lake in Libraries Australia, one learns such facts as the following:

Pybus's two most widely held books are *The Devil and James McAuley* (1999), about the Australian poet, and *Black founders: The unknown story of Australia's first black settlers* (2006). The McAuley book is number one in McAuley studies, while *Black founders* is in the top three percent of the much larger LC class on histories of Australian ethnic groups. Lake's top two books are *Getting equal: The history of Australian feminism* (1999), which is second in its LC class, and *Faith* (2002), her biography of the human rights activist Faith Bandler, which is in the top 5 percent of a sizeable LC class on Australian Aborigines. The book on Aborigines with the highest libcitation count in its class—an edited volume titled *Whitewash: On Keith Windschuttles's fabrication of Aboriginal history* (2003)—includes essays by both Pybus and Lake, who can be credited for it because Libraries Australia sometimes picks up book chapters.

Note that the libcitation counts here signal the eminence of two scholars whose nonquantifiable achievements—awards, prestigious appointments, and the like—can be gleaned from their Websites. Yet Pybus is not highly cited in the Web of Science or Google Scholar. (At this writing, her total WoS count is 40 across 21 of her works, the highest receiving 11; in GS it is 33 across 11 of her works, the highest receiving 6.) Her low *citation* counts in those places are most startlingly contradicted by the very high *libcitation* count for one of her books in WorldCat. Pybus writes histories relevant to America and Canada as well as Australia, and her 2006 book *Epic journeys of freedom: Runaway slaves of the American Revolution and their global quest for liberty* is currently held by more than 1,100 OCLC members, making it definitely a library best seller. (Only a tiny minority of books in WorldCat ever break the thousand-library mark.) Lake fares a bit better than Pybus in citations in Web of Science and Google Scholar—neither author does well in Scopus—but those databases largely miss one side of her work in women's studies: the chapters she has contributed to several edited books with prestigious publishers (e.g., Oxford University Press) that WorldCat shows to be widely held outside Australia.

Compared to Pybus and Lake, McAllister is relatively well cited in the Web of Science, Google Scholar, and Scopus. Some of his books have high libcitation counts in Libraries Australia as well. His highest count is for *New developments in Australian politics* (1997); it has two LC class numbers and is eighth among ranked titles in each. Next highest is his *Drugs in Australian society: Patterns, attitudes, and policies* (1991), which is thirteenth in its class. Both showings would put the books in approximately the upper five percent of libcitations.

McAllister's many publications in Libraries Australia have a wide range of libcitation counts—from more than 100 down to one. Figure 1 plots these counts as a reverse-Lorenz curve. They plainly exhibit the familiar coreand- scatter pattern of bibliometrics, with 20 percent of his works accounting for almost 80 percent of his libcitations.

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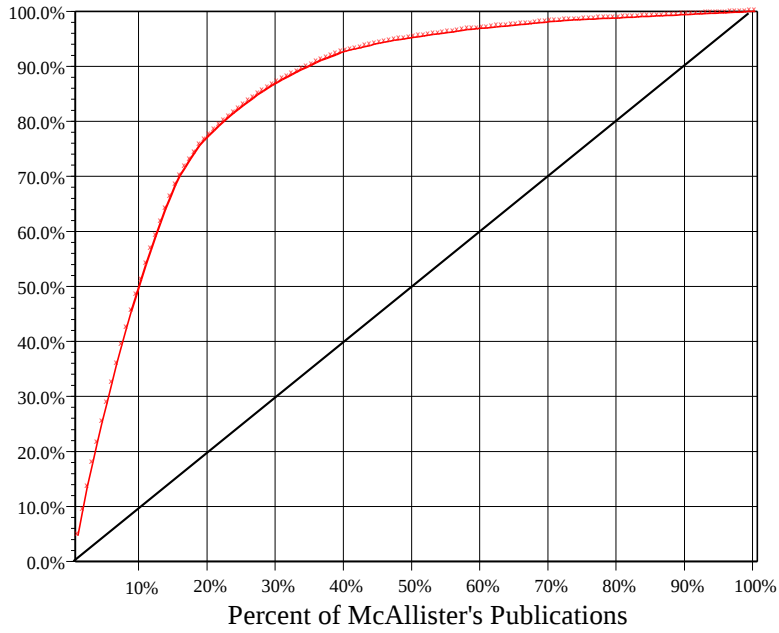

FIG. 1. One author's libcitation record in Libraries Australia

Methods and Data

The present pilot study compares the libcitation records of some academic authors selected from six Australian departments—the history, philosophy, and political science departments at the University of Sydney matched with the equivalent three at the University of New South Wales (which is also in Sydney).

