
Social Media Research in Advertising, Communication, Marketing, and Public Relations, 1997–2010

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Abstract

Drawing upon the social media phenomena in both practical and academic arenas, this study explored patterns and trends of social media research over the past fourteen years across four disciplines. Findings exhibit a definite increasing number of social-media-related studies. This indicates that social media have gained incremental attention among scholars, and who have, in turn, been responding and keeping pace with the increased usage and impact of this new medium. The authors suggest that future scholarly endeavors emphasize prospective aspects of social media, foreseeing applications and technological progress and elaborating theory.

Keywords

social media trend, advertising, communication, public relations, marketing

Social media have influenced various aspects of both individuals' lives and society as a whole. The impact of these new technologies on our society is evident in news articles with headlines such as "Universities Use Social Media to Connect"¹ and "Keeping Closer Eye on the Employees' Social Networking."² Stories like these provide a glimpse into the proliferation of social media and exhibit the growing interest and concern regarding the resonance of these communication platforms.

There has been a steady increase in the use of social media for sharing various forms of user-generated content, such as news, photos, and videos, made public within a bounded system.³ As of July 2011, Facebook had globally registered over 750 million

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active users, with half of them logging on to the site daily.⁴ At the same time, YouTube users posted thirty-five hours of content every minute to the popular video-sharing platform, while the image-hosting site Flickr offered users access to over six billion photographs.⁵

These social media phenomena have transferred into professional practice and academia. Social networking sites, for example, have been utilized in the creation of brand communities,⁶ such as that established in the advertising campaign launched by the automaker Volvo on YouTube.⁷ Scholars have endeavored to explore social media by offering definitions, determining uses and impacts, and applying theoretical and methodological approaches regarding the topic. For instance, Kaplan and Haenlein identified types of social media based on social presence theory and the concept of self-presentation.⁸

The significance of social media in both practical and academic terms suggests the need for an examination of the state of social media research to date. This study therefore observes research patterns and trends through content analysis of published articles in journals covering four disciplines—advertising, communication, marketing, and public relations. In particular, this study aims to examine (1) the responsiveness to social media of the journals selected in each discipline, (2) the development of social media research, (3) the salient and underrated topics presented in each discipline and journal, and (4) the theoretical and methodological approaches applied.

This study can thus delineate a retrospective path of social media research for these disciplines and is therefore expected to educate scholars, enabling them to consider prospective directions for future examinations of social media.

Literature Review

Trend Studies of Communication Technologies

Scholars across the four disciplines have explored macro aspects of new communication technology phenomena by examining patterns and trends in the development of Internet-related research.⁹ For instance, Cho and Khang analyzed the authorial, topical, theoretical, and methodological endeavors of Internet-focused research in the domains of advertising, communication, and marketing.¹⁰ Furthermore, they provided an interdisciplinary comparison based on patterns, trends, and the robustness of Internet research.

Ye and Ki examined Internet-related research in public relations by identifying patterns and trends within such research, ultimately concluding that Internet-related scholarship lacked theoretical applications and displayed a propensity for quantitative methodological approaches.¹¹ Applying the principles of mediamorphosis and diffusion of innovation, Tomasello, Lee, and Baer analyzed studies addressing the Internet and digital technologies and found that new media research has been growing sustainably within the communication discipline. Moreover, they revealed that these two

principles are useful for explaining the emergence of the new media concentration in the discipline.¹²

In short, acknowledging that trend research on new communication technologies has underscored the importance of the Internet and its applications, this study continues this line of inquiry by focusing primarily on social media, which represent emerging venues for varied academic disciplines.

Practical Perspectives on Social Media

Social media have posed both threats and opportunities for varied domains of practice. In public relations, for instance, with the rise of social media as primary tools for communication, the mediating role played by traditional media between companies and publics has diminished. Instead, a company must monitor individuals' comments regarding its products or services online 24/7 and must also directly manage a crisis in a timely manner should one occur.¹³ The viral environment involved in social media has therefore raised major concerns and challenges for public relations practitioners. The challenging structure of social media, however, affords practitioners greater opportunities to reach out to a segmented audience that had been previously neglected.¹⁴

Similarly, advertising and marketing professionals have tapped into social media in a different way, recognizing the potential of these venues for conveying their campaign strategies. According to a Nielsen survey,¹⁵ "earned" advertising that is passed along or shared among friends demonstrated more significant effects on ad recalls, brand awareness, and purchase intent than the standard "paid" advertisements.¹⁶ This indicates that traditional marketing and advertising strategies and tactics may not be as effective or efficient when coupled with social media.

