Theoretical Models of Social Media, Marketing Implications, and Future Research Directions

(for Section 2)

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Abstract

Social media is becoming more crucial to hospitality and tourism businesses, due to the intangibility and experiential nature of tourism products and the lowered technological barrier for average travelers to contribute information online. Different from the one-way communication in most mass media channels, social media represents two-way communication between consumers. Social media revived more ancient types of decision-making prevalent before the emergence of mass media, when the exchange of opinions between one's families, relatives, friends, and neighbors was the basis for product purchase decisions. As the digital version of word-of-mouth, social media represents the materialization, storage, and retrieval of word-of-mouth content online. However, the large-scale, anonymous, ephemeral nature of the Internet induces new ways of capturing, analyzing, interpreting, and managing social media content. Some traditional theories, such as social exchange theory, social penetration theory, and social network theory, could be valid paradigms for studying and explaining how people form networks, express their opinions, and pass information to each other. For example, Buckner's (1965) theory on rumor transmission indicates the accuracy and speed of rumor passing were affected by the structure of the network and the mental sets of individual actors in the network. This chapter will focus on the review of relevant theories, the construction of an integrated meta-framework, and, more importantly, the implication on hospitality and tourism marketing research and the principles of marketing hospitality and tourism businesses through social media.

Introduction

Social media is becoming more crucial to hospitality and tourism enterprises. On one hand, hospitality and tourism industries offer intangible and experiential products. Visitors must rely on the information delivered to them, either online or offline, to identify and evaluate the product alternatives. User reviews and comments are experiential in nature and highly trustable. On the other hand, the development of Internet technologies has lowered the barrier for contributing information online. Almost anyone with Internet access could easily blog, tweet, review, comment, and update his or her Facebook status. These communication tools have led to an explosion of social media content. In September, 2010 Facebook was ranked as the number one website online which can reach 39.2% of the Internet population; YouTube was ranked number two with 31.8% (Google 2010). More importantly, the traffic of those websites continues to increase, dwarfing the most popular mass media sites, while consistently increasing their amount of daily unique visitors (Figure 1).
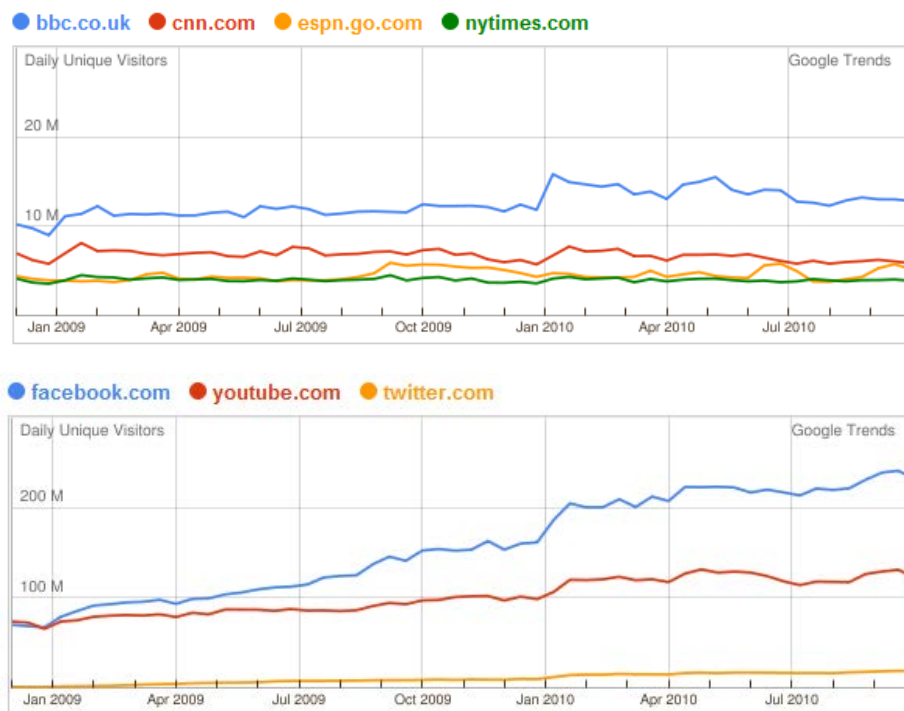
Source: http://trends.google.com/websites as of November 5, 2010

Figure 1. Traffic Volumes of Top Mass Media Sites versus Top Social Media Sites

Faced with the explosive volume of social media and its increasing influence, hospitality and tourism enterprises are searching for ways to make sense of this media and manage it to their advantage. Place the phenomena into an appropriate theoretical context that better describes the complex and dynamic relationships inherent in social media will help enhance our understanding of it.