Data were drawn in late 2007 and early 2008 from the *Australian National Bibliographic Database* (ANBD). Although ANBD is accessible online through Libraries Australia, the extensive retrievals for this study were conducted by staff at the National Library of Australia according to search statements devised by members of the research team. We used the "Australian content" code to retrieve works by authors with Australian affiliations, published in Australia, or with Australia-related content. The "bibliographic level" code was used to exclude works classified as part of a serial or journal; the "literary form" code excluded comic strips, humor or satire, and general fiction; the "type of material" code excluded microforms and electronic records.

The resulting retrieval consisted of books and book chapters that our authors have published during a seven-year period, 2000–2006. (This is similar to, but not identical with, the first period of the proposed RQF.) Article and journal citation data from the Web of Science are frequently analyzed for one- or two-year periods, but books in a subject class take longer to accumulate. We wanted to obtain the average libcitation counts in LC classes against which to compare the libcitation counts of individual books, and the longer time frame meant that the number of books on which averages are calculated would be sufficiently large in many—though not all—LC classes. In the Results section, readers will note that some books are members of very small classes even after a seven-year accumulation period.

To retrieve entire LC classes of books, all letters and numbers before the Cutter number (which is separated from the class by a full stop) were used. For eight books that were listed under two LC classes in the ANBD, the number of books and total libcitation counts in both classes were combined for our analyses. We also combined the holdings counts for different editions of the same work when they were published during the evaluation period.

ANBD records vary in completeness. Hence, searching on the author field presented numerous problems (e.g., false drops, records with no holdings, records in non-targeted formats, and works by non-target authors with the same name). Exclusion of non-book materials helped to reduce the number of false drops and the burden of subsequent scanning and cleaning.

Readers can check our data in Libraries Australia, but this must be done in the Advanced Search module with retrievals limited to books and the range of publication years limited to 2000-2006. One frequent problem is that the same work has more than one catalog record in its LC class, which fragments its libcitation count. These counts must be combined for analyses like ours. (The counts may have increased somewhat since our retrieval.) Moreover, there are books whose catalog records have *no* libcitation counts attached to them. These were removed from our analysis, but future researchers may want to include them, just as uncited papers are included in some journal-oriented analyses.

Two-thirds of the 148 academics in our targeted departments had published at least one book during 2000-2006. After retrieval from ANBD, their bibliographic records and their libcitation counts were scanned, and the data were cleaned. Duplicates were removed, and books were checked against official academic publication lists or authors' CVs

on the Web. When an item from the publication lists or CVs was identified as not having being included in the original search, ANBD was searched again manually for that specific item. Any items found through these subsequent searches were added to a dataset of 179 books with confirmed authorship. Two books that were coauthored, for which we used the whole counting method, resulted in 181 items distributed among 88 authors. A fair number of them are edited works or anthologies rather than monographs.

For various reasons, many of these titles were still not usable—for example, some had very low libcitation counts and were assigned to LC classes with few other books; others had only a Dewey class. (We wanted to use LC classes throughout, because of their wide international acceptance in academic libraries.) Real data such as ours are not laboratory-neat, and *ad hoc* decisions had to be made about how to treat irregular cases. Some will be mentioned in the sections below.

After exploring several possibilities, we decided to compare like-named departments in history, philosophy, and political science at the University of Sydney and the University of New South Wales as if they were in competition for the rating period. We settled on a hypothetical assessment exercise in which each of the six departments put forward its *top 12 items* in terms of rank-ordered libcitation counts. This yielded 72 books or book chapters—also known as target items—for analysis. We stress that we are not emulating any known evaluation scheme, such as the RQF or the RAE—merely demonstrating the libcitation indicator for possible further development.

The chapters of books come from the political science authors only, and were used to provide adequate numbers of items for comparative purposes. However, for consistent application of the methodology, book chapters for all fields being examined (in this case, history and philosophy) would need to be added to the dataset.

Figure 2 shows the distribution of 72 titles by their publication dates over 2000-2006. To see if earlier published books had an unfair advantage, we tested a possible correlation between year of publication and libcitation count. The hypothesis was that the two are inversely related: earlier books have higher counts than later ones because libraries have had more time to acquire them. We found no such correlation (Pearson r = .014). Evidently most books are sold during the limited period in which they are in print, and libraries generally acquire their copies in this same period. Thus, the libcitation count for each book is not expected to change drastically over time, as citations to journal articles sometimes do. It can of course change over time if new or foreign editions of the same work appear and their libcitation counts are cumulated.

