

A R T I C L E S

Scholarly Impact Revisited

by Herman Aguinis, Isabel Suárez-González, Gustavo Lannelongue, and Harry Joo

Executive Overview

Scholarly impact is one of the strongest currencies in the Academy and has traditionally been equated with number of citations—be it for individuals, articles, departments, universities, journals, or entire fields. Adopting an alternative definition and measure, we use number of pages as indexed by Google to assess scholarly impact on stakeholders outside the Academy. Based on a sample including 384 of the 550 most highly cited management scholars in the past three decades, results show that scholarly impact is a multidimensional construct and that the impact of scholarly research on internal stakeholders (i.e., other members of the Academy) cannot be equated with impact on external stakeholders (i.e., those outside the Academy). We illustrate these results with tables showing important changes in the rank ordering of individuals based on whether we operationalize impact considering internal stakeholders (i.e., number of citations) or external stakeholders (i.e., number of non-.edu Web pages). Also, we provide tables listing the most influential scholars inside the Academy who also have an important impact outside the Academy. We discuss implications for empirical research, theory development, and practice regarding the meaning and measurement of scholarly impact.

Each August, we come to talk to each other [at the Academy of Management's annual meetings]; during the rest of the year we read each other's papers in our journals and write our own papers so that we may, in turn, have an audience the following August: an incestuous, closed loop.

Donald C. Hambrick, former Academy of Management president (1994, p. 13)

Some publishing may have become an end in itself. Including the impact of research in the social, economic, and cultural spheres beyond academia is an important corrective to this displacement of goals.

Andrew M. Pettigrew, former British Academy of Management president (2011, p. 348)

Who are the scholars with the greatest impact in the field of management? Which management departments around the world have the greatest impact based on the aggregated research output of their members? What is the relative impact of individual articles, as well as entire journals, in the field of management? Management scholars are very interested in providing answers to these questions because performance management systems in universities (Aguinis, 2013) and the allocation of resources and rewards to individuals and also departments are determined, at least in part, by the impact of their scholarly work (Gomez-Mejia & Balkin, 1992; Higher Education Funding Council of England

* **Herman Aguinis** (haguinis@indiana.edu) is the Dean's Research Professor, a Professor of Organizational Behavior and Human Resources, and the Founding Director of the Institute for Global Organizational Effectiveness in the Kelley School of Business, Indiana University.

Isabel Suárez-González (isuares@usal.es) is a Professor of Management at the Universidad de Salamanca, Salamanca, Spain.

Gustavo Lannelongue (lannelongue@usal.es) is an Assistant Professor of Management at the Universidad de Salamanca, Salamanca, Spain.

Harry Joo (yoojoo@indiana.edu) is a doctoral student in Organizational Behavior and Human Resource Management in the Kelley School of Business, Indiana University

[HEFCE], 2011). For example, the *Academy of Management Review* bestows its best-article-of-the-decade award to the article with the greatest relative impact (Crossan, Maurer, & White, 2011), and many universities classify journals in terms of their relative impact (Blackburn & Mitchell, 1981; van Fleet, McWilliams, & Siegel, 2000).

Because of the importance of the topic, numerous articles have been published in the past few years addressing the impact of our scholarly work. For example, Podsakoff, MacKenzie, Podsakoff, and Bachrach (2008) produced a ranking of researchers based on their relative impact. Judge, Colbert, Cable, and Rynes (2007) analyzed the factors that predict an article's impact. Partington and Jenkins (2007) provided an inductively based framework for understanding why certain articles have more impact than others. Leung (2007) provided an incisive analysis of scholarly impact from an international—and particularly East Asian—perspective. Aguinis, Dalton, Bosco, Pierce, and Dalton (2011) assessed whether meta-analyses that focus on theory building have more impact than meta-analyses that focus on theory testing. And Molina-Azorin (2012) examined whether certain methodological approaches have more impact than others. In addition, journal editors continually monitor and report the impact of their journals (e.g., Colquitt, 2011; Cortina, 2011). Evidently, impact is one of the strongest currencies in the Academy.

On the surface, it would seem that the voluminous body of work on the impact of our research is quite diverse and heterogeneous. Some studies have produced rankings of scholars (e.g., Podsakoff et al., 2008). Others have investigated factors likely to affect the impact of individual articles (e.g., Aguinis et al., 2011; Judge et al., 2007). Some researchers have focused on the individual level of analysis (i.e., individual article or individual researcher), whereas others have addressed the department, university, or even field level of analysis (e.g., Certo, Sirmon, & Brymer, 2010). For example, Lockett and McWilliams (2005) examined the relative impact of various fields on one another and concluded that the field of management, as a whole, runs a significant trade deficit with economics, psychology, and sociology. Also

focusing on the relative impact of various fields, Bedeian (2005) argued that it is actually healthy for management to run at a deficit, and the fact that economics does not import as many citations from other fields “may account for what some allege is the parochial nature of the economics literature (reflected in a low level of interdisciplinary knowledge building) as well as an insular pattern of auto-erotic self-referencing (reflected in a high level of intradisciplinary citations)” (p. 154). Finally, some studies on scholarly impact have used quantitative methods (e.g., Podsakoff et al., 2008), whereas others have adopted a qualitative approach (e.g., Leung, 2007).

Yet despite the seeming heterogeneity of this research, this entire body of work has one important defining feature in common: the definition of *impact*. These and many other articles have defined *impact* using the same conceptual and operational definition: number of citations. More precisely, scholarly impact is consistently and uniformly assessed by counting the number of times a particular article, articles in a particular journal, an individual's entire body of work, the body of work of the faculty in a department or university, or the body of work produced by an entire field of study has been cited in scholarly publications. In other words, all of these measures of *impact* rely on whether other academics cite the article(s) in question in their own scholarly work. Paraphrasing Hambrick's quote included at the beginning of our article, the way we currently assess the impact of our scholarly work seems to be based on an incestuous, closed loop.

Many have expressed concern about a science-practice divide in the field of management (e.g., Aguinis, Werner, Abbott, Angert, Park, & Kohlhansen, 2010; Bansal, Bertels, Ewart, MacConnachie, & O'Brien, 2012). Specifically, there is concern that the research produced by management scholars does not reach beyond the Academy and may not have substantive impact on stakeholders outside the field, including management and business students, managers, organizations, and society in general (Cascio & Aguinis, 2008; Rynes, Giluk, & Brown, 2007). So could it be that researchers who are ranked highly in terms of their impact on other academics, as assessed by

citations, do not enjoy a similarly high degree of impact on stakeholders outside the Academy?

To answer this question we need to find a way to assess the impact of our scholarly work beyond the Academy, thus addressing Hambrick's call to break out of the closed loop. We do so by using a novel approach to assessing impact: Instead of using number of citations we use number of pages on the Web, as indexed by Google, thus assessing impact outside the Academy at a much broader societal level. The number of citations, as used in past research, and the number of Web pages as indexed by Google, as we use in our study, are similar in that both are general measures of impact. Both are based on a simple count, easy to understand intuitively, and unidimensional. The big difference, however, is that number of citations refers to the impact on a single stakeholder audience: academics—those writing academic publications. In contrast, the number of pages on the Web captures the impact on stakeholders inside and outside the Academy—not only academics but also the media, public and private firms, governments, and nonprofit organizations, among others.

Considering additional similarities between these two measures of impact, the number of citations is a general and broad measure and does not provide information regarding why a source has been cited. It may be that an article is cited as exemplary research or as an example of the opposite—a poorly designed study. It could be that an article is cited in passing in support of the importance and legitimacy of a particular research topic. Or, in contrast, an article may be analyzed and discussed in detail to generate important follow-up questions. In other words, the number of citations is a general measure that is not informative about the type of impact or reason for such impact (Kacmar & Whitfield, 2000).

Similarly, the number of pages indexed by Google is a general measure of impact that does not include information about the type of impact or reason for the impact (Barjak, Li, & Thelwall, 2007). For example, a researcher may be mentioned on the Web because her work has been received positively or negatively by the media. Or a researcher may be mentioned because he has

participated as an expert witness in a high-profile U.S. Supreme Court case, in an online executive education program, or in a consulting project. Or it could be that a researcher has an important online presence because he has given an interview to a newspaper, or a blogger has decided to write about a popular-press book he has written. Just like number of citations, number of pages on the Web is a measure of impact regardless of the reason that a researcher is mentioned. Also, just as number of citations is an indicator of the level of impact on inside stakeholders (i.e., members of the Academy), having very few entries on Google means that outside stakeholders (i.e., people outside of the Academy) are not paying much attention (Thelwall & Sud, 2011).

Next, we describe the sample and measures we used to gather information on impact from the perspective of both internal and external stakeholders. We also describe several types of evidence regarding the validity of our measures. We also report results pointing to the conclusion that scholarly impact is a multidimensional construct and that the impact of our scholarly research on internal stakeholders cannot be equated with impact on external stakeholders.

Method

Our targeted population consisted of the 550 management scholars in Podsakoff et al.'s (2008) Table 9, which includes an alphabetical list of the most influential scholars in the field of management based on total number of citations received between 1981 and 2004. Several studies have documented the relative impact of scholars in specific subfields, including international business (e.g., Chan, Fung, & Leung, 2009; Morrison & Inkpen, 1991), strategic management (e.g., Furrer, Thomas, & Goussevskaia, 2008), and entrepreneurship (e.g., Shane, 1997). In contrast, Podsakoff et al. (2008) provided a list of the most impactful scholars in the entire field, focusing on citations received by each author based on articles published in 30 journals between January 1, 1981, and June 30, 2004—making their list the most comprehensive and also the most current. As we describe next, our final sample included 384 from the population of 550 for whom we were able to

obtain information regarding total number of Google entries on .edu and non-.edu domains (as indexed by Google's search engine) and total number of citations (as indexed by Web of Science).

Impact Outside the Academy: Google Entries

The process of collecting data for our study using Google involved five steps and decision points to ensure the construct validity of our measure of impact outside the Academy. Our methodology followed best-practice recommendations derived from the field of information science and technology, specifically a subfield of study called webometric research (Thelwall & Sud, 2011).

First, for each of the 550 targeted scholars, we used the full and complete name in quotation marks as the search term. For example, the first 10 of the 550 names are, in alphabetical order, "Eric Abrahamson," "Phillip L. Ackerman," "Paul S. Adler," "Herman Aguinis," "Gautman Ahuja," "Icek Ajzen," "Ralph A. Alexander," "Natalie J. Allen," "Mats Avelsson," and "Terry L. Amburgey." Based on the first few searches, we learned that using full names in quotation marks avoided finding pages that may not relate to a particular researcher. In other words, using names without quotations, or without the middle initial, leads to potential measurement contamination in our results (i.e., false positives). For example, using Eric Abrahamson instead of "Eric Abrahamson" would lead to the inclusion of pages mentioning "Eric Olger" and "David Abrahamson," and consequently Eric Abrahamson would be credited additional entries spuriously.

Second, to gather evidence regarding the validity of our measure, we compared results based on google.com (the American version of Google) with google.es (the Spanish version of Google). Consistency in results would provide evidence regarding convergent validity. Reassuringly, we found that the total number of pages was identical regardless of the specific version of Google used. However, although irrelevant for the goals of our study, we found that the order in which the entries are listed did vary; for example, pages in Spanish were listed earlier using google.es than google.com. Given the interchangeability of re-

sults regarding total number of entries, we chose to collect our data using google.com.

