

GOOGLE SCHOLAR VISIBILITY and TOURISM JOURNALS

Tourism is a cross-disciplinary subject working in myriad fields such as anthropology, geography, and sociology. Yet for universities, departments and governmental organisations judging research output (King 2004), interdisciplinary journals necessitate comparisons within and across disciplines (Barrett et al 2000). Although hospitality and tourism heads reported publications in reputable refereed journals as the top measure of research performance (Law and Chon 2007), tourism journals are troublesome to rank.

Despite controversy over what they represent, universities often rely on Institute for Scientific Information (ISI) journal indices to reward research performance within and across disciplines (King 2004; Yeung 2002). Economics and Sociology have 164 and 93 ISI journals, respectively (Yeung 2002), but Tourism had just two in 2007, *Annals of Tourism Research* and *Tourism Management* (Law and Chon 2007). This paper reviews various Internet measures of journal quality, and applies an Internet tool – Google Scholar (GS) – to provide a valid and reliable cross-disciplinary ranking of 50 tourism-related journals.

At a macro level, studies show positive relationships between the number of links to websites and the academic quality of universities (Vaughan and Thelwall 2005), departments (Li et al 2003), and journals (Vaughan and Thelwall 2003). In tourism, low ISI representation has led to exploring the Internet's role in rating journals. For example, the number of article downloads from an electronic database may reflect article popularity (Ryan 2005).

In their rating of tourism and hospitality journals, McKercher et al (2006) mentioned but did not use GS, which searches for scholarly literature. The search results usually contain abstracts rather than full-length articles, as well as citations of an article. Emerging research shows that GS citation counts resemble traditional citation counts (Hall 2006; Pauly and Stergiou 2005), which suggests a journal's presence in GS should resemble that journal's ranking in traditional studies. This study extends previous research and examines a journal's presence in GS to rank journals.

Google Scholar's advanced search (scholar.google.com/advanced_scholar_search) provides the ability for journal-specific queries. Listing a journal in the *Publication* field will return all articles/abstracts in the GS database for that journal, which this study operationalized as GS visibility. The proprietary GS database, which depends on cooperation from publishers and repositories, evolves as GS adds or deletes content (Pauly and Stergiou

2005). Until Google releases more information, a limitation of GS visibility is that it represents journal presence in an opaque GS database.

Two functions integral to this study were using quotation marks and the negative operator to reduce false positives. For example, the query [Tourism Management] includes journals with the words *Tourism* or *Management*. Hence, using restrictive quotation marks and the minus sign (-) as a negative operator ["Tourism Management" – Hospitality] retrieves articles in journals with the phrase *Tourism Management* but not the word *Hospitality*. As GS returns results based on relevance, in part based on the author and citation frequency (scholar.google.com/scholar/about.html), a check of the least relevant results on the last result's page for each journal improved the validity.

To check reliability, this study ran two GS queries – in November 2006 and July 2007 – for 67 journals, using the journals in McKercher *et al* (2006) as a base. To improve validity, each query listed current and previous journal titles in quotation marks, as well as related titles such as *Cornell Quarterly*, *Cornell Hotel and Restaurant Administration Quarterly*, and *Cornell Hotel & Restaurant Administration Quarterly*.

Table 1 lists the average ((November 2006 + July 2007)/2) GS visibility and ranking for the top 50 journals. Although some journal rankings changed in the two queries, a significant correlation of rankings between queries ($\rho=0.97$, $p<0.001$, $n=67$) shows reliability. Table 1 also lists the average GS rankings with McKercher *et al* (2006) rankings of journals in the tourism and hospitality disciplines. Significant correlations for 33 tourism ($\rho = 0.86$ and 0.89 , $p<0.001$) and 27 hospitality journals ($\rho = 0.48$, $p=0.006$; $\rho=0.51$, $p=0.003$) in the list of 67 journals show validity.

Comparing the GS and McKercher *et al* (2006) rankings highlights a key GS advantage; GS compares journals across disciplines. For example, the *British Food Journal* and *Journal of Gambling Studies* had ranks about 20 rungs higher with GS than in McKercher *et al*'s (2006) study of academics at English-speaking hospitality and tourism programs. GS rankings may reflect a wider audience such as academics in food science or gaming. Furthermore, the GS results may go beyond journal impact within the research community and reflect the impact in a wider constituency including practitioners and students.

The measure introduced in this study complements existing methods and provides perhaps the widest cross-disciplinary ranking of tourism-related journals. The results show strong convergent validity with McKercher *et al* (2006) and strong reliability between multiple queries. The results of this novel approach give academics a comprehensive view of tourism-related journals for planning manuscript submissions and measuring research output. GS

“offers an avenue for more transparency in tenure reviews, funding and other science policy issues” (Pauly and Stergiou 2005: 34).

Unlike most journal rankings that are categorical or ordinal, GS visibility provides an interval level ranking of journals. Academics, and those measuring academic output, could use the results in Table 1 as a base to assess journal publications. For example, one *Annals of Tourism Research* article (GS visibility of 2100) could have the same weight as four to five articles in a journal with a GS visibility of 400.