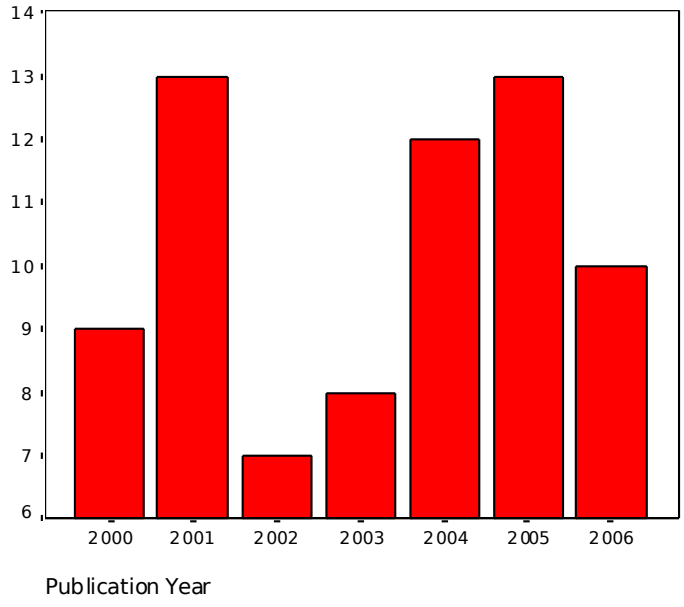

FIG. 2. Publication years of the 72-item sample of books.

Variables and Measures

For each of our 72 target items, we present its libcitation count and another measure, to be explained, called a class normalized libcitation score (CNLS). Respectively, these represent a simple measure of a book's impact on Australian libraries and a more complex measure of its impact relative to other books in its LC class. (Torres-Salina and Moed 2008 propose a measure similar to the latter.) We also show each book's LC class and its rank in that class with respect to other titles.

The last measure, rank in class, resembles one already used in evaluative bibliometrics—the position of an author's or research unit's citation count in an overall distribution of citation counts. The Research Evaluation and Policy Project

computes this statistic for Australian papers in various scientific fields (REPP 2005: 50). The distribution is taken from a journal or a set of journals grouped in the formal subject categories of the Web of Science. For books, the analogue is the standing of an author or a research unit in a distribution of libcitation counts. This distribution can be taken from an LC class or a range of LC classes. Naturally, the place to be is in the top one or five percent (cf. Rehn & Kronman 2006: 16).

For all our ANBD items, including the final 72, we obtained the usual descriptive cataloging (authors, titles, imprints), libcitation counts, and LC class numbers. To compute the CNLS measure, we also obtained the number of books in each target item's LC class and the sum of libcitations to all of those books. These data allowed us to compute the mean libcitations in each LC class as an expected value by which to divide the book's observed libcitation count. We used the following formula, in which, for reasons given later, both the target item and its libcitation count are *included* in computing LC class means. For any item i :

$$CNLS_i = \text{Libcitation count}_i / \text{Mean libcitation count of LC class}_i$$

The higher the result, the greater the book's impact within its class. For example, if the mean libcitation count for a class is 20 and the book's libcitation count is 40, then CNLS = 2, or twice the average for that LC class. In our mock competition between universities, we have averaged the 12 libcitation counts and CNLS values for books from each of our six departments. This allows departmental means to be compared and tested for significant differences. The t-test and Mann-Whitney U-test for independent samples require assumptions our data do not entirely meet, but we used them anyway to detect departmental differences not likely to have arisen by chance.

We also report the mean number of books and the mean libcitation counts in all LC classes to which the departments contributed. These latter averages give some idea of the sizes and popularity of the literatures involved.

Background on CNLS. The CNLS is related to a measure given in Rehn & Kronman (2006: 13), and Lundberg (2007), the item-oriented field normalized citation score (IOFNCS) for individual journal publications. To obtain the IOFNCS, one first counts the citations received by each publication of the same type (articles, literature reviews, or letters), the same Web of Science subject category, and the same year. One then norms this count by dividing it by the expected citation rate in its *field* —that is, the mean citations received by all publications of its type, subject category, and year. With Web of Science data, each mean is a worldwide standard against which the individual publication can be judged. For evaluating research units, the last step is to obtain and compare their means on the IOFNCS measure.

The fact that this measure norms citation counts for publications *individually* is what differentiates it from the better-known crown indicator of the Centre for Science and Technology Studies in Leiden. Unlike the crown indicator, the IOFNCS weights every item equally in further calculations. The crown indicator uses *grouped* data; as described by Lundberg (2007: 146), it is calculated "by dividing the average number of received citations for a group of publications with the average number that could be expected for publications of the same type, from the same year, published in journals within the same field." According to Rehn & Kronman (2006: 12), "This way of calculating [the crown indicator] gives more weight to older publications (particularly reviews), published in fields with dense citation traffic."

However, IOFNCS has a similar drawback. Quoting Rehn & Kronman (2006: 14) again, "If the normalization is done on an article level, a few highly cited articles in a moderately cited research area may contribute unproportionately to the value of the field normalized citation score." We had a similar problem with our book data in computing the class normalized libcitation score. We tried both including and excluding the data for our target items when we computed mean counts for classes. Either way, the great majority of cases had scores higher than the LC class mean—frequently, much higher. We therefore decided to *include* data for the target items in computing LC class means, because it deflates the CNLS values slightly or in a few cases markedly.