Third, the information science and technology literature suggests that the most important threat to the validity of results based on webometric research is the presence of spurious matches (Thelwall & Sud, 2011). Specifically related to our study, Google may return results that should not be credited to the specific author in question. Accordingly, after searching for each name in quotation marks, we manually inspected the first 50 pages returned for each individual to ascertain whether any of these pages were the result of measurement contamination (i.e., a page that did not refer to the scholar in question—a false positive). For example, we found that there are many individuals with the exact same first and last name as "Eric Abrahamson," and many of them are referred to on many sites on the Web. There are too many idiosyncratic and likely non-replicable judgment calls involved in confidently ascertaining whether a particular Web page for an author with a common first and last name refers to the particular author we were looking for or to another person. Thus, we used the criterion of 5% of spurious entries to exclude authors. In other words, if our search led to three or more spurious entries (i.e., pages falsely attributed to the author in question) in the first 50 pages, that author was excluded from our database. Although this decision meant that we were not able to gather information on all 550 authors, it minimized spurious results and maximized the integrity of our data, which would have been contaminated had we included entries that did not refer to a particular author. Using this process led to a sample of 391 of the 550 authors included in the targeted population.

Fourth, the indexing system used by Google, which is called Caffeine, constantly updates the URL index, and it is designed to return pages in order of relevance. Google provides the total number of pages resulting from any given search, and we used these totals in our analyses to assess each author's impact beyond the Academy. Note that the number of pages returned by Google may fluctuate given that the search procedure prioritizes speed over precise accuracy (Cronin, Snyder,

Rosenbaum, Martinson, & Callahan, 1998; Webmaster tools help, 2012). To use a more stable estimate of the total number of Google entries for each author, we quadrupled our data-gathering efforts and collected data over four separate and independent occasions. Specifically, we repeated our data collection for each of the scholars four times during November 2011.

Finally, an important aspect of our data collection efforts is that we distinguished between .edu and non-.edu pages. This is an important distinction because .edu pages reside on servers that belong to academic institutions; pages without the .edu domain likely reside on non-academic servers. Thus, a comparison of their numbers is particularly useful for understanding impact inside and outside the Academy.

Impact Inside the Academy: Citations

We used the Web of Science database to obtain the total number of times each author was cited from January 1981 through October 2011. We replicated Podsakoff et al.'s methodology and considered the total number of citations for each author's publications classified as articles, notes, or reviews published since 1981. However, a difference between Podsakoff et al. (2008) and our study is that we did not restrict citations to those articles published in particular journals. Rather, because we wanted to assess the broadest possible impact of each of these influential scholars, not just their impact based on a subset of journals, we obtained the total number of citations received by each author regardless of the specific journal in which the cited article was published. Note that our more inclusive assessment of citations led to the consideration of articles published in journals that were excluded from Podsakoff et al.'s analysis, such as *Research in Organizational Behavior*, *Academy of Management Perspectives*, and *Organization Studies*.

As described by Podsakoff et al. (2008), using Web of Science to conduct searches based on author names poses some challenges; the most important is that Web of Science allows searches of last names but only initials of first and middle names. This may lead to potential false positives, which both in our study and in Podsakoff et al.'s

consist of possibly attributing citations to an author when some of these citations may refer to a different author(s) with the same last name and first and middle initials. We implemented several steps to minimize the impact of this potential threat to the validity of our results. First, many of the authors included in our targeted population have a MyResearcherID number, which is a unique identifier created by Web of Science precisely to avoid spurious results. Thus, when available, we used this tool to identify the publications authored by those specific scholars.

Second, for each remaining author, we examined the actual full-text publications when available to confirm a match with the intended author's affiliation (i.e., department and university) as well as research domains (e.g., organizational studies versus physics, chemistry, and other unrelated fields). We considered the fact that some authors have changed affiliations over the years. In some cases, it was not possible to separate publications authored by different people with the same last name and first and middle initials. In the end, we were unable to clearly distinguish seven of the 391 targeted authors from others with the same name. To avoid possible upward bias in the total number of citations for these seven authors, we eliminated them from our sample. These individuals are Ming-Jer Chen, Jerald Greenberg, Ranjay Gulati, Rabindra Kanungo, Yadong Luo, Kok Yee Ng, and Stephen G. West. Thus, our final sample size of authors for whom we had information on both number of Google entries and number of citations was 384.

Another challenge involved in using Web of Science to gather information on number of citations is that some authors used different names in different articles. For example, some authors used both a first and a middle name in some sources but only their first name in others. In addition, some authors used a hyphenated last name in some articles and not in others, and some authors used a totally different last name across sources (this was the case for some female authors who used their maiden name in some publications and later their married name in others). To minimize this threat to the validity of our results, we conducted searches using all possible name variations for

each author to ensure that our authors matched the ones included in Podsakoff et al.'s Table 9.

Control Variables: Number of Years Since Receiving Doctorate and Number of Articles

Our analyses included two control variables that past research suggests are related to our focal dependent variables (i.e., number of citations and number of Google entries). First, we collected information regarding number of years since each author received his or her doctoral degree. We were able to obtain this information from Podsakoff et al.'s Table 9. Note that this information was available for 377 of the 384 authors for whom we had information on Google entries and citations. Second, we used Web of Science to gather information on number of publications authored by each scholar. As noted earlier, this includes the total number of articles, notes, and reviews published from January 1981 through October 2011.

Results

In this section, we first describe evidence in support of the reliability and validity of our measures. Then, we report substantive results regarding the prediction of .edu and non-.edu Google entries using number of years since receiving a doctorate, number of publications, and number of citations as predictors. We also report results of a constructive replication study in which we used h-index scores instead of total number of citations as a predictor. Finally, we describe results regarding the potential moderating effects of number of years since earning a doctorate, field of study (i.e., business policy and strategy, organizational behavior, organization and management theory, and human resource management), and Academy of Management membership (i.e., yes versus no) on the ability of citations to predict .edu and non-.edu entries.

Reliability and Validity Evidence

As evidence regarding the reliability of number of Google pages, we computed test-retest reliability coefficients between all pairs involving our four waves of data collection for total Google entries (i.e., non-.edu and .edu domains combined) and for entries on non-.edu and .edu domains sepa-

rately. Given that we collected Google data over four different occasions, we computed $k(k - 1)/2 = 6$ unique test-retest reliability coefficients (where $k = 4$, which is the number of data collection waves). For the total number of Google entries, the mean test-retest reliability based on the six coefficients was .9932 (SD = .0039). For non-.edu domains, the mean test-retest reliability based on the six coefficients was .9925 (SD = .0043). Finally, for .edu domains, the mean test-retest reliability based on the six coefficients was 1.0 (SD = 0). In short, this reliability evidence regarding the stability of Google entries over time provides justification for computing an average based on the total number of Google entries across the four data collection waves, and we used such averages in all of our substantive analyses.

Descriptive information on our sample of 384 scholars indicates that the mean number of citations is 2,302.73 (median = 1,748.50, SD = 1,882.05) and the mean number of Google entries is 191,496.61 (median = 74,837.50, SD = 339,684.84). Regarding Google pages, the mean number of .edu entries is 4,427.58 (median = 1,805.00, SD = 11,091.83), and the mean number of non-.edu entries is 187,069.03 (median = 71,931.25, SD = 333,038.40). Regarding the two control variables, the mean number of articles published is 35.69 (median = 31, SD = 25.59), and the mean year when authors received their doctorates is 1982 (median = 1983, SD = 9.88).

Table 1 includes correlations between our focal variables. As would be expected, the correlation between total number of articles and total number of citations is high (.503), meaning that there is an overlap of 25% in the variance between these two variables. This finding replicates previous results showing that although quantity of articles matters in terms of number of citations, it is far from being a perfect predictor (Simonton, 1997). Thus, the congruence between this result and past research provides additional evidence in support of the construct validity of our measures. Also as expected, our second control variable, number of years since earning a doctorate, is correlated with number of citations (.256).

Table 1
Correlations Between Study Variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5
.edu entries	4,427.582	11,091.829	—				
non-.edu entries	187,069.031	333,038.403	.589	—			
Google entries (.edu and non-.edu combined)	191,496.613	339,684.844	.610	1.000	—		
Citations	2,302.730	1,882.045	.378	.166	.175	—	
Articles	35.690	25.585	.260	.152	.158	.503	—
Years since doctorate earned	28.290	9.884	.264	.205	.209	.256	.223

Note: All correlations are statistically significant at the .01 level. $N = 377$ for statistics involving years since doctorate earned; $N = 384$ for statistics not involving years since doctorate earned.

Results in Table 1 also show a positive relationship between total number of citations and total number of entries on .edu domains: $r(382) = .378$, $p < .001$, which implies that total number of citations explains 14.29% of variance in number of .edu Google entries. We expected a positive correlation between these two variables because, similar to number of citations, number of pages residing on .edu domains indicates whether other academics and academic institutions in general are paying attention to someone's research. This positive correlation coefficient also provides evidence regarding the validity of our Google measure of impact (i.e., convergent validity evidence).

Finally, we conducted additional analyses to gain a deeper understanding of the measure of impact outside the Academy. Specifically, Google provides a breakdown of the entries based on relevant categories: (a) images, (b) videos, (c) news, (d) shopping, (e) books, and (f) blogs. We collected data for each of the 384 individuals in our sample broken down into these categories. We used these data to conduct an exploratory factor analysis following best-practice recommendations offered by Hayton, Allen, and Scarpello (2004) and Conway and Huffcutt (2003) to understand possible underlying dimensions. Our approach involved a principal axis factor analysis with oblimin rotation to allow factors to be intercorrelated. The break in the scree plot, extracted eigenvalues, factor loadings, cross-factor loadings, and percentage of variance explained by the factors all suggested a two-factor solution as follows (factor loadings are in parenthesis): (a) images (.92), shopping (.60), and books (.66); and (b) videos (.96), news (.67), and blogs (.68). Moreover, these

two factors are correlated with each other (i.e., $r = .38$, $p < .05$).

Factor 1 seems to relate to publications and activities outside the Academy—for example, the publication of popular-press books. Factor 2 seems to relate to the extent to which the media and other stakeholders outside the Academy are paying attention. As expected, a correlation of .38 between the two factors suggests that reaching out to audiences outside the Academy is related to the attention received from the media and other external stakeholders. In sum, these results indicate that the number of Google entries is related to scholars' outreach activities outside the Academy as well as the effect of such activities (i.e., the extent to which outside stakeholders pay attention to such activities). Thus, these results confirm that number of Google entries is an indicator of impact outside the Academy.

Predicting Number of Citations Based on .edu and Non-.edu Entries

The correlation between total number of citations and total number of pages residing on non-.edu domains is $r(382) = .166$, $p < .001$, which implies that the total number of citations explains only 2.76% of variance in non-.edu Google entries. Moreover, a test of dependent correlations comparing the relationship between total number of citations and .edu entries versus the relationship between total number of citations and non-.edu entries indicated that these correlations do indeed differ: $z(N = 384) = 4.34$, $p < .001$. In other words, the explanatory power of total number of citations is much smaller when predicting non-

.edu (2.76% of variance explained) versus .edu (14.29% of variance explained) Google entries.

