Big Fish Should Swim in Big Ponds: Rethinking Prolific Scholarship in Communication

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Abstract

The value and application of research reports that rank prolific research scholars in Communication is questioned. These reports (e.g., Hickson, Self, Johnston, Peacock, & Bodon, 2009) do not provide normative publishing information for tenure and promotion review; rely on a limited sample of journals, and present misleading information on departments who are ranked as highly productive. It is recommended future efforts to rank prolific scholarship use the population of communication researchers, reconsider what databases or journals to include for analysis and stratify results by degree cohort. Where possible, data are provided to support arguments related to measurement of prolific scholarship and recommendations are advanced for appropriate use of ranking data for scholars, journals and graduate programs.

Keywords: Publishing, Scholarship, Research, Communication, Prolific, Rankings

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To be prolific is to produce something in abundance or in large quantities. To be an active prolific scholar in Communication, according to Hickson et al. (2009), one has published 25 or more articles in 24 select journals over his or her career. Nine authors have over 50 such articles. The value of identifying highly prolific scholars over time, according to Hickson et al., is to provide normative information that may assist in tenure and promotion decisions. Two other purported applications of counting journal articles are to provide departments data for internal use and to examine trends in the Communication discipline.

The current paper questions the utility of research reports that list highly prolific scholars in Communication and recommends against publishing these lists in their current format. First, it is unclear to the thousands of scholars who did not make the list what the value is of "naming names." Second, the publishing data produced from these analyses cannot be used as normative data for tenure and promotion decisions as these data greatly underestimate normative publication trends for research scholars. Third, each list (e.g., Bunz, 2005; Hickson et al., 2009) does not: (1) use the appropriate group of scholars, (2) provide adequate coverage of Communication journals and (3) measure productivity by faculty rank and degree cohort (for exception, see Stephen & Geel, 2007). Each of these criticisms will be amplified in the discussion to follow and recommendations are made for future reports designed to measure and rank Communication scholarship.

Counting publications is an indicator of being prolific but fails to provide an appropriate measure of *quality*, the most important factor in assessing scholarship. The quality of one's

research is appropriately measured by one's influence on the fund of knowledge in a given theory or domain area. Influence or quality is inevitably a subjective measure but there are proxy measures of influence such as the number of citations to a given author, journal or monograph (Feeley, 2008; Funkhouser, 1996). Other fields measure quality by number of articles one has in top journals (e.g., Ford & Merchant, 2008). It is understood that a highly prolific or published scholar has a greater opportunity to have an impact on a field but all publications are not created equally in terms of quality and impact. As a Department Chair I am interested in learning the quality of a given job candidate's or faculty member's research and simply counting his or her publications in a fraction of the journals in the field provides little evidence of quality and would prove to be a futile exercise.

The Pond is Too Small

A common method used to measure prolific scholarship (e.g., Bunz, 2005; Hickson, Turner, & Bodon, 2003) is to identify a sample of journals and tabulate author counts over a specified period of time. For example, Hickson et al. (2009) includes author information in 24 journals from 2002 through 2006 whereas Bunz uses 1999 through June 2004 for a time frame and reviews 8 journals. The sample of authors for Bunz and Hickson et al. is anyone with 1 or more articles published during this time period. This method of author and journal inclusion does not provide normative information on publishing rates for at least two reasons. First, the sample of authors is too limited and likely *overestimate* how often one publishes in the journals and years considered for analysis. Recent estimates suggest between 19 and 29 percent of

scholars do not publish any articles in refereed journals in Communication (XXXX, 2009; Stephen & Geel, 2007).

Second, the sample of scholars is not representative of faculty whose primary role is to publish regularly in refereed journals in Communication. Consider recent data reported by Hickson et al. (2009) who suggest one who publishes 6-10 articles in the field over the duration of his or her career would be ranked 90th percentile in publishing in the field. Without accounting for year of doctoral degree completion it is unclear how many articles one should have in his or her 6th year upon going up for tenure or in one's 12th or 19th year going up for promotion to professor. The problem is twofold: (1) the data are not analyzed by when one earns his or her doctorate and are thus useless for promotion cases from assistant to associate, and (2) the data likely underestimate normative publishing for research faculty who publish in journals not indexed by Hickson et al.'s 24-journal analysis.

Related to the last point, the sample of journals in prolific scholars' reports is at best convenient. Since these forms of analyses begun in the late 1980s (Hickson, Stacks, & Amsbary, 1989), there has been an increase in the number of Communication periodicals and an increase in the level of sophistication indexing journals. Bunz considers 8 journals published by ICA and NCA to be *top* journals and articles in these outlets provide scholars visibility to the field. Hickson et al. use 24 journals to allow replication of earlier analyses that rely on journals indexed by Matlon and Ortiz's (1997) hardbound, *Index to Journals in Communication Studies through 1995*. Consider Hickson's list of journals represents approximately 20% of the journals in Communication, according to Stephen and Geel (2007). Also, 14 of the 24 journals indexed by

Hickson et al. are not included in the 2008 Institute for Scientific Information (ISI) list of journals in Communication. Using journal relatedness metrics (Pudovkin & Garfield, 2002), Feeley (2008) identified the 19 core journals in communication as indexed by ISI and 9 of these journals are not on Matlon and Ortiz's list (1997) or used in any of the Hickson and colleagues' analyses (cf. Hickson et al., 2009; Hickson et al., 1989). Anecdotal evidence suggests some promotion committees do not count articles published by non-ISI journals. Thus, the choice of journals to be indexed in a prolific authors analysis should be either inclusive, at one extreme (i.e., attempt to consider all journals), or should be exclusive at the other extreme and use empirical evidence and logic to justify the limited selection of publications, such as the highest impact journals in terms of citation counts.