The biggest deflation occurred with a widely-held title in an LC class whose other members were all relatively little held. When data for this particular item were *included* in the computation, its CNLS was 12.5. When they were *excluded*, its CNLS turned out to be 72 times the class mean of the other books. That indeed would have had a disproportionate effect on the mean score for its author's department. We thus chose to include target items in computing LC class means so as to systematically deflate the CNLS.

In traditional citation analysis of items from journals, summary measures such as Leiden's crown indicator are generally lower than our CNLS values in the next section. If a research unit's citation count in a subject field is exactly average, then dividing through by the world mean for that field will yield an indicator of 1. Research units can and do score below 1; it indicates strength if a research unit can score more than 1, and to score 2 or more is difficult. In contrast, we show books scoring as much as 16 times their class averages. But consider where the world averages of CWTS-style citation analysis come from: they are computed as the mean number of citations received by articles (or other publications) in large, multinational groups of journals that make up the Web of Science subject categories. Our high CNLS values reflect a different situation.

We are using single LC classes or, occasionally, two classes combined when a book was assigned to both. The LC classes in Libraries Australia correspond more closely to single journals than to large groups of journals. They also reflect Australian acquisitions only, and this generally makes the number of books and libcitation counts in them far smaller than those in the same classes in OCLC's WorldCat. Finally, we are analyzing only the top 12 items per depart-

ment in Libraries Australia during 2000-2006. That leaves out many other books and book chapters with lower libcitation counts that would bring down the departmental averages were they included.

Libraries Australia holdings data are now being integrated into WorldCat, but, as of this writing, WorldCat is somewhat difficult to use in a study like the one done here. In the future it may be easier for outsiders to mine for complex libcitation data. At that time, the Division-Category-Subject lines of the OCLC Conspectus, which group together books in whole ranges of LC classes, might prove a closer equivalent to the Web of Science journal subject categories than are single LC classes. If the mean libcitation counts used in computing CNLS values were based on Conspectus lines for a comparable time period, those values would drop considerably from what we show.

Results

Table 1 presents comparable data for the two history departments. In this and following tables, title and author entries appear as formatted in the ANDB style, and items are sorted high to low by their libcitation counts.

The top 12 items from the University of Sydney have much higher libcitation counts overall than the top 12 from the University of New South Wales. The University of Sydney's *lowest* count is higher than all but one of the UNSW counts. The UNSW historians have quite a few titles on non-Australian topics or Australian topics that are highly specialized, and librarians may have accordingly held back from acquiring them. In any case, the Sydney history department comes across here as a powerhouse. (One book in its top 12 is Pybus's *Black founders*, mentioned earlier.)

It will be seen from the class normalized libcitation scores that all 24 titles are above average in their classes. Monographs with extraordinarily high scores on this measure are Balint's *Troubled waters* and O'Brien's *God's willing workers* from UNSW, and McCalman's *The seven ordeals of Count Cagliostro* from Sydney. All are first in their LC classes and have little competition from other books. (Cagliostro is a rarefied topic in Australia!) It is the Cagliostro book whose CNLS was 72 times the mean counts of all other books in its class (BF1598, "magicians and hermetic philosophers") when it was excluded from the computation.

TABLE 1. Libcitation counts and class normalized libcitation scores for books by historians.

Titles and Authors	Libcitations	CNLS	LC Class	Rank
History, UNSW				
Troubled waters : borders, boundaries and possession in the Timor Sea / Ruth Balint.	101	15.8	HD8039	1st of 199
Australia's history : themes and debates / edited by Martyn Lyons and Penny Russell.	87	1.5	DU110	9th of 70
Return to Gallipoli : walking the battlefields of the Great War / Bruce Scates.	84	3.5	D568	6th of 73
A history of the book in Australia 1891-1945 : a national culture in a colonised market / edited by Martyn Lyons & John Arnold.	81	2.3	Z533	4th of 26
The enlightenment and the origins of European Australia / John Gascoigne ; with the assistance of Patricia Curthoys.	80	1.5	BL2610+ DU115	44th of 96
God's willing workers : women and religion in Australia / Anne O'Brien.	77	14.1	BL625	1st of 111
Indonesia : peoples and histories / Jean Gelman Taylor.	57	2.7	DS634	3rd of 16
Italy / Nicholas Doumanis.	19	3.0	DG551	lst of 7
Post-revolutionary Europe, 1815-1856 / Martyn Lyons.	16	2.1	D383	1st of 3
The GI war against Japan : American soldiers in Asia and the Pacific during World War II / Peter Schrijvers.	13	1.2	D767	88th of 362
Historians in public : the practice of American history, 1890-1970 / Ian Tyrrell.	10	2.3	E175	8th of 73
Joseph Banks and his abiding legacy / John Gascoigne.	10	1.8	Q143	13th of 66
History, U Sydney				
Belonging : Australians, place and Aboriginal ownership / Peter Read.	157	3.5	DU124	4th of 240
The power of speech : Australian Prime Ministers defining the national image / James Curran.	138	2.6	JQ4031	2nd of 57
Looking for Blackfellas' Point : an Australian history of place / Mark Mckenna.	130	4.2	GN667	1st of 109
Gold : forgotten histories and lost objects of Australia / edited by Iain McCalman, Alexander Cook, Andrew Reeves.	129	2.5	DU107	4th of 55
Settlement : a history of Australian indigenous housing / edited by Peter Read.	103	2.7	DU124+ HD7288	30th of 289
Cultural history in Australia / edited by Hsu-Ming Teo and Richard White.	100	1.9	DU108	3rd of 12
The pursuit of wonder : how Australia's landscape was explored, nature discovered and tourism unleashed / Julia Horne.	99	7.9	G155	2nd of 819
On holidays : a history of getting away in Australia / Richard White ; with Sarah-Jane Ballard ... {et al.].	96	2.4	DU97	5th of 24
The vision splendid : a social and cultural history of rural Australia / Richard Waterhouse.	96	2.0	DU107	7th of 55
Black founders : the unknown story of Australia's first black settlers / Cassandra Pybus.	94	3.3	DU122	5th of 127
The seven ordeals of Count Cagliostro : the greatest enchanter of the eighteenth century / Iain McCalman.	91	12.5	BF1598	1st of 15
Haunted earth / Peter Read.	89	2.6	DU105	3rd of 30