We conducted more in-depth multiple regression analyses to gain a better understanding of the relationships among Google entries (.edu and non-.edu domains), number of articles, number of years since doctorate, and number of citations. Our goal with these analyses was to understand the relative fit of a model predicting number of entries on non-.edu pages compared to a model predicting number of entries on .edu pages based on the same predictors (i.e., number of articles, number of years since doctorate, and number of citations).

Table 2 summarizes multiple regression analysis results predicting number of .edu entries. In Model 1, we first entered the two control variables: number of years since doctorate earned and number of articles. In Model 2, we added a third predictor: number of citations. As shown in Table 2, both predictors (i.e., control variables) in Model 1 are related to number of .edu entries and, combined, explain 11% of variance. In Model 2, adding number of citations as a third predictor results in an additional 7% of variance explained above and beyond that predicted by the control variables in Model 1 (i.e., $\Delta F [1, 372] = 29.00, p < .001$).

Table 3 summarizes multiple regression analysis results predicting number of non-.edu entries using the same three predictors and in the same order as we did previously regarding the prediction of .edu entries. Results summarized in Table 3 are quite different from those in Table 2 in that the fit of the models is substantially worse. Specifically, total variance explained in non-.edu pages by all three predictors is only 5.8% (versus 18% in the previous model), and the variance explained by citations above and beyond the control variables is not statistically significant and only .5% in magnitude (versus 7% and $p < .001$ in the previous model). As expected based on these results, Table 3 shows that the regression coefficient for number of citations is not statistically significant for predicting number of non-.edu entries.

Constructive Replication Study Using h-index Scores

As an additional check regarding the robustness of our results, we redid all regression analysis using

h-index scores instead of total citations, thereby replicating analyses reported in Tables 2 and 3. Specifically, we gathered data regarding the h-index (see also Harzing & van der Wal, 2009; Hirsch, 2005) as reported by Web of Science. As noted by Hirsch (2005), after whom the h-index is named, a scholar with an index of h has published h articles, each of which has been cited at least h times. Thus, the h-index takes into account both quality and quantity of publications.

Reassuringly, substantive conclusions remained unchanged. For example, the correlation between h-index scores and number of Google entries on .edu domains is .31, whereas the correlation between h-index scores and number of Google entries on non-.edu domains is .17. The difference between these correlations is statistically significant, $z = 1.99, p < .05$. In other words, results based on our constructive replication study using h-index instead of total number of citations continue to indicate that impact inside the Academy cannot be equated with impact outside the Academy. Note that the consistency in results based on different citation-based metrics is not surprising. Specifically, the regression analysis reported in Tables 2 and 3 used number of articles as a control variable; therefore, our analyses did take into account the number of papers the individuals have published. Given the convergence in the results, we focus on total citations because doing so allows our results to be directly comparable to those reported by Podsakoff et al. (2008), who also used total citations. In other words, Podsakoff et al.'s rankings are based on total citations (and so are our Tables 4 through 6, described below).

Examination of Potential Moderating Effects

We examined whether there is a stronger relationship between citations and non-.edu pages for more junior scholars compared to more senior ones. This type of analysis is informative regarding the possibility that the relationship between impact inside and outside the Academy is stronger for junior than for senior scholars—perhaps suggesting a narrowing of the science–practice gap. To do so, we used non-.edu pages as the criterion variable and the same three predictors as in the previous analyses: number of articles, number of

Table 2
Multiple Regression Analysis Predicting Number of Google Entries Residing on .edu Domains

Model	1			2		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
Intercept	-5,780.41	1,708.80		-6,258.44	1,650.60	
Years since doctorate earned	246.33	56.58	.22	195.31	55.39	.17
Number of articles	91.25	21.90	.21	31.31 <i>n.s.</i>	23.87	.07 <i>n.s.</i>
Number of citations				1.76	.33	.30
R^2	.11			.18		
ΔR^2				.07		
<i>F</i> Change (ΔF)	23.38**			29.00**		

Note: $N = 377$, b = unstandardized regression coefficient, SE = standard error, β = standardized regression coefficient, ** $p < .01$. All regression coefficients, R^2 -values, and F statistics are statistically significant at the .001 level, except for the one denoted as *n.s.* (i.e., $p > .05$).

Table 3
Multiple Regression Analysis Predicting Number of Google Entries Residing on Non-.edu Domains

Model	1			2		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
Intercept	-34,054.38	52,926.93		-38,179.12	52,925.82	
Years since doctorate earned	6,142.74**	1,752.38**	.18**	5,702.48**	1,775.98**	.17**
Total no. of articles	1,381.98*	678.11*	.11*	864.78	765.41	.07
Total no. of citations				15.14	10.45	.09
R^2	.052			.058		
ΔR^2				.005		
<i>F</i> Change (ΔF)	10.33***			2.10		

Note: $N = 377$, b = unstandardized regression coefficient, SE = standard error, β = standardized regression coefficient, * $p < .05$, ** $p < .01$, *** $p < .001$.

years since doctorate, and number of citations. Then, as a second step in the analysis, we added the product term between number of years since doctorate and number of citations, which carries information regarding the potential moderating effect of years since doctorate on the relationship between number of citations and number of non-.edu pages (Aguinis, 2004). Results indicated that the model with the first-order effects explained 5.8% of variance (as we described based on results shown in Table 3), and the addition of the product term did not improve the fit of the model in terms of explaining additional variance in the number of non-.edu pages, $\Delta R^2 = .00$, $F(1, 372) = .001$, $p = .98$. In short, the relationship between number of citations and number of non-.edu pages does not differ based on the year when scholars received their doctorates.

We collected additional data and implemented additional analyses to understand whether impact is related to field of study. To do so, we manually searched each of the 384 individuals in our database in the Academy of Management (AOM) membership directory and recorded each person's membership by focusing on the AOM's four largest divisions as of February 2012: Organizational Behavior (OB, 5,835 members), Business Policy and Strategy (BPS, 4,801 members), Organization and Management Theory (OMT, 3,735 members), and Human Resource Management (HRM, 3,384 members). Also, when appropriate, we recorded whether a particular individual was not an AOM member at all. This categorization allowed us to investigate whether the impact inside or outside the Academy varies based on an individual's primary domain/field. We conducted

ANOVAs with number of citations and Google entries (both .edu and non-.edu domains) as the dependent variables and division membership as the independent variable. To do so, we created dummy-code variables to represent membership (yes or no) in each of the four aforementioned AOM divisions and membership in AOM in general, for five dummy variables. Results based on eight separate tests regarding AOM division membership (i.e., two dependent variables and four independent variables) indicated no statistically significant differences. Also, we conducted an additional ANOVA with number of citations as the dependent variable and AOM membership (i.e., AOM member yes versus AOM member no) as the independent variable and also found a statistically nonsignificant result. As a 10th test, an ANOVA with number of Google entries as the dependent variable and AOM membership (i.e., AOM member yes versus AOM member no) as the independent variable yielded an F statistic that barely surpassed the .05 statistical significance cutoff, $F(1, 382) = 4.83, p = .03$. Given 10 tests and a .05 type I error rate, we expected that .5 tests (i.e., $10 \times .05$) would be statistically significant by chance alone (i.e., a false positive). Thus, given that only one of 10 tests was statistically significant, and with a borderline p -value of .03, we are hesitant to attribute a substantive meaning to this result, particularly in light of the additional statistically nonsignificant results we describe next.

Finally, as an additional set of analyses, we replicated all regression models reported in Tables 2 and 3, adding an additional last step in the models including the product term between AOM membership and number of citations. A statistically significant product term would suggest that AOM membership moderates the relationship between impact inside (i.e., citations) and outside (i.e., Google entries) the Academy (Aguinis, 2004). All such moderating effect tests were statistically nonsignificant. In sum, based on new data and analysis, the conclusion is that field of study does not seem to matter in terms of impact, at least based on a distinction based on AOM division membership (i.e., OB, BPS, OMT, and

HRM) and AOM membership in general (i.e., yes versus no).

Discussion

It is no exaggeration to state that the field of management is obsessed with the assessment of the impact of our scholarly work (Adler & Harzing, 2009). Numerous articles have been written on the relative impact of individual scholars, individual articles, departments, universities, and even entire fields. Moreover, the quality of scholarly journals is often judged on their relative impact. Also, rankings as well as tangible and intangible rewards are often distributed to individual scholars and even departments based on such impact-based analyses. Despite the apparent diversity of such analyses of impact and a substantial body of research on these issues, the common denominator is their reliance on number of citations. The operational definition of impact is uniformly narrow and deficient from a psychometric perspective because an examination of citations focuses exclusively on the impact of our research on other academics.

Using stakeholder theory as a theoretical backdrop (Freeman, 1984), the field of management seems to be primarily concerned with the impact of our scholarly work on internal stakeholders (i.e., other members of the Academy). We are not aware of published research attempting to assess the impact of the scholarly work produced by individual scholars on external stakeholders (i.e., those outside the Academy). The lack of research regarding this issue has been noticed by the Academy of Management as a whole. Specifically, one of the four strategic intent statements refers to “professional impact: The Academy of Management encourages our members to make a positive difference in the world by supporting scholarship that matters” (Academy of Management Strategic Plan, 2012). Given this strategic intent statement, strategic objectives are to “Define professional impact and for whom” and “engage our colleagues and relevant stakeholders in a reflexive consideration and conversation about the meaning of professional impact” (Academy of Management Strategic Plan, 2012). Our study is what seems to be the first attempt to do just that.

Our results demonstrate that scholarly impact is a multidimensional construct. Stated differently, there are different types of “scholarly impact.” Specifically, the impact of our scholarly research on internal stakeholders cannot be equated with impact on external stakeholders. Results of our multiple regression analysis summarized in Table 3 indicate that number of citations is not related to number of non-.edu entries after controlling for number of years since receiving a doctorate and total number of articles. By contrast, multiple regression analyses summarized in Table 2 suggest that number of citations is related to number of .edu pages. In other words, these results suggest that number of citations and number of .edu entries are both indicators of impact on inside stakeholders—the extent to which other researchers and academic institutions, which host .edu pages, are paying attention to the work produced by particular scholars. In contrast, number of non-.edu entries, which reflects the extent to which stakeholders from outside the Academy are paying attention to particular scholars, is an indicator of a different and broader type of impact. Our constructive replication study, using h-index scores instead of total number of citations, led to the same substantive conclusion. In addition, we found that number of years since earning a doctorate, field of study, and AOM membership status did not serve as moderators of the relationship between impact inside and outside of the Academy.

Podsakoff et al. (2008) provided a ranking of “the research scholars who have had the greatest impact on the field of management during the past quarter century” (p. 641). In light of our results, we reinterpret those rankings as being produced from the perspective of inside stakeholders only because they were based on number of citations. Results we have described thus far based on correlations and regression analyses, as well as the relative size of effects, demonstrate that impact inside the Academy should not be equated with impact outside the Academy.

Next, we offer another, and possibly even more compelling, way of describing our results.

