

C. Michael Hall

[1]

Department of Management, Marketing and Entrepreneurship University of Canterbury, New Zealand

Abstract

There is ongoing interest in tourism and hospitality with respect to the citation performance of individual scholars. This is, at least in part, a response to the growth of national and institutional research assessment exercises. However, the publication profiles of highly ranked scholars is often little discussed. This paper uses Google Scholar as a citation analysis tool and identifies a range of different publishing profiles that exist. Although journals are the dominant publication medium books and book chapters are also significant, while disciplinary differences are also identified.

Keywords: Ranking, Google Scholar, Research Assessments, Citation Analysis, Tourism, Hospitality

Introduction

Google ScholarTM(GS) is one of the most significant citation tools available to researchers. GS was first released as a beta project by Google in 2004 and has since become utilized because its is free and easy use and therefore provides ready access to literature that may otherwise be unavailable (Hall, 2006; Murphy & Law, 2008). As well as citations of individual articles, GS also provides publicly available citation counts for individual scholars who choose to use this service and for serials and periodicals. Therefore, GS has now become widely used by researchers as a means of assessing the impact of research (Aguillo, 2011; Amara & Landry, 2012; Bontis & Serenko, 2009; Chapron & Husté, 2006; Harzing & van der Wal, 2009; Moussa & Touzani, 2010; Rosenstreich & Wooliscroft, 2009).

GS has been used in tourism and hospitality studies, alongside other bibliographic databases such as the Web of Science (WoS) and Scopus, as a means of identifying scholarly influence and relationships (e.g., Benckendorff & Zehrer, 2013; Law, Ye, Chen & Leung, 2008; Law & van der Veen, 2008; McKercher, 2008). There is also a growing body of literature to suggest that GS metrics -like other sources of academic citations, rankings and impact-are being used as a *de facto* indicator in assessments of research quality (Chan, Chang & Chang, 2013; Mingers, 2009; Soutar & Murphy, 2009; Soutar, Wilkinson & Young, 2015), despite the substantial debate that exist around their appropriateness (e.g. Adler & Harzing, 2009; Bollen, Rodriquez & Van de Sompel, 2006; Bollen, Van de Sompel, Hagberg & Chute, 2009; Calver, 2013; Hall 2005, 2011, 2013a, 2013b; Hall & Page, 2015; Jacsó, 2012a, 2012b, 2012c; Leydesdorff, 2008; Oppewal, 2015; Özbilgin, 2009; Pendlebury, 2009; Serenko & Dumay, 2015). The present paper examines the publishing profiles of the most cited scholars on GS that self-declare their research interests in tourism, hospitality and cognate subjects up to the end of 2014. The analysis is therefore different from other studies of highly cited tourism scholars (e.g. Benckendorff & Zehrer, 2013; McKercher, 2008) in that the

individuals included in the analysis have self-identified with tourism as a subject, while the range of citation sources include theses and book chapters as well as journal articles and monographs. Before detailing the analysis the paper first discusses GS metrics and the research method.

Google Scholar Metrics

Different bibliographic databases (e.g. Web of Science (WoS), Scopus) and academic search engines, such as GS, have different rules of inclusion and exclusion of documents from which citations indicators are drawn (Leydesdorff, Moya-Anegón & Nooy, 2015). Khabsa and Giles (2014) estimated there were 114 million circulating documents written in English in the academic Web, of which GS had around 99.8 million. Google does not publish the size of the GS database, although Orduña-Malea, Ayllón, Martín-Martín and Delgado López-Cózar (2014) estimated that it contained approximately 160 million documents as of May 2014. In contrast in 2014 WOS Shad about 57 million records, Microsoft Academic Search slightly less but broadly of a similar size, and Scopus 53 million records (Orduña-Malea et al., 2014).

Nevertheless, there are substantial differences in distribution of document types between the different bibliographic databases. For example, according to Orduña-Maleaet al. (2014), the percentages of documents by type, collected in WoS for the period 1900 to 2014, indicates that "Journal document type" (composed by articles, meeting abstracts, editorial material and letters) represents 75% of all documents, Proceedings 21%, and "Book and Book chapters" only 1%. They also note that World Cat (the largest bibliometric information system in the world) provided a figure of 16.3 million "thesis"(i.e. doctoral, masters or degree) documents.

Given that GS includes thesis documents as well as other non-journal and non-proceedings material it proves especially significant for a field such as tourism that otherwise reflects the heterogeneity of the social science literature that "causes intractable problems for bibliometrics. Social science more often than natural science is published in books" (Hicks, 1999, p. 212). Her review suggested that, at the time, "books comprise at least 40% and possibly as much as 60% of the social science literature. Books are very highly cited individually and collectively account for about 40% of citations" (Hicks, 1999, p. 201). GS citations therefore overcome an over emphasis on the 'Journal article' format in citation analyses and provides greater recognition for several non-serial yet quality-assured forms of publication such as books and book chapters as well as theses (Kousha, Thelwall & Rezaie, 2011).

As Hicks (2004) suggested, by only focusing on one of the four literatures of the social sciences, that of journal articles (the others being books, national and non-scholarly literature), a "distorted" picture of social science, including tourism and hospitality research, is provided. Furthermore, there is increasing acknowledgment that much, if not the majority of tourism research as measured by research outputs is taking place outside 'tourism journals' (Coles, Hall & Duval, 2016; Hall, 2011; Wardle & Buckley, 2014). Indeed, Hicks' (2004, p. 474) notes that "ironically" that with respect to the use of bibliometrics, "this tool of the Mode II 'audit culture' works best on traditional Mode I science areas" and not the social sciences (see Coles, Hall & Duval, 2006, 2016, with respect to the relationships between post-disciplinarity and mode II knowledge in tourism research). This is also of importance because the greatest conceptual impacts or impacts related to practice, policy and knowledge transfer do not always emerge from journal articles (Hall, 2013a). For example, Hicks (1999, p. 197) argues "The additional time taken to produce a book should allow it to become intellectually more substantial and thus raise its impact... producers of social science indicators are forced to admit that the best social science is often found in books". Nevertheless, there are also differences with respect to the citation characteristics of books,

including with respect to the Thomson Reuters' Book Citation Index. For example, Leydesdorff and Felt (2012) analyzed the citation differences between monographs, edited volumes and book chapters and noted the conceptual limitations that arise when book chapters are considered to be individual contributions and how this may affect subsequent analysis of researcher output; the number of citations that books receive; and the problems that arise from differences between book series and annual series (see also Torres-Salinas et al., 2014).

