Social Network Sites and Social Media:

A New Research Paradigm for Strategic Communication?

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Abstract

This paper uses citation, co-citation, and social network analysis to examine the current

state of strategic communication research related to social network sites, aka social media.

Analysis of more than 100,000 co-citations reveals 4 primary clusters of research: uses and

gratifications, word-of-mouth, descriptive, and business/marketing. Data also indicate that

research is distributed across a wide variety of publications, well beyond the typical "core"

journals in communication, marketing, advertising, and public relations.

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The purpose of this research is to examine the current state of scholarly research on the use of SNSs/social media in the fields of marketing, advertising and public relations, hereafter referred to as strategic communication. Kuhn (1970) argued that the investigation of a given specialty at a given time may be used to identify its paradigms as revealed in the specialty's dissemination of scientific knowledge. This study of scholarly research in a field may identify not only which authors, journals, and publications have the most influence in a discipline, but also the "recurrent and quasi-standard illustrations of various theories in their conceptual, observational, and instrumental applications" (Kuhn, 1970, p. 43). In this instance, evaluating the relatively young status of social media research in strategic communication not only provides a glimpse of its historical development and current status of its paradigms, but may also provide future scholars with a point of comparison for examining the field as it develops over time.

Literature

Boyd & Ellison (2007) defined social network sites (SNSs) as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." For many, especially in popular discourse, the term "social media" is used interchangeably with SNSs. Regardless of which term is used, the rapid growth of use of SNSs/social media

cannot be ignored. Although originally developed for use by individuals, companies have increasingly begun to use SNSs/social media for marketing, advertising and public relations purposes. Not surprisingly, the adoption of these new technologies also leads to the development of new research streams (Pasadeos, Phelps & Edison, 2008).

Bibliometrics

Bibliometric techniques such as citation analysis and co-citation analysis are often used to conduct what Kim & McMillan (2008) called a "meta-review" of the literature. Using the citation as the basic unit of analysis, citation analysis uses frequency of citation to assess which author, journals, and/or articles have the most value to other scholars (Pasadeos, Phelps, & Kim 1998; Kim & McMillan, 2008). To obtain data for a citation analysis, scholars typically collect articles from core journals in a particular discipline and record author and journal information from the citations within each of the articles.

Once the citation analysis data are obtained, it becomes possible to list all possible pairs of citations, or co-citations, in each article. Co-citation frequencies tell researchers how often particular documents have been cited together by other researchers. When multiple scholars have cited two particular documents together, it may identify a particular research area, especially if multiple co-cited documents are themselves related and form a cluster of research. The process of examining such clusters by creating co-citation networks can identify schools of thought and so-called "invisible colleges" (Lievrouw, 1989).

There is an established history of using these bibliometric techniques in the communication (Greenberg & Schweitzer, 1989; Tsan-Kuo & Zixue, 2005), marketing

(Goldman, 1979; Cote, Leong, & Cote, 1991; Cote, Siew Meng, & Cote, 1992), advertising

(Pasadeos, 1985; Henthorne, LaTour, & Loraas, 1998; Ford & Merchant, 2008), and public

relations (Russell & Martin,1976; Pasadeos, Renfro, & Hanily, 1999) literature.

Most citation and co-citation analyses traditionally focus on research in a core set of

journals and justify the selection process as part of a desire to examine publications in the

most frequently cited or leading journals. Another reason is simply one of access; it is

relatively easy to go to the university library (or library web site) and simply select the

volumes you want to examine. However, the various components of strategic

communication have always borrowed heavily from other research traditions, and other

research traditions have often studied strategic communication concepts within their own

disciplines. To address the possibility of citations occurring outside of the traditional core

journals, some researchers have turned to database searching to identify articles for use

their analyses (Tai, 2009) rather than limiting themselves to core journals.

Social Network Analysis

Co-citation analysis is actually a specific form of social network analysis, a widely

accepted scientific method that attempts to investigate how points of data are related to

each other. Social network analysis does this by visualizing the relationships in networked

data (Scott, 1996). Though the desire to describe relational data has been discovered in the

writings of scholars dating back to ancient Greeks, modern approaches began in the 1930s

(Scott, 1996). In perhaps its first famous application, the method was used to depict the

social interactions between students in classrooms. Graphical depictions clearly showed

that certain people clustered into different social groups based on that individual's role in

that community (Moreno, 1934). Since its inception, the method has been embraced in psychology, anthropology and mathematics. Whenever relational data is recorded, connections can be better understood with a social network analysis.