Table 4 includes the list of the 384 scholars included in our study. These scholars are ranked based on both number of citations and number of non-.edu entries. This table shows important changes in the rank ordering of individuals based on whether we operationalize impact considering internal stakeholders (i.e., number of citations) or external stakeholders (i.e., number of non-.edu web pages). On average, there is a difference of 100.32 ranks between the lists based on citations and non-.edu entries. Moreover, there are 19 scholars for whom there is a difference of more than 200 ranks across the two lists. For example, Viswanath Venkatesh is ranked 27th based on citations (93rd percentile) but 308th (20th percentile) based on non-.edu pages, Icek Ajzen is ranked third based on citations (99th percentile) but 273rd (28th percentile) based on non-.edu pages, and Bruce M. Kogut is ranked eighth in citations (98th percentile) but 267th (30th percentile) based on non-.edu pages. Using these individuals as examples, we see that a high rank based on citations can be associated with a much lower rank based on non-.edu pages.

As noted by an *Academy of Management Perspectives* anonymous reviewer, these results “should give administrators pause.” Please note that it is not our intention to single out specific scholars or derive any negative connotations from these results—after all, the 384 individuals included in our study are some of the most cited researchers in the entire field of management in the past 30 years or so, and we admire and celebrate this accomplishment. However, we believe these specific examples provide vivid illustrations that rankings based on impact on inside stakeholders are quite different from rankings based on impact on stakeholders outside the Academy.

Our data allow us to answer yet another interesting question: Who are the most influential scholars inside the Academy who also have an important impact outside the Academy? We used Table 4 as a starting point and selected those who are in the top 100 in both number of citations and number of non-.edu entries. The resulting set of 40 individuals is included in

Table 4
Ranking of Influential Scholars in the Field of Management Based on Number of Citations and Number of Google Pages Residing on Non-.edu Domains

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Albert Bandura	Stanford (emeritus)	1952	1	77	14,918	248,000
Kathleen M. Eisenhardt	Stanford	1982	2	48	12,292	394,398
Icek Ajzen	Massachusetts—Amherst	1969	3	273	10,066	21,523
Philip M. Podsakoff	Indiana—Bloomington	1980	4	179	9,056	82,818
Walter W. Powell	Stanford	1978	5	21	8,909	773,175
Jay B. Barney	Ohio State	1982	6	153	8,833	106,950
Richard P. Bagozzi	Michigan	1976	7	194	8,775	70,708
Bruce M. Kogut	Columbia	1983	8	267	8,637	22,232
David J. Teece	UC—Berkeley	1975	9	81	8,543	234,700
Timothy A. Judge	Notre Dame	1990	10	172	8,316	88,870
Daniel A. Levinthal	Pennsylvania	1985	11	221	7,404	47,335
Scott B. MacKenzie	Indiana—Bloomington	1983	12	190	7,098	74,395
Donald C. Hambrick	Penn State	1979	13	129	7,075	127,995
Michael E. Porter	Harvard	1974	14	22	6,462	725,400
Michael A. Hitt	Texas A&M	1974	15	9	6,376	1,454,925
Wesley M. Cohen	Duke	1981	16	187	6,254	79,223
Edwin A. Locke	Maryland (emeritus)	1964	17	97	6,249	180,480
Frank L. Schmidt	Iowa	1970	18	74	6,245	250,875
Hau L. Lee	Stanford	1983	19	175	6,173	85,403
James G. March	Stanford (emeritus)	1953	20	4	5,996	1,752,350
C. K. Prahalad	Deceased	1975	21	39	5,658	520,375
Wilmar B. Schaufeli	Utrecht (Netherlands)	1988	22	128	5,581	129,016
Birger Wernerfelt	MIT	1977	23	260	5,578	25,770
Charles A. O'Reilly	Stanford	1975	24	26	5,441	653,710
Paul E. Spector	South Florida	1975	25	25	5,386	660,183
Oliver E. Williamson	UC—Berkeley (emeritus)	1963	26	124	5,255	138,843
Viswanath Venkatesh	Arkansas	1997	27	308	5,221	14,030
Sumantra Ghoshal	Deceased	1986	28	170	5,129	91,800
Dennis W. Organ	Indiana—Bloomington (emeritus)	1970	29	155	5,124	104,603
Blake E. Ashforth	Arizona State	1986	30	204	5,062	60,663
Karl E. Weick	Michigan	1962	31	18	5,020	898,515
Rajiv D. Banker	Temple	1980	32	92	5,014	203,018
Susan E. Jackson	Rutgers	1982	33	10	4,980	1,205,200
Sara B. Kiesler	Carnegie Mellon	1965	34	161	4,912	100,195
Ikujiro Nonaka	Hitotsubashi (emeritus) (Japan)	1972	35	49	4,852	388,348
Lawrence R. James	Georgia Tech	1970	36	114	4,674	149,378
Gary P. Pisano	Harvard	1988	37	6	4,667	1,650,463
Jane E. Dutton	Michigan	1983	38	125	4,577	136,743
Richard L. Daft	Vanderbilt	1974	39	85	4,496	213,223
Michael L. Tushman	Harvard	1976	40	34	4,488	602,045
Gary P. Hamel	Strategos*	1990	41	281	4,463	19,586
Wanda J. Orlikowski	MIT	1988	42	78	4,432	241,703
Linda K. Trevino	Penn State	1987	43	176	4,424	85,285
Andrew H. Van de Ven	Minnesota	1972	44	120	4,307	142,224
Michael K. Mount	Iowa	1977	45	268	4,279	21,980
Shaker A. Zahra	Minnesota	1982	46	177	4,224	85,035
Scott A. Shane	Case Western	1992	47	278	4,181	20,742

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Murray R. Barrick	Texas A&M	1988	48	188	4,119	78,040
Gary P. Latham	Toronto (Canada)	1974	49	62	4,028	307,815
Michael A. Hogg	Claremont Graduate*	1983	50	28	4,020	640,443
John E. Mathieu	Connecticut	1985	51	332	3,986	9,274
Udo Zander	Stockholm School of Economics (Sweden)	1991	52	295	3,943	16,771
Robert E. Hoskisson	Rice	1984	53	19	3,936	896,275
Jeffrey H. Dyer	BYU	1993	54	42	3,801	475,698
Robert W. Lent	Maryland	1979	55	111	3,780	152,038
Max H. Bazerman	Harvard	1980	56	1	3,762	2,464,000
Paul R. Warshaw	NA*	1977	57	256	3,717	29,336
Brian Uzzi	Northwestern	1994	58	154	3,681	106,080
Abraham Charnes	Deceased	1947	59	271	3,672	21,856
Bruce J. Avolio	University of Washington	1982	60	41	3,663	502,220
Phillip L. Ackerman	Georgia Tech	1984	61	272	3,622	21,788
Nancy E. Betz	Ohio State	1976	62	189	3,584	75,465
Joel Brockner	Columbia	1977	63	261	3,568	25,755
Glenn R. Carroll	Stanford	1982	64	46	3,549	411,440
Gregory G. Dess	Texas—Dallas	1980	65	27	3,542	643,495
Fritz Drasgow	Illinois	1978	66	218	3,539	49,383
Gerald R. Ferris	Florida State	1982	67	71	3,510	264,688
Robert I. Sutton	Stanford	1984	68	86	3,494	210,088
Barry M. Staw	UC—Berkeley	1972	69	17	3,493	912,733
Arnold B. Bakker	Erasmus (Netherlands)	1995	70	169	3,490	92,384
Robert C. Liden	Illinois—Chicago	1981	71	312	3,490	13,577
Gary L. Wells	Iowa State	1977	72	60	3,471	313,720
Terence R. Mitchell	University of Washington	1969	73	133	3,428	126,193
Jennifer A. Chatman	UC—Berkeley	1988	74	213	3,407	51,652
Natalie J. Allen	Western Ontario (Canada)	1985	75	140	3,380	117,195
Christina Maslach	UC—Berkeley	1971	76	199	3,366	65,088
Deborah J. Terry	Queensland (Australia)	1989	77	90	3,352	207,013
Kim B. Clark	Brigham Young—Idaho	1978	78	84	3,295	220,150
Jeffrey Pfeffer	Stanford	1972	79	69	3,293	268,725
Robert W. Zmud	Oklahoma	1974	80	168	3,285	93,150
Robin M. Hogarth	Universitat Pompeu Fabra (Spain)	1972	81	80	3,268	236,098
Michael R. Frone	SUNY—Buffalo	1991	82	197	3,204	68,253
Arthur P. Brief	Utah	1974	83	112	3,196	151,998
Louise F. Fitzgerald	Illinois (emeritus)	1979	84	219	3,165	48,985
Margaret A. Neale	Stanford	1982	85	193	3,135	71,148
Anne S. Tsui	Arizona State	1981	86	151	3,128	108,325
Erik Brynjolfsson	MIT	1991	87	178	3,128	83,065
P. Christopher Earley	Connecticut	1984	88	99	3,054	175,070
Amy Shuen	China Europe International Business School (CEIBS) (China)	1994	89	76	3,026	250,047
Nitin Nohria	Harvard	1988	90	64	2,983	293,750
Russell Cropanzano	Arizona	1988	91	227	2,981	42,383
Paul R. Sackett	Minnesota	1979	92	276	2,970	20,865
Charles W. L. Hill	University of Washington	1983	93	40	2,947	520,300
Michael H. Lubatkin	Connecticut	1982	94	291	2,916	17,200

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Marshall L. Fisher	Pennsylvania	1970	95	138	2,912	119,198
Deniz S. Ones	Minnesota	1993	96	222	2,875	46,664
Stephen R. Barley	Stanford	1984	97	117	2,850	146,958
Ian C. MacMillan	Pennsylvania	1975	98	246	2,828	34,033
Gerardine L. Desanctis	Deceased*	1982	99	376	2,806	2,369
Scott A. Snell	Virginia	1989	100	146	2,802	110,237
Denise M. Rousseau	Carnegie Mellon	1977	101	63	2,794	305,175
Henry Mintzberg	McGill (Canada)	1968	102	37	2,789	536,800
Lee S. Sproull	NYU	1978	103	162	2,784	96,280
Roger G. Schroeder	Minnesota	1966	104	44	2,780	412,635
Daniel C. Feldman	Georgia	1976	105	107	2,758	157,673
Jeffrey H. Greenhaus	Drexel	1970	106	30	2,758	628,920
Sandy J. Wayne	Illinois—Chicago	1987	107	287	2,730	17,980
Paul J. H. Schoemaker	Pennsylvania	1977	108	79	2,729	237,690
Joel A. C. Baum	Toronto (Canada)	1989	109	181	2,721	81,515
Robert H. Lengel	Texas—San Antonio	1983	110	305	2,642	14,938
Susan J. Ashford	Michigan	1983	111	262	2,599	25,710
Terri A. Scandura	Miami (Florida)	1988	112	225	2,594	43,495
Aks Zaheer	Minnesota	1992	113	380	2,555	1,797
Karen A. Jehn	Melbourne (Australia)	1992	114	233	2,528	39,875
Ken G. Smith	Rhode Island	1983	115	67	2,504	285,228
Lynne G. Zucker	UCLA	1974	116	289	2,482	17,663
F. David Schoorman	Purdue	1983	117	277	2,457	20,844
Jason A. Colquitt	Georgia	1999	118	142	2,456	112,463
Paul W. Beamish	Western Ontario (Canada)	1985	119	127	2,448	132,428
Raphael H. Amit	Pennsylvania	1977	120	320	2,448	11,585
Raymond A. Noe	Ohio State	1985	121	94	2,434	198,337
George B. Graen	Illinois (retired)	1967	122	265	2,410	23,873
Jeanne M. Brett	Northwestern	1972	123	55	2,407	353,445
Randall S. Schuler	Rutgers	1973	124	11	2,382	1,135,330
Roger C. Mayer	North Carolina State	1989	125	243	2,377	35,343
Stephan J. Motowidlo	Minnesota*	1976	126	316	2,375	12,788
J. Stewart Black	INSEAD (United States)	1988	127	36	2,355	573,173
David E. Bowen	Thunderbird	1983	128	58	2,328	320,160
Mark A. Huselid	Rutgers	1993	129	118	2,325	145,275
Geert Hofstede	Maastricht (emeritus) (Netherlands)	1967	130	57	2,320	344,600
James D. Westphal	Michigan	1996	131	258	2,273	27,813
Joseph S. Valacich	Arizona	1989	132	61	2,272	312,755
G. Tomas Hult	Michigan State	1995	133	101	2,264	171,693
Luis R. Gomez-Mejia	Texas A&M	1981	134	56	2,264	352,675
Joyce E. Bono	Florida	2001	135	242	2,258	35,477
John D. Stermen	MIT	1982	136	88	2,255	207,165
John R. Hollenbeck	Michigan State	1984	137	183	2,244	80,815
Sydney Finkelstein	Dartmouth	1988	138	72	2,243	260,655
Mike W. Peng	Texas—Dallas	1996	139	29	2,223	631,755
Thomas H. Davenport	Babson	1982	140	73	2,221	255,325
R. Duane Ireland	Texas A&M	1977	141	51	2,220	369,150
Mary A. Konovsky	Tulane	1986	142	363	2,215	4,665