Method

Since 2012 GS has allowed individual researchers with verifiable emails to create individual public citation profiles. These pages allow the inclusion of up to five research interests, which are also available to search. Profiles are editable by the researchers. This is a significant element of the profiles as, for those researchers that edit their profiles, it allows for the removal of duplicated or wrongly attributed authorship of publications, as well as ensuring the accuracy of citations. Google Scholar also automatically calculates and displays the individual's total citation count both overall and for the previous five years, their h-index (the largest number h such that h publications have at least h citations), and their i10-index (the number of publications with at least ten citations).

A citation analysis of highly cited researchers (greater than 2,000 citations) was conducted on 31 December 2013 and 2014. It is intended that such an intercept approach will allow the development of a time series of scholar citations. Google Scholar profiles were searched using key words for self-declared research interests in tourism, hospitality, leisure, events and cognate terms. Individuals can nominate up to five such interests. Individuals were not included in the research results if they were clearly not the author of publications listed on the first page of their profile. Three researchers were excluded from the 2014 analysis as a result (Xuan Lorna Wang, Middlesex University; Youcheng Wang, University of Central Florida; Tsung Hung Lee, National Yunlin University of Science & Technology). Jonas Larsen remained included although a large number of citations were derived from earlier editions of a book that he had subsequently served as a co-author with John Urry. This has since here been modified in his GS profile. High cited scholars who publish on tourism subjects and had a GS link such as John Crompton and the late John Urry were not included at the time because they did not indicate any disciplinary association. This has subsequently changed with John Crompton listing tourism and recreation as research fields and John Urry sociology and mobility.

Results

Table 1 lists the 74 tourism and hospitality researchers listed on GS with over 2,000 citations as at 31 December 2014. The table includes various rankings, the number of citations, the hindex and the i-index. Comparisons are available between 2014 and 2013 for those researchers with public profiles at both intercept periods. In addition, comparisons are drawn with the results of Benckendorff and Zehrer (2013) who listed highly cited first named authors cited in 'top tier' tourism journals, and McKercher (2008, 2014). Almost half (35) of the highly cited scholars on GS were also in these lists.

Table 1: Researchers with over 2,000 Google Scholar citations as of end 2014

Table 1: Researchers with over 2,000 Google Scholar citations as of end 2014

	110000		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		=,000 0008	,10 20							
McK Nost cited 2008	ဇ		4	17	1		22		1	1		1	1
McK Most cited 1998	-		2	o o	26	ı	19	2	14	ı	1	ı	1
McK Most cited 1970	n	38	17	14		ı	21	19	ı	7	6	ı	1
B.& Z. Z. Most cited 2006	-	7	=10	က	1		1		1	18	œ	1	ı
B.& Z. Z. Most cited 1996 -	2	8	21	3	1	ı	į	ı	-	5	2	-	ı
Country	New Zealan d	USA	¥	New Zealan d	USA	Denma rk	USA	¥	Hong Kong	Australi a	NSA	USA	NSA
Institution	University of Canterbury	Boston College	Bournemouth University	University of Waikato	Virginia Tech	Roskilde University	Temple University	University of Surrey	Hong Kong Polytechnic University	James Cook University	University of Central Florida	PennsylvaniaSt ate University	Harvard University
ories	Tourism; Geography; Sustainability; Business; Global environmental change	advertising business-to- business; tourism; pricing; consumer research	Etourism; Strategy; Management; Marketing; tourism	Tourism	Tourism development and management. Quantitative analysis. Demand-supply interaction, Tourism motivation and satisfaction. Quality-of-life research in tourism	Geography; cycling; tourism; photography; mobilities	Tourism; information technology; marketing; recommendation systems	Migration; geography; tourism	Technology Management; Tourism; Hospitality	Tourism; tourist behaviour; visitor evaluation; tourist attractions; tourism and communities	Hospitality Management; Tourism Management	Recreation;Parks; Leisure and tourism; Time use;Health	Planning theory; Urban redevelopment; Tourism
h- inde x 201 3	69	47	38	45	45	17	44		40	39		30	37
No. of citation s (end 2013)	20 412	9 394	8 465	8 468	8 595	8 161	7 820		6 470	7 533		4 803	6 403
inde x sinc e 200 9	265	119	06	119	92	23	68	92	134	98	72	45	45
inde x 201 4	315	193	126	146	107	24	143	140	141	11	91	99	98
R A	-	- 2	-2	က	ى	=19	9	12=	2	25=	17=	29=	29=
h- inde x sinc e 200	65	36	36	40	38	17	37	35	43	30	32	28	28
⊼ A	-	2	_	=	=4	e3=	9	က	=8	13=	13=	22=	13=
ا inde × 201 4	80	20	42	48	48	19	47	49	44	42	42	36	42
Ran ×	-	7	7	ည	4	ω	9	4	3	12	10	24	32
No. of citati ons sinc e 200	15 329	5 688	7 348	5 931	6 284	5 349	5 760	4 409	7340	4 554	4 657	3 628	3 262
Rank	_	2	က	4	വ	9	7	ω	6	10	=======================================	12	13
No. of citation s (end 2014)	25 082	11 127	10 975	10 236	10 186	9 543	9 307	900 6	8988	8 858	8 625	7 740	7 459
Name	C. Michael Hall	Arch Woodside	DimitriosBuha lis	Chris Ryan	MuzzoUysal	Jonas Larsen	Daniel R. Fesenmaier	Allan Williams	Rob Law	Philip Pearce	Abraham Pizam	Geoff Godbey	Susan Fainstein