In terms of communication structure, social media have led to a dramatic shift from mass communication to interactive digital communication. With the proliferation of personal media activities and social networking, for instance, Merrin noted the emergence of peer journalism, in which "we become self-journalists, investigating and reporting upon our own lives, delivering our own news-feeds to our subscribed peer-publics."¹⁷ In fact, prior to the evolution of blogs and commentary on the Internet, mainstream news media had maintained a gatekeeper role, downplaying or ignoring stories deemed unfit for public consumption.¹⁸ Current media have "expanded up," however, as bloggers play an active role in presenting diverse viewpoints, generating and spreading popular rumors, and influencing public opinions on issues, events, and public figures. In the communication process, persuasive power has therefore gradually shifted from media institutions to active, participatory audiences called *prosumers* or *producers*.¹⁹

In short, such anecdotal evidence demonstrates that social media have greatly impacted the culture and economy of the field and inspired paradigm shifts. It is therefore useful to examine how scholars in various disciplines have addressed social media phenomena in their research.

Research Questions

RQ1: What are the frequency, proportion, and occurrence patterns of published social media research articles in advertising, communication, marketing, and public relations journals?

RQ2: What is the topical, theoretical, and methodological status of social media research in advertising, communication, marketing, and public relations journals?

Method

Dividing Academic Disciplines

These four disciplines were selected based on two previous studies by Cho and Khang and by Ye and Ki, both of which examined the status of Internet-related research.²⁰ Cho and Khang examined advertising, communication, and marketing research, while Ye and Ki covered research in the public relations discipline. Though the boundaries of these disciplines may at times blur, this study identified the corresponding journals of each discipline according to their titles and also drew from discipline categories suggested by earlier trend studies in new communication technologies.²¹ For example, a target journal in the public relations discipline should include the words *public relations* in its title. Although the *Journal of Communication Management* is considered a public relations journal, it was excluded from this study because its title does not explicitly reference the public relations discipline. This general rule was applied to all of the disciplines, with the exception of two journals, specifically *New Media & Society* and the *Journal of Broadcasting & Electronic Media*, which were both considered for the communication discipline as these two journals have previously been examined and identified as primary communication journals.²²

Sample

This study examined all of the peer-reviewed articles addressing the topic of *social media* in seventeen journals in the four disciplines during the fourteen-year period of 1997–2010. The starting point of analysis, 1997, marked the emergence of the first web diary known as a blog,²³ as well as the launch of a recognizable social network site, SixDegrees.com.²⁴ To provide a more detailed pattern of social media research, this study divided the journals into two types—leading journals and new technology-specific journals—in each discipline, as identified in Table 1.

Two reasons exist for this division. First, articles in leading journals for each discipline are more likely to have greater reader exposure and generate more citations within the discipline. In this way, the leading journals appear to enhance the body of knowledge in each discipline. Second, journals emphasizing new communication technology should be included given their focus on new technology-related topics, such as social media, which are the emphasis of this study. These journals provide

Table 1. The Number of Published Social-Media-Related Research Articles Between 1997 and 2010

Area	Journal name	Journal based		Area based	
		n	%	n	%
Advertising	<i>Journal of Interactive Advertising</i> ^a	25	5.7	35	8.0
	<i>Journal of Advertising Research</i> ^b	5	1.1		
	<i>Journal of Advertising</i> ^b	4	0.9		
	<i>Journal of Current Issues and Research in Advertising</i> ^b	1	0.2		
Communication	<i>Journal of Computer-Mediated Communication</i> ^a	190	43.6	335	76.8
	<i>New Media & Society</i> ^a	80	18.3		
	<i>Human Communication Research</i> ^b	21	4.8		
	<i>Journal of Communication</i> ^b	16	3.7		
	<i>Journalism & Mass Communication Quarterly</i> ^b	10	2.3		
	<i>Communication Research</i> ^b	10	2.3		
	<i>Journal of Broadcasting & Electronic Media</i> ^b	8	1.8		
Marketing	<i>Journal of Interactive Marketing</i> ^a	14	3.2	32	7.3
	<i>Journal of Marketing</i> ^b	7	1.6		
	<i>Journal of Consumer Research</i> ^b	7	1.6		
	<i>Journal of Marketing Research</i> ^b	4	0.9		
Public relations	<i>Public Relations Review</i> ^b	26	6.0	34	7.8
	<i>Journal of Public Relations Research</i> ^b	8	1.8		
Total		436	100.0	436	100.0

^aNew technology-specific journal.

