The Application of Social Networks
to the Marketing of Industrial Products

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Abstract

Social networking changes the way people share ideas and communicate. Advantages in portability, reach, and access contribute to acceptance of social networks and the likelihood that they will continue to grow. While these systems were initially used by individuals, they were not as widely employed by businesses. Some firms however are leveraging these tools and integrating social networking into their marketing.

Where social networks are used by businesses, they are primarily focused on consumer goods, home and family, electronics and entertainment. Business-to-business applications are not as widely used and some question whether such tools offer significant benefits in such settings.

This thesis studies social network marketing for a vehicle lift manufacturer. It addresses viability, strategy and practices for a vehicle maintenance equipment manufacturer. It analyzes data collected from other similar companies to identify best practices for the use of such tools and details the current state of the industry for this market.
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Introduction

In the last several years social networking has received a great deal of media attention and has enjoyed adoption across numerous economic, demographic and geographic segments. Social networks have become pervasive and they touch us in our homes, while we travel and even in our workplaces. Much of the growth of online social networks is facilitated by the growth of the internet. 77 percent of Americans are using the internet and 80 percent of those users do so at least monthly (Forrester, 2009). Social technologies continue to grow with more than four in five US adults online using social media at least once a month, and half participating in social networks like Facebook (Forrester, 2009). It is estimated that two-thirds of the world’s internet population visits social networks or blogging sites (Nielsen, 2009). This growth is likely to continue for the foreseeable future since 67% of adults between the ages of 18 to 29 and 21% of those between 30 and 39 already use social networks with the fastest growth coming from the 35 to 49 year old age group (Nielsen, 2009).

This social network growth affects us individually and impacts our entire culture. Recent history has shown where these tools can profoundly influence politics, journalism and even medicine (Pew Research, 2008). It would not be surprising to learn then that this phenomenon can have significant implications for commerce and industry. The internet in general and social networks in particular profoundly influences the way people search for information about brands, products and services (Morris, M.R. Teevan, J. & Panovich, K., 2010). Business leaders must acknowledge the changing media landscape and respond with appropriate strategies. This paper explores many of the trends and resulting impacts of this rapidly evolving phenomenon and documents the efforts of a single business entity, Rotary Lift, as it develops a marketing strategy designed to exploit social networks for competitive advantage.

Rotary Lift is a manufacturer of automotive vehicle lifts. Its products are designed to raise cars off the ground so mechanics can change the oil and service undercarriage components. The company has been exploring various social networking tools for two years (since October 2008) and is attempting to integrate social networks into the company’s overall marketing strategy. This project is being undertaken to help Rotary Lift understand the most important elements of social networks and to make suggestions of how these tools can be used most effectively. It will address questions regarding the appropriateness of social networks as a marketing tool for this company and the automotive equipment industry in general.

The final recommendations for the project will be formulated via synthesis of existing theory and industry specific primary research. The secondary research will identify what the marketing strategies for companies within the social networking space should be and the primary research will compare these findings with actual practice. The efforts of the target company and 100 other like-industry participants were also measured. The data collection activity quantifies the industry’s participation levels for social networks in the automotive equipment market and discusses the specific tools and tactics participants employ.
The most detailed data collection further quantifies the response rates of social network audiences to various types of media and differing market approaches. Specifically, the primary research investigates the impact of various types of content; the subject matter posted to social networking sites which stimulates user response.

**Thesis Approach and Organization**

The first section of this thesis will provide background information. It will begin with a brief history of online social networks beginning in the 1980’s and touching upon the most significant developments of their growth through 2010. It will also provide information about the subject of the case study, Rotary Lift and on the industry in which it does business. It offers a brief history of the company, information about its organization and the methods by which it delivers its products to the market. The background will concentrate most on the marketing practices of the business including its online marketing and recent forays into social network marketing.

Section two of the thesis details the research methodology employed. The project included a comprehensive exploratory investigation prior to the data collection activity. This exploratory phase included both primary and secondary research which helped identify appropriate theory and facilitate a general understanding of current practices within the social network marketing arena. Secondary study was concerned with identifying academic resources for literature review and creation of a theoretical foundation to instruct future recommendations. Primary exploratory research was conducted in order to develop a target company list within the automotive equipment industry. Once identified, these businesses were studied in order to document the activities they engaged in to expand their market presence within social networks. Lastly, primary research focused on specific techniques with regards to promotional tactics used, content provided and the resulting responses.

Section three of the project is a literature review which explores the available academic literature to identify and evaluate relevant theory. The literature review begins with an important section defining critical terms used throughout the project. It also introduces a brief history of social networks beginning with early electronic bulleted boards and ending with a description of the current state of art. Literature review touches upon fundamental principles of marketing and uses these guidelines as benchmarks against the specific tactics being employed by the various companies evaluated.

The literature review also explored social, cultural and behavioral theory in an effort to delineate which concepts were most appropriate for marketing in a social networking environment. The review was also used to help create guidelines for developing measures of effectiveness. These tools were subsequently applied to the data collection process. It will then examine Rotary Lift and other companies within the same industry to gain insights that help the target company develop an effective strategy for using social networks as a marketing tool.
Section four of the project describes the data collection process. This section discusses the various data sources available and identifies which measures are capable of providing the necessary insights for understanding effectiveness in social network marketing. The data collection process section discusses the various metrics companies can use to determine how successful various social network marketing activities are.

While there are many metrics available for determining social network marketing effectiveness, not all measures are practical or can be applied universally. Results may be available to administrators at the target company, but other businesses would likely regard such measures as intellectual property or trade secrets.

This section chooses from amongst the many available metrics that are public and readily accessible to outside observers. It then codes these measures to benchmark the target company against other firms in the industry. These same metrics also allow the company to benchmark against itself when specific promotional activities and varying types of content are being employed.

The fifth section of the thesis provides analysis of the data and describes the results from the collection activity. It employs statistical analysis to identify which companies within the survey group experience the highest levels of response to their marketing activities. It also analyzes the types of promotional activities these companies engage in, the tools most frequently used and specifically what types of content create the greatest user interaction. Generally, the analysis measures the number of users who sign up to receive updates from a social network site, how often they add content; view content; leave comments or otherwise indicate their approval of content (“Likes”).

The sixth section of the thesis addresses the implications of the study and discusses both the limitations of the data collection activity and some of the potential problems with the results. This section summarizes the larger areas of concern with regards to data sampling and statistical reliability. It evaluates the likely impacts of research bias and recommends areas for further study.

The final section of the thesis provides conclusions and recommendations. It suggests additional steps to be taken by the target company and other similar businesses. The conclusions identify areas in social network marketing that represent the greatest opportunity for further development as well as activities that are best avoided for lack of effectiveness. Recommendations are also made that help firms that do engage in social network marketing to develop ongoing mechanisms for measurement.

The recommendations tie the process back into the original premise that social networking for businesses must be based upon sound marketing principles. It promotes an intimate understanding of the target market and suggests a continuous loop which includes activity, evaluation of response and adjustment of the content to improve. It advocates the importance of fine tuning the message(s) perpetually to keep communication fresh and dynamic. It stresses not just participation, but the measurement of outcomes as best practice to assure the highest levels of performance.
Growth of Social Networks and Interest by Business

The growth of social networks has attracted a great deal of interest not just from the public, but also from the business community. The desire to exploit social networks by commercial enterprises is especially acute because the internet is having a deleterious effect on traditional 20th century forms of advertising. More people are turning to social networks get their news and information and turning less and less to media formats like television, newspapers and other forms of print (Smith, 2009). Advertising dollars spent for newsprint, TV, cable, radio magazines and yellow pages have been trending downward since 2006, were all down roughly 20% in 2009 and are expected to continue to decline through 2012 (Nielsen, 2009).

By contrast, spending on advertising on social media and mobile media have been growing and are both expected to grow by 10% per year in 2011 and 2012 (Nielsen, 2009). Usage data suggests that people who use these networks are spending increasingly more time on them (Table 1: Nielsen Global Traffic to Social Networking Sites) and their usage has grown by more than 100% in just the last year (Nielsen, 2010). As a fundamental requirement of any marketing activity, businesses must understand what customer demand is being satisfied by these services and why people are spending so much time in this activity.

<table>
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<tr>
<th>Metric</th>
<th>Mar-08</th>
<th>Mar-09</th>
<th>Mar-10</th>
</tr>
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<tbody>
<tr>
<td>Unique Audience (000)</td>
<td>214,218</td>
<td>261,740</td>
<td>313,690</td>
</tr>
<tr>
<td>Total Minutes (000)</td>
<td>28,577,539</td>
<td>55,703,031</td>
<td>113,061,590</td>
</tr>
<tr>
<td>Time per Person (hh:mm:ss)</td>
<td>2:13:24</td>
<td>3:32:49</td>
<td>6:00:25</td>
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Source: The Nielsen Company

Table 1: Nielsen Global Traffic to Social Networking Sites

Such statistics provide evidence that a major shift in media consumption behaviors is under way and that a corresponding change in marketing tactics is necessary. With these shifts, business leaders need to rethink their marketing strategies and determine if a strategic re-alignment is in order. Many organizations have already reached this conclusion and are beginning to invest more in social networks as an alternative.
There is a great deal of complexity associated with this changing market environment. It is reminiscent of the early days of internet marketing when companies were developing websites without clear goals or well defined objectives. Like the best websites, social network marketing decisions should be based upon sound marketing principles. Companies should understand the wants and needs of their prospective audience and determine what tactics they will employ to satisfy unmet demand. Unfortunately, the data collected in section six demonstrates a wide variation in performance levels across various companies and suggests that many companies have created networking sites that simply duplicate the characteristics of their websites. This leads to a widely variable outcome across companies as supported by the data and helps explain why similar companies in the same industry can experience dramatically different response rates from their respective audiences.