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Daniel C. Ganster	Colorado State	1978	143	70	2,206	266,480
George P. Huber	Texas — Austin (emeritus)	1966	144	65	2,178	290,135
Janet P. Near	Indiana — Bloomington	1977	145	220	2,111	47,418
Toby E. Stuart	Harvard	1995	146	254	2,097	29,980
Hal R. Arkes	Ohio State	1971	147	163	2,094	95,543
Dennis A. Gioia	Penn State	1979	148	270	2,093	21,890
Fariborz Damanpour	Rutgers	1983	149	360	2,092	5,609
Gregory B. Northcraft	Illinois	1981	150	126	2,072	134,155
Gabriel Szulanski	INSEAD (Singapore)	1995	151	288	2,050	17,773
Morten T. Hansen	UC — Berkeley	1996	152	5	2,037	1,679,300
Sim B. Sitkin	Duke	1986	153	356	2,032	6,104
John M. Schaubroeck	Michigan State	1988	154	338	2,019	8,373
Anne S. Miner	Wisconsin — Madison (emeritus)	1985	155	248	2,003	32,813
David Simchi-Levi	MIT	1987	156	210	2,002	52,350
Larry L. Cummings	Deceased	1964	157	145	2,002	110,465
Katherine J. Klein	Pennsylvania	1984	158	121	1,995	140,578
Sara L. Rynes	Iowa	1981	159	115	1,991	148,775
Francis J. Yammarino	SUNY — Binghamton	1984	160	137	1,983	123,063
Harry J. Sapienza	Minnesota	1989	161	237	1,959	38,128
Zvi Drezner	California State — Fullerton	1975	162	282	1,955	19,074
Angelo S. DeNisi	Tulane	1977	163	45	1,940	412,170
Charles L. Hulin	Illinois (emeritus)	1963	164	215	1,938	50,070
Barry A. Gerhart	Wisconsin — Madison	1985	165	103	1,930	169,312
Vijay Govindarajan	Dartmouth	1978	166	31	1,926	621,845
Madeline E. Heilman	NYU	1972	167	296	1,923	16,217
Lynn M. Shore	San Diego State	1985	168	130	1,920	127,874
Christopher S. Tang	UCLA	1985	169	208	1,885	53,805
Philip Bobko	Gettysburg	1976	170	324	1,882	10,419
Barbara A. Gutek	Arizona (emeritus)	1975	171	83	1,873	225,090
Richard A. Bettis	North Carolina	1979	172	230	1,867	41,235
Marjorie A. Lyles	Indiana — Indianapolis	1977	173	139	1,860	117,580
C. Marlena Fiol	Colorado — Denver	1986	174	302	1,847	15,342
Dean Tjosvold	Lingnan (China)	1972	175	134	1,845	124,835
Spyros Makridakis	INSEAD (emeritus) (France)	1969	176	131	1,845	127,453
Peter S. Ring	Loyola Marymount	1986	177	203	1,840	62,451
K. Michele Kacmar	Alabama	1990	178	192	1,831	72,715
Marilyn E. Gist	Seattle	1985	179	347	1,813	7,619
Richard P. Rumelt	UCLA	1972	180	89	1,808	207,058
Frances J. Milliken	NYU	1985	181	293	1,804	16,926
Rodger W. Griffeth	Ohio	1981	182	223	1,795	45,059
Jean-Francois Hennart	Tilburg (Netherlands)	1977	183	257	1,793	28,325
Julian M. Birkinshaw	London Business School (UK)	1995	184	300	1,792	15,786
Daniel R. Ilgen	Michigan State	1969	185	54	1,790	357,073
Margaret A. Peteraf	Dartmouth	1987	186	174	1,784	85,944
Belle Rose Ragins	Wisconsin — Milwaukee	1987	187	238	1,780	37,095
Karel Cool	INSEAD (France)	1985	188	217	1,769	49,713
Gerard P. Cachon	Pennsylvania	1995	189	306	1,763	14,921
Robert G. Demaree	Deceased	1950	190	368	1,761	3,562

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
W. Richard Scott	Stanford (emeritus)	1961	191	66	1,759	285,975
Janet M. Dukerich	Texas—Austin	1985	192	229	1,750	41,288
Cynthia A. Montgomery	Harvard	1979	193	275	1,747	21,398
J. Kevin Ford	Michigan State	1983	194	82	1,727	234,480
Janine Nahapiet	Oxford (UK)	NA	195	367	1,724	3,824
Dean B. McFarlin	Dayton	1986	196	216	1,723	49,778
Kenneth W. Koput	Arizona	1992	197	184	1,709	80,750
Gretchen M. Spreitzer	Michigan	1992	198	156	1,702	104,396
Arthur G. Bedeian	Louisiana State	1973	199	14	1,701	962,618
Daniel M. Cable	London Business School (UK)	1995	200	165	1,663	94,068
Stephen J. Zaccaro	George Mason	1981	201	110	1,656	152,270
Rebecca M. Henderson	Harvard	1988	202	195	1,630	69,315
Saroj Parasuraman	Deceased	1977	203	259	1,623	26,522
Bing-Sheng Teng	Cheung Kong (China)	1998	204	352	1,611	6,679
James W. Fredrickson	Texas—Austin	1980	205	297	1,600	16,211
Lillian T. Eby	Georgia	1996	206	372	1,592	3,334
Peter W. Hom	Arizona State	1979	207	232	1,592	40,933
Henrich R. Greve	INSEAD (Singapore)	1994	208	266	1,591	23,497
Marvin B. Lieberman	UCLA	1982	209	234	1,588	39,280
Robert H. Moorman	Elon	1990	210	326	1,582	10,349
David A. Hofmann	North Carolina	1992	211	247	1,581	33,750
J. Frank Yates	Michigan	1971	212	150	1,578	109,495
John W. Slocum	Southern Methodist (emeritus)	1967	213	24	1,577	688,650
Gary A. Yukl	SUNY—Albany	1967	214	186	1,565	79,231
Andrew C. Inkpen	Thunderbird	1992	215	122	1,561	139,498
Connie G. Gersick	Yale*	1984	216	379	1,554	2,175
Laurel Smith-Doerr	Boston University	1999	217	318	1,553	12,343
Rita G. McGrath	Columbia	1993	218	339	1,552	8,289
John A. Pearce II	Villanova	1976	219	23	1,544	703,483
Robert A. Burgelman	Stanford	1980	220	52	1,540	363,428
Ingemar Dierickx	Amsterdam Institute of Finance (Netherlands)	1985	221	355	1,525	6,168
Martha S. Feldman	UC—Irvine	1983	222	166	1,524	93,998
Miriam Erez	Technion (emeritus) (Israel)	1972	223	191	1,518	73,850
R. Brent Gallupe	Queen's (Canada)	1985	224	284	1,518	18,598
Joseph T. Mahoney	Illinois	1989	225	224	1,503	44,768
Linda Smircich	Massachusetts—Amherst	1978	226	307	1,501	14,692
W. Earl Sasser	Harvard	1969	227	93	1,486	201,540
Arnon E. Reichers	Ohio State*	1983	228	364	1,481	4,423
Gary J. Blau	Temple	1982	229	160	1,472	100,394
Herminia Ibarra	INSEAD (France)	1989	230	43	1,469	439,930
Sankaran Venkataraman	Virginia	1989	231	135	1,469	123,975
Karlene H. Roberts	UC—Berkeley (emeritus)	1967	232	354	1,468	6,358
Margrethe H. Olson	Bentley	1978	233	105	1,463	160,928
Richard D. Arvey	National University of Singapore (Singapore)	1970	234	173	1,447	86,260
Robert P. Tett	Tulsa	1995	235	323	1,438	10,795
Anat Rafaeli	Technion (Israel)	1985	236	299	1,430	15,946
W. Chan Kim	INSEAD (France)	1984	237	59	1,421	315,810

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Arvind Parkhe	Temple	1989	238	358	1,420	5,751
Cheri Ostroff	Maryland	1987	239	335	1,420	8,821
Fred Mael	Mael Consulting & Coaching	1988	240	350	1,417	7,168
Lisa Pelled Colabella	RAND Corporation	1993	241	383	1,417	530
Jane L. Pearce	UC—Irvine	1978	242	123	1,406	139,478
Steve W. J. Kozlowski	Michigan State	1982	243	255	1,399	29,882
Benson Rosen	North Carolina	1970	244	351	1,388	6,975
Constance E. Helfat	Dartmouth	1985	245	239	1,384	36,448
Kim S. Cameron	Michigan	1978	246	7	1,381	1,568,540
Robert E. Ployhart	South Carolina	1999	247	211	1,372	51,770
Robert E. Quinn	Michigan	1975	248	50	1,355	369,675
Thomas S. Bateman	Virginia	1981	249	32	1,351	613,800
Donald E. Conlon	Michigan State	1989	250	313	1,343	13,553
Cristina B. Gibson	Western Australia (Australia)	1995	251	240	1,314	35,824
Srilata Zaheer	Minnesota	1992	252	357	1,314	6,034
Angelo J. Kinicki	Arizona State	1982	253	327	1,311	10,029
Kathleen R. Conner	NA*	1986	254	309	1,307	13,836
Heather A. Haveman	UC—Berkeley	1990	255	286	1,303	18,077
Nicholas J. Beutell	Iona	1979	256	292	1,298	17,167
Shona L. Brown	Google, Inc.*	1995	257	75	1,294	250,120
Alan D. Meyer	Oregon (emeritus)	1977	258	109	1,286	155,218
Amy L. Kristof-Brown	Iowa	1997	259	374	1,278	2,914
Stuart L. Hart	Cornell	1983	260	2	1,269	2,265,625
Jay A. Conger	Claremont McKenna	1985	261	106	1,266	158,588
L. J. Bourgeois III	Virginia	1978	262	371	1,264	3,354
Richard L. Priem	Texas Christian	1990	263	314	1,259	13,170
Leaetta M. Hough	Dunnette Group	1981	264	249	1,219	32,128
Paula C. Morrow	Iowa State	1978	265	235	1,215	39,249
Greg L. Stewart	Iowa	1993	266	87	1,208	208,693
M. Susan Taylor	Maryland	1979	267	200	1,208	63,498
John P. MacDuffie	Pennsylvania	1991	268	381	1,200	1,551
Maria L. Kraimer	Iowa	1999	269	336	1,195	8,637
Alan M. Saks	Toronto—Scarborough (Canada)	1990	270	116	1,188	147,425
Charles R. Schwenk	NA*	1980	271	144	1,183	110,473
Wayne F. Cascio	Colorado—Denver	1973	272	16	1,181	932,103
Daniel P. Skarlicki	British Columbia (Canada)	1995	273	198	1,180	67,496
George F. Dreher	Indiana—Bloomington (emeritus)	1977	274	250	1,179	32,009
Herman Aguinis	Indiana—Bloomington	1993	275	113	1,170	150,010
Pamela S. Tolbert	Cornell	1983	276	108	1,166	155,530
David P. Lepak	Rutgers	1998	277	285	1,157	18,115
Gregory H. Dobbins	Deceased	1983	278	331	1,156	9,346
Ricky W. Griffin	Texas A&M	1978	279	3	1,154	1,979,200
Amy C. Edmondson	Harvard	1996	280	12	1,148	1,106,293
Yves L. Doz	INSEAD (France)	1976	281	15	1,144	945,305
Charles C. Manz	Massachusetts—Amherst	1981	282	13	1,139	1,021,778
Hal B. Gregersen	INSEAD (JAE)	1989	283	35	1,135	597,853
Andrew Delios	National University of Singapore (Singapore)	1998	284	244	1,099	34,497
Lois E. Tetrick	George Mason	1983	285	96	1,098	185,260