Social media has revived more ancient types of decision-making prevalent before the emergence of mass media, when the exchange of opinions between one's families, relatives, friends, and neighbors was the basis for product purchase (Dellarocas 2003). Different from the one-way model of communication in most mass media, social media represents two-way communication between consumers and the materialization of the communication content. As the digital version of word-of-mouth, social media represents the solidification, storage, and retrieval of the word-of-mouth content online. However, the large-scale, anonymous, ephemeral nature of the Internet induces new ways of capturing, analyzing, interpreting, and managing social media content (Dellarocas 2003). In-depth theoretical and behavioral understanding of this content might be crucial for making sense of this media.

However, do theories *really* matter for social media? Facebook was created because a Harvard undergraduate student wanted to connect with his fellow students (Mezrich et al. 2009); Twitter came from a brainstorming session of Twitter founder Evan Williams (Johnson 2009); neither was created due to a deep understanding of social network theories. More importantly, in today's online world, the large amount of behavioral data can be captured and analyzed instantaneously, and new ideas can be tested out easily through various social media platforms. Some ideas will fly and become popular; some others will just die off due to a lack of participation. Businesses could test out new marketing methods and ideas easily online and get instant feedback from their customers. For example, Amazon has been the largest social science laboratory by testing many models of consumer purchase behavior (Contractor 2009). As Chris Anderson announced, online data deluge will make theories obsolete (Anderson 2008).

However, theories are still crucial for researchers and businesses to understand and take advantage of this media. First, relevant theories could help interpret and make sense of data. One can easily capture many types of behavioral data about our customers,

such as clicks, impressions, search volumes, comments, reviews, etc., but what do they represent? Appropriate theoretical models could help make sense of this data.

Secondly, theoretical frameworks could help discover new opportunities in the field. After all, the core technology of Google was invented by adopting the aged theories of biliometrics in order to solve the problems of finding quality web pages online (Vise and Malseed 2006).   Potential opportunities may exist when we survey relevant theories in communications, sociology, and computer and information sciences. For example, complex interactions exist between informational artifacts and actors in social networks; you can share and recommend a piece of text, picture, or video to friends, and other people may discover you through shared information artifacts and add you as a friend. Understanding this complex and dynamic relationship is important for harnessing the power of social networks for marketing purchases, for example, discovering opinion leaders. Some traditional theories, such as social exchange theory, social penetration theory, and social network theory, could be valid paradigms in studying and explaining how people form networks, how they express their opinions, and how they pass information to each other. For example, Buckner's (1965) theory on rumor transmission indicates the accuracy and speed of rumor passing will be based on the structure of the network and the mental sets of individual actors in the network.

Thirdly, theoretical frameworks could help avoid technological dominance over our lives and society. Fast development of technologies could easily overwhelm users, both as business managers and consumers. Understanding their implications through a global and abstract view could help them deal with the inundation of information technologies.

This chapter will focus on the review of aforementioned relevant theories, the construction of an integrated theoretical meta-framework, and, more importantly, the implication on the principles of marketing hospitality and tourism businesses through social media.

Relevant Theories Related to Social Media

This section reviews major theoretical frameworks which may be applicable to the study and understanding of social media. One can separate these theories into three schools: micro-theories deal with those frameworks studying the dynamics of contribution of information online and communication of individual social actors; macro-theories are those theories looking at the structure and dynamics of social actors and social media content through global or abstract views; pseudo-theories include the recent conceptual frameworks in marketing and social media proposed mostly by non-academics. Pseudo-theories may make sense intuitively, but have yet to be tested empirically and rigorously with scientific methods. All schools of theories and frameworks might contribute to our understanding of the nature of social media, why people contribute, how they form relationships, and how one can discover the opinion leaders and valuable social media content.