One possible reason why there is so much variation in the outcome of such marketing initiatives is the volume of tools, sites, and technologies available. Social networking has numerous meanings and is broadly defined to include a wide range of functionalities and capacities. This is further complicated by an expansive list of terminologies (i.e., web 2.0; Viral Marketing; User Generated Content (UGC) and peer-to-peer (P2P)) which are themselves difficult to define by consensus. While it is not possible to describe all of the available tools, this paper will identify the most important ones being used in a social network setting. They will be defined according to common meanings from prior academic works and presented in a format that builds understanding of their strategic importance to social network marketing.

**Area of Focus: Rotary Lift**

One company in the early stages of its entrance into social network marketing is Rotary Lift, a manufacturer of lifts for picking up cars, trucks, and buses. The company's products allow mechanics and automobile enthusiasts to work under a vehicle without lying on the floor (Figure 1: Example of a Rotary Lift). The company has been using a few social web tools such as Youtube, Facebook, and Twitter and is attempting to stimulate demand and brand awareness by engaging social network users in lift-related conversation. Results are somewhat mixed in that some measures of effectiveness, like page views are high for sites like Youtube, but measures like the number of friends/followers; volume of comments; “Likes” and “tweets” are low in comparison to similar sites (Perlstein, 2010).
The purpose of this research is to explore the social networking environment that exists for Rotary Lift and to identify the opportunity for the application of social networking tools to the company’s overall marketing strategy. It is conducted by Roger Perlstein, a Sales Director at the company with support and informational resources provided by John Rylee, the Director of Marketing. It will begin by reviewing current theory and investigating the relevance of social web tools to determine the practicality and viability of such an undertaking. It will summarize the most relevant literature and recommend an approach that the target firm should follow to implement an effective social network marketing plan.

The research will include a data collection and analysis phase that will discuss Rotary’s prior marketing efforts. It will also document the social networking activity for the larger industry the target company serves. Finally it will recommend specific tactics that firms should employ to exploit many of the tools that are available for such an undertaking.

**Statement of the Problem**

Rotary Lift has been experiencing diminishing performance results from traditional promotional activities such as trade shows, magazines and direct mail. As the company re-aligns its advertising strategy with trends in online marketing it is becoming more involved in e-commerce, digital media and other web enabled technologies. It uses the internet as a significant part of its overall marketing strategy and is seeking opportunities
to further leverage the web’s many opportunities. Management is engaged in social network marketing hoping to attract new customers or strengthen existing relationships.

Several months into the effort, results have been mixed (Rylee, 2010). The Youtube account has generally been well received with several product videos having been viewed several thousand times. This is very promising considering that many of the magazine ads that cost $3500-$5000 per placement reach roughly the same number of viewers.

But the Facebook site, twitter site and Flickr sites are not experiencing significant growth or viewership and “…results have been generally disappointing …” (Rylee, 2010). The Facebook and twitter accounts have experienced very limited activity. Between November 2009 and June 2010 the Facebook page had just five user responses, just 166 subscribers and content being provided appears mostly to be a duplication of the company’s website content. The twitter page had just 34 followers, 32 postings and no user generated content. The Flickr page has been completely closed.

Background

Rotary Lift (WWW.Rotarylift.com) was founded in 1925 by mechanic Peter Lunati. In 1955 Rotary lift became the first division of Dover Corporation (NYSE: DOV) which subsequently grew to become a $7 Billion publicly traded company. Rotary Lift is the largest lift manufacturer in the world with manufacturing plants in the US, Germany and China and enjoys a dominant market share position in automotive lifts (ALI, 2010).

Throughout its history, Rotary has been a distributor based marketer. Prior to 2000, lift prospects were primarily marketed to through trade shows, magazines and direct mail. Direct selling was done rarely and even then, offered to very few major national accounts. The company depends almost entirely on a network of independent channel partners to prospect and sell lifts to end users. Between 2000 and 2005, aggressive online marketers had captured a significant portion of the market by exploiting the public’s growing use of the internet to purchase products on a direct basis. Former competitor Direct Lift, had built an online lift business of $40 Million annually (Perlstein, 2010).

Fortunately, as competition increased from internet marketers, the company was able to use Dover’s substantial resources to acquire Direct Lift in 2007. But it did so at significant cost and as such became acutely aware of the need to shift more of its promotional focus to the web (Rylee, 2010). Today, the company’s website has become a critical component of the overall marketing strategy, but Rotary is still seeking out ways to create greater visibility online.

In response to all the media coverage and publicity about Facebook and twitter, Rotary’s Marketing Director called a meeting to discuss whether the company needed to participate in these new spaces. Participants agreed that the company could exploit these tools to increase brand awareness and that experimenting with this new media would cost very little. Others in the company countered that Facebook and twitter were fads and that their use would be a waste of resources. The group informally agreed to move forward. It posted videos about its products on Youtube; it created a Facebook page, a twitter feed and a Flickr account (Rylee, 2010).
Current State of the Project

Several months into the effort, results have been mixed. The Youtube account has generally been very well received with several product videos having been viewed thousands of times, which is compares favorably to other measures of reach for direct mail and magazine advertising (Rylee, 2010). But the Facebook site, twitter site and Flickr sites have generated just a couple hundred friends and followers which places them well below the statistical mean for the industry (Perlstein, 2010). John Rylee, the company’s director of marketing said he felt the “…results have been generally disappointing …” (Rylee, 2010).

Between November 2009 and June 2010 the Rotary Lift Facebook page had generated five user comments with just two inquiries about possibly making a purchase (Perlstein, 2010). The site had just 166 Friends and appeared to be a continuous loop of advertising versus a site where people go to exchange information and share common interests. Unfortunately, very little was stated regarding the goals of this effort beyond increased awareness.

The performance of the twitter site had also been lackluster, enticing only 34 people to follow Rotary. Of those, data showed most were Rotary employees, media reps and industry associations. There were just 32 tweets and no content was generated by lift users or prospects. There were no forwarded messages and no direct responses to posted content (Perlstein, 2010). Since no goals were determined in advance, success is difficult to gauge. Still, there is little to suggest the site is generating much activity.

Rotary Lift is struggling in this initiative. The company has dedicated hundreds of hours to the maintenance of these sites and has hired a full time person to assure that they are being updated and responded to. They’ve spent tens of thousands of dollars on the effort, but can not document any return on the investment (Perlstein, 2010). Because the company has not clearly defined its goals or measures of success in this initiative it can not measure ROI or determine if the effort is an effective one. The balance of this paper will address the process of researching social networks, determining their viability as a marketing tool for the target company and identifying specific techniques the company should employ if it intends to expand on the effort and deliver meaningful, measurable results.

Project Methodology

The investigation of the many variables and nuances of social network marketing was structured in accordance with best practices for project management (Schwalbe, 2006). Project management theory suggests that a major undertaking such as this paper proceeds in distinct phases beginning with a free-flowing exploration intended to simply name the stakeholders; understand the objectives; construct a macro level view of the problem or opportunity and identify the obstacles to understanding or success.

Once the goals are generally defined, a series of exploratory steps are taken to narrow the task to major subsections and identify significant questions, tactical objectives,
milestones and create an overview of the approach. These components are then discussed with the stakeholders and a charter was created for review by the sponsor. In this case, the project goals, tasks and significant questions were discussed with Director of Marketing, John Rylee, the person responsible for the target company’s online resources (Perlstein, 2010).

Once agreement was reached that the goals were properly identified, the investigative process was begun and was structured to follow a loosely formed exploratory stage and then a more tightly defined research stage. The stages were similar in that both times academic literature was sought and both times data was collected with regard to industry participants and classification of online activity. The difference between the stages however, was the level of detail and specificity of the information sought.

The exploratory literature stage was a search to identify academic resources and terminology for a further literature review. This activity was intended to enhance understanding in a number of academic fields (i.e., Marketing; Sociology; Communications; Psychology; etc) and determine which areas of practice were relevant and appropriate for expanded study. The exploratory data collection stage was intended to identify critical factors that explain the growth of social networks, the various tools and technologies available and which tactics are most frequently employed. This effort was also designed to gather general information like which companies are participants in the automotive equipment industry; which ones utilize social network tools and if so, what kind and how.

**Research Questions and Academic Resources**

Despite the fact that the company had already begun its campaign to exploit social networks, research needed to be conducted to determine the feasibility and practicality of such an endeavor. If the feasibility study suggests the effort is worthwhile, the company should proceed but only after it communicates clear goals and measures of performance. Successes will likely come only if the underlying theory is well understood; a strategy based upon those theories is developed; specific tactics for implementing the strategies are detailed and performance is tracked against the results desired.