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Erkko Autio	Imperial College London (UK)	1995	286	274	1,085	21,475
Harry G. Barkema	Erasmus (Netherlands)	1988	287	345	1,085	7,638
Linda Rhoades-Shanock	UNC—Charlotte	2001	288	384	1,084	530
Elaine D. Pulakos	PDRI	1984	289	236	1,079	38,530
John E. Delery	Arkansas	1993	290	343	1,077	7,943
Stanley M. Gully	Rutgers	1997	291	205	1,072	59,626
Peter Cappelli	Pennsylvania	1983	292	171	1,069	89,838
Chris W. Clegg	Leeds (UK)	1971	293	119	1,067	142,775
Anne S. Huff	Technische Universität München (Germany)	1974	294	212	1,062	51,673
Ruth Wageman	Harvard	1993	295	228	1,056	41,817
Elizabeth A. Mannix	Cornell	1989	296	157	1,053	104,250
J. C. Spender	International School of Management (France)	1980	297	315	1,051	12,918
Katherine R. Xin	China Europe International Business School (CEIBS) (China)	1995	298	330	1,051	9,386
Talya N. Bauer	Portland State	1994	299	290	1,045	17,553
Kut C. So	UC—Irvine	1985	300	333	1,040	9,040
Alison Davis-Blake	Michigan	1986	301	280	1,038	20,045
Connie R. Wanberg	Minnesota	1992	302	317	1,037	12,481
Jeffrey J. Reuer	Purdue	1997	303	159	1,035	100,510
Barbara B. Flynn	Indiana—Indianapolis	1984	304	167	1,030	93,335
Kathryn R. Harrigan	Columbia	1979	305	353	1,028	6,428
Henry I. Tosi	Florida (emeritus)	1964	306	132	1,024	127,323
F. Warren McFarlan	Harvard (emeritus)	1965	307	100	1,021	173,275
Stephen W. Gilliland	Arizona	1992	308	158	1,018	101,385
J. Carlos Jarillo	HEC Geneva (Switzerland)*	1986	309	226	1,005	42,974
Michelle A. Marks	George Mason	1997	310	346	1,005	7,623
Michael G. Pratt	Boston College	1994	311	152	998	107,230
Lloyd E. Sandelands	Michigan	1982	312	251	992	31,483
Margarethe F. Wiersema	UC—Irvine	1985	313	334	980	8,942
Deborah E. Rupp	Purdue	2002	314	263	977	24,495
James W. Smither	La Salle	1985	315	147	975	110,188
M. Audrey Korsgaard	South Carolina	1990	316	322	975	11,470
J. Richard Hackman	Harvard	1966	317	136	967	123,225
Gina J. Medsker	HumRRO	1993	318	301	964	15,479
Richard A. D'Aveni	Dartmouth	1987	319	47	964	394,700
Seungjin Whang	Stanford	1988	320	196	961	69,204
Christopher O. L. H. Porter	Texas A&M	2001	321	370	932	3,380
Stephen J. Mezias	INSEAD (UAE)	1987	322	303	926	15,215
Mason A. Carpenter	Deceased	1997	323	102	925	169,485
D. Harold Doty	Texas—Tyler	1990	324	319	920	12,126
Dieter Zapf	Frankfurt (Germany)	1988	325	148	911	110,128
John E. Etlie	Rochester Institute of Technology	1975	326	98	911	179,815
Janice M. Beyer	Deceased	1973	327	185	910	79,328
Michael J. Wesson	Texas A&M	2002	328	164	909	94,510
W. Graham Astley	Deceased*	1978	329	361	908	5,277
Joyce E. A. Russell	Maryland	1983	330	231	890	41,030

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Ramchandran Jaikumar	Deceased	1985	331	279	890	20,666
Paul C. Nutt	Strathclyde (UK)	1974	332	95	886	192,655
Jan W. Rivkin	Harvard	1997	333	209	878	52,833
Michael J. Evanisko	NA*	1978	334	366	873	4,116
H. Kevin Steensma	University of Washington	1996	335	340	868	8,235
John M. Ivancevich	Deceased	1968	336	20	836	845,025
Luis L. Martins	Texas—Austin	1997	337	310	832	13,819
Paul Duguid	UC—Berkeley	n/a	338	91	832	205,845
Jeffrey B. Arthur	Virginia Tech	1990	339	321	829	11,513
Elizabeth C. Ravlin	South Carolina	1986	340	348	801	7,448
Chung Ming Lau	Chinese University of Hong Kong (China)	1991	341	206	793	58,645
Barry Z. Posner	Santa Clara	1979	342	38	773	536,465
Marvin D. Dunnette	Deceased	1954	343	182	747	81,140
Harrison M. Trice	Deceased*	1955	344	201	745	63,225
Melissa A. Schilling	NYU	1997	345	214	741	51,481
Seok-Woo Kwon	UC—Riverside	2003	346	344	730	7,795
Daniel G. Bachrach	Alabama	2002	347	349	726	7,275
Victor E. Millar	AT&T*	n/a	348	264	714	24,174
G. R. Salancik	Deceased*	1971	349	294	707	16,842
Kentaro Nobeoka	Hitotsubashi, Japan	n/a	350	283	701	18,639
Hugh J. Arnold	Toronto (Canada)*	1976	351	143	700	112,313
Lorraine Eden	Texas A&M	1976	352	341	655	8,115
Mohanbir S. Sawhney	Northwestern*	1993	353	337	648	8,593
M. Tina Dacin	Queen's (Canada)	1993	354	328	646	9,403
Giovanni Gavetti	Harvard	2000	355	207	644	54,119
Behnam N. Tabrizi	Stanford*	1994	356	33	631	603,431
David B. Jemison	Texas—Austin*	1978	357	245	627	34,253
Robert P. Vecchio	Deceased	1976	358	141	625	112,525
Stephen A. Stumpf	Villanova	1978	359	53	625	357,170
Majken Schultz	Copenhagen (Denmark)	1988	360	241	621	35,611
Jesper B. Sorensen	Stanford	1996	361	253	619	30,195
Glenn M. McEvoy	Utah State	1985	362	342	617	7,982
James E. Bailey	George Washington	1975	363	8	615	1,468,550
Kevin G. Corley	Arizona State	2002	364	304	602	15,095
Theodore Levitt	Deceased*	1951	365	104	594	165,545
Julie Beth Paine	Best Buy*	2001	366	369	587	3,439
Vandra L. Huber	University of Washington	1982	367	202	584	62,889
Sadao Sakakibara	NA*	n/a	368	382	543	1,110
Sammy W. Pearson	NA	1977	369	373	543	3,246
Paul A. Mabe	Georgia*	1982	370	362	539	4,914
Donald M. Truxillo	Portland State	1987	371	311	528	13,672
William D. Todor	NA*	1979	372	325	517	10,359
Anthony J. Mento	Loyola—Maryland*	1978	373	329	515	9,395
Richard Z. Gooding	Strategic Advantage*	1989	374	377	507	2,349
Ian Mitroff	UC—Berkeley	1967	375	68	495	282,153
Monica C. Higgins	Harvard	1995	376	180	463	81,810

Table 4
(Continued)

Name	Current Affiliation	Degree Date	Ranking Based on Citations	Ranking Based on Google Pages (Non-.edu Domains)	Number of Citations	Number of Google Pages (Non-.edu Domains)
Tove H. Hammer	Cornell	1973	377	378	461	2,215
Dan Karreman	Copenhagen (Denmark)	n/a	378	252	455	30,489
Suzanne S. Masterson	Cincinnati	1998	379	365	448	4,351
William H. Mobley	Mobley Group Pacific Ltd.	1971	380	149	398	109,973
Richard M. J. Bohmer	Harvard	n/a	381	298	389	16,154
Gerardo A. Okhuysen	Utah	1997	382	375	370	2,669
Mitchell G. Rothstein	Western Ontario (Canada)	1983	383	269	308	21,942
Mary Shane Connelly	Oklahoma	1996	384	359	232	5,725

Note: We obtained affiliation information from the Academy of Management membership directory for 242 individuals, Society for Industrial and Organizational Psychology membership directory for 3 individuals, Web pages for other professional associations for 5 individuals, personal Web sites for 6 individuals, university Web sites for 90 individuals, and other sources such as news Web sites and footnotes in recently published journal articles for 11 individuals. We were unable to confirm updated affiliation information for the 27 individuals denoted by an asterisk, so we used data provided by Podsakoff et al. (2008, Table 9) for them. Abbreviations: NA, not available.