I. Micro-Theories

a. Word of Mouth/Psychological Ownership Theory and Perceived Control

Historically, tourism researchers have found that advice from friends and relatives is the most frequently obtained and influential source of information used by consumers in their travel decision making (Crotts 1999; Perdue 1993). The information communicated by friends and relatives is construed to be more credible, honest, and trustworthy than that generated from marketers, since the communicators are not compensated for the referral. Advancements in the Internet and Web 2.0 technologies now allow consumers to access personally meaningful critiques not only from friends and relatives but from strangers (e.g. travel blogs, which continue to grow in popularity). As an illustration, TripAdvisor, currently purports over 40 million reviews attracting over 50 million unique users each month (Dépêches 2010).

Asatryan and Oh (2008) applied Psychological Ownership Theory in explaining why former guests are motivated to offer WOM feedbacks. On one level, some customers develop feelings of connections with firms they are loyal to that manifest into

a sense of ownership, as evidenced by the 'mine', 'my', 'our' language they use in their reviews. In such circumstances, one would assume that a loyal guest would provide positive feedback to others, directing their negative feedback to management (Mattila 2001). However, where no such loyalty exists, the motive to write either a negative or positive review may be a desire to control or influence the business indirectly by communicating with its future potential customers. Loyal consumers' motives in posting positive reviews on travel blogs are attempts to reward firms; the motives of non-loyal customers are based on the satisfaction of being helpful to other consumers. According to Pierce, Kostova, and Dirks (2003), the desire by the consumer to control through such communications may result in feelings of efficacy, intrinsic pleasure, and extrinsic satisfaction in providing such advice to others.

These propositions point to strategies in which a firm can leverage customer feedback and social media for a firm's strategic benefit. On one hand, firms should enhance the perception of psychological ownership and control among their customer base through loyalty and guest feedback and service recovery programs; they should keep more negative evaluations internal and positive feedback external. On the other hand, firms that do not emphasize customer loyalty or guest feedback should expect customers to both reward and punish their performance through social media.

b. Social Exchange Theory

Given that all social media are dependent on users providing content, an understanding of the motives of why individuals participate appears fundamental. Social exchange theory was originated from sociology studies exploring exchange between individuals or small groups (Emerson 1976). The theory mainly uses cost-benefit framework and comparison of alternatives to explain how human beings communicate with each other, how they form relationships and bonds, and how communities are formed through communication exchanges (Homans 1958). The theory states that individuals engage in behaviors they find rewarding and avoid behaviors that have too high a cost. In other words, all social behavior is based on each actor's subjective assessment of the cost-benefit of contributing to a social exchange. They communicate or

exchange with each other contingent on reciprocal actions from the other communicating party (Emerson 1976). The mutual reinforcement could be analyzed through a microeconomic framework, though many times the rewards are not monetary but social, such as opportunity, prestige, conformity, or acceptance (Emerson 1976). The theory was arguably best summarized by Homans (1958, p. 606) when he wrote:

> *Social behavior is an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige. Persons that give much to others try to get much from them, and persons that get much from others are under pressure to give much to them. This process of influence tends to work out at equilibrium to a balance in the exchanges. For a person in an exchange, what he gives may be a cost to him, just as what he gets may be a reward, and his behavior changes less as the difference of the two, profit, tends to a maximum.*

Hence, the reasons why people engage in a social exchange have been posited as a) an expected gain in reputation and influence on others; b) an anticipated reciprocity on the part of others; c) altruism; and d) direct reward. Given that participation in the social media is not compensated, the first three reasons appear to have particular relevance to why people participate in social media.

Travel blogs and social media sites have long recognized that there are far more people consuming information than generating. On YouTube, for example, though subscribers have uploaded over 2 billion videos and audio tracks to the social media site since its founding in 2005, the same site is accessed by more than 10 million unique daily visitors indicating there are far more viewers than contributors. The Global Web Index (2009) (TrendsStream Limited 2010; Li 2010), which tracks this phenomena, suggests that users of social media can be segmented into four main groups. They are: (1) watchers (79.8% of the US social media users), who consume content only to help with their decision making; (2) sharers (61.2%), who upload and forward information to others in order to help others and demonstrate knowledge; (3) commenters (36.2%), who both review and rate products and comment on those who do in an effort to participate and contribute; and (4) producers (24.2%), who create their own content in an effort to

express their identity and recognition. Framed in a social exchange theory, watchers take but do not reciprocate from the exchange suggesting they consider the cost of posting or commenting too high, or fear of offering their opinion or raising their profile.