Journal articles themselves can be thought of as related to each other inside a community or communities. If one article cites another article, they are related unilaterally. Lin & Liao (2008) created a social network around 69 articles that shared the topic of "word of mouth." The researchers looked at the reference section for each article. If any of the entries matched one of the other 68 articles in their study, they recorded a relationship. The result was a network that visualized how those 69 articles were related to each other. The researchers found that articles seemed to cluster by research field. The most popular fields were consumer, marketing, management and economics. Moreover, a handful of articles were high in centrality, meaning that only a few articles had most of the unilateral connections. Conversely, many of the articles only had one or two unilateral connections. The network had a small core of articles, which were cited often, while many articles were not central to the network, and were not cited often. In this particular research, the authors did not perform a co-citation analysis.

Tai (2009) searched two commercial research databases, *Academic Search Primer* and *Communication and Mass Media Complete*, both available through EBSCO, to identify a corpus of agenda-setting literature for analysis, and used social network analysis to investigate the co-citations. The researcher found that there were related areas outside of agenda setting occurring frequently in the citations. And, despite agenda setting's journalism and communication roots, a healthy percentage of citations included journals outside of the mass communication field. Once again, as in the word of mouth study, the

level of centrality was very high. The top five most cited articles accounted for the majority of the citations. This is probably not surprising for a field of research that was coined from one seminal article by McCombs & Shaw (1972).

Research Questions

This study answers three primary research questions:

RQ1: How has the study of SNSs/social media in strategic communication developed and grown in recent years? Who are the most frequent authors and where do they publish?

RQ2: What are the most frequently cited articles in this field? Where are they published? Who are the authors?

RQ3: What is the network of co-citation among articles in this area? Can we identify common schools of thought in the network?

Method

Data for this project were obtained by searching the entire set of 78 databases available through EBSCO. While many previous bibliometric studies have limited their searches to "core" journals in a particular field, this project examines a wide range of journals to account for the anticipated interdisciplinary nature of research connecting social networking sites / social media with strategic communication.

In May 2012, the authors conducted a search for either one of the terms "social media" or "social network" used along with either "advertising" or "public relations" or "marketing" in the subject term field of the databases. Results were limited to scholarly (peer reviewed) journals. Once duplicates were removed, this original search yielded 1154

results dating from 2003 to 2012. Citation information and abstracts for these search results were downloaded to a spreadsheet. Despite limiting the results to scholarly journals, some non-research publications such as *Public Relations Tactics* were returned in the results. These were eliminated and each author read the remaining abstracts to determine whether each article reported research results or could be classified as non-research (book reviews, tips, editorials, commentaries, etc.). This first sample was comprised of 620 research articles from 289 different journals dating from 2003 to 2012.

A second sample was constructed from the first by using all journals with at least 2 articles identified in the most recent full year (2011). Each article was examined to determine if it included citations, resulting in a sample of 95 sets of citations. Each unique citation from each article was downloaded using EBSCO when available. In other instances, citations were copied and pasted from article PDFs. Four articles were not available. This process resulted in 3,672 citations, 3,090 of which were unique. Using a spreadsheet, all possible pairs of citations for each article were listed, generating 101,722 co-citations for analysis. To visualize this rather large corpus of social networking articles, a co-citation matrix was built using UCINET while NetDraw and Gephi were used to visualize the network (Borgatti, Everett & Freeman, 2002).

<div align="center">Results</div>

Citation Analysis for 2003-2012

Table 1 shows the total number of different articles and journals containing social network/media articles related to strategic communication from 2003 until 2012. As an area of strategic communication research, social network/media research has grown

dramatically, especially since 2008. The number of articles as well as the number of journals increased almost 7-fold from 2008 until 2011, and 2012 was on pace to exceed the numbers from 2011.

Table 1. Distribution of articles and journals by year.

Year	Articles	Journals
2012*	119	76
2011	244	141
2010	138	94
2009	73	48
2008	35	21
2007	8	7
2006	1	1
2005	1	1
2004	0	0
2003	1	0

Note: 2012 totals include only those articles indexed as of May, 2012.

There were 1,314 different authors contributing to these 620 articles. Without distinguishing among first, second, or third (or higher) authorship, 38 authors were associated with at least 3 articles, as shown in Table 2.

Table 2. Authors with 3 or more articles.