^bLeading journal in each discipline.

scholars with a deeper and more intense understanding of the new communication technologies.

For advertising, the *Journal of Advertising*, *Journal of Advertising Research*, and *Journal of Current Issues and Research in Advertising* were chosen as leading journals in the discipline.²⁵ In addition, the *Journal of Interactive Advertising* was selected as a new technology-specific journal in the discipline.

In the communication field, five leading journals (*Communication Research*, *Human Communication Research*, *Journal of Broadcasting & Electronic Media*, *Journal of Communication*, and *Journalism & Mass Communication Quarterly*) and two new technology-specific journals (*Journal of Computer-Mediated Communication* and *New Media & Society*) were identified for use in this study.²⁶

For marketing, the *Journal of Marketing*, *Journal of Marketing Research*, and *Journal of Consumer Research* were selected because of their reputations as top journals in the discipline.²⁷ The *Journal of Interactive Marketing* was selected as a new technology-specific journal.

Because the *Journal of Public Relations Research* and *Public Relations Review* are generally viewed as the most influential journals within public relations,²⁸ these were selected for inclusion. At the time of this research, no public relations journals were dedicated to publishing articles with an emphasis on new technology.

Article Selection

Full-length published research articles constituted the unit of analysis. Therefore, editorials, book reviews, commentary, and responses were excluded. To identify a pool of articles relevant to social media, the researchers manually reviewed the titles and abstracts of all articles, and a total of 436 were identified.

Measure

Each article was analyzed based on the following: (1) *general information* (journal name, publication year, authorship, and institution affiliation), (2) *content of the article* (research focus, social media type, research topics), (3) *research tools employed* (theoretical applications, research methods, samples, sampling methods, and statistical analyses), and (4) *the developments of social media research*. Cho and Khang's framework was adapted as a coding guideline to fit the purpose of this study.²⁹

Social media type. Social media types were categorized based on the definition of social media,³⁰ though the researchers applied loosened criteria so as to include earlier forms (e.g., discussion boards, personal home pages, and instant messaging). As compared to current social media platforms featuring Web 2.0 (e.g., Adobe Flash and RSS) and user-generated content, the earlier forms also have tools that enable users to develop and distribute web content (e.g., news and photos). However, they are limited in terms of social interaction. Employing this broader definition of social media, the study traces the evolution of social media research over the years. This study used open coding, resulting in the identification of twenty-two social media types at the conclusion of coding.

Research topics. Research topics refer to the primary themes or subjects investigated by authors of each article. This coding classification was also inductively developed as coding proceeded. Eventually, eighteen research topic categories were established. Articles could be coded in more than one category for social media type and research topics.

Theoretical framework. The theoretical framework of each article was analyzed by coding specific theories, hypotheses, and research questions. As suggested by Cooper, Potter, and Dupagne, this study defines theory as a systematic explanation in the hypothetical deductive sense that can be observed or empirically tested.³¹ The presence of hypotheses or research questions was considered a key in determining whether or not an article employed a theoretical framework.³²

Research method. The research method was analyzed at both a macro level (e.g., quantitative, qualitative, etc.) and a micro level (e.g., experiment, surveys, content analysis, in-depth interviews, etc.).

Data collection/sampling methods/sample size/response rate. Data collection methods were coded, based on whether the study employed online (e.g., email, web-based survey or experiment) or offline (e.g., paper and pencil or face to face) surveys or experiments. The researchers coded the sampling methods for quantitative research articles as probability (e.g., simple, systematic, etc.) or nonprobability (e.g., convenient, volunteer, etc.). In addition, response rate, sample size, and sample population (e.g., student, general population, etc.) were also recorded.

Unit of analysis/reliability test/statistical analysis. For articles using content analysis as a primary data collection method, codes were established for the unit of analysis and intercoder reliability. For articles using quantitative research methods, the method of statistical analysis was coded.