UNSW = University of New South Wales; CNLS = class normalized libcitation score; LC = Library of Congress

Table 2 shows that the mean libcitation count for books from Sydney is more than twice that for books from UNSW, a statistically significant difference by t-test (t = -4.69, p = .000, with unequal variances) and by Mann-Whitney

U test (p = .000). The table also shows, however, the reversal that the CNLS measure can bring. UNSW's mean on this is higher than Sydney's (but not significantly so), owing to the effect of the Balint and O'Brien books. To some extent, class normalized libcitation scores reward authors who write library best sellers within relatively narrow topical areas. (A rough analogy would be an athlete who dominates an unusual sport in which relatively few compete.) A department's mean libcitation count reflects its sheer sales power—its broad cultural impact regardless of topic—but more paticularized CNLS values would surely have their uses in arguments about the importance of contributing well-received books to specific literatures, even if the literatures are small and specialized.

Table 2 also gives the mean number of books in each LC class used in the comparisons, and the mean number of libcitations in all of these classes after they are totaled for all books in each. Clearly, the Sydney historians are contributing to LC classes that are bigger, both in number of books and in number of libraries holding those books. This would seem to indicate that the Sydney historians' contributions are more "mainstream" than those of the UNSW historians. They are by and large contributing to LC classes where the competition within the Australian context is greater, and that is why their class normalized libcitation scores are, on average, lower.

TABLE 2. Summary libcitation statistics for history departments

	History University of New South Wales	History University of Sydney
Mean libcitations per book	53	110
Mean class normalized libcitation score	4.3	4.0
Mean books per LC class	88	153
Mean total libcitations in all LC classes	1560	4,207

TABLE 3. Libcitation counts and class normalized libcitation scores for books by philosophers.