Author	Articles	Author	Articles
Pitt, L.	8	Choi, S.	3
Sweetser, K.	8	Constantinides, E.	3
Kim, Y.	7	Cooke, M.	3
Barnes, N.	6	Ewing, M.	3
Berthon, P.	6	Ghose, A.	3

Lariscy, R.	5	Hackworth, B.	3
Liu, B.	5	Hardey, M.	3
Mancuso, J.	5	Hove, T.	3
Chu, S	5	Huang, L.	3
Stuth, K.	5	Jin, Y.	3
Waters, R.	5	Kunz, M.	3
Kelleher, T.	4	Lorenzo-Romero, C.	3
Neiger, B.	4	Mattson, E.	3
Steyn, P.	4	Parent, M.	3
Sung, Y.	4	Sejung, M.	3
Thackeray, R.	4	Smith, B.	3
Alarcón-del-Amo, M.	3	Sohn, D.	3
Avery, E.	3	Wigley, S.	3
Liu, C.	3	Zhang, J.	3

Of the 289 different journals in the sample, *Public Relations Review* contained the most articles, followed by the *American Academy of Advertising Conference Proceedings* and *Marketing Research.* Table 3 lists all journals in the first sample with at least 2 articles in 2011, along with article totals for 2003-2012.

Table 3. Journals containing 2 or more articles in 2011.

Journal	2003-12 Total*	2011
Public Relations Review	47	10
American Academy of Advertising Conference Proceedings	30	17
Marketing Research	20	15
Journal of Advertising Research	18	11
International Journal of Market Research	18	3
Journal of Interactive Advertising	13	6
Journal of Marketing Management	12	4
Journal of Interactive Marketing (Mergent, Inc.)	10	2
International Journal of Advertising	8	7
Journal of Database Marketing & Customer Strategy Management	8	5

Computers in Human Behavior	8	3
Marketing Science	6	3
International Journal of Integrated Marketing Communications	5	3
Journal of Medical Marketing	5	2
Vikalpa: The Journal for Decision Makers	5	2
Journal of Marketing Research (JMR)	5	2
Journal of Marketing Education	4	4
Journal of Brand Management	4	3
CyberPsychology, Behavior & Social Networking (formerly *CyberPsychology & Behavior*)	4	3
Journal of Internet Commerce	4	2
Social Marketing Quarterly	4	2
Interdisciplinary Journal of Contemporary Research in Business	3	3
Journal of Consumer Behaviour	3	3
Journal of Advertising	3	2
Academy of Marketing Studies Journal	3	2
Psychology & Marketing	3	2
Information, Communication & Society	3	2
International Journal of Mobile Marketing	3	2
Journal of Political Marketing	3	2
AMWA Journal: American Medical Writers Association Journal	2	2
Computer Law & Security Review	2	2
International Journal of Business & Social Science	2	2
International Journal of Management Cases	2	2
Journal of Airport Management	2	2

Note: 2012 totals include only those articles indexed as of May, 2012.

Citation Analysis for 2011

There were 31 sources cited 5 or more times in 2011 articles as shown in Table 4.

Four of the sources were books, 1 was a web article, and the remaining 26 were journal

articles.

Table 4. Most cited articles in articles in 2011.

Cites	Source
15	Boyd, D. M., & Ellison, N. B. (2007). Social Network Sites: Definition, History, and Scholarship. *Journal Of Computer-Mediated Communication*, *13*(1), 210-230.
13	Thorsten Hennig-Thurau, F., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic Word-of-Mouth via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet?. *Journal Of Interactive Marketing (John Wiley & Sons)*, *18*(1), 38-52.
9	Hair, J. F. (1998). *Multivariate data analysis.* Upper Saddle River, N.J.: Prentice Hall.
9	Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, *53*(1), 59-68.
8	Smith, T., Coyle, J. R., Lightfoot, E., & Scott, A. (2007). Reconsidering Models of Influence: The Relationship between Consumer Social Networks and Word-of-Mouth Effectiveness. *Journal Of Advertising Research*, *47*(4), 387-397.
8	Muñiz, A. M., & Schau, H. (2007). Vigilante Marketing and Consumer-Created Communication. *Journal Of Advertising*, *36*(3), 35-50.
7	Berthon, P., Pitt, L., & Campbell, C. (2008). Ad Lib: When Customers Create the Ad. *California Management Review*, *50*(4), 6-30.
7	Rogers, E. M. (2003). *Diffusion of innovations* (5th ed., Free Press trade pbk. ed.). New York: Free Press.
7	Raacke, J., & Bonds-Raacke, J. (2008). MySpace and Facebook: Applying the Uses and Gratifications Theory to Exploring Friend-Networking Sites. *Cyberpsychology & Behavior*, *11*(2), 169-174.
7	Mangold, W., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, *52*(4), 357-365.
7	Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites. *Journal Of Computer-Mediated Communication*, *12*(4), 1143-1168.
7	CHEVALIER, J. A., & MAYZLIN, D. (2006). The Effect of Word of Mouth on Sales: Online Book Reviews. *Journal Of Marketing Research (JMR)*, *43*(3),

345-354.