					Journa	i oj mospin	ality & Touris	1115, 1	ounie	14, Munibe	7 1, 2010
48	-	1	41	36	ì	ı	1	12	37	ı	30
7	46	1	ı	18	ı	15		į	26	9	30
20	22	1	ī	42	1	ı	1	ı	1	59	48
1	1	1	ī	1	1	ı	1	ı	1	ı	i
1	1	1	ı	1	ı	ı	1	ı	1	ı	ı
NSA	Neth.	South Africa	Australia	Hong Kong	¥	¥	Italy	Canada	Australia	USA	Australia
Purdue University	University of Tilburg & NHTV Breda University of Applied Sciences	University of Johannesburg	Griffith University	Hong Kong Polytechnic University	Durham University	Cardiff Metropolitan University	University of Bozen- Bolzano	University of Waterloo	Griffith University	University of Houston	University of New South Wales
Tourism; Hospitality; Travel	Tourism; Leisure; Culture; Events; Creativity	Tourism and Development; Local Economic Evelopment; Small Enterprise Development	Ecotourism; tourism; conservation; environment; ecology	Tourism	Cultural geography; tourism studies; urban informatics; visual methods; heritage	Tourism; hopeful tourism; place reputation and brands; tourism and citizenship	Case based reasoning; personalization; recommender systems; tourism; user modeling	Tourism; Climate; Geography	Sustainable tourism; ecotourism; tourism management	Marketing; loyalty; hospitality marketing; services marketing; casino management	tourism economics; tourism management; tourism planning
	37	36			32	35	31	38	32	18	
	5 854	5 263			5 104	4 986	4 265	4150	4 905	4 762	
80	70	92	82	83	54	02	73	85	49	58	92
92	06	200	129	06	58	75	104	104	29	30	63
12=	15=	25=	17=	=/	21=	15=	25=	=2	29=	52=	21=
35	33	30	32	36	31	33	90	36	28	19	34
= 8	17	16	12	#	22=	81	22=	=8	29=	-69	22=
44	40	41	43	44	36	39	36	44	34	21	36
13	6	31	30	15	20	18	-	16	28	27	19
4 413	4 796	3 331	3 357	4 400	3 861	4 060	4 562	4 340	3 417	3 520	3 909
14	15	16	17	18	19	20	21	22	23	24	25
7 416	7 263	206 9	6 555	6 294	6 200	6 044	5 810	5 809	5 756	5 722	5 717
Alistair Morrison	Greg Richards	Christian Rogerson	Ralf Buckley	Bob McKercher	Mike Crang	Nigel Morgan	Francesco	Daniel Scott	David Weaver	John Bowen	Larry Dwyer

Publishi	ng Patter	ns oj	f Highl	y Cited	l Schol	ars i	in Tour	ism and	Hosp	pitality				
ı	i	2	1	o o	42	15	9	Ĩ	1	i	Ì	36	i	8
10	1	1	23	24	1	1	1	1	ı	1	1	1	1	1
51	1	1	56	1	1		1	1	ı	25	1	1	ı	
1	1	ı	-		1	ı	1	1	1	1	1	1	1	1
1	1		1	1	1		1	1		1	ı	1	1	
ž	USA	Sweden	USA	Hong Kong	USA	USA	USA	Canada	Ę	USA	USA	Australia	USA	Australia
Cardiff Metropolitan University	University of Montana	Lund University	Arizona State University	Hong Kong Polytechnic University	Texas A&M University	College of Charleston	University of Central Florida	University of Waterloo	Ashley Insight	Virginia Technical University	Northern Arizona University	University of Queensland	Temple University	University of Queensland
Tourism; hopeful tourism; place reputation and brands; tourism and citizenship	Protected area planning; management of visitors and tourism; public engagement;tourism	Mobility; transport; tourism	Tourism; borders; heritage; culture; religion	Tourism; tourism economics; forecasting	Tourism; Loyalty; Revisit Intentions; Value; Quality	Tourism, Hospitality	Tourism; Destination Marketing and Management	Tourism; ecotourism; park management; nature-based tourism; environmental planning	Inclusive business; results; impact; tourism	Tourism	Tourism Studies; Urban Planning; Regional Geography of E & SE Asia	Visitor Research; Environmental Interpretation/Education; Visitor Free-choice Learning; Eco- and Wildlife Tourism; Visitor Experiences	Sport Marketing; Tourism; Consumer Behavior; Involvement	Tourism; persuasion; social media; technology adoption; intelligent systems
33		35		33	30	22	22	29		25	28	33	28	25
4 542		4 285		3 903	3 593	3 560	3 075	3 818		3 654	3 312	3 258	2 941	2 819
62	42	69	22	75	47	28	31	43	41	30	45	55	58	56
89	83	92	98	82	49	32	40	99	53	47	82	70	58	62
21=	35=	=2	17=	12=	21=	42=	49=	38=	38=	49=	38=	58	17=	32=
31	25	36	32	35	31	22	70	23	23	70	23	59	32	26
20=	27=	20=	22=	19	32	51=	51=	36	33=	39=	33=	59=	31	39=
37	32	37	36	38	32	23	23	30	31	78	31	34	33	28
23	36	17	25	21	56	22	3 5	43	42	45	44	37	33	59
3 746	2 671	4 274	3 592	3 853	3 540	3 801	2874	2308	2 361	2 115	2 197	2 617	3 024	3 369
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5 550	5 503	5 457	5 263	5 222	4 553	4 550	4 509	4 474	4 385	4 231	4 150	4 078	3 979	3 893
Annette Pritchard	Stephen McCool	Stefan Gössling	Dallen Timothy	Haiyan Song	James F. Petrick	Bing Pan	Alan Fyall	Paul Eagles	Caroline Ashley	Richard Perdue	Alan Lew	Roy Ballantyne	Daniel Funk	Ulrike Gretzel