As described in the methods section, our sample includes 384 of the 550 most influential scholars identified by Podsakoff et al. (2008, Table 9). The following are the individuals not included in our study: Eric Abrahamson, Paul S. Adler, Gautam Ahuja, Ralph A. Alexander, Mats Alvesson, Terry L. Amburgey, Deborah Ancona, Philip C. Anderson, William P. Barnett, Donald W. Beard, Brian E. Becker, Nathan Bennett, Robert D. Bretz, John S. Brown, Steven D. Brown, Michael J. Burke, John E. Butler, Tony Calabrese, David F. Caldwell, James E. Campion, Michael A. Campion, David Chan, Sayan Chatterjee, Frank Chen, Ming-Jer Chen, Peter Y. Chen, Susan G. Cohen, William W. Cooper, Jose M. Cortina, John L. Cotton, Catherine M. Dalton, Dan R. Dalton, T. K. Das, Fred D. Davis, Gerald F. Davis, James H. Davis, Peter S. Davis, James W. Dean, Jacques J. Delacroix, Daniel R. Denison, Alan R. Dennis, Thomas J. Donaldson, Deborah Dougherty, Thomas W. Dougherty, Jeffrey R. Edwards, Robert Eisenberger, Amir Erez, Daniel J. Farrell, Jack M. Feldman, Richard Fetter, Cynthia D. Fisher, Robert Folger, Elizabeth Frederick, Richard B. Freeman, Michael Frese, Peter H. Friesen, Stefan Gaertner, Jennifer M. George, William H. Glick, Barry M. Goldman, Michael E. Gordon, Robert M. Grant, Jerald Greenberg, Ranjay Gulati, Anil K. Gupta, Gail N. Hackett, Michael M. Harris, David A. Harrison, Christopher A. Higgins, Robert J. House, Jane M. Howell, John E. Hunter, Paul Ingram, Blake Ives, Douglas N. Jackson, Paul R. Jackson, Eric J. Johnson, Jonathan L. Johnson, Richard A. Johnson, Gareth R. Jones, Thomas M. Jones, Prashant Kale, Ruth Kanfer, Rabindra Kanungo, Ralph Katz, Tarun Khanna, John R. Kimberly, Michael P. Kirsch, Howard J. Klein, Charles E. Lance, Cynthia Lee, Dorothy Leonard, Jeffrey LePine, Kyle Lewis, Manuel London, Robert G. Lord, Yadong Luo, John G. Lynch, Jeffrey A. Martin, Phyllis A. Mason, Daniel J. McAllister, John P. Meyer, Danny Miller, William (Will) G. Mitchell, David B. Montgomery, Peter Moran, Elizabeth W. Morrison, Michael Mumford, Kevin R. Murphy, Kok Yee Ng, Christine E. Oliver, Paul S. Osterman, Nestor (Nick) Ovalle, V. Padmanabhan, James L. Perry, Lawrence H. Peters, James S. Phillips, Thomas C. Powell, Lee E. Preston, James L. Price, Vasudevan Ramanujam, E. Rhodes, Daniel Robey, Richard B. Robinson, Sandra L. Robinson, John Rohrbaugh, Jerry Ross, Philip L. Roth, Ann Marie Ryan, Jennifer K. Ryan, Katherine Ryan, Eduardo Salas, Ron Sanchez, William R. Sandberg, Neal Schmitt, Benjamin Schneider, David M. Schweiger, Brian S. Silverman, Michael C. Simon, Harbir Singh, Jitendra V. Singh, C. Ann Smith, Michael D. Smith, Robert P. Steel, Karen M. Taylor, Howard Thomas, James B. Thomas, William H. Turnley, Robert J. Vandenberg, N. Venkatraman, Chockalingam Viswesvaran, Gordon Walker, James P. Walsh, Peter Warr, James A. Waters, Jane Webster, Stephen G. West, Larry J. Williams, Robert L. Winkler, Lawrence A. Witt, Gerrit Wolf, Robert E. Wood, Mike Wright, Patrick M. Wright, Edward J. Zajac, and Dov Zohar.

Table 5. This table also includes a ranking for each individual based on a simple and unweighted arithmetic mean of the rankings based on citations and non-.edu pages. In addition to being informative regarding individual scholars, Table 5 shows that 20% (i.e., 8 out of 40) of these most influential individuals both inside and outside the Academy are affiliated with Stanford University. Harvard University accounts for 12.5% of such individuals (5 out of 40), followed by UC Berkeley with 7.5% (3 out of 40). Thus, three universities have been able to attract and retain 40% of the 40 individuals with the highest impact both inside and outside the Academy.

Our results show that the science–practice gap does not seem to be narrowing. Specifically, number of years since receiving a doctorate degree does not serve as a moderator of the relationship between number of citations and number of non-.edu pages. Although information presented in

Table 5 allowed us to identify the most impactful individuals and universities both inside and outside the Academy, those results are concerned primarily with past impact. More precisely, a perusal of Table 5 shows that 31 of those 40 most influential individuals received their doctorate degrees about 30 years ago (i.e., in 1982) or earlier. This result leads to the following question: Who are the less senior scholars in the field who are having an important impact both inside and outside the Academy?

To answer this question, we used Table 4 as the starting point and selected all individuals who received their degrees since 1991. Our rationale was that given an academic career length of about 40 years, selecting individuals who received their degrees within the past two decades would allow us to identify those who are around their mid-career point or earlier and are likely to continue to make important contributions over at least the next two decades. Results included in Table 6

Table 5
Ranking of Influential Scholars Included in the Top 100 Ranks Based on Both Number of Citations and Number of Google Pages Residing on Non-.edu Domains (From Table 4)

Name	Current Affiliation	Degree Date	Mean Overall Ranking (1–40, Based on This Table)	Ranking Based on Citations (1–384, Based on Table 4)	Ranking Based on Google Pages (Non-.edu Domains) (1–384, Based on Table 4)
James G. March	Stanford (emeritus)	1953	1	20	4
Michael A. Hitt	Texas A&M	1974	1	15	9
Walter W. Powell	Stanford	1978	3	5	21
Michael E. Porter	Harvard	1974	4	14	22
Gary P. Pisano	Harvard	1988	5	37	6
Susan E. Jackson	Rutgers	1982	5	33	10
Karl E. Weick	Michigan	1962	7	31	18
Paul E. Spector	South Florida	1975	7	25	25
Charles A. O'Reilly	Stanford	1975	7	24	26
Kathleen M. Eisenhardt	Stanford	1982	10	2	48
Max H. Bazerman	Harvard	1980	11	56	1
C. K. Prahalad	Deceased	1975	12	21	39
Robert E. Hoskisson	Rice	1984	13	53	19
Michael L. Tushman	Harvard	1976	14	40	34
Michael A. Hogg	Claremont Graduate	1983	15	50	28
Albert Bandura	Stanford (emeritus)	1952	15	1	77
Ikujiro Nonaka	Hitotsubashi (emeritus)	1972	17	35	49
Barry M. Staw	UC—Berkeley	1972	18	69	17
David J. Teece	UC—Berkeley	1975	19	9	81
Gregory G. Dess	Texas—Dallas	1980	20	65	27
Frank L. Schmidt	Iowa	1970	20	18	74
Jeffrey H. Dyer	BYU	1993	22	54	42
Bruce J. Avolio	University of Washington	1982	23	60	41
Glenn R. Carroll	Stanford	1982	24	64	46
Gary P. Latham	Toronto (Canada)	1974	25	49	62
Edwin A. Locke	Maryland (emeritus)	1964	26	17	97
Wanda J. Orlikowski	MIT	1988	27	42	78
Richard L. Daft	Vanderbilt	1974	28	39	85
Rajiv D. Banker	Temple	1980	28	32	92
Gary L. Wells	Iowa State	1977	30	72	60
Charles W. L. Hill	University of Washington	1983	31	93	40
Gerald R. Ferris	Florida State	1982	32	67	71
Jeffrey Pfeffer	Stanford	1972	33	79	69
Nitin Nohria	Harvard	1988	34	90	64
Robert I. Sutton	Stanford	1984	34	68	86
Robin M. Hogarth	Universitat Pompeu Fabra (Spain)	1972	36	81	80
Kim B. Clark	Brigham Young—Idaho	1978	36	78	84
Amy Shuen	China Europe International Business School (CEIBS) (China)	1994	38	89	76
Deborah J. Terry	Queensland (Australia)	1989	39	77	90
P. Christopher Earley	Connecticut	1984	40	88	99

Note: Mean ranking is based on average of citations and Google pages residing on non-.edu domains.

Table 6
Ranking of Influential Scholars Who Received Their Degrees Since 1991 Based on Impact Inside and Outside the Academy

Name	Current Affiliation	Degree Date	Mean Ranking (1–83, Based on This Table)	Mean Ranking (1–384, From Table 4)
Jeffrey H. Dyer	BYU	1993	1	48
Morten T. Hansen	UC—Berkeley	1996	2	79
Amy Shuen	China Europe International Business School (CEIBS) (China)	1994	3	83
Mike W. Peng	Texas—Dallas	1996	4	84
Brian Uzzi	Northwestern	1994	5	106
G. Tomas Hult	Michigan State	1995	6	117
Arnold B. Bakker	Erasmus (Netherlands)	1995	7	120
Mark A. Huselid	Rutgers	1993	8	124
Jason A. Colquitt	Georgia	1999	9	130
Erik Brynjolfsson	MIT	1991	10	133
Michael R. Frone	SUNY—Buffalo	1991	11	140
Amy C. Edmondson	Harvard	1996	12	146
Deniz S. Ones	Minnesota	1993	13	159
Scott A. Shane	Case Western	1992	14	163
Shona L. Brown	Google, Inc.	1995	15	166
Viswanath Venkatesh	Arkansas	1997	16	168
Andrew C. Inkpen	Thunderbird	1992	17	169
Karen A. Jehn	Melbourne (Australia)	1992	18	174
Udo Zander	Stockholm School of Economics (Sweden)	1991	18	174
Greg L. Stewart	Iowa	1993	20	177
Gretchen M. Spreitzer	Michigan	1992	20	177
Daniel M. Cable	London Business School (UK)	1995	22	183
Joyce E. Bono	Florida	2001	23	189
Kenneth W. Koput	Arizona	1992	24	191
Herman Aguinis	Indiana—Bloomington	1993	25	194
James D. Westphal	Michigan	1996	26	195
Behnam N. Tabrizi	Stanford	1994	26	195
Toby E. Stuart	Harvard	1995	28	200
Mason A. Carpenter	Deceased	1997	29	213
Gabriel Szulanski	INSEAD (Singapore)	1995	30	220
Robert E. Ployhart	South Carolina	1999	31	229
David A. Hofmann	North Carolina	1992	31	229
Jeffrey J. Reuer	Purdue	1997	33	231
Michael G. Pratt	Boston College	1994	34	232
Stephen W. Gilliland	Arizona	1992	35	233
Daniel P. Skarlicki	British Columbia (Canada)	1995	36	236
Henrich R. Greve	INSEAD (Singapore)	1994	37	237
Julian M. Birkinshaw	London Business School (UK)	1995	38	242
Cristina B. Gibson	Western Australia (Australia)	1995	39	246
Michael J. Wesson	Texas A&M	2002	39	246
Aks Zaheer	Minnesota	1992	41	247
Gerard P. Cachon	Pennsylvania	1995	42	248
Stanley M. Gully	Rutgers	1997	42	248
Ruth Wageman	Harvard	1993	44	262
Andrew Delios	National University of Singapore (Singapore)	1998	45	264
Laurel Smith-Doerr	Boston University	1999	46	268
Jan W. Rivkin	Harvard	1997	47	271
Chung Ming Lau	Chinese University of Hong Kong (China)	1991	48	274

Table 6
(Continued)