7   Hung, K. H., & Yiyan Li, S. (2007). The Influence of eWOM on Virtual Consumer Communities: Social Capital, Consumer Learning, and Behavioral Outcomes. *Journal Of Advertising Research*, *47*(4), 485-495.

7   Boyd, D.M. (2007). Why Youth (heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life; McArthur Foundation Series on Digital Learning--Youth, Identity, and Digital Media. Cambridge, MA: MIT Press.

6   Dholakia, U. M., Bagozzi, R. P., & Pearo, L. (2004). A social influence model of consumer participation in network- and small-group-based virtual communities. *International Journal Of Research In Marketing*, *21*(3), 241-263.

6   Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal Of Marketing Research (JMR)*, *18*(1), 39-50.

6   Li, C. (2008). *Groundswell : winning in a world transformed by social technologies*. Boston, Mass.: Harvard Business Press.

6   Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, *13*(3), 319-340.

6   Brown, J., & Reingen, P. H. (1987). Social Ties and Word-of-Mouth Referral Behavior*. *Journal Of Consumer Research*, *14*(3), 350-362.

6   Trusov, M., Bucklin, R., & Pauwels, K. (2009). Effects of Word-of-Mouth Versus Traditional Marketing: Findings from an Internet Social Networking Site. *Journal Of Marketing*, *73*(5), 90-102.

5   Gilly, M. C., Graham, J. L., Wolfinbarger, M., & Yale, L. J. (1998). A Dyadic Study of Interpersonal Information Search. *Journal Of The Academy Of Marketing Science*, *26*(2), 83-100.

5   Park, N., Kee, K. F., & Valenzuela, S. (2009). Being Immersed in Social Networking Environment: Facebook Groups, Uses and Gratifications, and Social Outcomes. *Cyberpsychology & Behavior*, *12*(6), 729-733.

5   Stafford, T. F., Stafford, M., & Schkade, L. L. (2004). Determining Uses and Gratifications for the Internet. *Decision Sciences*, *35*(2), 259-288.

5   Lee, M., & Youn, S. (2009). Electronic word of mouth (eWOM): How eWOM platforms influence consumer product judgement. *International Journal of Advertising: The Quarterly Review Of Marketing Communications*, *28*(3), 473-499.

5   Dichter, E. E. (1966). How word-of-mouth advertising works. *Harvard Business Review*, *44*(6), 147-166.

5   Hoffman, D. L., & Novak, T. P. (1996). Marketing in hypermedia computer-mediated environments: Conceptual foundations. *Journal Of*

	Marketing, *60*(3), 50.
5	Donath, J.; Boyd, D.M. (2004). Public Displays of Connection. *BT Technology Journal, 22*(4), 71-82.
5	Godes, D., & Mayzlin, D. (2004). Using Online Conversations to Study Word-of-Mouth Communication. *Marketing Science*, *23*(4), 545-560.
5	Phelps, J. E., Lewis, R., Mobilio, L., Perry, D., & Raman, N. (2004). Viral Marketing or Electronic Word-of-Mouth Advertising: Examining Consumer Responses and Motivations to Pass Along Email. *Journal Of Advertising Research*, *44*(4), 333-348.
5	What is Web 2.0? Design Patterns and Business Models for the Next Generation of Software. online at http://oreilly.com/web2/archive/what-is-web-20.html
5	Brown, J., Broderick, A. J., & Lee, N. (2007). Word of mouth communication within online communities: Conceptualizing the online social network. *Journal Of Interactive Marketing*, *21*(3), 2-20.

There were 71 different publications cited, including 14 books. Table 5 shows the most commonly cited journals, those cited 5 or more times. Just under one-half (10 of 21) of these journals are also listed in Table 3 as journals with more than 2 articles in 2011.

Table 5. Journals Cited 5 or More Times in articles from 2011.

Journal	Cites
Journal of Computer-Mediated Communication	36
Journal of Interactive Marketing	32
Journal of Advertising Research	29
Business Horizons	26
Journal of Marketing	25
Journal of Marketing Research	16
Journal of Interactive Advertising	15
Journal of Consumer Research	13
Public Relations Review	13
Cyberpsychology & Behavior	12
International Journal of Advertising	12

International Journal of Research in Marketing	10
*Journal of Advertising	8
California Management Review	7
*Marketing Research	7
MIS Quarterly	6
BT Technology Journal	5
Decision Sciences	5
Harvard Business Review	5
Journal of the Academy of Marketing Science	5
*Marketing Science	5

*also appeared on list of journals with multiple articles for 2011 (Table 3).