								Journ	nal of Hospitali	$iy \alpha$	10ui is	111, V	Oiun	W 14, 1	TUITE	<i>vei</i> 1,	2010
43	1	46	1	32	1	1	44	1	1	1	1	1	1	1	1	1	1
1	1	49	1		ı	1	ı	1	1		1		1	1			
ı	1	ı	î	1	ı	1	ı	1	ı	1	1	39	î	1	î	ı	
	i	i	ı		i	i	i	1	1		i	ı		1		1	
	ı	ı			ı	ı	ı	ı	1		ı	,		1		ı	
Hong Kong	Australia	Australia	Australia	Australia	Australia	Australia	New Zealand	ž	Turkey	Italy	New Zealand	NSA	Hong Kong	USA	Ä	USA	¥
Hong Kong Polytechnic	Monash University	James Cook University of North Queensland	Griffith University	Griffith University	Edith Cowan University	Australian School of Management	University of Otago	Manchester Metropolitan University	GaziÜniversitesi	University of Cagliari	Auckland University of Technology	Oregon State University	Hong Kong Polytechnic	University of Texas-Pan American	Leeds Beckett University	George Washington University	Aberystwyth University
Hotel and Tourism Management	Strategic Marketing: Dynamic Capabilities; Tourism; Business-to- Business	Tourism;Rainforest tourism;Climate change;Heritage;Sustainability	Tourism; marketing; consumer behaviour	Tourism	Tourism; environment; geotourism; ecotourism; cruise ship tourism	Digital media; Digital marketing; Tourism; Community learning	tourism management; sport and tourism;sustainable tourism	Tourism; Conservation; Responsible tourism	Tourism management; Sustainable tourism development; Participatory development approach; community participation in tourism development process; destination marketing	Regional economics; innovation; tourism	Coastal and Marine Tourism; Ecotourism; Wildlife Tourism	Recreation; Tourism; Natural Resources	Tourism; events; hospitality	Marketing; tourism; market orientation	Responsible Tourism Marketing	Tourism; environment; international development; conservation; protected areas	Tourism visitor
			28	21	23	25		23	18	22	22	19			22		22
			2 579	2 291	2 543	2 382		2 363	2 261	2 305	2 402	2 492			2 057		2 057
71	38	92	48	40	36	50	43	31	20	32	27	19	35	18	39	22	31
6/	46	78	25	47	29	09	52	39	22	42	38	28	52	50	22	45	35
4	35=	32=	32=	38=	45=	37	42=	45=	28=	49=	52=	=99	52=	e2=	45=	e2=	52=
33	25	56	56	23	21	24	22	21	48	70	19	15	19	15	21	12	19
27=	37=	37=	33=	49=	45=	39=	39=	45=	63=	43=	45=	62	=25	63=	43=	51=	51=
35	59	29	31	24	25	28	28	25	19	26	25	20	22	19	56	23	23
35	38	39	41	40	48	49	50	52	47	61	62	29	22	58	54	89	55
2 863	2 539	2515	2 457	2 485	1 902	1 847	1 846	1 705	1 912	1 340	1 310	1 032	1 519	1 482	1 600	814	1 584
41	42	43	44	45	46	47	48	49	20	51	52	23	54	55	26	22	28
3 810	3 518	3 513	3 338	3 054	3 035	2 883	2 820	2 819	2 752	2 717	2 713	2 705	2 664	2 583	2 476	2 370	2 366
Cathy Hsu	Felix T. Mavondo	Bruce Prideaux	Beverley Sparks	Susanne Becken		Jamie Murphy	James Higham	Harold Goodwin	CevatTosun	RaffaelePaci	Mark Orams	Kreg Lindberg	Brian King	Penny Simpson	Xavier Font	Donald Hawkins	Brian Garrod

Publishing I	Patterns of Highl	y Citea	Scho	olars in	Tourism an	a Hospitality		T	1
	1	1		1	1	1		25	
1	1	1		ı	1	1	ú	1	1
ı	ī	1	1	1	1			1	
<u>.</u>		•	•	•					
1	1	•		1	1	1		1	1
- -		0	1	- P	1		ila -	ilia -	1
Australia	Turkey	France	Israel	New Zealand	USA	Taiwan	Australia	Australia	¥
Murdoch University	Adnan Menderes University	Essec Business School	University of Haifa	Lincoln University	University of Wisconsin - Madison	National Chiao Tung University	University of Queensland	Murdoch University	University of Bedfordshire
ntal ntal	Marketing; destination management; sustainable tourism; hospitality; research	Tourism	Tourism	Tourism; planning; impact assessment	Tourism economics; forest economics; rural development	· ·	Tourism	Tourism; Ecotourism; Wildlife; Geotourism; Geomorphology	Tourism; climate change; community development; poverty reduction strategies
22									
2 285									
30	56	27	56	20	24	36	39	32	59
43	29	38	38	44	33	40	44	36	35
52=	45=	28=	e2=	63=	63=	=25=	42=	58=	e1=
19	21	18	15	16	16	61	22	18	17
51=	= 12	49=	63=	63-	=69=	57=	45=	- 26=	63=
23	23	24	19	19	21	22	25	21	19
26	52	29	99	64	65	46	53	09	63
1 558	1 743	1 451	1 189	1 218	1 216	1 925	1 671	1 434	1277
28	09	61	62	63	64	65	99	29	89
2 355	2 335	2 283	2 266	2 262	2 213	2 189	2 116	2 018	2 014
Susan Moore	AtilaYuksel	ame O O	YoelMansfeld	David Simmons	David Marcoullier	Jin-Li Hu	Brent W. Ritchie	David Newsome	Peter M. Burns

Almost a third of researchers are affiliated to institutions in the United States (30.9%), followed by Australia (22.1%) and the United Kingdom (14.7%). Given their size the contribution of New Zealand and Hong Kong based researchers (both 7.4%) is also notable. These results are similar to those of Benckendorff and Zehrer (2013) who examined highly cited first authors in three academic journals.

In terms of gender 11.8% of the most cited researchers on GS were female. This compares to 12% of the 25 most cited researchers identified by Benckendorff and Zehrer (2013) and 10% of the 50 most cited identified by McKercher (2008) for 1998-2007 and McKercher (2014) for 2008-2014. These figures are also similar to those identified by Munar et al. (2015). Table 2 provides a further breakdown of gender by number of citations for the tourism, hospitality and leisure research categories. It shows that the overall proportion of females in the 500 most cited tourism researchers is 34.6% as compared to 26.4% overall for hospitality (n=72) and 44.2% for leisure (n=43). These differences also potentially reflect the extent to which different academic sub-cultures may be more welcoming to women (Hall, 2013b), although this is clearly a topic that needs to be explored further.

Table 2: Gender representation by rank order band for Google Scholar citations in tourism, hospitality and leisure

Subject	Male	Female
Tourism		
1-50	86%	14%
1-100	85%	15%
101-200	66%	34%
201-300	58%	42%
301-400	60%	40%
401-500	58%	42%
1-500	65.4%	34.6%
Hospitality		
1-50	84%	16%
1-72	73.6%	26.4%
Leisure		
1-43	55.8%	44.2%

Note: Analysis conducted on Google Scholar 31 December 2014

Table 3 provides an analysis of the most cited authors in terms of their identified research interests. Of the 74 scholars should read 49 are associated with tourism. The next largest categories are ecotourism and marketing with six indications of interest and hospitality and tourism management with five. Table 3 also indicates the remarkable diversity of associated approaches and interests that authors have in tourism research.