Though obviously far more research is needed to test the validity of such groupings, segmenting users as to their exchange behaviors has a certain level of face validity. Given such a hierarchy of users based on their active exchanges, firms attempting to leverage social media to their advantage should attempt to engage consumers of all four segmentation levels. For watchers, the task is to first identify the specific social media they use, what information they seek, and what makes it engaging, in an effort to develop and position content that is relevant. The same strategy and content should be useful as well for sharers. However, the tendency of sharers should be facilitated by marketers by simplifying the process of forwarding content (e.g., Retweet and Facebook forward links) as well as recognizing and rewarding the desired behavior. Facebook's OpenGraph has allowed a user to "like" or "comment" on any content on the web (Zukerberg 2010). Firms may find advantages in getting ahead of this trend by proactively adding a commenting feature to each of their webpages. By doing so, they can directly manage the content of such comments which in effect will discourage spammers and trolls. Lastly, in regards to producers, attempts by firms to engage with their customers who create unique platforms for their customers may produce dividends at the brand or chain level. Publically recognizing such sites that are helpful to the firm and increasing their visibility through search engine marketing are options.

c. Social penetration theory

Similar to social exchange theory, social penetration theory explains how human exchange forms relationships (Altman and Taylor 1973). However, the latter focuses more on the individual and dyadic levels while the former could explain behavior at aggregated and organizational levels. Social exchange theory states that human beings form close relationships through self-disclosure. Using an analogy of peeling of the layers in an onion, one must disclose him or herself through the continuing process of expose one's inner self and identity. It starts with public, visible, and superficial

information, such as gender, clothing preferences, and ethnicity; slowly, as the relationship progresses, one starts to share his or her feelings; in the deepest level, one will expose his or her goals, ambition, and beliefs (Altman et al. 1981).

In the social world online, we may be able to design social networks in a way to separate these different layers of information. By default, certain information will be disclosed to the public, while private and semi-private information could be confidential; There might be ways to determine the levels of relationships from the mode and frequencies of communication, which could be all tracked online easily through online social media sites. A recent privacy lawsuit against Facebook highlighted the importance following the layered rules of social penetration in order (Gaudin 2010).

II. Macro-Theories

a. Social Network Analysis

Social network theory views the community of individuals as connected actors, and uses mathematical models to study its structure, development, and evolution (Wasserman and Faust 1994). Social network analysis treats individual actors in a community as nodes; the communications between those actors are deemed as ties, edges, links, or connections. Social networks can form in many levels, from individual people, to families, communities, and nations. Those ties could be communication frequency, friendship, kinship, financial exchange, sexual relationships, or common interests or beliefs. Together they form a complex graph structure.

Mathematical calculation on many indices could be performed on this complex graph, including the following:

Betweenness: the extent of a node lying between other nodes;

Centrality: how connected is a node to the network;

Closeness: how one node is near all other nodes in the network;

Density: all the ties in a network in proportion to all the possible ties;

Structural hole: the node which connects other nodes. Those nodes are disconnected without the first node.

These measurements determine the importance and structural positions of individual actors, and the characteristics of the partial or whole networks. The measurements could be used to study the social network, improve the network structure, and help increase the efficiency of information flows in the network. Network analysis software such as UCINET could be used to measure those indices (Borgatti et al. 1992).

Traditional social network analysis views individuals or organizations as nodes in the network, and the communication between them as edges. However, social media content is exactly the materialization and solidification of the chatter, comments, or reviews. The recent emergence of multi-dimensional social network framework is crucial in studying the interaction between social actors and information artifacts (Contractor 2009). By treating social media content as nodes, one can perform mathematical calculation on those information artifacts, such as what are the important pieces shared by many people, how one can connect users through artifacts, where are the structure holes of social media by connecting which the network could be more tightly integrated.

Buckner's (1965) theory on rumor transmission indicates the accuracy and speed of rumor passing were affected by the structure of the network and the mental sets of individual actors in the network. Connecting this line of research with social network analysis of those online social network sites could inform businesses of the methods on promoting themselves through organic word-of-mouth. Recent applications of multidimensional social network analysis to web 2.0 has generated some fruitful results (Kajdanowicz et al. In Press; Kazienko et al. 2010).