Without distinguishing among first, second, or third (or higher) authorship, authors associated with 5 or more citations are presented in Table 6. Only 2 of these authors are also listed in Table 2 as authors with 3 or more articles related to SNSs/social media and strategic communication.

Table 6. Authors Cited 5 or More Times in articles from 2011.

Author	Cites	Author	Cites
Boyd, D.M.	27	Raacke, J.	7
Ellison, N.B.	22	Rogers, E.M.	7
Gremler, D.D.	15	Steinfield, C.	7
Gwinner, K.P.	15	Sweetser K.D.	7
Hennig-thurau, T.	15	Bernoff, J.	6
Mayzlin, D.J.	15	Bickart, B.	6
Walsh, G.	15	Davis, F.D.	6
Brown, J.	11	Dellarocas, C.	6
Bagozzi, R.P.	10	Fornell, C.	6
*Berthon, P.R.	10	Granovetter, M.S.	6
Dholakia, U.M.	10	Larcker, D.F.	6
Kozinets R.V.	10	Li, C.	6
*Pitt, L.F.	10	Libai, B.	6
Reingen, P.H.	10	Mackenzie, S.B.	6

Anderson, R.E.	9	Pearo, L.K.	6
Black, W.C.	9	Riegner, C.	6
Bucklin, R.E.	9	Schindler, R.M.	6
Haenlein, M.	9	Trusov, M.	6
Hair Jr., J.F.	9	Broderick, A.	5
Kaplan, A.M.	9	Dichter, E.	5
Pauwels, K.	9	Donath, J	5
Tatham, R.L.	9	Gilly, M.	5
Coyle, J.	8	Graham, J.	5
Godes, D.	8	Hoffman, D.	5
Lee, M.	8	Kee, K.F.	5
Lightfoot, E.	8	Lee, N.J.	5
Muñiz, Jr., A.M.	8	Lewis, R.	5
Schau, H.J.	8	Mobilio, L.	5
Scott, A.	8	Novak, T.	5
Smith, T.	8	Park, N.	5
Youn, S.	8	Perry, D.	5
Beverland, M.	7	Phelps, J.	5
Bonds-raacke, J.	7	Raman, N.	5
Campbell, C.	7	Schkade, L.L.	5
Chevalier, J.	7	Stafford, T.F.	5
Dobele, A.	7	Stafford, M.R.	5
Faulds, D.J.	7	O'Reilly, T.	5
Hung, K.H.	7	Valenzuela, S.	5
Lampe, C.	7	Wolfinbarger, M.	5
Li, S.Y.	7	Yale, L.	5
Mangold, W.G.	7		

*also appeared on most-cited list for 2003-2012 (Table 2).

Co-Citation / Social Networking Analysis - 2011

The initial social networking graph was too complex to address the research questions. The network had too many ties to reveal any significant detail, as shown in Figure 1.

Figure 1. Initial Network of Co-Citations.
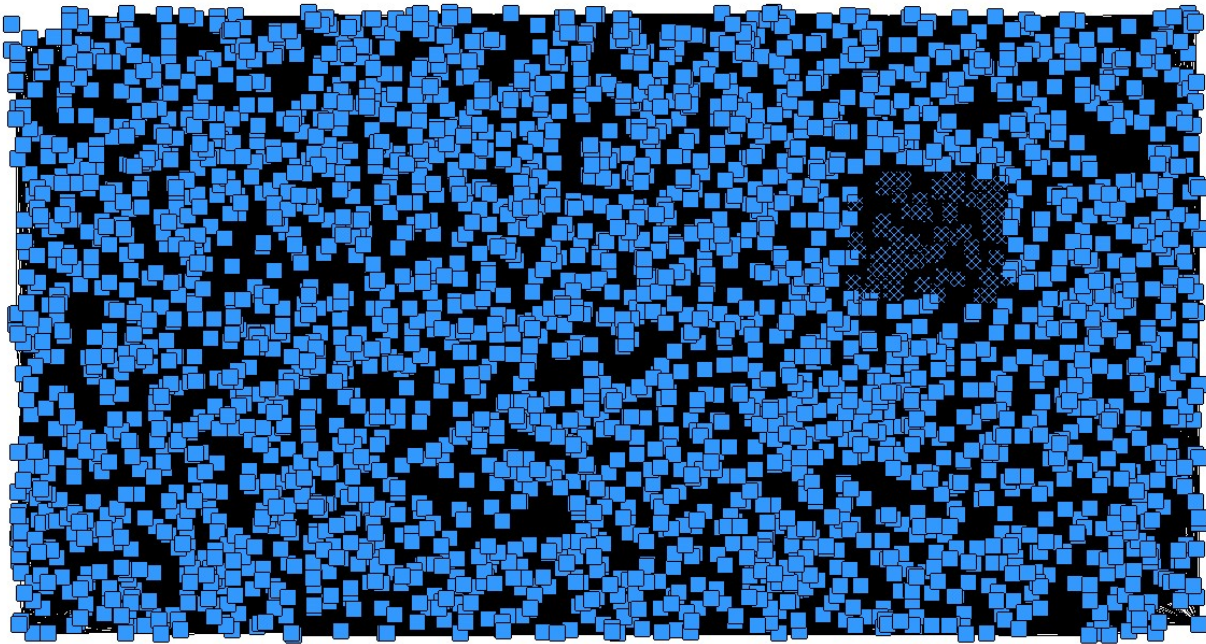
This initial view suggests that the network consisted of only one large component. A particularly dense network appears in the upper right corner. Initial analyses of the nodes reveal very little detail about the dense network. It does not appear to contain articles that mention a particular topic, or that are in a particular journal. Because this picture is too complex to reveal any great understanding, the link strength was increased to only show links with three or more co-citations. In other words, if any article was cited together more than three times, a connection was drawn. Isolates, articles with no connections, and pendants, articles with only one connection, were removed. A network visualization produced by an algorithm designed to detect naturally occurring clusters of items is shown in Figure 2. Individual articles are shown as circles. The numbers inside the circles are identification numbers. The size of the circle indicates how many times that article was cited (larger circles indicate a greater number of citations). Articles that were cited

