

Become a Fan: A Conceptual Model for Social Media Marketing

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Introduction

Social networking websites have grown tremendously in popularity. The use of social media has diffused widely with recent statistical data showing high penetration rates (Quan-Haase and Young, 2010). A social networking site serves as a platform where individuals interact as well as share information with each other. Recently, companies have started to notice the huge potential of such websites as an effective marketing tool. Social network websites allow companies to easily identify their target customers and to instantly distribute information to a broader scope of customers.

Facebook is the top used social networking site among college students (Spinks, 2009). As for marketers, facebook stands out for three reasons: first, facebook has become a major component of college students' daily life. In addition, according to the latest report (Morrison, 2010), the number of facebook users in all age groups (ranged from 13-65) has increased dramatically over the past a few months. Table 1 suggests that more users over 25 years old appear on facebook, which expands the demographics of customers for organizations.

	13-17	18-25	26-34	35-44	45-54	55-65
Female	7,365,220	18,750,560	15,364,780	12,686,800	9,890,450	5,867,660
Male	6,081,180	17,408,020	12,817,580	9,850,740	6,436,560	3,545,720

Table 1. Numbers of facebook users cross age groups (Source: Morrison 2010)

Second, unlike other networks mainly developed for individual users, facebook has developed several marketing instruments that can directly be employed by companies, including banner advertisements, groups, and fan pages. Comparing to ads and groups, a fan page on facebook is more effective due to its characteristics such as media richness and its ability to allow customers to communicate with each other, or most importantly, communicate with the company. Third, facebook has the ability to order users nationally and geographically. Based upon this feature, more than one fan pages could be maintained by companies. While the main fan page conveys a comprehensive experience of a brand, fan pages for specific geographic locations could arouse a stronger feeling of connection for customers.

Purpose of the study

With 81% of surveyed executives expecting to increase investment on social media projects and reduce traditional marketing, there is still little research on the effects of social media on purchasing decisions (Value of Social Media, 2010). It is not clear the extent to which facebook fan pages are used by companies as a marketing tool, and what kind of information is presented on fan pages. To the authors' knowledge, no academic research has been conducted to conceptualize the approach for marketing on social media, and the potential effect of such an approach on customers' attitude. To answer these questions, the current research study proposes a conceptual model that articulates the technological affordances of social media and the corresponding heuristics triggered by these affordances. Additionally, information presented on a number of real fan pages is examined to identify potential gaps between an optimal strategy and the existing practice.

We first review prior studies from fields including Internet marketing, computer-mediated communication, and human-computer interaction. This is followed by a discussion of the technical characteristics of facebook fan pages. Finally, we conclude with a discussion of limitations and directions for future research.

Literature Review

In the past few years, online social networking sites have begun to attract the attention of marketing scholars. For example, Ansari, Koenigsberg, and Stahl (2008) developed an approach for modeling multiple relationships of different types among users of a social networking site. Kelly et al (2010) examined the antecedents of advertising avoidance on online social networking sites. Kozinets (2002) developed a new approach to collect and interpret data obtained from consumers' discussions in online forums. Trusov et al. (2009) studied the effect of word-of-mouth marketing on member growth at an internet social networking site and compared it with traditional marketing vehicles. Since marketing on social networking is a relatively new phenomenon, there has been little investigation of fan pages and other types of brand community efforts on online social networking sites. The current study focuses on the technological affordances of facebook fan pages and their potential psychological effects on consumers.

Heuristic information processing

Social psychologists have long argued that cues in a persuasion context can lead message receivers to make loose associations between the cue and the message (Sundar, 2008). For example, Chaiken (1980) distinguishes between a systematic and a heuristic view of persuasion. According to a heuristic view, recipients exert comparatively little effort in judging message validity. Rather than processing argumentation, recipients may rely on accessible information such as the source's identity or other non-content cues in deciding whether to accept the message's conclusion. The concept of systematic and heuristic information processing is similar to the concept of central and peripheral routes to persuasion proposed by Petty and Cacioppo (1980, 1981). In the Elaboration Likelihood Model (ELM), the central route views attitude change as resulting from a person's diligent consideration of information that s/he feels is central to the true merits of a particular attitudinal position. On the other hand, when the attitude issue or object is associated with positive or negative cues or when the person makes a simple inference about the merits of the advocated position based on various simple cues in the persuasion context, attitude changes occur via the peripheral route. (Petty, Cacioppo, and Schumann, 1983).