To initiate such a process, the key research questions must be formulated, the critical success factors for social network marketing campaigns must be identified and the available literature must be reviewed for relevance. The key research questions include, but are not limited to the following:

1. Can social network systems be used to create sustainable competitive advantage for a manufacturing firm like Rotary Lift?

2. What are the strategic implications of using social networks for this company or this market segment?

3. What are the options available to such firms for the enhancement of promotional activity, ROI and ultimately, demand generation?
4. How do specific tools affect the communication, information consumption, opinion formation, and behaviors of the subject company’s customers and prospects?

5. How are firms similar to Rotary Lift using social networking?

6. What tools work best in this environment and what tactics create the greatest response?

To answer these questions, the project must conduct a literature review and aggregate the most relevant theory for the subject company’s reference. This literature review must help create understanding of the role social networks can play in business marketing and what tools are most frequently used to launch such initiatives. To achieve these goals the review must instruct the referent firm in the following areas:

1. What is the role that social networks might play in the overall market strategy of a company like Rotary Lift?

2. What terms are used to communicate various social networking concepts for marketing, what are their generally accepted meanings and most importantly why are they relevant to this study? What are the options available to such firms for the enhancement of promotional activity, ROI and ultimately, demand generation?

3. What are the options available to such firms for the enhancement of promotional activity, ROI and ultimately, demand generation?

4. If there are significant implications businesses employing social networks as marketing tools, what are the strategic imperatives that must be integrated into a company’s overall plan?

**Literature Review**

**Social Networks and Technology**

Before any meaningful review of the available literature can be made, some web related terminology needs to be more clearly defined. This project will use the terms: Social Network; Web 2.0; Convergence; RSS Feed; Information System; Peer-to-Peer; Blog/Micro-blog; User-Generated Content (UGC); Word-of-Mouth (WoM) and Viral Marketing at a minimum. All of these terms are subject to widely variable interpretation and even then, their meanings are subject to frequent re-interpretation and evolution.

In particular, the term “Social Network” is central to this project but the phrase has taken on so many meanings over the last decade that it must either be too narrow to be accurate or all encompassing to the point of being indistinguishable from the specific technologies from which it originates. The term social network is now nearly synonymous with sites like Facebook, twitter or Second Life, but this connection ignores its more basic human underpinnings in favor of an association with novel types of information technology.
Social Network History

Online social networks are a relatively new phenomenon but their iterations have been around since the 1980’s (LaChance, 2007). Social networks have become widely diffused in our culture and are beginning to touch nearly everything we do as humans. People turn to social networks for romantic partners, to select physicians and even to learn how to cook a thanksgiving turkey.

The growth of these networks is closely tied to the introduction of the internet and they have been around since almost the very beginning of the World Wide Web. In 1979 Duke University grad students Tom Truscott and Jim Ellis conceived of the idea for a simple electronic bulletin board where remote users shared messages and files. They established Usenet in 1980 as arguably one of the very first iterations of an online social network (Bray, 2005). These first bulletin boards were mostly used by computer enthusiasts, ran on dial-up connections and could support small numbers of users, but for the first time allowed users to create and post their own distributed content (Nickson, 2009).

Throughout the 80s, several other bulletin board systems were created including AppleNet, and the “Whole Earth Lectronic Link” (WELL) which supported multiple users; facilitated one-on-one message exchange and allowed individuals to share feedback on different products for the “Whole Earth Review” (Simon, 2009). ISP’s America Online and CompuServe arrived on the scene in the 1980s making web and bulletin board access available to anyone with a telephone line. The first “virtual community” began in 1994 called Beverly Hills Internet, (BHI) which facilitated customized member pages and small targeted discussion groups (Simon, 2009). AOL also introduced chat rooms, instant messaging and unique “member profiles” where users could share information about themselves (Nickson, 2009).

Other pioneers in social networking include Classmates.com, (1995) which allowed people to reconnect with old school friends and SixDegrees.com which allowed members to select people to build relationships and interact with (Simon, 2009). Friendster, (2002) let members to create “friend circles” and truly advanced the notion of virtual community (Boyd, 2007). The next couple years witnessed several important developments in social networks. In 2003, Linked-In was founded creating a career oriented online community as was Myspace, which marketed to teens and twenty year olds. Myspace let members share pictures, games blogs, and access music from new bands (Nickson, 2009).

In 2003, Harvard students, Mark Zuckerberg, Chris Hughes, Dustin Moskovitz and Eduardo Saverin, created a college-based network for students. The site caught on at campuses nationwide and in 2005 became Facebook, today’s most the popular social networking site with over 400 million active current users throughout the world (Simon, 2009). Facebook offered the functionalities of prior sites but also allowed users to create, personal and organization pages, event pages provide status reports and automatically update all friends seamlessly whenever they edited content (Simon, 2009).
Another recent development in social networking is twitter (2006) which combines status updates and micro-blogging. Posts, known as “tweets” allow members to “follow” one another and notify users of changes on their homepage. Tweets are limited to 140 characters which leverage highly portable formats such as cell phones (Sagolla, 2009). This is an increasingly important functionality since web enabled phones are rapidly becoming a primary portal to the web. twitter also integrates MySpace, Facebook, and other sites which allow users to use one site to manage many networks they may belong to (Simon, 2009).

**Diffusion Theory**

Social networking clearly represents a revolutionary change in how we exchange ideas. But there are powerful forces aligned in support of and against the change (Davenport, 2009). Traditional media outlets refute the journalistic integrity of John Q. Public and his digital camera phone. Academic professionals deny the veracity of publicly edited content like wiki’s and they decry the destruction of the English language in exchange for the expedience of communicating via text messaging (Perlstein, 2010). Yet the resistance to change is to be expected. It is, in fact, consistent with theories on the diffusion of innovation throughout society (Rogers, 1995).

Sites like twitter, Facebook, myspace, etc. are just a few years old. twitter is only 3 years old, yet in April of 2009 Nielson Media had already predicted its demise using phrases such as “twitter-quitters” pointing out that 60% of those who signed up, abandon the service within one month (Heyman, 2009). But innovation does not swarm a culture; it begins in remote pockets, and slowly endears itself to early adopters (Wu and Huberman B. A. 2006). These early adopters are not typically well connected people and as such, their ability to influence others is limited. But if the innovation is not complex, if its observable, trialable, and proves to be advantageous, it will soon gain the attention of opinion leaders and diffuse into society (Rogers, 1995).

It is well known that the 2008 Obama presidential campaign employed social media to promote their candidate (Pew Research, 2008). It can be said then, that social networks are now mainstream with their adoption reaching even to the White House. Opinion formation follows a predictable path and once several key influencers begin to adopt the innovation, their endorsements rapidly accelerates society’s acceptance (Wu and Huberman B. A. 2006). Social networking, despite being in its infancy is rapidly diffusing fully into our culture and will undoubtedly change how we all share information for much of the foreseeable future.

**Information Design Theory: Social Networks as “Resource”**

Applications like YouTube, Facebook and twitter have grown so quickly and seem so foreign to non-users that many people have suggested that these sites are nothing more than pleasant distractions (Davenport, 2009). There is much criticism on the quality of information twitter or Facebook offer. Newcomers observe commentary about people buying new shoes, going to the pub or other details considered mundane. Many would agree that much of what is being shared on such sites is trivial. What the naysayers fail to
acknowledge however, is that beneath all the hype of Facebook or twitter’s soaring popularity are several newer forms of information technology that facilitate increased levels of understanding (Wurman, 2001).

To begin with, social networks are primarily about communicating and sharing information. Information however, can not be easily defined and is itself the subject of much debate (Buckland, 1995). Some existing theory helps describe what types of things should be considered information or what its aspects are. Others seek to define information not by what it is, but instead by the contexts in which it is used (Brown and Duguid, 2000). To understand the impacts of social networks, marketing professionals must also consider their value as search engines or information systems.

**Social Networks as Information Systems**

Like previous terminology “information system” does not easily fit a narrow description or simple understanding by society or academia. The ambiguity lies in its broad application. An information system can be very simple like a lunch bell or a traffic light. Or applying a broader view to the term, one could conclude that even gossip qualifies as an information system (Morville, 2005). Gossip not only delivers data, or interpreted meaning, but gossip also delivers knowledge. Chatter by the water cooler helps us become informed about promotion opportunities at work, details for upcoming projects and or juicy tidbits about who was drunk at the Christmas party.

Despite our tendency to make light of gossip as an information system however, gossip actually remains the “preferred” method many people employ to become informed (Dodds, P. and Watts, D. 2007). Expand the definition of gossip to include global information sharing and we come face to face with social networks. To gain the most complete understanding of an information system, it helps to look at common processes.

An information system is characterized by six typical response and control activities; Inquiry; Perception; Becoming informed; Demand and Provision (Buckland, 1995). A system becomes active when an individual determines they have ignorance about a subject which distresses them enough to make them take action. The distress triggers curiosity or inquiry. Perception of information motivates a response that creates demand for information which results in a search that is ultimately satisfied by the provision of information (Buckland, 1995).

Each of these responses will usually be satisfied by one of three typical methods: Communication; Retrieval based systems; or Observation (Buckland, 1995). Again, as we apply the processes associated with an information system and the methods by which they satisfy the desire to become informed, social networks meet many of these characteristics. They help others deal with information, deliver information as data, as a process and as knowledge. And, they accomplish this quite easily with nearly limitless reach.