together (co-citations) are linked and heavier lines indicate a greater number of co-citations.

Figure 2. Network with tie strength 3+ and no isolates or pendants
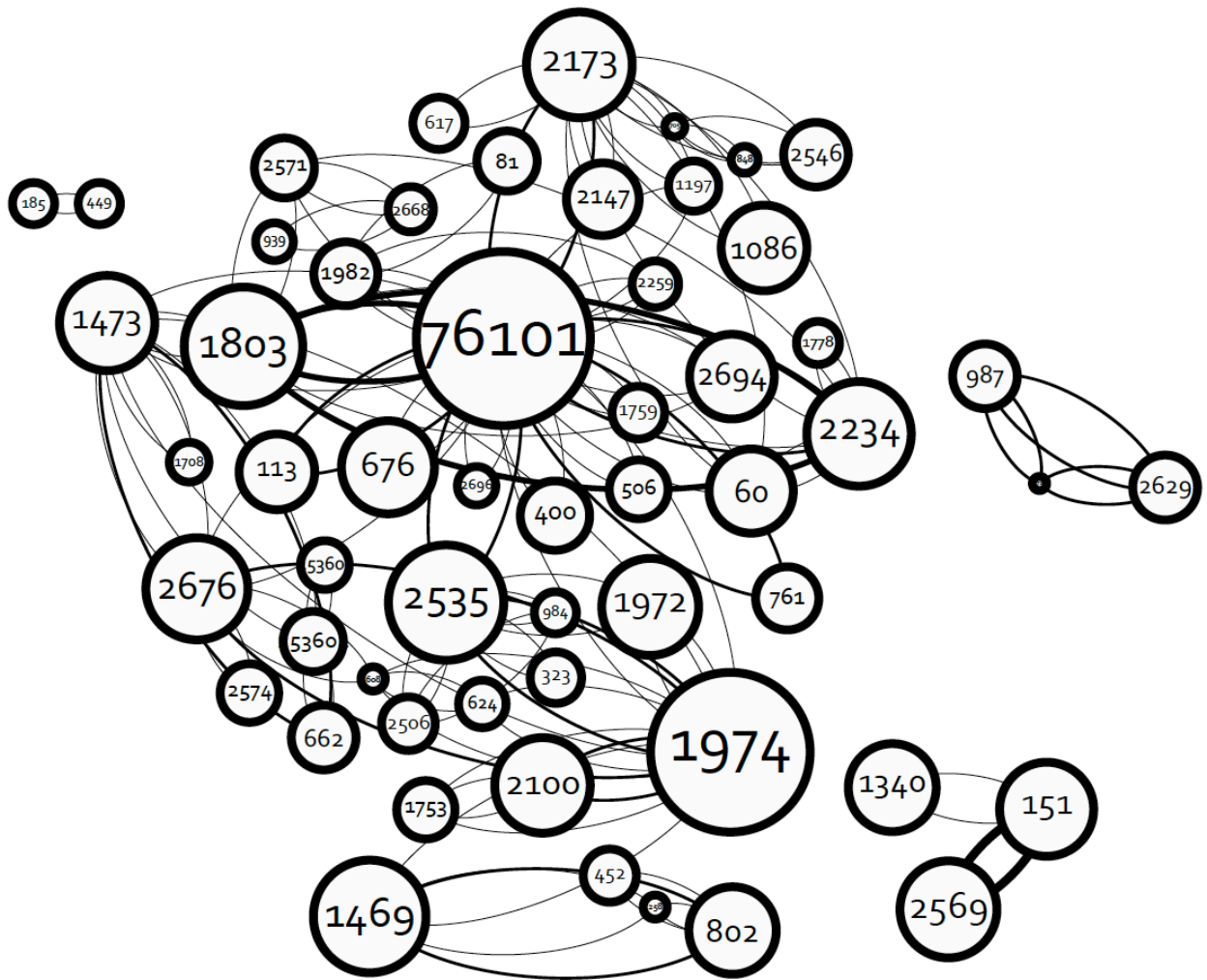
While Figure 2 provides a clearer picture of the main components, it is produced by a computer program with no understanding of the context of the connections. What did these articles have in common? Are they about similar topics? Are they published in similar journals?