Researchers have shown that factors such as motivation and involvement influence the use of heuristic information processing. In the context of facebook fan pages, we argue that customers' attitude will be influenced by heuristic cues rather than systematic information processing due to low involvement. Research into facebook usage patterns suggests that facebook is used and adopted primarily to maintain contact with offline relationships (Quan-Haase and Young, 2010). Bonding with a company is not the main objectives of most facebook users. In that manner, facebook allows customers to maintain a "weak tie" with certain companies, which is more likely to trigger heuristic information processing. As such, technical characteristics of fan pages serve as cues that could shape customer attitudes. According to Sundar (2008), navigability, multimodality, interactivity, and agency are common affordances in modern digital technologies. They are structural features underlying the design aspects of interface. The sheer presence of a given affordance can convey cues pertinent to customers' judgments because its value-added functionality will be rife with judgment-related cues (Sundar, 2008).

The next section will discuss each of the four affordances and their ability to cue cognitive heuristics pertaining to customers' attitude.

Navigability

The navigability of facebook fan pages is supported by its tagging system. Tagging is an effective tool that can be used to organize and share web content. A tagging system allows users to associate tags to certain information. On facebook fan pages, companies can select the generic tags defined by facebook or create their own tags to facilitate information search and retrieval by customers. Once the tags are assigned, customers can utilize them to navigate, explore unfamiliar topics, and get a general idea of the contents presented by companies on fan pages. Researchers identified two functional dimensions for tagging, representing the tag's intended use: organization and communication (Nov, Naaman, and Ye, 2008). Organization is tied to categorization and future retrieval of content, while communication involves providing additional context to other customers.

Facebook fan pages that are organized by numbers of tags could cue the *aesthetic heuristic* and give an appearance of a well-organized webpage. Simplicity is the main characteristic of facebook fan pages' tagging system. It is also an aesthetic notion as suggested by Karvonen (2000). The link between an aesthetic experience and pleasure and satisfaction has been established by researchers in the Human-Computer Interaction field. Moreover, tags with semantic information do not only serve as a navigation tool, they may also play an active role in knowledge sharing. When customers notice that they share the same tagging vocabulary with a certain company, the *identity heuristic* might be cued because customers identify themselves as members of the virtual community. Both aesthetic heuristic and identity heuristic are likely to have a positive impact on customer attitudes.

Multimodality

Human-Computer Interaction researchers have long recognized the importance of multimodal interfaces which allow users to interact with systems using a variety of modalities such as text, audio, gestures, and touch (Sundar et al., 2010). Multiple modalities used in disseminating information require multiple senses to process (Sundar 2008). The effect of multimodality on memory and perception (Hoogeveen, 1997; Sundar, 2000) has been established by previous research. Multimodality is also referred to as media richness. It considers the intensity with which an interface is able to present information to its customers. The premise of media richness lies in the assumption that messages appealing to multiple perceptual systems are better perceived than are those that call on single perceptual systems and that high quality messages are more effective than low quality messages (Li, Daugherty, and Biocca, 2002). It is well known that using both visual and audio channels to present information is better than using only one channel; it is also true that people use the redundancy offered by multiple channels to improve their understanding of situations (Alty, 1991).

Multiple modalities such as text, audio and video are typically used on facebook, thus increasing the degree of reality and presence in the virtual environment. Short et al. (1976) posit that social presence represents a cognitive synthesis of several factors such as the capacity to transmit information about facial expression, direction of looking, posture and non-verbal cues as they are perceived by the users. Social presence varies between different media. Companies on facebook usually adopt multiple modalities. Therefore, we propose that multimodality is able to trigger the social presence heuristic. Besides, the *informativeness heuristic* may be solicited by

multimodality because a collection of media with different levels of information richness signals customers of variety of company-generated information.