Finally, social networks act like an information system by becoming the resource people employ when they wish to become informed and satisfy that desire through inquiry and
provision. In fact, in the context of social network as information system, sites like Facebook or twitter are the preferred form of resource for several reasons (Morville, 2005). The social network provides information in a conversational format. Users prefer receiving information this way because it is freer flowing, more natural and offers more opportunities for users to adjust the exchange to maximize their understanding (Wurman, 2001).

**Information as Knowledge**

Like other terms associated with this project, information is not easy to define because so many things qualify as information. So it must be characterized by its applications or common meanings. One theory suggests that its meaning develops from three functionalities: Data; Information and Knowledge (Morville, 2005). Data is raw symbols, images or text, unevaluated, free of meaning implication or understanding. Information is that data, with interpretation and suggested meaning (Morville, 2005). Finally, information is knowledge; the useful product of that data and meaning which creates understanding and belief.

A slightly more comprehensive approach to describing information is based upon the theory that it has four aspects: information as knowledge; information as a thing; information as a process and information as data (Buckland, 1991). Social networks can meet all of these aspects of information. They qualify as “information as knowledge” or as a repository of knowledge.

For example, in March of 2009, the National Institute of Health (NIH) launched a twitter site in response to the H1N1 outbreak. By May 20, there were 10,000 cases worldwide and at the peak of NIH’s twitter activity, its site was receiving upwards of 12,000 tweets per hour (Allakeselman, Hale and Rindflesch, 2009). Thousands of people looked to this social network site as the place for answers; their storehouse of knowledge.

The twitter site outperformed many of the other potential knowledge resources in terms of ease of access, timeliness and reach. The information was proactive via RSS feed in that it sought out users; it could reach an unlimited number of people and it distilled the updates to their most concise, accessible format by delivering the knowledge as a text message (micro-blog) in 140 characters or less.

**Information as a Thing**

Information can also be viewed as a “thing”. Consider as an example, Google calendar. Google calendar is a device, a technology, an innovation and even a destination. Google calendar extends the traditional notion of a schedule to social groups. It consolidates the itineraries of members into a single site and allows for collaborative scheduling.

A group can create a calendar and send invitations to view or administer the calendar to all its members. Administrators can see the open dates for all their group members and offer events according to these openings. Users can easily accept appointments,
determine who else will be attending and reach all group members regarding their ability to participate.

Even more powerful is the site’s ability to integrate several personal calendars for each member. Users can combine a work calendar with their family schedule and calendars for each of the social groups they belong to. While this functionality had already been developed by Outlook, Google’s open source platform has made the technology free and open to anyone with web access. In this sense, we see that social networks can also deliver information as a thing; a tool that offers greater utility than many of the alternatives that are also available.

**Information as a Process**

As a process, social networks also take on the meaning of an activity; we text, we blog and we “tweet”. In this sense, social networks can also demonstrate “information as a process”. Social media like Youtube or twitter help users become informed. For example, twitter recently gained exposure as the primary communications channel for hundreds of thousands of Iranians during a contentious national election. Iranian leadership had expelled foreign journalists and banned ISP’s from distributing details about the presidential elections. Thousands of Iranian citizens believed the results had been tampered with but feared making public statements since traditional information channels and email lack anonymity. The Iranian government was arresting protesters and punishing dissidents.

twitter became the process that met the communication needs of the political opposition but eliminated much of the associated risk. The technology allowed activists to anonymously share details about rally locations and times. It offered unlimited reach to both the Iranian people and the larger world beyond (Grossman, 2009). twitter became an important process for dissemination of both information such as places of public assembly and meeting times, but equally important the technology became a critical process tool for communicating events to the outside world.

**Information as Data**

The fourth way of viewing information is as that of raw data. One striking example of social networks delivering data occurred on January 15, 2009 and involved the emergency landing of a plane in New York’s Hudson River. Radio and television news services reported the emergency crash landing but none of these media outlets could get reporters or photographers on location as the events occurred. Meanwhile, ferry passenger Janis Krum used his web enabled cell phone to snap a photo of the plane after it landed and uploaded it to twitter (Figure 2: Emergency Landing on Hudson River).
Figure 2: Emergency Landing on Hudson River

By combining a social network, trending topics and a search engine, Krum became both the journalist, and information system. In just two minutes, the image was being downloaded all over the globe (bbc.com, 2009).

Social networks can offer users highly targeted data, with global reach and they can deliver this data in real-time. Here we see that a social network’s greatest value to information consumers was its timeliness and ability to deliver a piece of data (an image) faster than any other outlet. Note also that this piece of data completely blurred the lines between citizens and journalists. Before twitter and Web 2.0, such instant delivery of breaking news would never have happened within minutes of the actual landing. It is now clear that social networks can also deliver data in ways that shape behaviors and influence opinions.

A Working Definition of Social Networks

Encyclopedia Britannica characterizes the web dependent version of this interaction as “…online communities of individuals who exchange messages, share information, and, in some cases, cooperate on joint activities” (Encyclopedia Britannica, 2010). From this definition, online social networking can refer to a great many different activities including a daily occupation where people exchange email in the course of performing their daily duties. According to Britannica’s definition, nearly any information, communication, or common experience shared by a group of people can potentially be described as social networking and so it is easy to understand how different marketing professionals might perceive different meanings from the term.
To further illustrate, Microsoft’s Social Computing Group defines a social network as “…a gathering of people in an online space where individuals come together to connect, interact, and get to know each other better over time…” (Lachance, 2007). This definition fails to acknowledge that sometimes social networks are places where businesses, not just individuals go to connect (i.e., Linked-in, Ryze, Xing; Ecademy).

danah boyd describes social networks as:

Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site…” (boyd & Ellison, 2007).

Interestingly, Boyd and Ellison’s definition fails to identify social networks as an information system and seems to exclude sites where users don’t articulate which other users they want to connect to yet still share a connection with. By the narrower definition above, online gaming sites (Gaia Online), picture sites like (flickr) or video sharing (Youtube) which share information and data as a community, but offer little interaction might not be considered social networking.

For the purposes of this research, we will define social networks more broadly by combining both technological and anthropological elements. This definition will blend the characteristics of social networks as defined by several diverse sources. Further, a key component of this definition will be the ability of users to be producers of information as opposed to just consumers of it. Social networks will exhibit the following characteristics:

1. A social network is a structure made of individuals, groups or organizations which are connected by one or more specific types of interdependency. The connection for such a structure may be friendship, kinship, professional interests, common goals, common experience, financial exchange, likes or dislikes, sexual relationships, religious or political beliefs, knowledge or prestige (Wikipedia, 2010).

2. A social network may exist exclusively in a virtual space or be an online adjunct to a group which already shares a physical space an addition to its online component. Members of a social network may participate in the discourse as their “true self” or they may adopt a persona or avatar to create an alternate personality for their virtual life. A participant may also exchange ideas and opinions openly identifying themselves, or they can participate anonymously within a given space.

3. Social network users may seek or provide information, advice, opinions, referrals, recommendations and/ or discourse, explore virtual worlds or share gaming experiences or engage in discourse covering any subject including material considered inflammatory, risqué or politically offensive. Content will be determined appropriate by the host site or by general consensus, but in most cases
there will be little censorship regarding content as social networks offer communities for nearly every type of hobby or area of interest. They may communicate about their backgrounds, professional or personal lives, experiences, knowledge, or expertise in exchange for friendship, acknowledgment, or money (Constantinides & Fountain, 2007).

This project further expands the definition of social networks to include the following:

4. Social networks provide data (directly or indirectly) via search engine, RSS feed, subscription, email, blog, micro-blog, “liking”, file sharing, picture/video posting, trending topics or URL linking. Content is offered in a variety of formats which includes a wide variety of media and delivery formats (Perlstein, 2010).

5. A significant component of social networks is the element of exchange where the participant’s has ability to choose the types of information and communication they will exchange and receive. Users have the option to select or deselect specific types of information. Participants may opt in or out of networks, individual feeds or block content from a specific creator (Perlstein, 2010).

6. Social network users are empowered to create content as well as consume it. This content may be a departure from content found in other media sources in that it may or may not represent factual information and independent verification may not be possible. “News” items may lack journalistic integrity and be blended with opinion or editorial. Subject matter presented may lack scientific validation and material posted may or may not be properly cited. In many cases this content will not be original and may even represent the unauthorized redistribution intellectual property created by others (Perlstein, 2010).

**Definition of Social Media Terminology**

**Web 1.0 as Compared to Web 2.0**

This activity is sometimes referred to as “Web 2.0”. Like the earlier issue with defining social network, the term Web 2.0 offers many potential definitions. In fact, Web 2.0 is frequently used interchangeably or confused with social media.

Such blending and dilution of meaning is evident even in the academic world through examples such as the following excerpt from the article *Web 2.0: Conceptual Foundations and Marketing Issues* which suggests: “…the phenomenon commonly referred to as Web 2.0 or Social Media is affecting the way people communicate, make decisions, socialize, learn, entertain themselves, interact with each other or even do their shopping…” (Constantinides & Fountain, 2008).