To better understand the patterns of co-citations, each article in the co-citation list was coded based on its topic:

- word of mouth and/or diffusion (22)

- uses and gratifications (8)

- networks or networking (9)

- marketing, advertising, promotion (9)

- methodology and/or statistics(3)

- other (6)

The computer algorithm used the topic codes to rearrange the network shown in Figure 2 so that articles are also clustered visually by topic. The resulting visualization is shown in Figure 3, and Table 7 identifies the most cited article in each cluster.
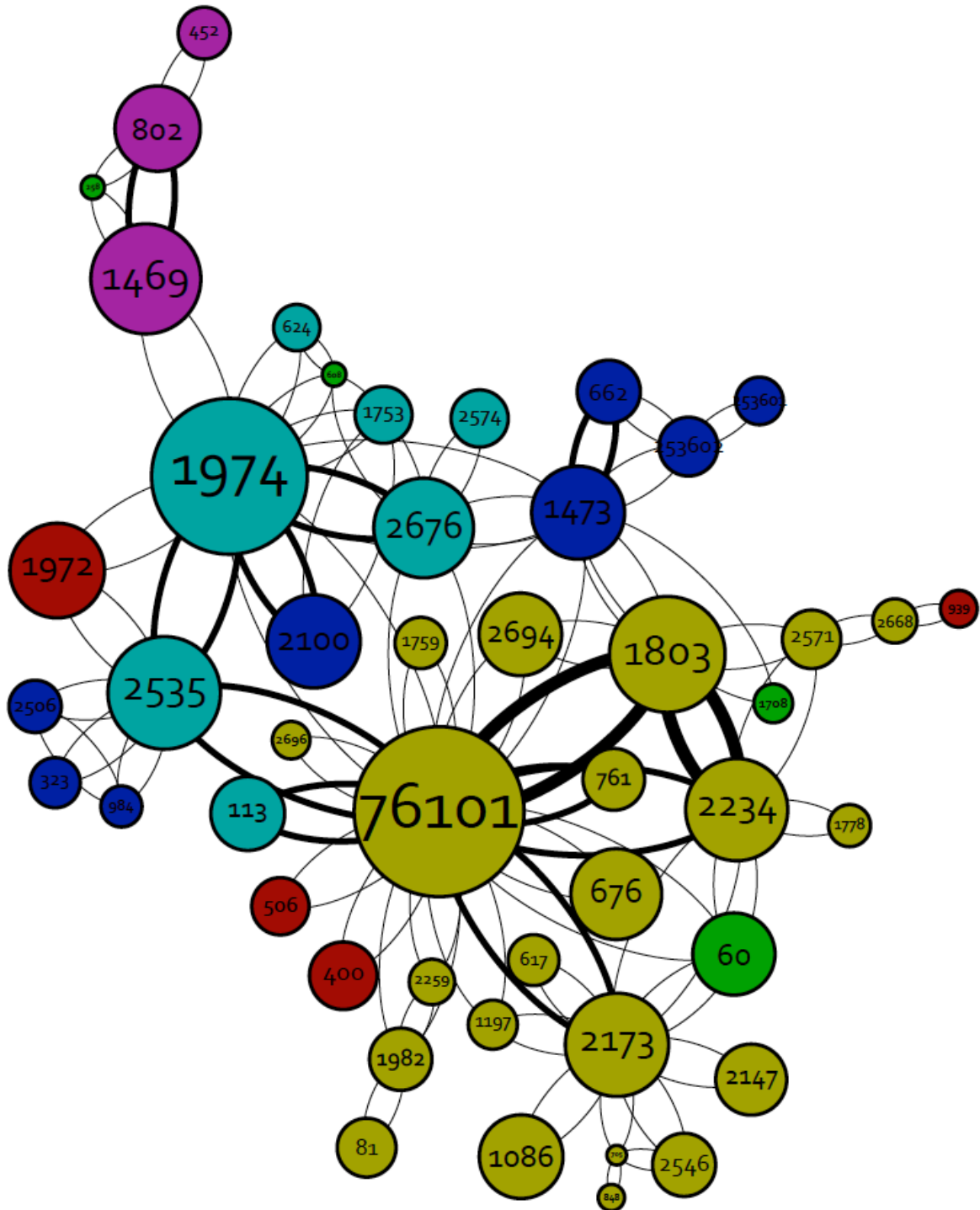
Figure 3. Final Network Structure