Interactivity

The construct of interactivity is considered a multidimensional concept (Heeter, 1989). It has been defined historically as any form of communication that replicates face-to-face conversation: “an expression of the extent that in a given series of communication exchanges, any third (or later) transmission (or message) is related to the degree to which previous exchanges referred to even earlier transmissions” (Rafaeli, 1988). Bucy (2004) defined interactivity as a reciprocal communication exchanges that involve some form of media, or information, and communication technology. Similarly, Kioussis (2002) approaches the subject from a public relations perspective and also places conversation as key to recognizing interactivity. More recent definitions of interactivity have distinguished between a Human-Computer Interaction view (i.e., interactivity-as-product view) and a computer-mediated communication perspective of seeing the interactivity phenomenon via the interactivity -as-process view (Sundar et al., 2010). Interactivity-as-product encapsulates the broad technological applications such as hyperlinks and downloads, whereas interactivity-as-process is the process by which human beings converse. Essentially, the view of interactivity-as-process is consistent with Ferber et al.’s (2007) argument of three-way communication being a new dimension of interactivity. Three-way communication facilitates conversations and allows users to engage in open conversation. The present study takes into consideration of both dimensions of interactivity because they have potential influence on customers’ engagement in an online activity, which is a key factor affecting customer relationship with companies.

As shown by prior research, the presence of interactivity can transmit cues that imply a greater sense of dialogue in the system, or a higher sense of contingency, or simply a more robust flow of communication (Sundar et al., 2003). The most critical heuristic in this context is that of the *service*. Customers may see a facebook fan page as an additional channel for the company to provide service. As such, information disseminated through fan pages, the application designed for ordering food or making reservations, and interactions that resolve customer complaining issues can all be seen as services provided by facebook fan pages. Customers tend to have a positive attitude towards fan pages that serve as a tool for accommodating their needs and interests rather than a channel for promoting products. In addition, interactivity suggests that companies are willing to communicate with the customers. Therefore, the *conversation heuristic* triggered by interactivity implied that customers have the option of conducting meaningful dialogue with the company whereby they can specify their needs and preferences. Further, interactions between customers and the company transfer the role of customer from an audience to a co-creator of the content on fan pages. For example, customers can upload their own videos or photos to fan pages. Once companies recognize customers’ contribution, the *interdependence heuristic* will be evoked. Interdependence implies coordinated efforts from both parties. Therefore, customers with the heuristic of interdependence will have a stronger feeling of belonging to a certain group.

Agency

Information-foraging theory (Pirulli and Card, 1999) posits that users are heavily influenced by the “information scent” provided by “environmental cues in judging information sources” (Priolli, 1997). The source of communication is the initiator of information

dissemination according to traditional models of communication (Shannon and Weaver, 1949). The agency affordance makes possible the assignment of sourcing as particular entities from the machine to a company, from a collection of other users to oneself (Sundar, 2008). Often, the agent itself is the source especially when there is no other attributed source for a given piece of information.

Agency cues can trigger the *similarity heuristic*, which suggests that customers perceive information to be higher quality and more relevant when other customers are attributed as the source of the information. While the content generated by the company is able to elicit the *authority heuristic*, other customers as a source can cue similarity effect. Prior research shows that the greater the perceived similarity, the greater the influence on the participants' attitude (Feldman, 1984). On the other hand, when the organization is attributed as the source, the *advertising heuristic* might be triggered which negatively influences customer attitude. In general, customers perceive advertising as more manipulative rather than informative (Mehta, 2000). It has been shown that customers do not trust advertising and they have a strong inclination toward advertising avoidance. Thus, it is important for companies to know how to share information, how to present themselves, and what role they should play on social media.

Based on the literature review, the present study outlined a framework (Figure 1) to help organizations identify the key factors that could influence the effectiveness of social media marketing. Four technological affordances, i.e. navigability, multimodality, interactivity and agency, are adopted from Sundar's (2008) main model. Moreover, heuristics cued by these affordances are introduced to fit into the context of social media marketing. Basically, this model indicates that a given affordance triggers a heuristic, which will further influence customers' attitude and perception. As a preliminary study, our main focus is to examine the affordances of existing facebook fan pages, and to identify potential gaps in the context of restaurant fan pages.