Developmental stages of research. Wimmer and Dominick identified the four phases of mass media research in ascending order: the medium itself, uses and users of the medium, effects of the medium, and advancement of the medium.³³ These developmental stages have offered scholars a robust foundation for better understanding research trends and the status of media across varied disciplines.³⁴ Each article was coded in terms of these four phases of social media research.

Coding Procedure

Three graduate students were trained as coders. Researchers conducted a coder training session to check the explicitness of category definitions and clarify discrepancies among coders.

Intercoder Reliability

Approximately 10% of the total sample was randomly selected. To evaluate intercoder reliability, this study used Scott's pi and found that coder reliability for each coding category was above the acceptable level of .80.³⁵ Scott's pi was .95 for social media type, .90 for research topics, .92 for theoretical framework, .95 for research method, .97 for data collection, .95 for statistical analysis, and .85 for developmental stage.

Results

Frequency, Proportion, and Occurrence Patterns of Published Articles

As shown in Table 1, a total of 436 articles addressing social media topics (5.5%) were extracted from 7,987 full-length articles published in the seventeen journals during the time period examined in this study, with the *Journal of Computer-Mediated Communication* ($n = 190$, 43.6%) presenting the highest proportion of social-media-related research articles.

In the four disciplines, an overwhelming majority of social-media-related articles were published in communication journals (76.8%), while no difference was observed among journals in the other disciplines. Notably, the new technology-specific journals appeared to exceed leading journals in the proportion of social-media-related articles published in each discipline. Specifically, the *Journal of Computer-Mediated Communication* (43.6%) and *New Media & Society* (18.3%) covered social media research most extensively. *Journal of Interactive Advertising* (5.7%) and *Journal of Interactive Marketing* (3.2%) also published more social-media-related articles than did the general journals in each field.

Social media research has increased over the fourteen-year period examined, with the exception of two time periods: 2007–2008 and 2009–2010. The greatest proportion of articles was published in 2009 (17.0%). Approximately 70% of articles were published during the latter portion of the time period, specifically between 2006 and 2010. As seen in Figure 1, similar patterns were found in each of the disciplines.

Topic, Theory, and Method of Published Articles

The current study examined social-media-related research based on the following two dimensions: research disciplines (advertising, communication, marketing, and public relations) and time periods (1997–1999, 2000–2003, 2004–2006, and 2007–2010); the period 1997–1999 was the “budding stage” of social media, during which many community tools began to support combinations of profiles and publicly articulated friends; 2000–2003 marked the period when social media hit the mainstream with the emergence of popular social networking sites (e.g., LinkedIn, MySpace); 2004–2006 witnessed the emergence of YouTube and Facebook; and 2007 was the year that Twitter first gained popularity.³⁶

Research topics. The most frequently researched topic across the disciplines, with the exception of marketing, was “social media usage and attitudes towards social media” (67.7%).³⁷ In general, articles covering this topic either examined how and

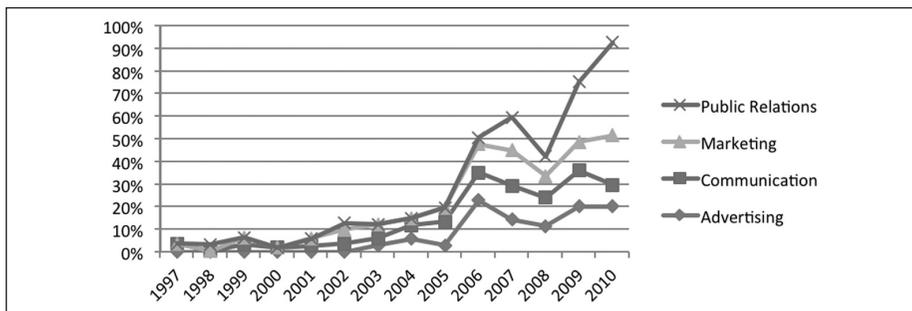


Figure 1. Trend of published social-media-related research articles from 1997 to 2010 by discipline

why people use social media or evaluated users' perceptions or attitudes toward social media. Other popular topics included "social media as either mass or personal communication tools" (22.2%)³⁸ and "social (i.e., race, gender, etc.) or political (i.e., political candidates, campaigns, etc.) issues regarding social media" (17.9%)³⁹ (see Table 2).