For this research however, the two concepts are best differentiated. For clarity, social networking will generally refer to the online activities people engage in (i.e. gaming,
messaging; and sharing information/conversation. Social media will refer to the tools or software that enables such an exchange (i.e., Facebook, twitter, etc.). While it may at times seem difficult or arbitrary to do so, references to the Web or the Web 1.0 will generally refer to an online environment which is more “static” when compared to Web 2.0 which is more dynamic (more on Web 2.0 to follow).

In the earliest days of the internet businesses and individuals used websites as repositories of information. While valuable, these websites duplicated many of the functional roles of print media and allowed users to access much of the same information they could get by visiting a brick and mortar store or by obtaining a printed document such as a circular, a journal or a local newspaper. Where the product being offered was information, the internet frequently charged users for access to this information in the form of a subscription fee.

A website also typically fulfilled the role of a digital catalog or reference source, but did not necessarily facilitate a significant amount of two-way communication (Anderson, 2007). Both Web and Web 2.0 facilitate the exchange of data, files, or information, but Web 1.0 was typically an exchange between two parties delivering content which had been previously designed by one party and flowed from one creator to one or more recipients. This data did not typically flow back and forth repeatedly nor was it significantly modified from its original format.

As the internet evolved, companies came to employ the web as a tool that could expand reach, accelerate information flow and increase efficiency. Information users saw the internet as a tool that could enhance their access to information, increase their control as consumers and make it easier to share experiences or data with friends, family and co-workers (Dervin, 1999). This sharing of information also included opinion and appraisals that consumers valued as part of their opinion formation process prior to purchasing products (Wu and Huberman, 2006). Web technologies offered firms dramatically expanded reach and significantly reduced costs. Process was also streamlined, empowering customers to acquire significant information about a company or a product without ever visiting a retail site.

**Web 2.0**

‘Web 2.0’ was officially coined in 2004 by Dale Dougherty, a vice-president of O’Reilly Media Inc. who was attempting to describe an important extension of capability beyond the early notions of the World Wide Web. Dougherty was alluding to six developing characteristics that had become more common within web use that he felt were significant (Anderson, 2007). Dougherty believed that more recent innovation had enabled greater levels of: 1. Individual production and User Generated Content; 2. Harnessing the power of the crowd; 3. Data on an epic scale; 4. An Architecture of Participation; 5. Network Effects and 6. Openness (Anderson, 2007).

Web 2.0 is a collection of open-source, interactive and user controlled online applications expanding the experiences, knowledge and market power of the users
as participants in business and social processes. Web 2.0 applications support the creation of informal users’ networks facilitating the flow of ideas and knowledge by allowing the efficient generation, dissemination, sharing and editing / refining of informational content (Constantinides & Fountain, 2008).

In comparison to the Web, Web 2.0 generally refers apply to the interactive nature within the social web. Content can and often is created by both parties in the exchange and the information is primary provided free of charge in an open source format (Constantinides & Fountain, 2008). Can be shared amongst a group of users who may or may not be selected by the content creator or it may be posted anonymously (boyd, 2007) and this content may or may not be responded to, forwarded, edited or reposted to other sites. The distinction being made may seem a subtle one but it is important none-the-less.

Definitions however can be quite contentious. Even the inventor of the Web, Sir Tim Berners-Lee, contends that the phrase is meaningless jargon (Laningham, 2006). When asked in an interview for a podcast, published on IBM’s website, whether Web 2.0 was different to what might be called Web 1.0 because the former is all about connecting people Berners-Lee replied:

“…Totally not. Web 1.0 was all about connecting people. It was an interactive space, and I think Web2.0 is of course a piece of jargon, nobody even knows what it means. If Web 2.0 for you is blogs and wikis, then that is people to people. But that was what the Web was supposed to be all along. And in fact, you know, this 'Web 2.0', it means using the standards which have been produced by all these people working on Web 1.0…”(Laningham, 2006).

Berners-Lee argued that there is no Web 2.0, there is only the Web. In opposition to Berners-Lee, this study finds the distinction to be appropriate and valuable in the context of marketing. Acknowledging that there is disagreement over the issue, this literature review takes the position that Web 2.0 is a significant evolutionary stage in the development of the internet and that it is characterized by several expanded characteristics that influence internet users and have a unique impact on information exchange.

Specifically, Web 2.0 is an important component of social network marketing and must be understood in the context of the changing power dynamic occurring on the web. Content used to be the provisional domain of the site administrator and the information consumer had little control over what was posted to sites controlled by others. But in the Web 2.0 world, the user has this power (Cooley, 1999). Users are now journalists, critics, political activists, endorsers, debaters, lobbyists and crusaders. This evolution toward greater control and greater discourse offers a number of exciting opportunities to information designers, online marketers and information consumers.

**Blog’s and Micro-Blogs**
Another term used almost interchangeably with social networking is “Blog” and more recently “Micro-Blog”. Blog is a portmanteau of the words “Web” and “Log” and refers to the online version of a journal or diary. The term web-log, or blog, was coined by Jorn
Barger in 1997 and is used to describe a webpage comprised of information, opinions, diary entries, links, or other items of interest called “posts” and presented as a journal (Anderson, 2007). Most blogs also allow users to post records of their activities or any subject of interest and receive responses or comments from readers.

Many of these sites are collections of humorous anecdotes, political commentary, human interest stories or in the case of business entities, newsletters or press releases. For marketers, a strength of these digital documents is that they are persistent, searchable, and replicable; and have invisible audiences (boyd, 2007). Unlike a magazine, content is easily duplicated, forwarded to any number of readers and remains on the web in near-perpetuity. Blogs also combine the numerous communities of special interest groups with the power of search engines and interactivity of online bulletin boards or chat rooms.

Blogging or Micro-blogging also delivers a significant social benefit in a world overflowing with information. Information theory instructs us that information seekers desire knowledge, but not necessarily expertise Buckland, (1995). They want understanding, but rarely do they need all the data available to become informed. Mooer’s law states that there are limits to how much effort people will invest in knowledge attainment, meaning they are willing to pay a limited price to acquire knowledge. In this context price refers to the effort and time expended in becoming informed (Buckland, 1995). With so much information available, individuals will seek only the bare bones of understanding and blogs, as brief parcels of information, are uniquely configured to provide information in the most economical and easily accessible way (Morville, 2005).

Micro-blogs are a relatively new phenomenon which are an outgrowth of digital texting but were most notably advanced by twitter. twitter’s format requires users to keep their postings (known as tweets) to 140 characters or less (twitter.com, 2010). Messages on twitter are similar to text-messaging and are highly abbreviated. While text messaging formats may initially seem difficult to understand, they are capable of delivering a very high volume of information in a very small stream of characters. Additionally, demographic data indicates texting has recently surpassed all other communications methods teenagers use to reach friends (Pew Internet, 2009). This suggests that over time, texting will become the preferred electronic communication vehicle.

twitter users often embed links in their posts for retrieving more information than the 140 character limit and like the larger blog streams these combine several tools that deliver search engine results in a highly portable (cell phone) format. The changes in communication behaviors that these technologies represent a dramatic shift from the more traditional forms of advertising and promotion to something very timely, very mobile and very powerful… Something marketers will need to adapt to and combine with their existing strategies.

**Convergence**

One reason why these many changes are diffusing globally is because the tools being developed meet our needs as individuals and groups in ways previously never conceived
of (Rogers, 1995). The web expands our reach, but the various applications provide access and flexibility that far outweighs alternative communications technologies. Consider for example, mixing search engine technology with live streaming video and chat… Apply these combined capabilities to the act of finding companionship and one can see why online dating services could revolutionized the way we find and meet romantic partners. Convergence allows these services to blend various technologies to create unlimited reach, data-mining, searchability, and chat. Hundreds of other novel combined applications like myspace or Linked-In are creating similarly powerful tools of human exchange.

These new tools satisfy a number of important needs for internet users that previous forms of communication and media do not. Convergence facilitates Human Centered Design (HCD), which enhances responsiveness and engagement (Cooley, 2000). It offers more inclusiveness, greater malleability and ultimately a greater sense of ownership for users and creators of content.

An online news story satisfies our information needs in similar fashion to a newspaper, but it also satisfies our social needs for belonging by allowing us to interact with what we read. It enhances inquiry, facilitates discussion and permits debate. This supports earlier behavioral research suggesting that people in today’s online communities do not just want to be consumers of information, they want to be co-creators (Dervin, 2000). Social networking facilitates this need.

**Really Simple Syndication (RSS)**

People who wish to stay informed about current events, hobbies or other areas of interest can do so with newspapers magazines or television, but these sources do not benefit as readily from convergence. A Really Simple Syndication (RSS) feed is a tool that functions as a digital subscription to a particular site or specific piece of content. RSS is notifies information users of an event that they have opted into.

Most social networks offer RSS feeds that allow their users to obtain highly targeted information as soon as an update is generated. Consider by comparison the TV news… Viewers must watch a half hour to an hour of news to learn about whatever they're interested in. If it's sports that interests them, it takes 20 minutes to find out what the scores were. But with an RSS feed, the score is automatically emailed or texted out to subscribers as soon as the game is over. Not only do users get items of interest as soon as they become available, but they prefer this information over other sources since the content is now actually capable of finding them (Morville, 2005).