Titles and Authors	Libcitations	CNLS	LC Class	Rank
Philosophy, UNSW				
Political theory and the rights of indigenous peoples / edited by Duncan Ivison, Paul Patton, Will Sanders.	85	4.7	GN380	1st of 42
Business ethics : Australian problems and cases / Damian Grace & Stephen Cohen.	53	4.9	HF5387	4th of 272
20 thinking tools : collaborative inquiry for the classroom / Philip Cam.	44	4.5	LB1590 + B52	2nd of 122
Logical psych : reasoning, explanation & writing in psychology / Philip Bell and Phillip Staines with Joel Michell.	44	4.0	BF76	10th of 202
The nature of moral reasoning : the framework and activities of ethical deliberation, argument, and decision-making / Stephen Cohen.	42	5.5	BJ1012	3rd of 178
Between Deleuze and Derrida / edited by Paul Patton and John Protevi.	24	3.7	B2430+ B2421	13th of 418
Corporeal generosity : on giving with Nietzsche, Merleau-Ponty, and Levinas / Rosalyn Diprose.	20	3.3	BJ1533	9th of 140
Deleuze and the political / Paul Patton.	20	3.1	JC261	1st of 13
Good knowledge, bad knowledge : on two dogmas of epistemology / Stephen Hetherington.	14	2.5	BD161	7th of 95
Representation in mind : new approaches to mental representation / edited by Hugh Clapin, Phillip Staines, Peter Slezak.	13	1.9	BF316	2d of 11
Learning from Chinese philosophies : ethics of interdependent and contextualised self / Karyn Lai.	12	7.4	B127	lst of 84
Reality? knowledge? philosophy! : an introduction to metaphysics and epistemology / Stephen Hetherington.	11	1.94	BD111	6th of 48
Philosophy, U Sydney				
Political theory and the rights of indigenous peoples / edited by Duncan Ivison, Paul Patton, Will Sanders.	85	4.7	GN380	1st of 42
Postcolonial liberalism / Duncan Ivison.	45	3.3	JV51	1st of 37
Francis Bacon and the transformation of early-modern philosophy / Stephen Gaukroger.	22	1.8	B1198	1st of 2
The evolution of morality / Richard Joyce.	17	1.7	BJ1311	3rd of 13
Descartes' system of natural philosophy / Stephen Gaukroger.	15	1.5	B1873	2nd of 8
The Blackwell guide to Descartes' meditations / edited by Stephen Gaukroger.	14	1.7	B1854	2nd of 6
Descartes' natural philosophy / edited by Stephen Gaukroger, John Schuster, and John Sutton.	12	2.3	B1878	lst of 14
Ecological orbits : how planets move and populations grow / Lev Ginzburg, Mark Colyvan.	11	1.1	QH352	10th of 34
The indispensability of mathematics / Mark Colyvan.	10	1.8	QA8	3rd of 30
Cycles of contingency : developmental systems and evolution / edited by Susan Oyama, Paul E. Griffiths, and Russell D. Gray.	10	1.0	BF713	38th of 129
Agnes Heller : a moralist in the vortex of history / John Grumley.	9	1.9	B4815	1st of 3
The myth of morality / Richard Joyce.	9	1.2	BJ1012	44th of 178

UNSW = University of New South Wales; CNLS = class normalized libcitation score; LC = Library of Congress

Table 3, which compares the philosophy departments at the two universities, has a feature that is unique in this study, although it is bound to occur elsewhere as it does in citation studies. It is that *Political theory and the rights of indigenous*

peoples is the top book for both UNSW and Sydney because Paul Patton is at the former and Duncan Ivison is at the latter—a case of interuniversity (and cross-town) editorial collaboration.

TABLE 4. Summary libcitation statistics for two philosophy departments.

	Philosophy University of New South Wales	Philosophy University of Sydney
Mean libcitations per book	32	22
Mean class normalized libcitation score	3.9	2.0
Mean books per LC class	135	41
Mean total libcitations in all LC classes	1,101	400

Table 5, for political science, shows that both the UNSW and the Sydney departments frequently blend politics with economics, perhaps reflecting continuity with "political economy," the British parent discipline.

Table 5 also represents a comparison different from the previous two. Here, 13 of the 24 items with the highest libcitation counts turned out to be book chapters—four at UNSW and nine at Sydney. To save space, we give only titles by which books can be retrieved in Libraries Australia, but we have the chapter titles as well. For example, Gelber's "Free Speech and Civil Disobedience in Australia" appears in the top-ranked item for UNSW and Bryan's "The Australian State and the Global Economy" in the top-ranked item for Sydney.

TABLE5. Libcitation counts and class normalized libcitation scores for books by political scientists.