Table 3: Most-cited authors self-identified research interests

Number of researchers stating research interest	Research interest
49	Tourism
6	Ecotourism, Marketing
5	Hospitality, Tourism Management
4	Geography, Tourism Economics
3	Conservation, Environment, Heritage, Sustainable tourism
2	Climate Change, Consumer Behaviour, Culture, Events, Geotourism, Hopeful tourism, Loyalty, Place reputation and brands, Recommendation systems, Recreation, Sustainability, Tourism and citizenship, Tourism Studies
1	Advertising business-to-business, Banking and Finance, Borders, Business, Business-to-Business, Case based reasoning, Casino management, Chinese Economy, Climate, Coastal and Marine Tourism, Community development, Community learning, Community participation in tourism development process, Consumer research, Creativity, Cruise ship tourism, Cultural geography, Cycling, Demand-supply interaction, Destination management, Destination marketing, Destination Marketing and Management, Digital marketing, Digital media, Dynamic Capabilities, Eco- and Wildlife Tourism, Ecology, Efficiency, Energy Policy, Environmental Interpretation / Education, Environmental Planning, Environmental policy, Environmental science, Etourism, Forecasting, Forest economics, Geomorphology, Global environmental change, Health, Hospitality Management, Hospitality marketing, Hotel and Tourism Management, Impact, Impact assessment, Inclusive business, Information technology, Innovation, Intelligent systems, International development, Involvement, Leisure, Leisure and tourism, Local Economic Development, Management, Management of visitors and tourism, Market orientation, Mobilities, Mobility, Natural Resources, Nature-based tourism, Park management, Parks, Participatory development approach, Personalization, Persuasion, Photography, Planning, Planning theory, Poverty reduction strategies, Pricing, Protected area planning, Protected areas, Public engagement, Quality, Quality-of-life research in tourism, Quantitative analysis, Rainforest tourism, Regional economics, Regional Geography of E & SE

1

Asia, Religion, Research, Responsible tourism, Responsible Tourism Marketing, Results, Revisit Intentions, Rural development, Services marketing, Small Enterprise Development, Social media, Sport and tourism, Sport Marketing, Strategic Marketing, Strategy, Sustainable tourism development, Technology adoption, Technology Management, Time use, Tourism and communities, Tourism and Development, Tourism development and management, Tourism motivation and satisfaction, Tourism planning, Tourism visitor, Tourist attractions, Tourist behaviour, Transport, Travel, Urban informatics, Urban Planning, Urban redevelopment, User modelling, Value, Visitor evaluation, Visitor Experiences, Visitor Free-choice Learning, Visitor Research, Visual methods, Wildlife, Wildlife Tourism

Although, as noted above, different bibliometric databases focus on different publications, there is little assessment of the publication profiles of different authors (Hunt, Gao & Xue, 2014; Lee, Law & Ladkin, 2014). Table 4 provides a breakdown of the type of publications that highly cited authors produce via an analysis of their 20 highest cited publications as well as the number of journal articles that have received over 100 citations on Google Scholar, therefore giving a fully appreciation of publishing strategies.

On average just under three-quarters of the top 20 cited publications as of the end of 2014 are journal articles, followed by books (17.6%) and book chapters (9.9%). Meaning that of the top 20 publications for a most cited author almost four are books or major reports and almost two are book chapters. In terms of the total number of publications produced, books are therefore disproportionately highly cited. The significance of books and, to a lesser extent, book chapters also reflects Hicks' (1999) comments on the importance of focussing on all of the literatures of the social sciences in assessments of tourism citations and publishing, rather than excluding book chapters and books. Including them, for example, highlights the contribution of researchers such as Caroline Ashley, much of whom's work is more applied and in well cited reports, and Susan Feinstein who is a notable book editor and author. Nevertheless, the table clearly illustrates the range in different publishing strategies.

Also of interest is the extent to which highly cited authors are single or multiple authors and the extent to which they are named as first authors. Eleven of the 50 most cited authors have no single authored publications in their 20 highest cited. In contrast, 75% of Ralf Buckley's highest cited publications are single authored. On average only just over 20% of the most cited papers are sole authors. Of those that are co-authored the most cited scholar is first named author slightly less than half of the time. Although there is substantial variation with the relationship to author order not necessarily appearing linked to the alphabet order of the surname. However, given the range of different disciplinary and institutional traditions with respect to author order that exist (Osborne & Holland, 2009), it is not necessarily possible to empirically attribute contribution just from author order.

Table 4: Publication profile of 50 most cited tourism researchers on Google Scholar

Table 4: Publication profile of 50 most cited tourism researchers on Google Scholar

Table 4: Publication profile of 50 most cited tourism researchers on Google Scholar																				
%	54.5 %	72.2 %	62.5 %	58.3 %	30.0	46.2 %	%0'9	36.8 %	27.8 %	45.5 %	66.7 %	11.1 %	% 2.99	%9'5	76.9 %	28.6 %	40.0 %	56.3 %	55.6 %	45.0 %
First-named author (in co-authored publications)	6/11	13/18	10/16	7/12	6/20	6/13	1/20	7/19	5/18	5/11	12/18	2/16	10/15	1/18	10/13	2/7	2/5	9/16	6/9	9/20
%	%99	%06	%08	%09	00 %	%59	100 %	%56	%06	%99	%06	%08	%52	%06	%59	35%	25%	%08	45%	100 %
Co- authored(in the 20 highest cited publications)	11	18	16	12	20	13	20	19	18	11	18	16	15	18	13	7	5	16	6	20
%	45 %	10%	% 20	40 %		35 %		%9	2%	42 %	6%	20 %	25 %	10 %	32	65 %	75	% 50	55 %	1
Single authored(in the 20 highest cited publications)	6	2	4	8	0	2	0	1	_	6	2	4	2	2	2	13	15	4	11	0
%	%9	2%	15%	ı	2%	25%	•	10%				ı	%9		10%	2%	2%		20%	15%
Book chapters / conference proceedings / Short reports(in the 20 highest cited cited	1	-	3	0	-	5	0	2	0	0	0	0	1	0	2	-	-	0	4	3
%	%08	10%	15%	%52		%07	-	%27	1	30%	10%	%57	%02	42%	%09	20%	20%	10%	%0E	25%
Books / Book length report s	16	2	က	2	0	4	0	6	0	9	2	2	14	3	10	4	4	2	9	2
%	15%	%58	%02	75%	%56	%59	100%	45%	100%	%02	%06	%52	20%	%58	40%	75%	%02	%06	%09	%09
Journal articles (in the 20 highest cited publications)	3	17	14	15	19	11	20	6	20	14	18	15	2	17	8	15	15	18	10	12
Journal articles >100 citation s	16	15	#	20	27	2	21	8	23	14	20	6	2	11	ဗ	3	_∞	14	6	2
h- inde x end 2014	80	20	45	48	48	19	47	49	44	42	42	36	42	44	40	41	43	44	36	36
x x	1	7	7	2	4	8	9	14	က	12	10	24	32	13	о	31	30	15	20	18
No. of citation s 2009-2014	15 329	5 688	7 348	5 931	6 284	5 349	2 760	4 409	7340	4 554	4 657	3 628	3 262	4 413	4 796	3 331	3 357	4 400	3 861	4 060
Ran k	_	2	3	4	2	9	2	8	6	10	11	12	13	14	15	16	17	18	19	20
No. of citation s (end 2014)	25 082	11 127	10 975	10 236	10 186	9 543	208 6	900 6	8988	8 8 2 8	8 625	7 740	7 459	7 416	7 263	206 9	6 555	6 294	6 200	6 044
Name	C. Michael Hall	Arch Woodside	DimitriosBuhali s	Chris Ryan	MuzzoUysal	Jonas Larsen	Daniel R. Fesenmaier	Allan Williams	Rob Law	Philip Pearce	Abraham Pizam	Geoff Godbey	Susan Fainstein	Alistair Morrison	Greg Richards	Christian Rogerson	Raif Buckley	Bob McKercher	Mike Crang	Nigel Morgan