B. McLuhan's Media Theory

McLuhan is a Canadian philosopher and educator, the author of the famous quote "the media is the message" (McLuhan 1995). He argued that the media itself, rather the actual content of the media, will transform people and society. The actual messages people are communicating won't be any different on the new media; the interactivity and frequency of new communication pattern will change our behavior forever. Thus, the media's effects on society are much greater than the content of the media. He separates media into "cool" media and "hot" media. The former one requires a viewer to exert

much effort and participation in understanding the content, such as television, seminars, or cartoons; the latter refers to those media that enhance one sense, so the viewers do not need to exert much effort, such as films, radio, and photography (McLuhan 1995).

If we use McLuhan's arguments, social media will transform the users not due to the content it contains, but due to the mode of communication it entails. For example, Twitter is only a micro-blogging service with a limitation of 140 characters. Theoretically one can perform all the functions of Twitter through a blog service. However, it is exactly its limiting factor which made Twitter more nimble and real-time. Many breaking news stories were spread out on Twitter, such as China's Sichuan earthquake and Mumbai's terrorist attack in 2008 (Parr 2009). As business managers and consumers, one needs to realize the changing behavior due to the usage of new social media services and adopt an attitude of acceptance toward those technologies and behavior.

III. Pseudo-theories

Social media landscape is fast changing due to the low cost of innovation in the era of open-source movement. The disconnect of academia from the industry and the slow process of formal publishing cycle poses a challenge for researchers in academic institutions . Many social media and online marketing agencies actually are more innovative and ahead of the curve of social media for marketing purposes. This section views two frameworks trying to make sense of social media landscape.

Carlene Li and Jeremiah Owyang from Altimeter Group are the major contributors to the socialgraphics framework (JOwyang 2010). They argued that instead of studying the demographic, geographic, or psychographic profiles of your customers, businesses also need to develop social strategy termed socialgraphics. Marketers and managers needs to ask the following questions: which websites are my customers on? What are my customers' social behaviors online? What social information or people do my customers rely on? What is my customers' social influence? The answers to these questions could separate your customers into layers of engagements: from curating, producing, commenting, sharing, to watching. The businesses then need to separate their customers into these layers and provide tools and platforms to facilitate their social interaction.

Another line of framework, Social Feedback Loop, links consumer purchase funnel with social media. Dave Evans (2008) has argued that traditional purchase funnel has three stages (awareness, consideration, and purchases) during which a marketer could influence a consumer's decision making. However, the purchase funnel concept treats customers like living in a vacuum. A customer, after purchase, will use the product, form opinions, and talk about it later in the stage. Some of the experience after purchase will be materialized and posted online, which will loop back to other customers' purchase decision making process. This social feedback cycle is driven mostly by word-of-mouth; the word-of-mouth is further driven by actual use, trial, or sampling experience. Harnessing this feedback loop might be even more important than marketing on the mass media through the first three stages of consumer decision making.

These two frameworks make intuitive sense: marketers should switch focus from effects of mass media on pre-purchase decision making to post-purchase word-of-mouth; one needs to study the different levels of engagement your customers have in order to adopt different strategies for encouraging the spread of social media and influence the direction of consumer conversation. However, the frameworks don't specify the exact methods in segmenting engagement groups and the ways to adopt in order to differentiate stages of pre-purchase decision making and post-consumption and the ways to influence them.

An Integrated Meta-Framework

The aforementioned theories look at social media and social actors through either individual, global, or marketing and business perspectives. An integrated framework needs to be reductionistic, quantifiable, and applicable to business and marketing settings. Social network analysis, especially the multi-dimensional social network analysis, with rigorous methodology and measurements, seems to be an overall framework for studying the interaction between information artifacts, human actors, and the interaction and evolution of the two. Thus, multidimensional network is at the center of the framework. On one hand, the macro and micro theories, such as McLuhan's media theory, social exchange and social penetration theory, could inform the analysis and modeling of social network analysis. On the other hand, social network analysis can actually quantify