Titles and Authors	Libcitations	CNLS	LC Class	Rank
Political Science, UNSW				
*Katharine Gelber, chapter in Censorship and free speech / edited by Justin Healey	136	9.8	JC591	1st of 15
How to kill a country : Australia's devastating trade deal with the Uni ted States / Linda Weiss, Elizabeth Thurbon and John Mathews.	135	3.9	HF1626+ HF2486	1st of 23
In fear of security : Australia's invasion anxiety / Anthony Burke.	93	5.3	UA870	2nd of 74
Activist wisdom : practical knowledge and creative tension in social movements / Sarah Maddison and Sean Scalmer.	62	1.7	HN847	2nd of 5
Powerscape : contemporary Australian political practice / Ariadne Vromen and Katharine Gelber.	62	1.2	DU117	78th of 154
*Anthony Burke, chapter in Strategy and security in the Asia-Pacific / edited by Robert Ayson and Desmond Ball	56	6.2	HV6431	6th of 503
Contesting global governance : multilateral economic institutions and global social movements / Robert O'Brien, Anne Marie Goetz, Jan Aart Scholte, Marc Williams	42	5.3	HF1383+ JZ1252	1st of 10
Jews and Australian politics / edited by Geoffrey Brahm Levey and Philip Mendes.	36	8.5	DS135	45th of 745
Global political economy : evolution and dynamics / Robert O'Brien, Marc Williams.	35	3.0	HF1359	14th of 310
International law in world politics : an introduction / Shirley V. Scott.	34	3.6	KZ3410	2nd of 50
*Andrew Tan, chapter in After Bali : the threat of terrorism in Southeast Asia / editors, Kumar Ramakrishna, See Seng Tan.	33	3.8	HV6433	15th of 239
*Marc Williams, chapter in Global political economy / edited by John Ravenhill	26	2.2	HF1359	91st of 310
Political Science, U Sydney				
*Richard Bryan, chapter in Employee relations management : Australia in a global context / edited by Julian Teicher, Peter Holland, Richard Gough.	108	3.6	HD8846	1st of 28
*Frank Stillwell, chapter in Thinking about poverty / editor, Klaus Serr.	98	5.2	HV11+ HV473	7th of 186
Changing track : a new political economic direction for Australia / Frank Stilwell.	93	2.9	HC605	5th of 65
*Frank Stillwell, chapter in Equity, environment, efficiency : ethics and economics in urban Australia / edited by Patrick Troy	73	8.2	HB72	1st of 71
Political economy : the contest of economic ideas / Frank Stilwell.	70	7.8	HD82+ HB171	2nd of 362
*Richard Bryan, chapter in Australia : the complete story / foreword by Pat O'Shane, introduction by Peter Cosgrove.	57	2.3	DU95	5th of 23
*Damien Cahill, chapter in Us and them : anti-elitism in Australia / Marian Sawer and Barry Hindess, editors.	50	1.7	HN850	13th of 59
*Damien Cahill, chapter in Ruling Australia : the power, privilege & politics of the new ruling class / edited by Nathan Hollier.	49	1.6	HN850	11th of 59
Economics as a social science : readings in political economy / edited by George Argyrous, Frank Stilwell.	48	5.2	HB171	8th of 254
*Damien Cahill, chapter in Labour and community : historical essays / edited by Raymond Markey.	34	0.6	HD8844	3rd of 4
*Joseph Halevy, chapter in Economic globalization in Asia / edited by Partha Gangopadhyay and Manas Chatterji.	26	2.8	HC412	9th of 127
*Richard Bryan, chapter in Globalization and its discontents / edited by Stephen McBride and John Wiseman.	26	2.4	JZ1318	67th of 342

UNSW = University of New South Wales; CNLS = class normalized libcitation score; LC = Library of Congress;
* Chapter contributions

Each chapter was given the libcitation count of the book in which it appears, since that count necessarily applies to the book as a whole. If citation counts for contributors' specific chapters were available, they could also be reported in a

real evaluation. But in their absence, a libcitation count for the entire book is better than nothing. At least contributors can receive credit for appearing in a volume that sold well to libraries.

Statistics on the chapter-and-book data in Table 6 were computed just like those on the all-book data in Tables 2 and 4. Although UNSW's scores are higher, the two departments are fairly closely matched, and none of the differences between them is statistically significant. Evaluators would nevertheless have to note Sydney's frequent output of chapters rather than whole books. Moreover, productivity at Sydney is relatively narrow: at UNSW eight authors contributed to the top 12 items; at Sydney, only four.

TABLE 6. Summary libcitation statistics for two political science departments.

	Political Science University of New South Wales	Political Science University of Sydney
Mean libcitations per book	63	61
Mean class normalized libcitation score	4.5	3.7
Mean books per LC class	203	132
Mean total libcitations in all LC classes	2,355	1,815

Discussion

In comparing university departments, we would expect real panels of experts to draw on a much wider range of evidence than is presented here. We have shown, however, that libcitation measures discriminate informatively among departments and give principled reasons for saying that one, or neither, has had more cultural impact than the other. Just as citation counts are an advance on simple counts of articles produced in science and technology, libcitation counts and class normalized libcitation scores are an advance on simple counts of books produced in the humanities and social sciences. Since bibliometric measures in the latter areas are scarce and problematical, ours, perhaps with further refinements, may fill a need.

With regard to authors, we have shown that libcitation counts for their individual books vary greatly, both absolutely (from nine to 157 in our data) and when normed against LC class means. Aside from possible uses in national evaluation exercises, libcitation measures should be available to individual academics when they go up for tenure or promotion. We know informally of persons who have used the library holdings counts of their works as evidence in such cases; the libcitation project furthers this practice by adding new terminology and theoretical focus.

Validity Issues. We are naturally aware of the need for validation studies of the libcitation measure. Referees observed that a high libcitation count might be misleading because a book was held by numerous *public* libraries or appealed to *undergraduates* rather than real researchers. Objections like these seem to us contestable, since all fields of learning have a place for, e.g., popularizations, collections of multi-authored essays, biographies, textbooks, and source books, which are among the genres that citation counts often slight. Innumerable academics in the humanities and social sciences, including well-known writers, devote great energy to genres such as these because they think them worthwhile, and the fact that citation counts do not do them justice is one reason these people resist bibliometric measures. Some books are written for specialized elites; others for students or the general public. Libcitations are capable of showing *either* kind to advantage.