If we are interested in news about the gulf oil spill or General Electric, we can subscribe to an RSS feeds at favorite sites and those websites will notify us by text message when an update occurs. This example demonstrates how the combination of a search engine with RSS feed within a social networking site (including Facebook or twitter) can deliver content as soon as it becomes available. Recall that information theory suggests that information overload is a growing problem in the internet age and that increasingly, web users will turn to sites that demonstrate their understanding that “…less is more…”
(Wurman, 2001). This message in particular should provide guidance to marketers about brevity, timeliness and relevance.

**User Generated Content**

Examples of applied UGC technology appear on such sites as Amazon.com, Petco and JC Whitney. These online marketers have created a data point for potential customers to receive unbiased opinions of quality for the products they offer. UGC sites offer a product, a digital camera for example, then allow individuals who’ve purchased that product to offer feedback to others. While this can be a double edged sword for retailers when a product or service experience isn’t positive, prospective buyers place significant value on this data. Recommendations of current users and past purchasers carry a heavier endorsement value for prospects than other sources of quality data (Morville, 2005).

Prospective purchasers anticipate greater candor and honesty from this group than they do from other retailers. One frequently seen example is a product ranking system. In practice, feedback about a purchase experience is graded by users and past purchasers and presents consumer opinion in some form of iconic scale such as stars (Figure 3: Sample User Generated Content). An exceptionally good experience will receive five stars while a product that disappoints may receive only one or two stars.

![Figure 3: Sample User Generated Content](image)

UGC technology can really benefit both users and businesses by helping marketers determine trends in demand as well as waning consumer interest. They also help
businesses build greater loyalty since such data provides marketers with the data they need to help determine when to drop products that do not satisfy their customers.

J.C. Whitney, an automotive specialty parts retailer, reports that the parts rated highest by its customers, saw a 16% sales increase and Petco.com reported that since adding UGC to its website, refunds have dropped by 20% (e-Commerce optimization, 2007). This functionality also illustrates clearly how Web 2.0 shifts the power in the consumer relationship from seller, to buyer. Smart sellers understand that a lot of negative comments will reduce their sales. In other words, the consumer is controlling the process.

**Peer-to-Peer Systems**

Peer to Peer (P2P) technology also serves as example of information as pure data. While P2P has several interpretations itself, in this context it refers to users creating and hosting their own personal networks of links and shared files. One of the more contentious examples of this phenomenon is file sharing which has become very disruptive to the entertainment industry. But P2P also includes photo sharing like flickr and video sharing like Youtube.

Without engaging in the intellectual property debate over P2P, the technology illustrates another example of the power of social networks to create paradigm shifts across major market segments. Other examples of buying behaviors influenced by data from P2P social networks include online classified ads such as Craigslist or Angieslist which both allow users to collect data about local goods or service providers. These information systems even allow consumers the opportunity to rank their health care providers which 20 years ago, was unheard of.

P2P systems motivate increased learning, increased exploratory and participatory behavior, and more positive subjective experiences (Hoffman and Novak, 1996). Of the various sources people might use to acquire knowledge, social networking information systems, with peer-to-peer, score highest on the “trust” scale. To summarize existing theory about information, while information may seem difficult to define, every approximate definition of information applies to these social networks and suggests that they offer considerable utility to users. Those who would argue that they are ephemeral or unlikely to become main-stream, do not understand how social networks satisfy the many needs of modern information users.

**Social Networks and Society**

Social networks are far more basic to human well being and mental health than this more recent technology based understanding would suggest. The available literature suggests psychologists recognize participation in social networks as a method by which individuals eliminate stress (Lin, 2009).

Socialization, interaction, and companionship are life sustaining. Children that are denied the emotional support of communication and touch during infancy are known to suffer from depression, anxiety, Reactive Attachment Disorder (RAD) and even Post Traumatic
Stress Disorder (PTSD) (ChildWelfare.Gov, 2008). Married people are known to live longer than non-married people. Even primates are known to require social networks in order to lead normal lives. Countless studies document the health benefits to senior citizens from pet ownership or animal therapy (CDC, 2008).

The benefits of companionship include improvements in both psychological and physiological well being (Maslow, 1943). These behavioral phenomena hint at something very basic in human psychology that makes companionship and human interaction such as in social networks, very important to mental health. The explosive growth of online social networks further suggests that many people are drawn to these spaces because among other things, they satisfy some very deeply seated socialization needs (Maslow, 1943). Acknowledging this requirement will help marketers recognize the wants and needs of audiences within this space and craft their promotional activity accordingly.

In *A Theory of Human Motivation*, “love needs” described as “…the desire to feel love, affection and belongingness are high order needs which, if not met, lead to psychopathology…” (Maslow, 1943). Psychologically and physiologically speaking, relationships are well established as basic human needs. Behaviorally speaking, social networking is concerned with how we as individuals or groups establish and maintain relationships and communicate with one another. One benefit of the online version of this socialization capability, is that it emancipates people for whom physical social settings might create too great a challenge to overcome (i.e., people who are geographically isolated, home bound, disabled, etc.

Humans participate in social networks as one of many behaviors that can satisfy their need to interact and communicate with others. But at a more fundamental level our social networks help us connect with our environment and they’re how we share. These connections represent “…social collectivities characterized by interaction and interpersonal ties” (Breiger, Carley, and Pattison, 2003).

The internet version of this interaction modifies the exchange by enhancing the tools, expanding audience reach and/or crossing physical, spatial and chronological boundaries (Dervin, 1999). It does not however, create a new meaning outside of its original social context of sharing and ultimately belonging. What is so striking however is how, in the current literature, just how many definitions seem to exist to describe social networks.

**Social Networks as Marketing Strategy**

Data collected for this project suggests social networking opportunities are frequently misunderstood by marketing professionals within this industry (Perlstein, 2010). Businesses like Starbucks or Taco Bell can generate significant social buzz by offering a free scone or Taco to twitter followers, yet social networks applied to this particular segment appear to present a greater challenge for marketers trying to create stimulating content or sustained interest from potential users (twittalyzer, 2009). Many of the firms
studied that have such sites, do not significantly differentiate between the content on their social networks and their commercial websites (Perlstein, 2010).

Where companies do differentiate between the two mediums, there is a wide range of content types, tools used or tactics employed. Many of the firms use Facebook, but not all of them. Some use Youtube while others seem to prefer twitter. Some use all three. Some companies post content daily. Others add content once or twice per month. Some firms run promotions and special discounts for social network participants while others simply post information about upcoming trade shows or new product releases. With this much variation, it suggests that for this industry, there is no clear understanding of “best practices”.

To understand social networks and create coherent marketing strategy for this space, information designers must be able to integrate several disparate fields of study with recent social, anthropological and demographic trends. Consider social networks in the context of technological determinism…”…Information is an instrument of power imposed in discourse on those without power…” (Dervin, 1999). The internet in general and the social web in particular, have changed the relationship between information provider and information user; they have changed the nature of the relationship between the marketer and the consumer.

For example, User Generated Content (UGC) allows consumers to easily verify the veracity of a seller’s product claims (E-commerce Optimization, 2007). Individuals who have problems with airlines, consumer electronics or even restaurants can now get satisfaction for their complaints by just tweeting about it online (Higgins, 2009). Consumers have more choices than ever before in everything they purchase and how they become informed.

Consumers now enjoy instant access to information and news reaches around the globe in seconds where it once took days or hours (bbc.com, 2009). But information is everywhere; bombarding users with unwanted email and search results are so voluminous that it causes information overload (Wurman 2001). This volume of information is so great that it overwhelms users and makes them seek out simpler less commercial sources (Morville, 2005). In many ways social networks satisfy the need.

This project analyzes the relationship between people and businesses and it documents a small portion of the evolution between society and technology in the context of social networking and recent changes in the balance of power between the two. It explores and explains the changing role of information consumer as information editor and author to help develop a social network marketing approach for industry. It is also something of a study in “convergence” and provides a look into the “…emancipatory technologies…” associated with the social web to explain and predict the future of this relationship (Cooley, 1999).
Social Network Marketing vs. Online Marketing

Because the term “social network” has increasingly become a reference to internet based activity, social network sites may simply be viewed as an extension of a firm’s existing website by marketers in the lift industry. But social network sites are different than other types of website marketing. Social networking can be a sub-set of a company’s online marketing plan but may also be a stand alone system. Often different tools are involved, different cultural rules apply and social network sites may appeal to different needs such as: belonging; user referrals; expedited response; personnel location; etc. (Morris, M.R. Teevan, J. & Panovich, K. (2010). Marketers that hope to take advantage of this phenomenon must recognize the distinct characteristics of social networking and craft their approaches to address the audiences’ unique informational or psychological needs.

To better understand the subtle and not so subtle differences between marketing in a social networking venue versus marketing from a homepage or corporate website, marketers should be familiar with the implications of convergence. Social networking is not just the addition of a bulletin board or discussion thread to an existing website; it is the union of sociology, communications, information technology, and psychology (Paynter, 2010). The integration of these areas of practice creates a new space in our collective lives that is open to infinite possibilities.