In marketing journals, "social media as a marketing tool" (84.4%) was a dominant topic.⁴⁰ Among advertising articles, "social media as advertising tools or issues" was among the leading topics, along with "social media usage."⁴¹ In communication and public relations journals, "social media usage" and "social media as a communication tool" were prevalent topics.

Research subjects. The most frequently researched social media type was "computer-mediated group communication, online community/virtual group" (34.2%),⁴² followed by "blogs" (16.3%).⁴³ Other popularly examined social media types included "social network sites" (11.7%),⁴⁴ "forum or discussion boards" (11.7%),⁴⁵ "electronic word of mouth (eWOM)" (7.3%),⁴⁶ and "instant messaging" (7.1%)⁴⁷ (see Table 3).

Communication scholars tended to focus on "computer-mediated group communication" (40%), while public relations scholars most often studied blogs (50%). Interestingly, eWOM was the most widely studied social media type in both the advertising (34.3%) and marketing (46.9%) disciplines. Among the four disciplines, communication journals presented the greatest range of coverage, addressing all twenty-two social media types, while public relations journals addressed only six types.

Theoretical framework/research questions or hypotheses. Approximately 40% of the articles analyzed presented an explicit theoretical framework ($\chi^2 = 41.553$, $df = 3$, $p < .001$). The most frequently applied theory was "social information processing theory" ($n = 10$, 5.8%),⁴⁸ followed by "uses and gratification theory" ($n = 9$, 5.2%),⁴⁹ "relationship management theory" ($n = 8$, 4.6%),⁵⁰ "agenda setting or framing theory" ($n = 7$, 4.0%),⁵¹ and "diffusion or adoption of new technology theory" ($n = 6$, 3.5%).⁵²

In the communication field, "social information processing theory" and "uses and gratification theory" were employed most frequently, while public relations research most often applied "relationship management theory" and "agenda setting or framing theory." As compared to articles in the advertising and communication disciplines, social media articles in marketing (84.4%) and public relations (64.7%) demonstrated more solid theoretical applications.

In terms of testing research questions or hypotheses, a majority of the articles analyzed (55.3%) presented research questions and/or hypotheses ($\chi^2 = 12.638$, $df = 3$, $p < .01$). Articles in advertising (77.1%) and public relations journals (70.6%) tested more research questions and/or hypotheses than those in communication (51.0%) and marketing journals (59.4%). Overall, the proportion of research articles testing research questions or hypotheses significantly increased over time across all disciplines ($\chi^2 = 22.076$, $df = 3$, $p < .001$).

Research method. Quantitative methods (58.5%) were dominant across the disciplines, followed by critical (19.7%), qualitative (15.6%), and mixed methods (6.2%). In particular, a significant portion of social media articles (over 80%) in public relations journals used quantitative methods.

Table 2. Topics Studied Most Frequently in Published Social-Media-Related Research Articles from 1997 to 2010

Top 5 topics	Frequency (n)	%
All journals (N = 436)		
Social media usage, perception, attitude towards social media	295	67.7
Social media communication issues	97	22.2
Social issues, political issues	78	17.9
Social media marketing issues	38	8.7
Social media in comparison with other media	35	8.0
Advertising (n = 35)		
Social media usage, perception, attitude towards social media	21	60.0
Social media advertising issues	11	31.4
Social media marketing issues	9	25.7
Interactivity	4	11.4
Social media advertising effectiveness	4	11.4
Communication (n = 335)		
Social media usage, perception, attitude towards social media	227	67.8
Social media communication issues	85	25.4
Social issues, political issues	69	20.6
Social media in comparison with other media	26	7.8
Interactivity	24	7.2
Marketing (n = 32)		
Social media marketing issues	27	84.4
Social media usage, perception, attitude towards social media	19	59.4
Social media in comparison with other media	6	18.8
Social media communication issues	5	15.6
Online shopping on social media	2	6.2
Public relations (n = 34)		
Social media usage, perception, attitude towards social media	28	82.4
Social issues, political issues	6	17.6
Social media communication issues	5	14.7
Social media in comparison with other media	2	5.9
Cultural issues	1	2.9

Table 3. Social Media Types Studied in Published Social-Media-Related Research Articles 1997–2010