A referee observed as well that a book could be purchased by many libraries yet fail to find a single reader. In the absence of large numbers of examples, we think this unlikely, especially if one considers that widely held books will also be available for use over many years. We are reminded of the complaint that authors cite articles they have not read (or have misunderstood; cf. Wright & Armstrong 2008). Indeed, most of the obvious objections to libcitations have counterparts in the citation literature, because citation and libcitation measures are questionable in similar ways. Their power to encapsulate nevertheless argues for their use, along with other kinds of evidence, in academic evaluations. All methods of evaluating researchers have weaknesses, including in-house interviews and judgments by external peers, which is why the case for multiple measures is often made.

At this stage, when research with libcitations has barely begun, we would merely urge the *face* validity of the measure. To put it starkly, if you have authored a book of any sort, would you prefer it to be held by 10 Australian libraries or by 100? Would you prefer that its count place it at the middle of a sizeable LC class or at the top? Even without data, would you bet that a book held by many libraries has a better chance of being read than one held by few? Would you object to its being held by *any* type of library?

Turning to means of convergent validation, it would be of great interest to learn how well the libcitation counts of our individual titles correlate with counts of their circulations both within Australian libraries and between them through interlibrary loan. According to a personal note from the bibliometrician Stephen J. Bensman, libcitation counts for books should be positively associated with the overall circulation counts for the same books, as one instance of Urquhart's Law. This law, named for Donald J. Urquhart, the British librarian who formulated it, has been extensively studied by Bensman (e.g., in 2007a, b). If such a correlation holds, it would help to validate the libcitation measure. Circulation

counts for their books would also give researchers in the humanities and social sciences another firmly bibliometric measure to use in future evaluations.

Libcitations should also correlate with quality rankings of the presses that publish academic books (Metz & Stemmer 1996; Goodson et al. 1999; Lewis 2000; Wiberley 2002, 2004). Similar quality rankings of academic journals (East 2006; Mingers & Harzing 2007; Haddow 2008) have proved controversial (see, e.g., Corbyn 2008a, b). But it is hardly in dispute that authors want to publish with the best presses they can. We therefore see quality rankings as a justifiable means of testing libcitation validity, and we would expect rankings of academic publishers (as in Lewis 2000) to covary significantly with libcitation counts of books.

We are interested, too, in the correlation of libcitation counts when they are drawn for the same books from different sources, such as Libraries Australia and WorldCat. In a tiny experiment in 2007, libcitation counts were obtained for eight items by the first author—books and book chapters—from these two union catalogs. At that time, Libraries Australia and WorldCat had wholly different contributing libraries. Yet their libcitation counts for the eight items were very highly correlated (Pearson $r = 0.91$). This would suggest considerable cross-national stability in librarians' perceptions of the merits of individual works for their various audiences, which seems yet another useful indicator of achievement. Only new research will tell whether such stability is real or illusory.

It is an open question whether libcitation counts for books and book chapters will correlate significantly with citation counts for the same works. They may indeed not. Our exploratory trials have shown some books to be high in both citation and libcitation counts. Occasionally a book turns up that is well cited despite being held by relatively few libraries. More common are books that are meagerly cited but relatively widely held. This overall mix produces low correlations. However, a lack of correlation here need not invalidate libcitations. It may well be that they and citations are measuring different things. Libcitations may attest to a large perceived readership for a book even if it is not much cited, as exemplified in WorldCat by Pybus's *Epic journeys of freedom*. Our guess is that many book-oriented scholars do not know this fact, and that they would want respectable standings in union catalogs to be used on their behalf in formal evaluations.

Future Possibilities. Producing a library best seller is not easy. At the very least, it is comparable to producing a highly cited paper and requires a much greater writing effort. It should be recognized as an achievement of which any academic can be proud. Our research strengthens the possibility that Libraries Australia may be mined for data on best-selling books overall and best-selling books within LC classes, especially those deemed of high cultural importance, such as Aboriginal studies.

OCLC has made a start in data mining along these lines by producing a list of the thousand titles in WorldCat most widely held by OCLC members. Virtually all the authors on this list are heroes of world culture, instantly recognizable. On another front, the work of Australian history that is most highly "libcited" in WorldCat is Robert Hughes's *The Fatal Shore*, which was also a huge international best seller to the general public. But WorldCat is not yet widely exploited by academics for evaluative purposes. It, too, should be mined in this new way, because those who rise to the top of their fields in libcitations are likely to be authors highly valued on other grounds and widely known. If you have heard of a work *outside* your own field, chances are it will be held by relatively many libraries. If you have not heard of a work *within* your own field after it has been out for some time, chances are it will be held by relatively few libraries.

While it is as yet cumbersome for outsiders to mine data from Libraries Australia and WorldCat, the availability of special versions of the Web of Science data for research and evaluation gives us hope that, in time, data from the big union catalogs will also be readily available for similar purposes—purposes that go beyond those envisioned when the catalogs were created.

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