People generally visit social networks primarily for something other than to learn more about a company’s products or services (Morris, M.R. Teevan, J. & Panovich, K. (2010). They visit social networks to share and this sharing is frequently a form of entertainment (Simon, 2009). Social networks offer connections to distant friends, discourse on issues of common interest, gaming, flirting and a myriad of other non-commercial activities (Pew Research, 2008). Social networks users are not unwilling to be exposed to some promotional activity as long as they are not overwhelmed by it (Hubspot, 2008).

Marketers should recognize the unique characteristics of social networks and use their sites to facilitate relationship creation with users as potential customers. But they must not forget that the venue is mostly geared toward conversation and interaction (Underhill and Kurit, 2009). Tools that promote this exchange help social networks attract users, which builds familiarity and a greater likelihood that when a purchase is imminent, social network users will respond more favorably toward their hosts than to other companies they might not be familiar with (Walker, 2008).

Opinion Formation and Market Behaviors

Market behaviors are influenced by many factors. The decision to make a major purchase or subscribe to a costly service is often made after searching for potential products and evaluating alternative brands. Opinions about these products are often formed as a result of both independent research and word of mouth (WoM). But independent research can, at times, become quite cumbersome.
The phrase “information overload” helps put in perspective the frustration users experience when they search for example for a “big screen TV” on Google and encounter 10 Million results (Google, 2010).

With the ever-increasing volume of information available on the internet, users are increasingly turning to social networks to gather data about what to buy. Two examples of social networking applications employed as data resources for purchases are “user generated content” (UGC) and “peer-to-peer” (P2P) networks. UGC typically refers to feedback from end users about a particular brand, product or service while P2P typically refers to networking between users.

**Viral Marketing**

Understanding the social needs of network users and the theory underlying information systems helps explain viral marketing. Viral marketing is not easily defined within a narrow context and can have numerous interpretations but is generally a reference to online “word-of-mouth”. According to one definition, “…This emerging form of marketing is the transmission of marketing messages through various Internet-based channels by peers. During these transmissions, information passes between individuals without the involvement of the original message source, propagating like a virus would have done…” (Woerndl, Papagiannidis, Bourlakis, & Li, 2008). Viral marketing can be a very powerful promotional influence. Like user generated content however, it is not easily controllable. In its online iteration, WoM or viral marketing can have massive positive or negative reach (Steffes & Burgee, 2009).

The subject of viral marketing can be any product or service but Hotmail and twitter both exemplify viral campaigns very well since neither has ever been advertised yet both have acquired over 1 Million users (Niccolai, 2010). Viral marketing is relevant in the context of this research because in social networks the power of referrals is greatly multiplied (Hoffman. and Novak, 1996).

Consider by recent example, Apple’s I-pad notebook computer. A powerful viral marketing campaign is underway and much of the discussion is generated by consumers as opposed to corporate advertisers. I-pad forum, a site which bills itself as a technology enthusiast site and claims no connection whatever to apple, has tens of thousands of comments generated by users (www.ipadforums.net). This example of viral marketing demonstrates intense publicity for the product, all done gratis by satisfied users and technology enthusiasts. Getting people to express favorable opinions about a company or its products online is a difficult task. Getting them to forward their favorable comments to multiple acquaintances as the name “viral” implies, is even harder. But having a geometric expansion of referrals as each person who receives the reference multiplies it, is the marketer’s greatest goal. In effect the advertising message perpetuates itself.

**Demographic Trends**

Understanding communication theory, information design and psychology are important foundational elements in predicting the likelihood of success in marketing within social
networks. But it’s also important to identify a few demographic trends which fuel the
growth of these networks. Many demographic trends have an impact but few are as
dramatic as the combined growth of the web, mobile computing and globalization. To
illustrate, there are more than 100 million active users currently accessing Facebook
through their mobile devices (Facebook, 2010).

As a result of all the tools previously mentioned and our increasing mobility, our
information retrieval activities are more convenient, more informative, timelier and
ultimately more meaningful (Wurman, 2001). Web enabled phones are rapidly expanding
our access to information and allowing us to customize the information we receive.
Equally important, adoption of the technologies that enable these social networks is also
rising dramatically (Nielsen, 2009). Between 2000 and 2009, global internet usage grew
400% (Nielsen Online, 2009). Growth of cell phones is also rising quickly with young
teenagers making up the fastest growing group. In the US, in 2004, 18% of 12 year olds
had cell phones. In 2009, that number had grown to 59% (Pew Internet, 2009).

Not only has the access grown, but the coming generations are adopting the technologies
that enable social networking at an increasingly younger age. This data suggests that over
the next decade, social network applications accessed thru web enabled phones will
become pervasive. Add to this the trend toward “WiFi-ification” of our homes, our
restaurants and even our cities and clearly, a larger and larger percentage of our
population will incorporate web enabled cellular technology in their daily lives.

Market Implications

Each of the previous trends and technologies identified is a reason for firms to consider
adoption of a social network marketing strategy. If firms integrate the technologies and
demographics with an eye toward convergence, enough evidence comes together to
suggest that companies actually have a mandate to understand and integrate this
technology (ComScore, 2009). With so many people in so many countries changing their
communications and information retrieval behaviors, much of what worked in the past
will decline in effectiveness. If internet users can more easily tune out advertising, and
the information they receive is more frequently derived from their peers, marketers must
then answer how will products be promoted and how will prospects be reached?

Marketing is the process of planning and executing the conception, pricing, promotion,
and distribution of ideas, goods and services to create exchanges (with customers) that
satisfy individual and organizational objectives (Kotler, 2003). The operative word in this
definition is “satisfy”. To promote products and services to the groups participating in the
many social networks, marketers must determine what the needs and wants of these
groups are, and develop a strategy that satisfies those needs and wants.

Because online social networks are so new, many marketing professionals don’t always
know how to satisfy consumer needs or understand the value of social networks. For
example, Starbucks has a twitter page but Dunkin Donuts does not (Starbucks has nearly
1 Million followers)(Starbucks.com, 2010). McDonalds and Taco Bell have twitter pages,
but Burger King does not (as of June 18, 2010). Both McDonald’s and Taco Bell have
roughly 32,000 followers. But McDonalds has 31,000+ stores while Taco Bell has just 5600 (McDonalds.com, Yum Brands.com, 2010) How are these differences explained?

The explanation lies in the value these firms provide through their social networking activities or the needs that they satisfy. Social networks are voluntary. Users connect only if they perceive that some need is being met and they tune out if no value is being delivered (Screvens, 2000). Starbucks is a standout amongst social network marketers because they have created an online social network presence that is “…uniquely interactive, permits users to engage in participatory behavior, and more positive subjective experiences” (Hoffman and Novak, 1996). They have figured out what their clients want, how they can assist in satisfying their needs via social networks and most importantly, they have figured out how to get customers to talk to one another (viral) about the company’s products (Trendistic, 2008).

The value in this literature review project and the needs that the subsequent research will satisfy will be identifying those tactics that enhance the participatory environment. The final product, like the subject matter itself, will be the convergence of theory, demographic trends and sound marketing principles. It will highlight companies that have successfully applied these principles and catalog best practices. Combined, the theory and data will serve as a guide for the target business and others interested in pursuing similar goals.

**Research Methodology**

Many companies are deploying manpower and financial resources to social network marketing initiatives. Industrial firms as well as consumer products manufacturers see these tools as an important part of their overall marketing strategy. Research regarding investment in social network use by industrial marketers suggests that “…68% of companies plan to increase spending on social media in 2010 Nielsen, 2009). LinkedIn and Facebook are the most popular social media applications currently being used...” (GlobalSpec, 2010).

Despite recognition that social networks represent a new frontier in marketing, these tools are relative newcomers to the marketing professional’s toolbox and as such their strengths and weaknesses are not as well understood as other forms of marketing. While many firms are shifting larger percentages of their advertising budgets over to this venue, the results such shifts produce tend to be inconsistent (Perlstein, 2010). Like so many other internet related ventures, it is not enough to just have an online presence, it’s also important to have a plan. Companies that don’t develop a clear strategic path for their investment in online advertising in general or social network marketing in particular, are likely to flounder and achieve inconsistent results.

Developing an approach to using social networks as a marketing tool begins with identifying an overarching question. In similar fashion to starting a business, or launching a new product, the entire initiative depends upon a clear statement of objectives and a subsequent detail statement of how those will be achieved. This concept applies even
more so to conducting research on the application of social network marketing to a unique company or a specific industry segment. In this research, the overarching question is “How does a company like Rotary Lift leverage social networks as a marketing tool within an industry where social network marketing is not commonly used?

Inherent in the opening question is an important assumption. It assumes the viability of social networks as a marketing tool applicable to this particular company within this particular industry. This research will develop recommendations for the use of social network marketing and specific tactics for such an activity, but it will also prove the practice as an appropriate one for this company and the unique industrial segment in which it conducts business.

A Word of Caution

Before developing a methodology for using social networks in marketing for a particular firm within a particular industry, it is important to acknowledge the ephemeral nature of information. This project itself is subject to information obsolescence. Its recommendations are built upon current theories of information design and its subject matter is arguably the evaluation of a new type of information system which constantly evolves.

Information is subjective and must be defined using abstractions and evidence of an anecdotal nature. It sometimes evolves faster than academicians can classify it and undoubtedly far more material will be neglected in this research than will be included. Facts encountered at the outset are no longer facts (Dervin, 2000). Functionalities and technological boundaries fall by the wayside faster than research can establish that there were even boundaries to begin with. Such is the nature of information.