A final concern is the practice of ranking universities and programs by the number of articles published by faculty members in the restricted number of journals evaluated. Using the years 1996 through 2001 for analysis, Hickson, Turner, & Bodon (2003) conclude West Virginia (WV) is the top university and has nearly twice (n = 122) the number of articles as the 2nd place ranked university (Michigan State) that had 63 articles. However, 82 of these 122 WV articles are from 3 authors who hold 3 out of the top 4 rankings for the 6 years' of analysis. A more appropriate metric to rank faculty productivity would consider the average number of articles per faculty member (e.g., XXXX, 2009). A second method recently employed ranks doctoral programs by centrality in the hiring network of graduate students (Burris, 2004).

Re-Examining Prolific Scholarship

An analysis was undertaken of the 30 most prolific scholars from 2002 through 2006 as reported by Hickson et al. (2009). For each of the 30 authors for years 2002-2006, data were collected on each author's: (1) *h*-index from ISI, (2) *h*-index from Google Scholar (www.scholar.google.com; GS), (3) number of articles listed in Communication and Mass Media Complete (CMMC; www.ebsco.com), and (4) number of articles in top journals (defined in next paragraph). The *h*-index is a relatively new measure of academic productivity invented by Hirsch (2005). The *h*-index of a scientist is the number of papers (*N*; i.e., the y-axis) that have N or more citations (i.e., the x-axis). For example, an *h*-index of 6 indicates 6 papers were cited 6 or more times and the 7th paper was cited 6 or fewer times. The h-index thus measures both how prolific one is and at the same time how influential one is to other scholars and controls for inflated citation counts due to a few highly cited works.

The average h-index for 2002-2006 for the 30 prolific scholars was 4.03 (*SD* = 3.6) for ISI and 8.43 (*SD* = 3.3) for Google Scholar and the correlation is .76 between the two *h*-indexes. To examine the factors that predict one's *h*-index, two separate linear regression equations were computed with total number of articles (as listed by Hickson et al., 2009) and number of articles in top 3 communication journals as the independent variables. Feeley (2008) provides 4 years' of journal impact data on 19 core journals in Communication and these data indicate *Human Communication Research (HCR), Journal of Communication (JOC)*, and *Communication Research (CR)* are top 3 journals. *HCR, JOC* and *CR* have impact factors one standard deviation above the mean for Communication[1].

Both equations were significant and results indicate number of articles in top journals significantly predicted both *h*-indexes. This is noteworthy as the more articles one has the more likely one *could* have a higher *h*-index. Table 1 reports frequency counts for key study factors and Table 2 presents results from the two regression equations. These data are quite telling, especially when you consider the exceptional list of scholars investigated. Data indicate publishing in top journals determines one's impact almost exclusively. By contrast, prolific publishing in presumably low impact journals is unrelated to impact. For ISI-indexed journal articles, publishing in the top 3 journals predicts 82% of the variance in one's *h*-index. Clearly, publishing in higher profile journals give one a greater opportunity to influence other scholars' research.

Recommendations for Future Lists

Future reports on Communication scholarship should make it clear to the reader what the value is of publishing the list. For example, a useful list might provide research faculty in Communication (i.e., faculty who are tenure-track at doctoral-granting programs) normative information on journal articles, books or grants awarded. In terms of publishing in journals, it is recommended the population of research scholars comprise the list or perhaps a representative or random sample of scholars taken from the population (e.g., Shaw & Vaughan, 2008). Normative publishing trends should generalize to scholars whose primary role is to produce original scholarship – in other words, faculty members affiliated with doctoral-granting programs.

The next task would be to cull the publishing numbers and outlets for these 2000+ research faculty members. Along with my colleagues (XXXX, 2009) we have begun to do this with a sample of 1,581 faculty members. Two important findings emerge. First, the data are positively skewed and 29% of the scholars have zero publications in the CIOS database that covers 118 journals. Second, a typical assistant professor, associate professor and professor publish, on average, 4, 8 and 14 articles respectively using the Communication and Mass Media Complete (CMMC) database which covers over 500 journals in or near Communication.

If an author wishes to produce a list comprised of scholars who publish in a select number of journals, two recommendations are offered. There is little consensus what journals comprise the top journals in our field. Consider the justification for top journals in the Bunz (2005) study,

> …the "top" and often perceived as the most desirable publication outlets are the journals published by the International and the National Communication associations. A publication in one of these journals supposedly provides the highest exposure to and impact on the discipline (p. 705).