	Advertising (n = 35)		Communication (n = 335)		Marketing (n = 32)		Public Relations (n = 34)		All journals (N = 436)	
	n	%	n	%	n	%	n	%	n	%
Online community	1	2.9	134	40.0	13	40.6	1	2.9	149	34.2
Blog	3	8.6	49	14.6	2	6.2	17	50.0	71	16.3
Social network sites	9	25.7	30	9.0	6	18.8	6	17.6	51	11.7
Forum, bulletin board systems	1	2.9	41	12.2	5	15.6	4	11.8	51	11.7
Electronic word of mouth	12	34.3	4	1.2	15	46.9	1	2.9	32	7.3
Instant messaging	0	0.0	30	9.0	1	3.1	0	0.0	31	7.1
Multiplayer online role-playing game	6	17.1	19	5.7	0	0.0	0	0.0	25	5.7
Social media in general	2	5.7	3	0.9	0	0.0	9	26.5	14	3.2
E-learning, e-classroom	0	0.0	10	3.0	0	0.0	0	0.0	10	2.3
Online encyclopedia	1	2.9	7	2.1	0	0.0	0	0.0	8	1.8
Sharing videos	0	0.0	7	2.1	0	0.0	0	0.0	7	1.6
Online dating	0	0.0	5	1.5	1	3.1	0	0.0	6	1.4
Virtual social worlds	1	2.9	3	0.9	0	0.0	0	0.0	4	0.9
Personal home page	0	0.0	3	0.9	1	3.1	0	0.0	4	0.9
Online gambling	1	2.9	1	0.3	1	3.1	0	0.0	3	0.7
Sharing book content	0	0.0	1	0.3	0	0.0	0	0.0	1	0.2
Sharing story	0	0.0	1	0.3	0	0.0	0	0.0	1	0.2
Sharing photos	0	0.0	1	0.3	0	0.0	0	0.0	1	0.2
Sharing music	0	0.0	1	0.3	0	0.0	0	0.0	1	0.2
Podcast	0	0.0	1	0.3	0	0.0	0	0.0	1	0.2
Internet information pool	0	0.0	1	0.3	0	0.0	0	0.0	1	0.2

For research methods at the micro level, the studies examined most frequently used surveys (29.4%), followed by content analysis (26.4%), critique/essay (16.1%), and experiments (14.4%). Surveying was the most popular research method employed across the disciplines, with the exception of public relations, which favored content analysis for data collection (47.1%).

Data collection/sampling method/sample size/response rate. Approximately 70% of the articles used surveys and experiments to collect data online, while the remaining research employed either offline data collection (29.7%) or a combination of both methods (2.3%). Among the 436 articles reviewed, 320 identified sample types. The most popular sample type was people (68.4%), followed by data (27.7%). In studies that used samples of people, students were the primary sample (30.6%), followed by users (25.6%; e.g., online community members, bloggers, etc.), professionals (7.2%; e.g., PR professionals, journalists, scientists, web designers, etc.), and the general public (5.0%). Studies that identified a data sample most frequently examined online messages (26.2%; e.g., web pages, messages on forums or Facebook, etc.). Nonprobability sampling methods (79.7%) were most prevalent in articles across all four disciplines.

The sample sizes varied greatly depending on the methods employed. The mean sample size was 870 for survey-based studies, and the average response rate was 43.5%. The mean samples were 16,414 for content analysis of messages posted to forums, discussion boards, and so on, 20 for in-depth interviews, and 147 for experiments.

Phases of social-media-related research. As indicated in Table 4, social media articles across all seventeen journals focused primarily on the uses and users of social media (66.3%), followed by the effects of social media (19.7%), social media itself (12.8%), and improvements to social media forms (1.1%). Interestingly, although the second phase, “uses and users of social media,” was featured in a majority of the research, it was only the second most frequently covered phase in marketing journals, which focused more on “effects of social media.” Aside from an increasing trend in research examining the effects of social media, the proportion of research addressing social media itself, social media uses, and social media improvements all decreased over the four time periods, as represented in Figure 2.

Discussion and Conclusions

The data reveal an increasing trend in terms of the number of social-media-related studies across the four disciplines, indicating that social media have gained incremental attention among scholars, who have in turn been responding and keeping pace with the increased usage and impact of this new medium. One noteworthy finding involves the increase in articles that coincided with the emergence and rising significance of social networking sites (e.g., Facebook in 2004 and Twitter in 2006). Furthermore, considering that a trend in research addressing the new communication technology follows a diffusion curve,⁵³ this study predicts that social media research will continue to grow and keep pace with the evolution of social media usage, continuing to document resultant impacts and applications.