12

														Jou	rnal	of	Hos	piı	tality	16	t To	urisi	n, Ve	olum	e 14	, Nu	mbe	r 1, 2	2016
33.3%	72.2%	83.3%	20.0%	92.0%	45.0%	38.9%	%6.92	20.0%	45.0%	41.7%	40.0%	38.9%	33.3%	76.5%	37.5%	26.7%	80.0%	73.7%	36.8%	26.3%	25.0%	30.8%	26.3%	%2'99	20.0%	30.0%	20.0%	33.3%	63.6%
6/18	13/18	9/9	10/20	19/20	9/20	7/18	10/13	6/12	9/20	15/12	8/20	7/19	5/15	13/17	6/16	4/15	16/20	14/19	7/19	5/19	5/20	4/11	5/19	18/12	3/15	6/20	8/16	4/12	7/11
%06	%06	30%	100%	100%	100%	%06	%59	%09	100%	%09	100%	%56	75%	%58	%08	75%	100%	%56	95%	%26	100%	%59	%56	%09	75%	100%	%08	%09	55% 79%
18	18	9	20	20	20	18	13	12	20	12	20	19	15	17	16	15	20	19	19	19	20	13	19	12	15	20	16	12	11 15.8
10%	10%	%02	ı	1		10%	35%	40%		40%		2%	25%	15%	20%	25%		2%	2%	2%		35%	2%	40%	25%		20%	40%	45% 21%
2	2	14	0	0	0	2	7	ω	0	ω	0	-	2	3	4	2	0	1	-	_	0	7	-	ω	2	0	4	8	9 4.2
45%	2%	2%			25%	ı	1	2%		1	70%	15%	2%	%92		30%	1	2%	25%	,		10%			35%	10%		45%	10%
6	1	-	0	0	2	0	0	←	0	0	4	3	1	15	0	9	0	1	2	0	0	2	0	0	2	2	0	6	2 1.98
2%	10%	20%	20%	2%	25%	20%	25%	35%	10%	1		25%	30%	%9	2%	30%	10%	10%	ı	ı	ı	ı	2%	10%	40%	ı	30%	2%	- 17.6%
-	2	4	4	-	2	4	2	7	2	0	0	2	9	1	-	9	2	2	0	0	0	0	-	2	80	0	9	-	3.52
%09	85%	75%	%08	%56	%09	%08	75%	%09	%06	100%	%08	%09	%59	20%	%56	40%	%06	85%	75%	100%	100%	%06	%56	%06	72%	%06	%02	%09	90%
10	17	15	16	19	10	16	15	12	18	20	16	12	13	4	19	œ	18	17	15	20	20	18	19	18	2	18	14	10	18
80	13	6	2	11	9	10	13	10	11	10	6	ဗ	7	1	11	3	13	6	2	9	8	2	9	_∞	0	4	5	2	8 9.58
36	44	34	21	36	37	35	37	36	38	32	23	23	30	31	28	31	34	33	28	32	59	59	31	24	25	28	28	25	19
11	16	28	27	19	23	36	17	25	21	56	22	34	43	42	45	44	37	33	59	32	38	36	14	40	48	49	20	52	47
4 562	4 340	3 4 1 7	3 520	3 909	3 746	2 671	4 274	3 592	3 853	3 540	3 801	2874	2308	2 361	2 115	2 197	2 617	3 024	3 369	2 863	2 539	2515	2 457	2 485	1 902	1 847	1 846	1 705	1 912 3918
21	22	23	24	25	56	27	78	59	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	20
5 810	5 809	5 756	5 722	5 717	5 550	5 503	5 457	5 263	5 222	4 553	4 550	4 509	4 474	4 385	4 231	4 150	4 078	3 979	3 893	3 810	3 518	3 513	3 338	3 054	3 035	2 883	2 820	2 819	2 752 6277
Francesco Ricci	Daniel Scott	David Weaver	John Bowen	Larry Dwyer	Annette Pritchard	Stephen McCool	Stefan Gössling	Dallen Timothy	Haiyan Song	James F. Petrick	Bing Pan	Alan Fyall	Paul Eagles	Caroline Ashley	Richard Perdue	Alan Lew	Roy Ballantyne	Daniel Funk	Ulrike Gretzel	Cathy Hsu	Felix T. Mavondo	Bruce Prideaux	Beverley Sparks	Susanne Becken	Ross Dowling	Jamie Murphy	James Higham	Harold Goodwin	CevatTosun Average