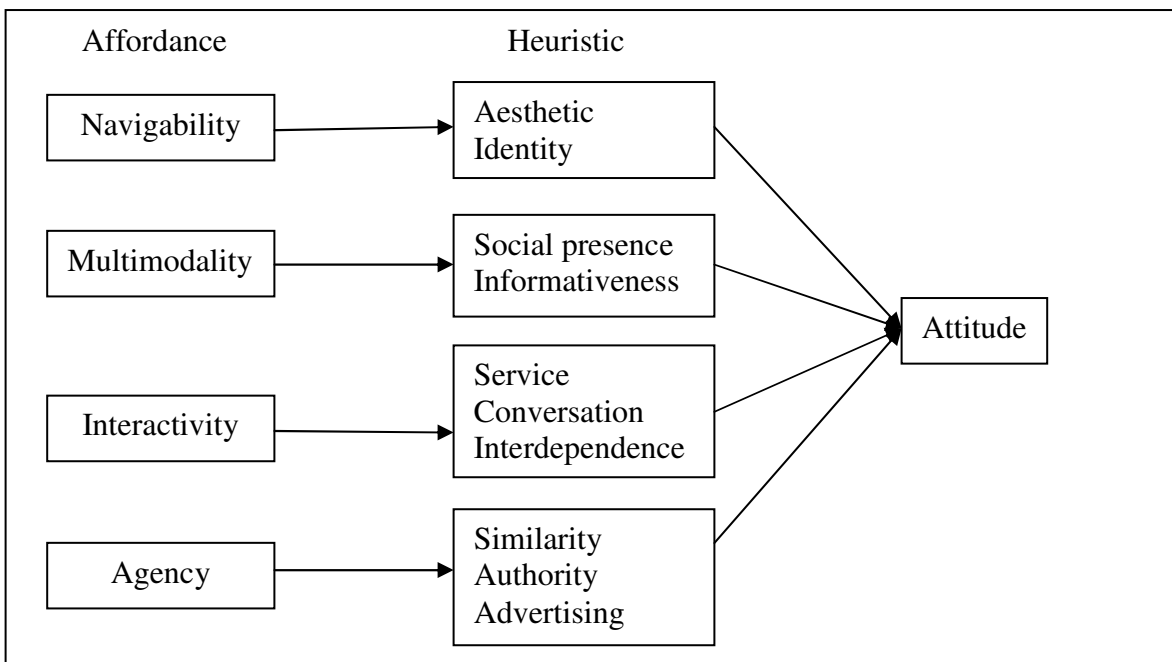


Figure 1. Conceptual model

Research Method

Based upon Vitruve’s nationwide Top 25 Most Social Restaurants list (Brandau, 2009), two coders, one with a hospitality management degree, the other with a communication and advertising degree, performed a content analysis of the facebook fan pages of the 25 restaurants listed in Table 2.

1. Starbucks	6. Burger King	11. IHOP	16.Olive Garden	21.Domino’s
2. Subway	7. Wendy’s	12. Chili’s	17.Chick-fil-A	22.White Castle
3. McDonald’s	8. Taco Bell	13.Jack in the Box	18.Denny’s	23.Applebee’s
4. KFC	9.Dunkin’ Donuts	14. Pizza Hub	19.Pinkberry	24.In-N-Out Burger
5. Krystal	10. Chipotle	15. Dairy Queen	20.Boston Market	25. Arby’s

Table 2. Top 25 Most Social Restaurants (Source: Brandau 2009)

Two coders independently reviewed the 25 restaurants’ fan pages on facebook to analyze (1) tags (Wall, Info, Discussion, Polls, and etc.), (2) number of fans, (3) number of comments (for individual message), (4) types of modality (text, photo, audio, and video), and (5) levels of interactivity (high, medium, and low). See Figure 2 for an example of a standard facebook fan page (Starbucks).

The reliability of coding is calculated as the number of agreements between coders divided by the number of agreements plus disagreements (Miles and Huberman, 1994). The coding reliability of the current study is 85.5%, which is acceptable considering the judgment of interactivity is relatively subjective. A group consensus procedure (Hsieh and Jeon, 2010) was adopted to resolve inconsistencies.



Figure 2. Starbuck’s facebook fan page

Results

To date (Sep13th, 2010), the data shows that Starbucks, Chick-fil-A, and McDonald’s have the highest number of fans. Starbucks has 13,436,747 fans, Chick-fil-A has 2,963,712 fans, and McDonald’s has 2,958,557 fans. In this study, we only focus on the restaurants’ official facebook fan pages. However, we do notice that Subway’s unofficial fan page has more fans (2,099,600) than its official fan page (1,308,017 followers). The potential explanation could be the latter one was created earlier than the former. Companies could take different approaches to resolve such an issue. For example, the official fan page of Coca-Cola was created by two Coke fans in LA. Rather than creating a new official fan page, Coca-Cola Company contacted the page

creators and invited them to partner with Coke to manage the page. The number of fans as a cue for popularity can trigger the bandwagon heuristic, which may influence customers' decision on joining a fan page.