Table 4. Phases of Social-Media-Related Research between 1997 and 2010

Phase	Advertising (n = 35)		Communication (n = 335)		Marketing (n = 32)		Public Relations (n = 34)		All Journals (N = 436)	
	n	%	n	%	n	%	n	%	n	%
Social media itself	1	2.9	54	16.1	1	3.1	0	0.0	56	12.8
Uses and users of social media	19	54.3	232	69.3	10	31.2	28	82.4	289	66.3
Effects of social media	15	42.9	47	14.0	20	62.5	4	11.8	86	19.7
Improvement of social media	0	0.0	2	0.6	1	3.1	2	5.9	5	1.1

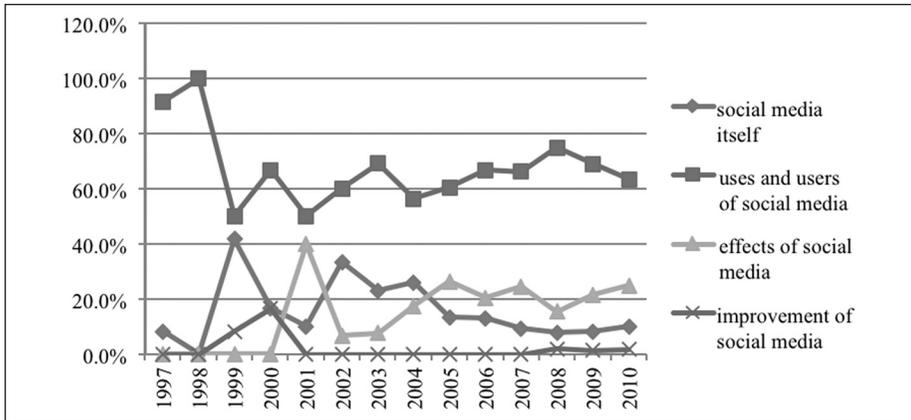


Figure 2. Trend of four phases of social media research

The findings also demonstrate the dominance of new communication technology-focused journals in social media research within each discipline. Since these journals have fostered an atmosphere that embraces social media phenomena earlier and faster than general journals, scholars could take advantage of these as alternative outlets, offering greater opportunities for submitting papers covering social-media-related research. For example, the *Journal of Interactive Marketing* announced a call for papers examining social media for inclusion in its special issues for 2011. Notably, the new media-focused journals have gained ground in impact factor in recent years, exhibiting the growth potential of each journal in the disciplines.⁵⁴

Through analysis of the topics covered in social media research, this study’s findings reveal scholars’ interests in varied topics across the academic domains examined. Among these topics, scholars most greatly emphasized “social media usage, perception, attitude towards social media,” followed by “social media as a mass or personal

communication tool” and “social (i.e., race, gender, etc.) or political (i.e., political candidates, campaigns, etc.) issues regarding social media” across the disciplines, with the exception of marketing. In marketing journals, “social media as marketing tool” was the most popular topic. This is understandable considering the characteristics of marketing. As compared to public relations and communication, marketing is a more profit-driven field. This motivation for profits leads marketing scholars to focus greater attention on the effects of social media. Compared to marketing, advertising places greater emphasis on the persuasive power of social media (e.g., how to grab consumers’ attention, build brand image, and garner greater attention, interests, and desire), while marketing is more interested in social media’s potential for action.

This study also analyzed the theoretical frameworks employed in each article. About 40% of social media research employed explicit theoretical frameworks, an encouraging finding when compared to past studies that indicated only 15% of Internet-related articles and 8% of general articles were based on theoretical approaches.⁵⁵ In social media research, theoretical frameworks are expected to offer general statements regarding the nature and effects of social media based on systematic and objective observations of the medium. Social media research may have achieved a level of theoretical rigor that consequently enhances the validity and accuracy of its findings. However, the majority of articles examined either utilized or replicated existing theoretical frameworks, rather than suggesting alternative frameworks that could entail better solutions for understanding and applying social media phenomena. In his consideration of the process of scientific revolution, Kuhn argued that there is a certain phase in which anomalies (e.g., social media) are often incorporated into the old paradigm (e.g., uses and gratification) to cope with the introduction of an unpredictable condition.⁵⁶ Based on data reported here, social media research falls into this phase. As such, scholars are encouraged to develop new concepts and theories for understanding novel aspects of social media that cannot be exhaustively explained using the established knowledge structure.