socialgraphics and link social media content with purchase funnels through quantitative analysis. Social network analysis could be adopted to explore various aspects of those behavioral theories online. For example, on one hand, one needs to look at social penetration theory and start linking different layers of private information with different levels of relationships; on the other hand, the frequencies of posting and commenting and number of friends on social networks, could be the basis to differentiate levels of participation in socialgraphic profile of a business' customer base. Figure 2 displays a meta-framework which connects the theories and frameworks discussed in this chapter, with the questions they could address in the social media world.
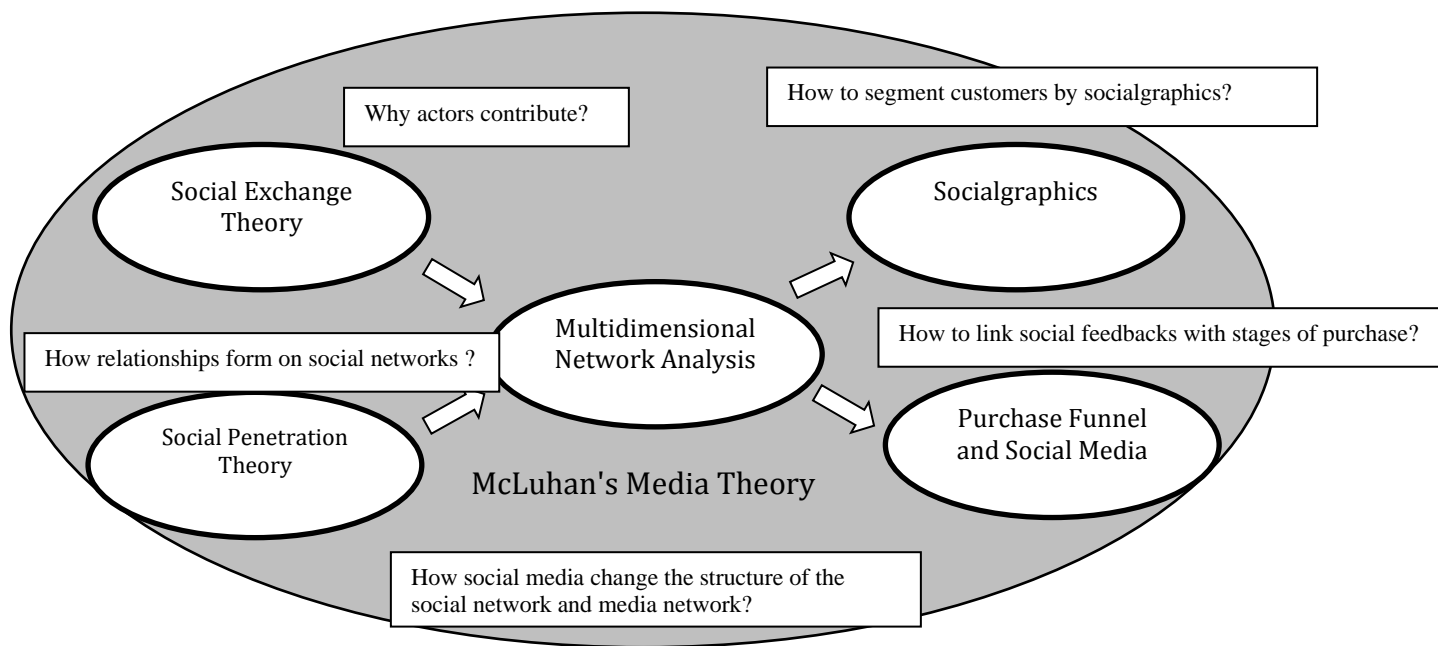

Figure 2. The Connections between Theoretical Models and Applicable Questions

Conclusions and Future Research

A few major theoretical and behavioral frameworks are reviewed in this chapter, including word-of-mouth research, social exchange theory, social network analysis, McLuhan's media theory, socialgraphics, and purchase funnel and social media. Social network analysis, especially the multi-dimensional social network analysis, could be the

general framework to investigate social network , information artifact networks, and the dynamic evolution between the two. On one hand, the behavioral frameworks could inform the development and directions of multidimensional networks; on the other hand, the methodologies of multidimensional social network could be used to inform and validate other general theories and frameworks; more importantly, the quantifiable nature of the methodology and the ease of capturing behavioral data online could finally validate the socialgraphic framework and quantify different stages of the decision making process and inform the marketers of the ways to influence their customers from social feedback loop.