Navigability

Examining facebook fan pages, the layouts are quite consistent, which is limited by the platform. However, the restaurant companies do have control over the tags. They can decide the number, the title of the tags, and the content under each tag particularly. The results of this study suggest that there are a few common tags used by our sample. Therefore, a discussion of these common tags, their corresponding functions, and specific content is necessary. The functions of other tags, which will not be covered in this study, are more used as a link to an advertisement. Such tags include “\$2\$4\$6\$8” from Denny’s, “McCafe” from McDonald’s, and “Blizzard” from Dairy Queen and so forth.

Common tags

1. Wall:

The Wall tag contains all the latest updates, events, and wall posts. Restaurant companies normally organize the information by using two methods. They are able to choose default setting to allow fans to post content to the Wall or not.

Almost half of the companies, including Starbucks, Krystal, Taco Bell, Dunkin Donuts, Chipotle, Chili’s, Dairy Queen, Denny’s, Boston Market, White Castle, Applebee’s, and Arbys, leave the Wall open to posts from fans, which suggesting an environment for open conversation. Of the 12 companies, Krystal, Chipotle, and Boston Market have a few responses towards their fans’ posts. It indicates that these companies are actively communicating and interacting with their customers.

For example, one post from Krystal’s Wall said *“As teenagers (65 yrs ago) we would sneak in the movie with a bag of Krystals (each).like no one could smell that delicious aroma. I'm hungry! None in Clearwater, FL”*. Krystal responded *“Thanks for sharing your stories. Alice -- there's 4 locations in Tampa Bay-area, near Clearwater, 2 in Tampa, 1 in Lakeland and 1 in Bradenton. They have their own Facebook page too -- click this link - > <http://www.facebook.com/krystalampabay>”*.

On the other hand, a number of companies choose not to comment on fans’ posts. It’s possible that these companies choose to deal with posts, especially negative ones, through personal messages.

The rest 13 restaurant companies take a different approach, and only allow the content generated by administrations to appear on the Wall. Customers can still make comments on those posts. But they need addition steps of navigation to access the comments from other fans. Such an approach allows for less interactivity between companies and fans.

2. Info:

The Info tag contains the most static information about the company, such as location, open hour, products, public website. Additional information like company overview and mission can also be included. All 25 fan pages we examined have the Info tag which presents some basic information.

3. Photos:

Photos posted by the company and by the others are presented on this page. Most restaurant companies’ fan pages have photos about their products (Denny’s) and activities

(Pinkberry Swirling in NorCal). Chick-fil-A and McDonald's only display photo albums about the company's social activities, whereas KFC and Domino do not have a Photo tag. Dunkin Donuts utilized this modality to a better extent. It encourages fans to upload their photos to be selected as the profile picture every week. This method could increase customer involvement and positively influence their perception of the company.

4. Videos:

As another type of modality, videos content could be created by the company and customers. TV commercial is the most common content posted by the companies, whereas customers intend to post short video clips related to the restaurants. For instance, a video about a 17 month old kid enjoying his first frappuccino was posted by a customer on Starbucks' fan page.

5. Events:

An Event tag typically contains a list of restaurants' upcoming events with detailed information including type, location, time, and a short description of the event. A guest list on the left side of the page shows the number of people who will attend, maybe attend, and not attend.

6. Discussions:

A discussion topic can be initiated by either the company or the customers. Topics varied from "We need Dunkin Donuts in Oregon" to "Starbucks Employees vs. Tattoos and Piercings". It's been noted that interesting topics have the ability to attract more than hundreds of customers to respond. However, restaurant companies seldom reply to discussion topics. On the other hand, Applebee's created 3 tags, i.e., Sizzling Shrimp, Sizzling Steak, and Sizzling Chicken, to initiate discussion rather than using a Discussions tag. After clicking each tag, customers will hear a sample of the sizzling shrimp/steak/chicken and see the picture. Then they can share their comments with other customers. Considering the multimodality effect, this study proposes that this approach (audio + picture + text) should perform better than a discussion board (just text).