Table 7.

Most Cited Article in Each Network Clusters

Word Of Mouth / Diffusion

Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? (2004) ID # 76101	Hennig-Thurau, T., Gwinner, K.P., Walsh, G. & Gremler, D. D.	*Journal of Interactive Marketing*

Uses & Gratifications

MySpace and Facebook: Applying the Uses and Gratifications Theory to Exploring Friend Networking Sites (2008) ID# 1473	Raacke, J. & Bonds-Raacke, J.	*Cyberpsychology & Behavior*

Networks / Networking

Social network sites: Definition, history, and scholarship (2007) ID# 1974	Boyd, D. M., & Ellison, N. B.	*Journal of Computer-Mediated Communication*

Marketing / Advertising / Promotion

Social media: The new hybrid element of the promotion mix (2009) ID# 1972	Mangold, W. G. & Faulds, D. J.	*Business Horizons*

Methodology / Statistics

Multivariate Data Analysis, 7th Edition. (2010) ID# 1469	Hair, J.F.	Prentice Hall

Other

A Dyadic Study of Interpersonal Information Search (1998) ID# 60	Gilly, M., Graham, J., Wolfinbarger, M., & Yale, I.	*Journal of the Academy of Marketing Science*

Discussion

The data from this study reveal that the study of SNSs/social media in the area of strategic communication is a fast growing research paradigm. Research is conducted by a significant number of scholars who publish in a wide variety of journals. However, a small number of publications appear to be developing as "core" journals for this type of research;

only 4 journals had 10 or more SNSs/social media related strategic communication articles in 2011. During the same year, there were another 30 journals with 2 or more published articles. In addition, many of the journals were outside the traditional communication, marketing, advertising, and public relations journals typically thought of for strategic communication research.

In terms of most-cited articles, there does not appear to be a single seminal article that is highly cited. Of the 31 most-cited sources in 2011, only 7 were published prior to 2000. This focus on more recent research is not surprising on the one hand since social media is a relatively new field; however, this focus might also reflect the findings by Khang, Ki, & Ye, (2012) that the majority of social media research does not explicitly employ a theoretical framework. Articles in the Marketing / Advertising / Promotion cluster from the co-citation network analysis appear to be primarily descriptive studies and not theoretically focused.

Khang, Ki, & Ye, (2012) also noted that when social media researchers used a particular theoretical approach, the research tended to use existing theoretical frameworks rather than suggesting alternative frameworks. The results of the social network analysis presented here also support this view. Two of the primary clusters in the citation network involved established theoretical frameworks in marketing and communication: word-of-mouth and uses and gratifications.

The number of different authors who were cited was quite large, however, only two of the authors cited 5 or more times in 2011 were also on the list of authors publishing in this area. This finding could indicate the degree to which interdisciplinary research is being

conducting with authors going outside of their established paradigms to help understand

social media phenomena.

This study also has implications for future study of scholarly research using co-

citation and/or social network analysis. SNSs/social media research appeared in 289

different journals, a much larger number than typically studied by researchers employing a

"core journal" strategy. Additional research is needed to determine the degree to which

using only "core" journals in a citation analysis might bias the results.

References

Borgatti, S.P., Everett, M.G. & Freeman, L.C. (2002). UCINET for Windows: Software for
    Social Network Analysis. Harvard, MA: Analytic Technologies.

Boyd, D. M., & Ellison, N. B. (2007). Social Network Sites: Definition, History, and
    Scholarship. Journal Of Computer-Mediated Communication, 13(1), 210-230.

Cote, J. A., Leong, S., & Cote, J. (1991). Assessing the Influence of Journal of Consumer
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