For future research efforts, more specifically, we need more studies combining data mining and data modeling on the web with behavioral frameworks. For example, we need to capture the social generated media and metadata existing on current social media websites, such as Facebook, LinkedIn and Twitter. Adopting multidimensional social network analysis in studying online social networks and knowledge networks could result in more in-depth understanding of the phenomena and inform social media marketing practices for hospitality and tourism businesses (Contractor 2009).

Acknowledgements

References

Altman, I, and DA Taylor. 1973. *Social penetration: The development of interpersonal relationships*: Holt, Rinehart and Winston New York.

Altman, I, A Vinsel, and BB Brown. 1981. "Dialectic conceptions in social psychology: An application to social penetration and privacy regulation." *Advances in experimental social psychology* 14:107-160.

Anderson, C. 2008. "The end of theory: The data deluge makes the scientific method obsolete." *Wired Magazine* 16:16-07.

Asatryan, VS, and H Oh. 2008. "Psychological Ownership Theory: An Exploratory Application in the Restaurant Industry." *Journal of Hospitality & Tourism Research* 32:363.

Borgatti, S., M. Everett, and L. Freeman. 1992. "UCINET X: Network analysis software." Pp. Columbia, SC: Analytic Technologies.

Contractor, N. 2009. "The emergence of multidimensional networks." *Journal of Computer Mediated Communication* 14:743-747.

Crotts, J. C. 1999. "Consumer decision making and prepurchase information search." Pp. 149-168 in Abraham Pizam and Yoel Masfeld eds., *Consumer Behavior in Travel and Tourism* Binghamton, New York: The Haworth Hospitality Press.

Dellarocas, Chrysanthos. 2003. "The digitization of word of mouth: Promise and challenges of online feedback mechanisms." *Management Science* 49:1407-1424.

Dépêches. 2010. "TripAdvisor Becomes the First Travel Brand to Break the 40 Million Unique Monthly Visitors Barrier." Pp.

Emerson, RM. 1976. "Social exchange theory." *Annual review of sociology*:335-362.

Evans, D. 2008. *Social media marketing: an hour a day*: Sybex.

Gaudin, Sharon. 2010. "Facebook slapped with class-action privacy lawsuit." Pp.

Google. 2010. "The 1000 most-visited sites on the web." Pp.

Homans, GC. 1958. "Social behavior as exchange." *American journal of sociology* 63:597-606.

Johnson, S. 2009. "How twitter will change the way we live." *Time, http://www. time. com/time/printout/0* 8816:00.

JOwyang, J. 2010. "Socialgraphics Help You To Understand Your Customers: Slides and Webinar Recording." Pp.

Kajdanowicz, T, P Kazienko, K Musia , and W Wyspia skiego. In Press. "Discovering Multidimensional Social Communities in Web 2.0."

Kazienko, P, K Musial, and T Kajdanowicz. 2010. "Multidimensional Social Network and Its Application to the Social Recommender System." *IEEE Transactions on Systems, Man and Cybernetics-Part A: Systems and Humans*.

Li, Charlene. 2010. *Open Leadership: How Social Technology Can Transform the Way You Lead*. San Francisco, CA: Jossey-Bass.

Mattila, AS. 2001. "Emotional bonding and restaurant loyalty." *The Cornell Hotel and Restaurant Administration Quarterly* 42:73-79.

McLuhan, M. 1995. *Understanding media: The extensions of man*: Cambridge, Mass.

Mezrich, B, M Chamberlain, and Random House Audio Publishing. 2009. *The accidental billionaires*: Books on Tape.

Parr, Ben. 2009. "10 Most Extraordinary Twitter Updates." Pp.

Perdue, R. R. 1993. "External Information Search in Marine Recreational Fishing."
     Leisure Sciences 15:169-187.

Pierce, JL, T Kostova, and KT Dirks. 2003. "The state of psychological ownership:
     Integrating and extending a century of research." *Review of General Psychology*
     7:84-107.

TrendsStream Limited. 2010. "Global Web Index." Pp.

Vise, D, and M Malseed. 2006. *The google story: Inside the hottest business, media, and
     technology success of our time*: Delta.

Wasserman, S., and K. Faust. 1994. *Social Network Analysis*. Cambridge: Cambridge
     University Press.

Zukerberg, M. 2010. "Building the Social Web Together." Pp.