7. Poll:

The Poll is supposed to be the most effective tool that marketers could use to collect feedbacks from customers and understand their attitude. It could serve as a questionnaire which helps profile the behaviors of targeted consumers and their product preferences. McDonald's demonstrates a good example of using the Poll function (See its two posts: "Wow. A lot of you (53%) can't live without Angus Beef. Proof the Angus Deluxe Snack Wrap® has your undivided attention." "You love bacon, people! At least, 42% of you voted that way. The Angus Bacon & Cheese Snack Wrap® proves you can't have too much of a good thing.").

Nevertheless, most of the restaurants haven't efficiently utilized this function yet. Thirteen restaurant companies do not have a Poll tag so far (KFC, Taco Bell, Chipotle, IHOP, Jack in the Box, Dairy Queen, Denny's, Pinkberry, Boston Market, Domino's, White Castle, Applebee's, and In-N-Out Burger), six restaurants only have one question on this tag (Krystal, Burger King, Wendy's, Dunkin Donuts, Chili's, and Arby's). Subway and Olive Garden have three questions, Pizza Hut has five questions, and Chick-fil-A and Starbucks have seven and fourteen questions, respectively.

Additionally, another tag, "Review", is also provided by Facebook. Fans can rate the restaurant on a point scale and add a comment. Unfortunately, only three companies have this tag on their fan pages (Starbucks, Chili's, and White Castle). Using White Castle as an example, there are both positive comments (e.g. "White castle has the best customer service and awesome jalapeno cheeseburgers"), and negative comments (e.g., "The burgers were absolutely disgusting

and not worth the 60 cents that they cost. I feel nauseous”), displayed on the fan page. Surprisingly, there is no response from the restaurant companies addressing the reviews and comments.

Multimodality

The results indicate that all brands in the top 25 are utilizing the modalities afforded by social media. Companies tend to employ multiple modalities, such as text, picture, audio, and video. For example, tags including Info, Events, Discussions, and Poll are mainly text based, whereas Videos and Photos account for visual and graphical modality, respectively. Numbers of modalities used by different fan pages were counted. The results suggest that most restaurant fan pages contain all three modalities. However, audio modality is only adopted by Applebee’s (e.g. Sizzling Steak).

Interactivity and Agency

Interactivity has been coded at three levels: low, medium, and high. A restaurant fan page that is dominated by the company translates to low interactivity. For example, 13 restaurant fan pages only display information generated by the company. In this case, companies are the only source of the information perceived by customers. By contrary, the other 12 fan pages allow users to co-create content, which enables the occurrence of other customers as information source. Further, it may lead to increased perception of control and evoke the own-ness heuristic. Moreover, fan pages (e.g. KFC and IHOP) that do not have certain tags such as Discussion, Poll, and Reviews, are also judged as low interactivity. Customers in this context are not treated as a source of information but just audiences who consume information. In other words, the interaction is single-directional rather than reciprocal. A high level of interactivity requires the fan pages to be not only embrace co-creation of content, but also actively respond to customers’ comments and posts (e.g. Krystal replied to fans posts; McDonald’s summarizes the results of the polls), which cues the service provider heuristic. Ideally, restaurant fan pages with a high level of interactivity will be positively associated with increased involvement, positive overall perception, and purchasing intention.

Conclusions

Hospitality companies have started to recognize and utilize the power of social media. Traditionally, Internet was used as a promotional tool. Internet marketing tactics include banner advertising, sponsorships, pop-ups, paid searches, and so forth (Belch and Belch, 2007). With the emergence of social media, consumers now have more control over how information is generated, created, organized, and shared (Trackeray et al., 2008). Marketing on social media should be different from typical internet marketing in a sense that it allows for more conversation between customers and organizations. Particularly, fan pages on a social networking website are supposed to serve as a platform for sharing and communicating information. However, results of this study indicate that restaurant companies have not yet fully utilized the affordance of fan pages.

The navigability supported by the tagging system on facebook fan pages is able to cue the aesthetic heuristic but not identity heuristic because most of the companies use generic tags defined by facebook rather than create their own tags. Good navigability should go beyond just organizing information. Rather, it should lead customers through particular prescribed paths for fulfilling their experience, and help them to develop a group identity. In terms of multimodality, almost all fan pages examined contain multiple modalities including text, picture and video.