Conclusions

This paper has sought to provide a profile of highly cited scholars in tourism and hospitality and cognate studies using GS research profiles, in contrast to previous studies that may have utilised either WoS, Scopus or only a limited use of GS that excludes book chapters (McKercher, 2008; Zopiatis, Theocharous & Constanti, 2015). In terms of utilising as wide a universe of academic publication as possible, that include the four literatures of the social sciences (Hicks, 2004) as well as Mode I and Mode II knowledge, GS would appear to offer considerable advantages over WoS and Scopus, including cost. However, there are also disadvantages with respect to GS research profiles as the they do require editing and clean up to improve accuracy, especially in the case of chapters of edited books where both the editor(s) and the author(s) are often listed as authors. In addition, concerns have been expressed over the coverage and quality of GS, especially with respect to the inclusion of 'grey' academic and institutional material (which ironically may also demonstrate wider societal impact) and potential vulnerability to spam and manipulation of citation results (Beel & Gipp, 2009). Nevertheless, these criticisms are balanced by GS's comprehensiveness and improvements in coverage and metrics, while, as with all Web-based search engines, and even citation analysis in bibliographic databases-the linked content and/or data should not be trusted blindly (Beel & Gipp, 2010). GS researcher profiles appear to be a potential new tool to assist in assessing the research impact of individuals in tourism and hospitality as well as academic networks. Doing so may not only provide indicative performance measures and insights into the development of academic knowledge, but should also help such processes become more transparent.

The publishing strategies of highly cited scholars appear highly varied with respect to the mix of journal and non-journal publications. There is some potential evidence that those scholars with North American and/or marketing and business school type backgrounds place far more emphasis on journal articles than those from geography, sociology and the broader social sciences, who tend to emphasise books and book chapters more. However, this is a qualitative assessment as the current sample size remains relatively limited. Subsequent assessments of the growing citation base of scholar may provide new insights into publishing patterns as well as other related issues such as gender representation, the dominance of English as the lingua franca of international academic studies in tourism and hospitality, and the broader international representation of scholars in academic publishing.

Acknowledgments

The comments of Robin Nunkoo and Yael Ram on an earlier version of the paper are gratefully acknowledged. The usual caveats apply.

References

Adler, N. J., & Harzing, A. W. (2009). When knowledge wins: Transcending the sense and nonsense of academic rankings. *Academy of Management Learning & Education*, 8(1), 72-95.

Aguillo, I.F. (2011). Is Google Scholar useful for bibliometrics? A webometric analysis. *Scientometrics*, 91, 343–351.

Amara, N., & Landry, R. (2012). Counting citations in the field of business and management: why use Google Scholar rather than the Web of Science. *Scientometrics*, 93, 553–581.

Benckendorff, P., & Zehrer, A. (2013). A network analysis of tourism research. *Annals of Tourism Research*, 43, 121-149.

Beel, J.,&Gipp, B. (2009). Google scholar's ranking algorithm: an introductory overview. In B. Larsen & J.Leta (Eds.), *Proceedings of the 12th International Conference on Scientometrics and Informetrics* (ISSI'09), Vol. 1 (pp. 230–241). Rio de Janeiro:

International Society for Scientometrics and Informetrics.

Beel, J., & Gipp, B. (2010). Academic search engine spam and google scholar's resilience against it. *Journal of Electronic Publishing*, 13(3). DOI:

http://dx.doi.org/10.3998/3336451.0013.305

Bollen, J., Rodriquez, M. A., & Van de Sompel, H. (2006). Journal status. *Scientometrics*, 69(3), 669-687.

Bollen, J., Van de Sompel, H., Hagberg, A., & Chute, R. (2009). A principal component analysis of 39 scientific impact measures. *PloS one*, *4*(6), e6022.

Bontis, N., & Serenko, A. (2009). A follow-up ranking of academic journals. *Journal of Knowledge Management*, 13(1), 16-26.

Calver, M. C. (2013). RAM the PI-BETA, C3PO – what the H-STAR happened to my promotion application? Or: The pros and cons of bibliometric evaluations of researchers. In D. Lunney, P. Hutchins & H. Recher (Eds.) *Grumpy Scientists: The ecological conscience of a nation* (pp. 106-121). Mosman, NSW: Royal Zoological Society of New South Wales.

Chan, K. C., Chang, C. H., & Chang, Y. (2013). Ranking of finance journals: Some Google Scholar citation perspectives. *Journal of Empirical Finance*, 21, 241-250.

Chapron, G., & Husté, A. (2006). Open, fair, and free journal ranking for researchers. *Bioscience*, 56(7), 558-559.

Coles, T.E., Hall, C.M., & Duval, D. (2006). Tourism and post-disciplinary inquiry. *Current Issues in Tourism*, 9(4-5), 293-319.

Coles, T.E., Hall, C.M., & Duval, D. (2016). Tourism and post-disciplinarity: back to the future? *Tourism Analysis*, in press.

Hall, C.M. (2005). Systems of surveillance and control: commentary on' An analysis of institutional contributors to three major academic tourism journals: 1992-2001'. *Tourism Management*, 26, 653-656.

Hall, C.M. (2006). The impact of tourism knowledge: Google scholar, citations and the opening up of academic space. *EReview of Tourism Research*, 4(3), 119-36.

Hall, C.M. (2011). Publish and perish? Bibliometric analysis, journal ranking and the assessment of research quality in tourism. *Tourism Management*, 32, 16-27.

Hall, C.M. (2013a). Development(s) in the geographies of tourism: Knowledge(s), actions and cultures. In S. Anton & J. Wilson (Eds.), *Geographies of Tourism* (pp. 11-34). Bingley: Emerald.

Hall, C.M. (2013b). Framing tourism geography: Notes from the underground, *Annals of Tourism Research*, 43, 601-623

Hall, C.M., & Page, S. (2015). Following the impact factor: Utilitarianism or academic compliance? *Tourism Management*, *51*, 309–312.

Harzing, A.W., & van der Wal, R. (2009). A Google Scholar h-index for journals: An alternative metric to measure journal impact in economics and business. *Journal of the American Society for Information Science and Technology*, 60(1), 41-46.

Hicks, D. (1999). The difficulty of achieving full coverage of international social science literature and the bibliometric consequences. *Scientometrics*, 44(2), 193-215.

Hicks, D. (2004). The four literatures of social science. In H. Moed, W. Glänzel & U. Schmoch (Ed.), *Handbook of Quantitative Science and Technology Research* (pp. 473-496). Dordtrecht: Springer Netherlands.