In terms of the methods used social media research, the data demonstrate that quantitative research (58.8%) is more prevalent than nonquantitative research (35.3%), a finding that contradicts the results of previous Internet trend studies indicating that nonquantitative approaches were more prevalent.⁵⁷ These results could reflect this study’s inclusion of articles featured in public relations journals, where a vast majority (82.4%) of social media research articles employed quantitative methods. In general, quantitative approaches maintain that a phenomenon can be explained based on objective facts. Thus, a research design and measurement instruments serve to eliminate researcher bias and errors.⁵⁸ On the other hand, qualitative methods endeavor to provide greater detail to aid in understanding a situation that is assumed to hold multiple realities. While inherently different, both methods are considered complementary for understanding a phenomenon.⁵⁹ A balance of these methodological approaches is therefore encouraged for research in the varied disciplines in order to provide greater insight into social media.

In social media research, particularly studies utilizing a survey and experimental design, data collection methods (online vs. offline) are worthy of attention. These data indicate that online methods are more commonly employed than offline data collection in social media research across the four disciplines. Although this raises concerns

over representativeness of a meaningful population,⁶⁰ online data collection methods have increased in popularity due to the capacity to generate a nationally representative sample of Internet users without geographical limitations.⁶¹ Furthermore, Smith argued that the method provides “arguably more candid and extensive response quality.”⁶² As the findings suggest, online data collection methods are expected to grow even more prevalent in future research.

Assessing the sampling rigor of social media research, this study found that the generalizability of the results featured in the articles examined may be questionable, given that nonprobability sampling (approximately 80%) was the form of sampling employed most in social media studies. When using nonprobability sampling methods, researchers cannot ensure that the sample is representative of the population.⁶³ Future social media research could be improved by incorporating probability sampling methods to enhance the generalizability of the research.

Analyzing the developmental phases of social media research,⁶⁴ this study found that articles over the past fourteen years have most frequently addressed the uses and users of social media (the second phase of mass media research), followed by the effects of social media (the third phase) and social media itself (the first phase), while studies addressing improvements of social media (the fourth phase) were rarely conducted. Table 5 includes examples of articles representative of each developmental phase, thus furnishing a glimpse into how social media research has evolved through these definable stages.

Interestingly, the data reveal an increasing pattern of research examining the effects of social media over the course of the period studied, indicating that scholars have recognized and responded to social media’s impacts on our lives and society. As these results are consistent with those of previous studies,⁶⁵ we suggest that future scholarly endeavors focus on the prospective aspects of social media, foreseeing applications and technological progress and elaborating theories.

Limitations and Future Research

Using a broader definition of social media, we considered discussion boards, instant messaging, and personal home pages as social media types. Articles covering studies of the primary stage of social media constitute 19.7% of the total sample analyzed, while 86% of the articles were taken from the communication field. Thus, the limitations of this study should be considered when interpreting its results and implications.

While this study examined social media research across the four disciplines, it may not be entirely inclusive. Just as the field of communication can be defined in a broader way through the inclusion of journalism and broadcasting, future research should be expanded to examine how scholars in these fields and other disciplines have also addressed the status and usage of social media. Moreover, strategic communication is often considered the combination of advertising and public relations, and it would therefore be interesting to ascertain how relevant journals like the *International Journal of Strategic Communication* have covered social media research as compared to advertising and public relations journals.

Table 5. An Example Article on Social Media by Developmental Phase

Phase	Authors	Year	Title
Social media itself	Boyd and Ellison	2007	"Social Network Sites: Definition, History, and Scholarship"
Uses and users of social media	Waters, Tindall, and Morton	2010	"Media Catching and Journalists-Public Relations Practitioners Relationship: How Social Media Are Changing the Practice of Media Relations"
Effects of social media	Walter et al.	2008	"The Role of Friend's Appearance and Behavior on Evaluations of Individuals on Facebook: Are We Known by the Company We Keep?"
Improvement of social media	Jin and Liu	2010	"The Blog-Mediated Crisis Communication Model: Recommendations for Responding to Influential External Blogs"

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