Information presented in multiple modalities has a stronger chance of “getting through” to receivers than information presented in a single modality (Hsia, 1971). By triggering the social presence and informativeness heuristics, customers’ perceptual experience will be heightened along with positive attitude as a result. Indeed, in the absence of strong commitment to content of information, customers on facebook fan pages may largely rely on modality-based heuristics.

On the other hand, interactivity, the key affordance of facebook fan pages, is underutilized among restaurant companies. Half of the companies examined in this study do not encourage customers to share feedback, provide comments, rate products and provide reviews. They still communicate with customers with a “lecturing mode”. Consequently, the conversation heuristic and interdependence heuristic are not present. Customers perceive themselves as passive recipients of information rather than active participants. More importantly, the lack of interactivity cues on facebook fan pages implies that organizations are still using social media as a tool for advertising instead of an extra channel for offering services to their customers. In addition, half of the restaurants do not allow customer-generated content to be posted on their fan pages. Under these circumstances, the company is the only source of information. While this could evoke the authority heuristic, there is a high chance for the advertising heuristic to kick in as well. Conversely, restaurants that encourage customers to co-create the content of facebook fan pages (e.g. Dunkin Donuts) will benefit from the similarity heuristic cued by the agency affordance.

Newspaper articles suggest that revenues gained through online social networking sites are not as high as anticipated (Vascellaro, 2008). Based upon the results of the current study, we conclude that social media could be an effective tool for marketing, but it requires a greater understanding of the affordances and their potential psychological effects.

Limitations and Future Research

The limitations of the present study should be addressed. The sample size is small, consisting of 25 restaurant companies. Further, among many social networks, only facebook fan pages were examined. Future research should take into consideration other networks (e.g. Twitter). Last, this study focused on the information presented on fan pages. To what extent such information will influence fans’ buying behavior remains uncovered.

References

- Alty, J. L. (1991), Multimedia – What is it and how do we exploit it?, in D. Diaper & N. Hammond (eds.), *People and Computer VI: Usability Now (Proceedings of HCI’91)*, Cambridge University Press, pp. 31-44.
- Ansari, Asim, Oded Koenigsberg, and Florian Stahl (2008). Modeling multiple relationships in online social networks. *Working paper*, Columbia Business School, Columbia University.
- Belch, G.E. and Belch, M.A. (2007). Advertising and promotion. An integrated marketing communications perspective. *New York: McGraw-Hill Irwin*.
- Brandau, M. (2009). Social media’s top restaurant players. <http://nrn.com/article/social-medias-top-restaurant-players>
- Bucy, E.P. (2004). Interactivity in society: Locating an elusive concept, *The Information Society*, 20, 5, 373-383.