Bunz fails to provide empirical evidence for exposure or impact when it could easily be accumulated. One method would be to survey research faculty and ask them their subjective ratings of top journals (see Hult, Neese, & Bashaw, 1997 for example in Marketing Science). A second method would be to use journal impact data that are routinely produced in ISI.

An analysis was undertaken to compare ISI journal impact for Bunz's 8 journals and *other* journals in Communication. Two sources of impact data were investigated: (1) 5-year

journal impact factor (JIF) using data from Journal Citation Reports and (2) h-index data from GS. *5-year JIF* indicates how frequently articles published in the 5 years previous to a study year are cited divided by the number of citable articles in a given year. The analysis uses each journal's 2008 5-year JIF and covers publication years 2003-2007. ISI's Journal Citation Reports has data on 45 journals in Communication and 7 of the 8 articles in Bunz are indexed (*Communication Education* is no longer indexed) in ISI for fair comparison. Using the same 5-year window, each journal's h-index was computed using publish or perish software (Harzing & van der Wal, 2008). The h-index uses multiple citations to a journal, including books, convention papers and book chapters while JIF uses references only in ISI-indexed journals. Also, GS does not use the number of articles in the denominator in its computation and is thus a measure of outright impact. Results indicate the 7 Bunz articles did not yield higher mean impact values compared to 38 other Communication journals using either measure of impact. Cohen's *d* (Cohen, 1988) comparing the two groups indicates a value of 0.20 ($p = 0.63$) for 5-year JIF and $d = 0.09$ ($p = .83$) for *h*-index.

A recent statistic called journal relatedness (JR; Pudovkin & Garfield, 2002) could also be used to determine what journals are "core" to communication. JR uses reference sections of journals to measure the strength of connection between journals. Feeley (2008) determined that *Communication Research* and *Journal of Communication* are *cited* most often in Communication and *Communication Monographs* and *Human Communication Research* cites Communication journals with the greatest frequency. This method is an alternative method of journal inclusion for ranking authors compared to simply using past precedent or using journals published by national associations.

In conclusion, it is argued that current methods of ranking prolific scholarship fail to provide diagnostic information on normative publishing in Communication and do not yield useful information for tenure and promotion committees. Future lists should rely on available bibliometric advances and provide sound rationale for the sample of authors, list of journals included and length of time for publication data. In addition the utility of such prolific authors' lists should be patently clear to its readers.

It is recommended that the size of the prolific authors' pond be expanded either in size or selectivity. A big pond can indicate more fish to swim with or it can indicate the elite stock of fish that populate the pond. Inclusion of all journals would expand the size of the pond and counting publications in top or core journals would provide a list of exceptional authors in Communication and serve as a proxy factor for quality.

Note

1. Feeley (2008) lists *HCR, Personal Relationships (PR), JOC*, and *CR* as top five journals in terms of journal impact. However PR is specific to area of study and a decision was made to use more general communication journals that theoretically all scholars could submit their manuscripts.

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Table 1

Author Impact of Prolific Authors: 2002-2006

Author	*# Articles*[a]	*# Top*[b]	*ISI h*[c]	*GS h*[d]
Benoit, W.	29	9	4	6
Levine, T.	22	6	5	7
Behnke, R.	19	0	0	5
McCroskey, J.	19	0	0	10
Myers, S.	16	0	1	9
Schrodt, P.	16	1	3	10
Sawyer, C.	15	0	0	4
Holbert, L.	14	6	9	12
Richmond, V.	14	0	0	9
Hansen, G.	13	2	5	7
Hasian, M.	13	0	1	4
Martin, M.	13	0	2	7
Shah, D.	13	7	10	15
Chory, R.	11	0	3	7
Slater, M.	11	7	11	15
Eveland, W.	10	6	11	13
Gunn, J.	11	1	2	7
Hunt, S.	10	1	2	5
Mottet, T.	10	0	0	8

Table 1 continued

Author Impact of Prolific Authors: 2002-2006

Author	*# Articles*[a]	*# Top*[b]	*ISI h*[c]	*GS h*[d]
Olson, L.	10	1	3	5
Park, HS.	10	2	6	6
Stephenson, M.	10	6	9	12
Turman, P.	10	0	0	7
Allen, M.	9	1	3	10
Bevan, J.	9	0	2	6
Harwood, J.	9	2	6	14
Hullett, C.	9	4	4	4
Knobloch, S.	9	8	7	9
Kwak, N.	9	6	9	9
Weber, K.	9	0	1	5

Note: a = number of articles as per Hickson et al. (2009) from 2002-2006; b = number of articles published in *HCR, CR*, and *JOC* from 2002-2006; c = h-index in ISI for years 2002-2006; d = h-index in GS from 2002-2006.

Table 2

Results from Linear Regression Predicting h-index Values

Predictor	Google Scholar h-index	ISI h-index
# Articles 02-06[a]	.11	-.12
# Top articles 02-06[b]	.59**	.92**
F (2, 27)	7.53**	66.92**
R^2	.36	.82

Note: Standardize beta coefficients reported; **p < .001; a = # articles as reported by Hickson et al. (2009); b = # articles in *JOC, HCR, CR*.