Name	Current Affiliation	Degree Date	Mean Ranking (1–83, Based on This Table)	Mean Ranking (1–384, From Table 4)
Bing-Sheng Teng	Cheung Kong (China)	1998	49	278
Monica C. Higgins	Harvard	1995	49	278
Rita G. McGrath	Columbia	1993	51	279
Robert P. Tett	Tulsa	1995	51	279
Melissa A. Schilling	NYU	1997	53	280
Erkko Autio	Imperial College London (UK)	1995	53	280
Giovanni Gavetti	Harvard	2000	55	281
David P. Lepak	Rutgers	1998	55	281
Deborah E. Rupp	Purdue	2002	57	289
Lillian T. Eby	Georgia	1996	57	289
Talya N. Bauer	Portland State	1994	59	295
Maria L. Kraimer	Iowa	1999	60	303
Srilata Zaheer	Minnesota	1992	61	305
Jesper B. Sorensen	Stanford	1996	62	307
Gina J. Medsker	HumRRO	1993	63	310
Connie R. Wanberg	Minnesota	1992	63	310
Lisa Pelled Colabella	RAND Corporation	1993	65	312
Katherine R. Xin	China Europe International Business School (CEIBS) (China)	1995	66	314
Amy L. Kristof-Brown	Iowa	1997	67	317
John E. Delery	Arkansas	1993	67	317
Luis L. Martins	Texas—Austin	1997	69	324
John P. MacDuffie	Pennsylvania	1991	70	325
Michelle A. Marks	George Mason	1997	71	328
Kevin G. Corley	Arizona State	2002	72	334
Linda Rhoades-Shanock	UNC—Charlotte	2001	73	336
H. Kevin Steensma	University of Washington	1996	74	338
M. Tina Dacin	Queen's (Canada)	1993	75	341
Seok-Woo Kwon	UC—Riverside	2003	76	345
Mohanbir S. Sawhney	Northwestern	1993	76	345
Christopher O.L.H. Porter	Texas A&M	2001	78	346
Daniel G. Bachrach	Alabama	2002	79	348
Julie Beth Paine	Best Buy	2001	80	368
Mary Shane Connelly	Oklahoma	1996	81	372
Suzanne S. Masterson	Cincinnati	1998	81	372
Gerardo A. Okhuysen	Utah	1997	83	379

Note: Mean ranking is based on averaging citations and Google pages residing on non-.edu domains using information included in Table 4. As described in the methods section, our sample includes 384 of the 550 most influential scholars identified by Podsakoff et al. (2008, Table 9). The following are the individuals who received their doctorate degrees since 1991 but were not included in our study: Gautam Ahuja, Tony Calabrese, David Chan, Frank Chen, Peter Y. Chen, Jose M. Cortina, Catherine M. Dalton, James H. Davis, Alan R. Dennis, Amir Erez, Richard Fetter, Stefan Gaertner, Barry M. Goldman, Ranjay Gulati, Paul Ingram, Jonathan L. Johnson, Richard A. Johnson, Prashant Kale, Tarun Khanna, Jeffrey LePine, Kyle Lewis, Yadong Luo, Jeffrey A. Martin, Daniel J. McAllister, Peter Moran, Elizabeth W. Morrison, Kok Yee Ng, Sandra L. Robinson, Jennifer K. Ryan, Katherine Ryan, Ron Sanchez, Brian S. Silverman, Michael C. Simon, William H. Turnley, and Chockalingam Viswesvaran.

show that 7.3% of individuals are affiliated with Harvard (6 out of 83), about 6% with Minnesota (5 out of 83), and 3.6% with Iowa (3 out of 83) and Rutgers (also 3 out of 83). Given behavioral consistency theory, which is the foundational approach for predicting future behavior based on

past behavior in the field of human resource management (Cascio & Aguinis, 2011), Table 6 provides useful information regarding the anticipated future impact of specific individual scholars as well as universities on both inside and outside stakeholders.

Implications for Future Research

Our results have several implications for future research and theory development regarding scholarly impact. First, future research attempting to assess the relative impact of individual scholars, departments, universities, journals, and fields should consider the multidimensional properties of the impact construct. Our results indicate that impact inside the Academy should not be equated with impact outside the Academy. Much work has been done regarding the determinants of impact inside the Academy, including such predictor variables as number of publications in certain journals, mentoring relationships, university where the degree was obtained, university where each individual held his or her first academic job, number of publications, methodological approach used, and several other factors (e.g., Aguinis et al., 2011; Baldi, 1998; Endler, Rushton, & Roediger, 1978; Ilgen, 2007; Judge et al., 2007; Leung, 2007; Molina-Azorin, 2012; Partington & Jenkins, 2007). Despite this voluminous body of work, we are not aware of empirical research on determinants of impact outside the Academy (but, for a conceptual treatment of the impact of journal editors on external stakeholders, see Aguinis & Vaschetto, 2011).

Results included in Tables 5 and 6 provide a good first step toward a program of research aimed at understanding impact beyond the Academy because they identify individuals who are impactful both inside and outside the Academy. Future research can target these individuals to collect data on why and how they have been able to achieve such a high level of impact among internal and external stakeholders. Related to this issue, it would be interesting to investigate fluctuations over time regarding the relative impact of our scholarship outside the Academy. For example, does the relative impact outside the Academy remain fairly constant over people's career spans? In other words, what is the relative role of individual differences (e.g., personality, abilities, values) and context in affecting an individual's impact outside the Academy over time? Are there specific events such as participating in executive education programs or writing a popular-press

book that may trigger an increase in impact? Are there certain programs and universities that encourage a dual internal–external stakeholder impact more than others? Is this type of encouragement derived from specific organizational cultures and values? What is the role of a university's public relations/media unit in affecting a scholar's impact outside the Academy? Why and how have some universities been able to attract and retain such a disproportionately large number of scholars who have had a very high degree of impact both inside and outside the Academy? Our article represents only a very first and nascent step but also opens the door for numerous research avenues addressing these and other issues around scholarly impact outside the Academy.

Second, our measure of impact outside the Academy consisted of the total number of Google pages, particularly those residing on non-.edu domains. From a construct validity standpoint, this operational definition of impact is very similar to using total number of citations as the operational definition of impact inside the Academy. Both measures are unidimensional and broad, based on a simple count, and indicative of impact regardless of the reason for such impact. We followed best-practice recommendations derived from the field of information science and technology, specifically webometric research, to collect our Web-based data. In addition, we collected data over four separate occasions and found support for the reliability (i.e., test–retest) of the resulting scores. Nevertheless, our study included one measure of external stakeholder impact only—and this measure is based only on information that is visible on the Internet. Thus, an additional direction for future research is the development and validation of additional measures of impact outside the Academy.

Third, our database included the most influential scholars in the field over the past three decades. As such, our data did not include the full range of citations we would have observed had we used a more inclusive targeted population—for example, all members of AOM. However, our substantive conclusions would remain the same even if we included a broader sampling strategy. The reason is that our analyses included a com-

parison of the relative relationship between citations and .edu pages versus citations and non-.edu pages. Accordingly, the variance of citations remained constant across all analyses summarized in Tables 1 through 3. Using a broader sample would have resulted in a larger variance, but such variance would have similarly remained constant across the analyses.

Implications for Practice

Our results indicate that top performers in terms of impact inside the Academy do not necessarily have a similarly high level of impact outside the Academy. In fact, as seen in Table 4, a small minority of superstar performers have accumulated many citations—many more than most other people. Similarly, a small minority of superstar performers have accumulated many non-.edu pages—many more than most other individuals in our study. Moreover, an even smaller group of 40 scholars are among the top 100 most impactful individuals both inside and outside the Academy (see Table 5). These results are consistent with a general theory of individual performance across domains ranging from athletics to academic and political performance (O’Boyle & Aguinis, 2012). Individual performance is not normally distributed; it follows a Pareto or power law distribution such that a small minority of performers account for the majority of outputs—be it publications, citations, basketball points, baseball home runs, football touchdowns, successful political campaigns, Emmy-award nominations, Pulitzer Prizes, *Rolling Stone* top-500 songs, or books on the *New York Times* bestseller list (O’Boyle & Aguinis, 2012).

An important implication for practice is the question of how to manage and reward the performance of these superstars as well as faculty in general. Specifically, universities may have to rethink the implementation of performance management systems. For example, if a university emphasizes number of citations as an indicator of performance, as is the case in many institutions in the United States regarding decisions to promote associate professors to the full professorial rank, it should not necessarily expect that individuals will

have a similarly important impact on outside stakeholders.

Many universities publicly promote mission, vision, and value statements that include a consideration of impact on outside stakeholders. Organizations that provide accreditation to business schools, such as the Association to Advance Collegiate Schools of Business (AACSB), consider the congruence between such statements and actual practices. Given our results, universities that wish to have an impact on outside stakeholders, and make this explicit in their mission and vision statements, should implement performance management practices that allow for the assessment of the extent to which these statements are actualized. Otherwise, a lack of congruence between mission, vision, and value statements and performance management practices may risk a failure to receive accreditation.

This particular implication for practice addresses the more general issue of how to design faculty reward systems that attempt to promote other types of performance, such as informal technology transfers (Link, Siegel, & Bozeman, 2007). For example, Siegel, Waldman, and Link (2003) and Siegel, Waldman, Atwater, and Link (2004) conducted qualitative studies and concluded that faculty are not sufficiently rewarded for their involvement in university technology. Not surprisingly, then, there is little motivation for faculty to engage in such activities, which are clearly beneficial for universities. Similarly, if faculty reward systems are not modified to explicitly include scholarly impact outside the Academy, faculty will not be motivated to attempt to bridge the much-lamented science–practice gap.

Another implication of our results relates to the increasing pervasiveness of clinical professors or professors of practice in business schools in the United States. Faculty members in these positions are often expected to have a greater impact on outside stakeholders compared to those in more traditional professorial positions. Thus, our results point to new ways of gathering data regarding the relative performance of clinical professors and professors of practice.

Our results also have implications for the

funding of business schools and universities in general. For example, the Higher Education Funding Council for England (2011), which provides funding to public universities, produced a document stating that “there will be an explicit element to assess the impact arising from excellent research, alongside the outputs and environmental elements.” In other words, universities will have to provide evidence regarding impact on outside stakeholders. Our measure of impact based on number of Google pages represents an initial step in terms of the production of such documentation.

Finally, our measure of impact outside the Academy can be used in the future to gauge the progress of our field. AOM has put forth an ambitious strategic plan (Academy of Management Strategic Plan, 2012), and the AOM board is now focusing on engaging AOM leaders in a process of “strategic doing,” which involves calls for proposals to achieve goals such as those related to professional impact, as mentioned earlier in our article. As an example, one of the specific objectives for the professional impact strategic intent is to “develop at least two new approaches to enhance our professional impact” (see <http://strategicplan.aomonline.org/plan/objectives/by-strategic-intent>). Our measure of impact outside the Academy can be used, over time, to gauge whether these and other initiatives are actually associated with an increase in our collective impact on external stakeholders.

Concluding Comments

Extant research assessing the impact of management scholars focuses almost exclusively on the impact on other academics (i.e., inside stakeholders) and consistently and uniformly uses total number of citations as the measure of impact. Our results indicate that impact inside the Academy cannot be equated with impact outside the Academy. Moreover, number of citations is unrelated to number of non-.edu Web pages (after controlling for number of years since receiving a doctorate and number of publications). Our results point to the need to investigate why some scholars and universities have more impact on outside stakeholders than others do. Also, given the need to

narrow the science–practice gap, our results point to the possibility of creating a portfolio model of performance management systems in which the assessment and reward of performance is based on impact both inside and outside of the Academy. We hope our article will serve as a catalyst for future research and applications revisiting the concept and measurement of scholarly impact.

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