Hunt, C.A., Gao, J., & Xue, L. (2014). A visual analysis of trends in the titles and keywords of top-ranked tourism journals. *Current Issues in Tourism*, 17(10), 849-855..

Jacsó, P. (2012a). Google Scholar metrics for publications: The software and content features of a new open access bibliometric service. *Online Information Review*, *36*(4), 604-619.

Jacsó, P. (2012b). Grim tales about the impact factor and the h-index in the Web of Science and the Journal Citation Reports databases: reflections on Vanclay's criticism. *Scientometrics*, 92(2), 325-354.

Jacsó, P. (2012c). Using Google Scholar for journal impact factors and the h-index in

nationwide publishing assessments in academia-siren songs and air-raid sirens. *Online Information Review*, *36*(3), 462-478.

Khabsa, M., & Giles, C.L. (2014). The number of scholarly documents on the public there may be a return here but web would usually follow on

web. Plos One, 9(5), e93949.

Kousha, K., Thelwall, M., & Rezaie, S. (2011). Assessing the citation impact of books: The role of Google Books, Google Scholar, and Scopus. *Journal of the American Society for Information Science*, 62(11), 2147–2164.

Law, R., & van der Veen, R. (2008). The popularity of prestigious hospitality journals: a Google Scholar approach. *International Journal of Contemporary Hospitality Management*, 20, 113-125.

Law, R., Ye, Q., Chen, W., & Leung, R. (2009). An analysis of the most influential articles published in tourism journals from 2000 to 2007: A Google Scholar approach. *Journal of Travel & Tourism Marketing*, 26, 735-746.

Lee, H.A., Law, R., & Ladkin, A. (2014). What makes an article citable? Current Issues in Tourism, 17, 455-462.

Leydesdorff, L. (2008). Caveats for the use of citation indicators in research and journal evaluations. *Journal of the American Society for Information Science and Technology*, 59(2), 278-287.

Leydesdorff, L., & Felt, U. (2012). Edited volumes, monographs and book chapters in the Book Citation Index. *Journal of Scientometric Research*, 1(1), 28-34.

Leydesdorff, L., Moya-Anegón, F., & Nooy, W. (2015). Aggregated journal—journal citation relations in Scopus and Web of Science matched and compared in terms of networks, maps, and interactive overlays. *Journal of the Association for Information Science and Technology*, DOI: 10.1002/asi.23372.

McKercher, B. (2008). A citation analysis of tourism scholars. *Tourism Management*, 29, 1226-1232.

McKercher, B. (2014). A changing of the guard in tourism research leadership. *Trinet.Available: http://www. robiveltroni. it/wp-content/uploads/2014/02/changing-the-guard-2.pdf.*

Mingers, J. (2009). Measuring the research contribution of management academics using the Hirsch-index. *Journal of the Operational Research Society*, 60(9), 1143-1153.

Moussa, S., & Touzani, M. (2010). Ranking marketing journals using the Google Scholar-based hg-index. *Journal of Informetrics*, 4(1), 107-117.

Munar, A.M., Biran, A., Budeanu, A., Caton, K., Chambers, D., Dredge, D., Gyimothy, S., Jamal, T., Larson, M., Lindström, K.N. Nygaard, L., & Ram, Y. (2015), *The Gender Gap in the Tourism Academy: Statistics and Indicators of Gender Equality*. Copenhagen: While Waiting for the Dawn. Available: http://www.tourismeducationfutures.org/about-tefi/gender-equity-in-the-tourism-ac

Murphy, J., & Law, R. (2008). Google scholar visibility and tourism journals. *Annals of Tourism Research*, 35, 1078-1082.

Oppewal, H. (2015). Citations as a currency: Every performance measure creates its own behaviour: Commentary on the Soutar, Wilkinson, & Young article. *Australasian Marketing Journal (AMJ)*, 23(2), 162–164.

Orduña-Malea, E., Ayllón, J.M., Martín-Martín, A., & Delgado López-Cózar, E. (2014). *About the size of Google Scholar: playing the numbers*. Granada: EC3 Working Papers, 18: 5 September 2014. Retrieved from arXiv:1407.6239v2.

Osborne, J. W., & Holland, A. (2009). What is authorship, and what should it be? A survey of prominent guidelines for determining authorship in scientific publications. *Practical Assessment, Research & Evaluation*, 14(15), 1-19.

Özbilgin, M. F. (2009). From journal rankings to making sense of the world. *Academy of Management Learning & Education*, 8(1), 113-121.

Pendlebury, D. A. (2009). The use and misuse of journal metrics and other citation indicators. *Archivum immunologiae et therapiae experimentalis*, *57*(1), 1-11.

Rosenstreich, D., & Wooliscroft, B. (2009). Measuring the impact of accounting journals using Google Scholar and the g-index. *The British Accounting Review*, 41(4), 227-239.

Serenko, A., & Dumay, J. (2015). Citation classics published in knowledge management journals. Part II: Studying research trends and discovering the Google Scholar effect. *Journal of Knowledge Management*, 19(6), 1335–1355.

Soutar, G. N., & Murphy, J. (2009). Journal quality: a Google Scholar analysis. *Australasian Marketing Journal (AMJ)*, 17(3), 150-153.

Soutar, G. N., Wilkinson, I., & Young, L. (2015). Research performance of marketing academics and departments: An international comparison. *Australasian Marketing Journal (AMJ)*, 23(2), 155-161.

Torres-Salinas, D., Robinson-García, N., Cabezas-Clavijo, Á., & Jiménez-Contreras, E. (2014). Analyzing the citation characteristics of books: edited books, book series and publisher types in the book citation index. *Scientometrics*, 98(3), 2113-2127.

Wardle, C., & Buckley, R. (2014). Tourism citations in other disciplines. *Annals of Tourism Research*, 46, 166-168.

Zopiatis, A., Theocharous, A. L., & Constanti, P. (2015). 'The past is prologue to the future': an introspective view of hospitality and tourism research. *Scientometrics*, 102(2), 1731-1753.

About the Author

C. Michael Hall is a Professor at the University of Canterbury, New Zealand; Docent, Department of Geography, University of Oulu, Finland; Visiting Professor, Linneaus University, Kalmar, Sweden and Senior Research Fellow, School of Tourism and Hospitality, University of Johannesburg, South Africa. He has published widely on tourism, environmental history and food. Current research includes the World Heritage experience in Denmark, Germany, Mauritius, and Sweden and the Nordic wilderness.