- Chaiken, S. (1980), Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology*, 39, 5, 752-766.
- Feldman, R. H. (1984). The influence of communicator characteristics on the nutrition attitudes and behavior of high school students. *Journal of School Health*, 54, 149-151.
- Ferber, P., Foltz, F. and Pugliese, R. (2007), Cyberdemocracy and online politics: A new model of interactivity, *Bulletin of Science, Technology and Society*, 27, 5, 391-400.
- Heeter, C. (1989), Implications of new interactive technologies for conceptualizing communication, in J.L. salvaggio and J. Bryant (eds) *Media Use in the Information Age: Emerging Patterns of Adoption and Computer Use*, pp. 217-235. Hillsdale, NJ: Lawrence Erlbaum.
- Hoogeveen, M. (1997). Towards a Theory of the Effectiveness of Multimedia Systems, *International Journal of Human-Computer Interaction*, 9, 151-168.
- Hsia, H.J. (1971). The information processing capacity of modality and channel performance, *AV Communication Review*, 19, Spring, 51-75.
- Hsieh, Y. and Jeon, S. (2010). Hotel Companies' Environmental Awareness and Commitment: A review of their web pages, *In the proceedings of 2010 Hospitality and Tourism Management International CHRIE Conference*.
- Karvonen, K., 2000. The beauty of simplicity. Proceedings of the ACM Conference on Universal Usability (CUU 2000, November 16-17, 2000, Washington DC, USA.
- Kelly, L., Kerr, G., and Grennan, J. (2010). Avoidance of advertising in social networking sites: The teenage perspective. *Journal of Interactive Advertising*, 10, 2, 16-27.
- Kozinets, Robert V. (2002), The field behind the screen: Using netnography for marketing research in online communities. *Journal of Marketing Research*, 39, 61-72.
- Li, H., Daugherty, T. and Biocca, F. (2002), Impact of 3-D advertising on product knowledge, brand attitude, and purchase intention: The mediating role of presence, *Journal of Advertising*, 31, 3, 43-57.
- Mehta, A. (2000), Advertising attitudes and advertising effectiveness, *Journal of Advertising Research*, 40 (3), 67-72.
- Miles, M.B. and Huberman, A.M. (1994). *Qualitative Data Analysis*, Thousand Oaks, CA: Sage.
- Morrison, C. (2010). Facebook's August 2010 US Traffic by Age and Sex: Growth Picks up across All Groups. <http://www.insidefacebook.com/2010/09/08/facebook%E2%80%99s-august-2010-us-traffic-by-age-and-sex-growth-picks-up-across-all-groups/>
- Nov O., Naaman, M. and Ye, C. (2008), What drives content tagging: The case of photos on flickr, *in the Proceedings of CHI 2008*, April 5-10, Florence, Italy.
- Petty, R.E. and Cacioppo, J.T. (1980), Effects of issue involvement on attitudes in an advertising context, in Proceedings of the Division 23 Program, eds. *Gerald G. Gorn and Marvin E. Goldberg*, Montreal, Canada: American Psychological Association, 75-79.
- Petty, R.E. and Cacioppo, J.T. (1981), *Attitudes and Persuasion: Classic and contemporary approaches*, Dubuque, IA: William C. Brown.
- Petty, R.E., Cacioppo, J.T., and Schumann, D. (1983), Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, 10, Spring, 135-146.
- Pirolli, P. (1997). Computational models of information-scent following in a very large browsable text collection. *In S. Pemberton (Ed.), Proceedings of the Conference on*

- Human factors in Computing Systems (CHI' 97), Atlanta, GA, 3-10.* New York, ACM Press.
- Pirolli, P. and Card, S.K. (1999). Information foraging. *Psychological Review*, 106, 643-675.
- Quan-Haase, A. and Young, A.L. (2010). Uses and Gratifications of Social Media: A Comparison of Facebook and Instant Messaging, *Bulletin of Science Technology and Society*, 30, 350.
- Rafaeli, S. (1988), Interactivity: from new media to communication, In R. P. Hawkins, J. M. Wiemann, S. Pingree, (eds). *Sage Annual Review of Communication Research: Advancing Communication Science*, Vol, 16, Sage: Beverly Hills, CA: 110-134.
- Shannon, C. and Weaver, W. (1949), The mathematical theory of communication. Urbana, IL: University of Illinois Press.
- Spinks, D. (2009). Ten must-try social media sites for college students. Retrieved from <http://mashable.com/2009/04/16/social-media-college/>
- Sundar, S.S. (2000). Multimedia effects on processing and perception of online news: A study of picture, audio, and video downloads, *Journalism and Mass Communication Quarterly*, 77, 3, 480-499.
- Sundar, S.S. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. *Digital Media, Youth, and Credibility*. Edited by Miriam J. Metzger and Andrew J. Flanagin. *The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning*. Cambridge, MA: The MIT Press, 73-100.
- Sundar, S.S., Xu, Q., Bellur, S., Oh, J. and Jia, H. (2010), Modality is the message: Interactivity effects on perception and engagement, *in the Proceedings of CHI 2010, April 10-15, Atlanta, Georgia, USA*.
- Thackerey, R., Neiger, B.L., Hanson, C.L. and McKenzie, J.F. (2008). Enhancing promotional strategies within social marketing programs: Use of Web 2.0 Social Media, *Health Promotion Practice*, 9, 4, 338-343.
- Trusov, M, Bucklin, R.E., Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: findings from an Internet social networking site. *Journal of Marketing*, Vol, 73, 90-102.
- Value of Social Media Report. Community of Digital Marketing and Ecommerce Professionals. Retrieved from <http://econsultancy.com/reports/value-of-social-media-report>
- Vascellaro, J.E. (2008), Internet Ads are no quick road to riches, Google Admits. *The Australian*, 35.