Insert Table 1 about here

REFERENCES

- Barrett, C., A. Orlia, and D. Von Bailey
2000 Subdiscipline-specific Journal Rankings: Whither Applied Economics. *Applied Economics* 32(2):239-252.
- Hall, M.C.
2006 The Impact of Tourism Knowledge: Google Scholar, Citations and the Opening up of Academic Space. *e-Review of Tourism Research* 4(5):119-136.
- King, D.
2004 The Scientific Impact of Nations. *Nature* 430(6997):311-316.
- Law, R., and K. Chon
2007 Evaluating Research Performance in Tourism and Hospitality: The Perspective of University Program Heads. *Tourism Management* 28 (5):1203-1211.
- Li, X., M. Thelwall, P. Musgrove, and D. Wilkinson
2003 The Relationship between the WIFs or Inlinks of Computer Science Departments in UK and their RAE Ratings or Research Productivities in 2001. *Scientometrics* 57(2):239-255.
- McKercher, B., R. Law, and T. Lam
2006 Rating Tourism and Hospitality Journals. *Tourism Management* 27(6):1235-1252.
- Pauly, D., and K. Stergiou
2005 Equivalence of Results from Two Citation Analyses: Thomson ISI's Citation Index and Google's Scholar Service. *Ethics in Science and Environmental Politics* 22(December):33-35.
- Ryan, C.
2005 The Ranking and Rating of Academics and Journals in Tourism Research. *Tourism Management* 26(6):657-662.
- Vaughan, L., and M. Thelwall
2003 Scholarly Use of the Web: What Are the Key Inducers of Links to Journal Web Sites? *Journal of the American Society for Information Science and Technology* 54(1):29-38.
2005 A Modeling Approach to Uncover Hyperlink Patterns: The Case of Canadian Universities. *Information Processing and Management* 41(2):347-359.
- Yeung, T.
2002 Deciphering Citations. *Environment and Planning A* 34(12):2093-2106.

Table 1 Average GS Visibility and GS Rankings Compared with McKercher *et al* (2006)

Journal	GS Visibility	GS Overall Rank	GS Rank / McKercher <i>et al</i> Discipline Rank
<i>Annals of Tourism Research</i>	2100	1	1/1
<i>Cornell Hotel and Restaurant Administration Quarterly</i>	1899	2	1/1
<i>Tourism Management</i>	1708	3	2/2
<i>Journal of Travel Research</i>	1267	4	3/3
<i>British Food Journal</i>	1166	5	2/20
<i>International Journal of Contemporary Hospitality Management</i>	970	6	3/4
<i>Leisure Studies</i>	966	7	
<i>Journal of Leisure Research</i>	962	8	
<i>Journal of Gambling Studies</i>	717	9	4/24
<i>Leisure Sciences</i>	701	10	
<i>International Journal of Hospitality Management</i>	621	11	5/2
<i>Journal of Hospitality & Tourism Research</i>	590	12	6/3
<i>Journal of Travel & Tourism Marketing</i>	486	13	
<i>Loisir et Societe Society and Leisure</i>	436	14	
<i>World Leisure & Recreation Association Journal</i>	430	15	
<i>Journal of Hospitality & Tourism Education</i>	429	16	7/5
<i>Journal of Vacation Marketing</i>	413	17	4/16
<i>International Journal of Tourism Research</i>	399	18	5/6
<i>Journal of Sustainable Tourism</i>	393	19	6/4
<i>Journal of Park and Recreation Administration</i>	379	20	
<i>Tourism Economics</i>	337	21	7/11
<i>Human Dimensions of Wildlife</i>	336	22	
<i>Tourism Geographies</i>	312	23	8/10
<i>Journal of Nutrition for the Elderly</i>	296	24	
<i>Tourism Recreation Research</i>	284	25	9/14
<i>Tourism and Hospitality Research</i>	279	26	10/15
<i>Journal of Hospitality & Leisure Marketing</i>	279	26	8/7
<i>Tourism Analysis</i>	266	28	11/7
<i>Asia Pacific Journal of Tourism Research</i>	259	29	12/8
<i>Current Issues in Tourism</i>	236	30	13/11
<i>Managing Leisure</i>	230	31	
<i>FIU Hospitality Review</i>	212	32	9/6
<i>Event Management</i>	187	33	
<i>Journal of Tourism Studies</i>	176	34	14/9
<i>Journal of Food Products Marketing</i>	174	35	10/25
<i>Tourism Review International</i>	166	36	15/17
<i>Journal of Hospitality and Tourism Management</i>	165	37	11/13
<i>Journal of Foodservice Business Research</i>	148	38	12/9
<i>Tourism Review (AIEST)</i>	147	39	
<i>ANATOLIA</i>	141	40	16/20
<i>Journal of Teaching in Travel & Tourism</i>	115	41	17/26
<i>Scandinavian Journal of Hospitality and Tourism</i>	104	42	18/31
<i>Journal of Sport Tourism</i>	102	43	19/25
<i>Tourist Studies</i>	102	43	20/22
<i>Annals of Leisure Research</i>	95	45	
<i>International Journal of Hospitality and Tourism Administration</i>	85	46	13/8

<i>Journal of Ecotourism</i>	78	47	21/13
<i>Information Technology & Tourism</i>	78	47	22/18
<i>Journal of Foodservice</i>	58	49	14/16
<i>Journal of Convention & Event Tourism</i>	56	50	23/27