During the development of this research proposal and subsequent to the initiation of the data collection phase several significant developments occurred. These developments do not invalidate the research, but instead highlight the chaotic nature of information and the need to constantly educate oneself with regard to the fluid nature data and the inherent requirement that information design be a journey versus a destination.

For example, at the beginning of this project, the world’s largest search engine, Google lagged behind other media formats in its ability to deliver news instantly. During the research period, Google created a twitter “live-feed” functionality that allowed search results to include the trending topics capabilities of twitter. Both tools are dramatically changed by the innovation (Google.com, 2010). When the project began, there was no way to post an image as a part of a tweet. To deliver an image, a tweet had to incorporate a URL address that acted as a portal to another site. The research and data collection activity led to the conclusion that twitter was not as popular amongst social network marketers because it lacked the benefits of visual-text communication functionality. By comparison, Facebook offered text capability plus image functionality which enhances its ability to communicate meaning (Hansen, 2000). This “fact” is now outdated.
The data gathered and the conclusions made reflect a moment versus an extended period of time. The “fact” that Facebook had 350 Million users when the project was first proposed became fiction. Over the roughly 8 months from beginning to end, Facebook broke through 400,000 million users, then 500 Million. The tools of social networking, such as the “like” button began occupying not just Facebook, but Youtube and thousands of other websites. Technologies converge and blend together. Early adopters implement new uses for these innovations that their creators never envisioned. And these adaptations snowball and diffusion expands geometrically (Rogers, 1995).

The research identifies best practices for the period (albeit brief) that the survey was conducted. It is incumbent upon the marketer to acknowledge its dynamic nature and seek out new information as a part of an ongoing process. Recognition of the chaotic nature of information is the only way in which the ongoing relevance of the conclusions can be assured. It is the responsibility of the marketer therefore, as information designer, to use this research as part of an ongoing journey; for as a destination it suffers obsolescence the instant it ceases being written.

[The narrative]… mandates a particular kind of theory, one that focuses on information as made and unmade in communication; as designed by all humans, individually and collectively, in struggle and mediation; as relevant to both making and unmaking order and chaos; as theoretically incomplete and always open to potential challenge; as relevant not only to the centered human but also to the de-centered human; as pertinent to the human heart, body and spirit as well as the human mind (Dervin, 2000).

A Preliminary Approach to the Research

The initial step in creating a plan for gathering the appropriate data and theory was to ask the single question about what the process will yield when it is complete. “…Can a company like Rotary Lift leverage social networks as a marketing tool within an industry where social network marketing is not commonly used..?” generates a response that is unclear and inadequate as a starting point. At best it offers answers lacking in detail and credible validation. Asking the question leads to few answers, but many more questions.

But this is an appropriate and desirable outcome in the beginning of the research formulation stage. In fact, it is the preferred outcome since the goal of initial inquiry should be about gaining insight and a frame of reference as opposed to obtaining answers. “…The scientific mind does not so much provide the right answers as ask the right questions…” –Claude Levi-Strauss.

The steps to be followed for creating the research methodology were closely tied to the questions a marketer would ask before employing a social networking strategy as part of an overall plan. The research questions began with outcomes (i.e. what techniques work?) and were followed up by questions of practice and measurement (i.e., how would such performance be measured?).
As a result of the exercise, over 100 follow-on questions about the research and ways to gather data were generated. These questions fell along six major categories to be identified for further exploration. Many of the central elements, the question categories and several of the sub questions for each category are shown in Appendix A: Research Questions).

Data collection began but needed to be refined. Blogs were deemed too varied to provide value as a performance measure. Some companies created internal blogs, some used Facebook as their Blog and still others used Blogs only for press releases. While tallied, blogs were not later excluded as a potential differentiator.

**The Research Sequence**

The research for this project followed a series of steps beginning with a problem statement and situation analysis. The process includes seven stages and is aimed at providing definition of the issues; identification of the information that was desired; how the information was acquired; what sources were used to acquire the data; how the data relates to the theories identified through secondary research; how to interpret the information and ultimately how to apply it back to the original problem statement.

Once the main questions had been identified, a procedure was developed to allow each major discussion area to be explored then researched via secondary sources. Subsequently, data measures were identified for a particular tactic and those measures were then collected on a spreadsheet for tabulation and comparison. This process was repeated many times during the project, but was generally conducted in the same order for each area of primary research (Figure 4: Research Process).
Defining the Research:

To begin defining the research process, numerous exploratory activities had to be affected. While many major areas of research were identified in the first round of questions, deeper more detailed understanding of the issues was needed before identifying a specific tactical approach. The research needed to identify measures of performance.

The first phase for the effort was an academic exploration. This consisted of an unstructured combination of primary and secondary probing regarding social networks. The secondary research in this stage was intended to identify applicable academic literature and relevant examples of companies that had applied some or all of the best practices named by external resources. Primary exploratory research included visiting websites, social networking tools and various hosted social network sites within the target market.

Models of opinion formation were explored as was the concept of “connectedness”, the notion of “six degrees of separation” and group leadership (Gurevich, 1961). Within social networks, certain individuals stand out amongst their peers in terms of their capacity to influence others. Opinion leaders in groups impact the decisions and behaviors of group members and this influence becomes a determinant of cultural acceptance. It also plays a significant role in diffusion of innovation and market acceptance (Rogers, 1995). In particular, leaders within groups have the capacity to
control the group’s culture. The importance of this phenomenon is especially significant in an online environment where reach is dramatically amplified (Burgelman, Christiansen & Wheelwright, 2008).

**Exploratory Research**

Exploratory research was conducted in several phases best characterized as macro and micro levels. Macro level research was begun before any in depth primary research was done and prior to capturing any data. The goal of this activity was to begin building a frame of reference for the research that would help identify the various schools of thought on the subject and the available academic literature.

Macro level research can best be characterized as intentionally unstructured. It focused on three areas as starting points: academic literature; social media destinations and industry specific activity. In the academic literature, keyword searching for social network terminology was employed aggressively in academic databases, on search engines and within the news media. Where valuable information was discovered, other cited works were also recorded for future follow up.

To develop a base understanding of how to best approach this task, marketing texts, online advertising research and numerous business journals were consulted prior to designing a data collection method. The result of this line of inquiry was the discovery of a methodology for information system design and the conclusion that the process needed to follow a format closely aligned with project management.

The methodology began with a project description or charter. The task then followed a recurring pattern in which major elements would subsequently be Defined; Measured; Analyzed; Improved and Controlled according to project management Life Cycle Theory (Schwalbe, 2006). This approach seemed ideally suited to the nature of an information design project and accommodated the dynamic nature of the project scope which kept evolving with each new research finding or interesting piece of data. Project management theory further suggested that the task first needed to be considered holistically but then be broken down into its significant subtasks or phases. It begins with the “big picture” questions like what should this project instruct, who are the stakeholders and what does a successful outcome look like?

Holistically, this undertaking (its charter) is an endeavor to deliver value to industrial marketers. It achieves that objective by instructing them how to deliver value to the information consumer within an online social network. At its most fundamental level, marketing is concerned with identifying an unmet need or want and creating the product or service that satisfies that need better than the other alternatives available.

Market theory instructs that the objective is met when companies deliver the right product (information), at the right price, at the right place via the appropriate method of promotion. Known as the “four P’s”, the combination of these elements helps marketers create sustainable competitive advantage by fulfilling the target audience’s needs better than the competitors do (Kotler, 2003). While this perspective on marketing is important,
it answers only the desired outcome of the project not the method by which demand can be met. As such, a systems approach must also be created. Social network marketers need to understand what is valuable to users, but they also must determine the best tools for reaching a chosen target market.

Breaking the task down into subtasks helps the company answer questions about information and communication such as: what information does the audience desire and in what format; where will the user need information and how would they prefer that information to be communicated. Information consumers are often inundated with both media and data (Wurman, 2001). But not all data helps us become informed. With so much information and communication available, it becomes equally as important to understand what is NOT desirable as what is. This concept also explains why some marketers studied within the same industry, can have such different participation levels in their hosted social websites (Perlstein, 2010).

Streamlining the process of accessing information and answers is a critical success factor for social network marketing (Morville, 2005). Hosts need to understand what content is sought and deliver it in the most efficient way. If marketers make it too hard for an audience to find what it needs or to understand the meaning of the information delivered, they will disengage (Morville, 2005). And in a world so full of alternative information resources, the customer that leaves a site still uninformed is very unlikely to return.

The exploratory phase of the project was instrumental in framing the strategy. Exploration helped identify the research path for the project. It identified the theoretical foundations and the questions these fields of study could help answer. It facilitated the critical success factors, the development of metrics for the data collection phase and it helped identify the target industry’s pioneers in social networking.

**Primary Research**

Once holistic research was conducted micro level primary research also needed to be conducted in several ways. In particular, specific measures of effectiveness needed to be delineated prior to the data collection activity. Primary research involved detailing the activity of the target company and its competitors. It helped identify the activities that “best in class” companies engage in when they participate in social networks and finally primary research helped select which of the many potential metrics would be most instructive as part of the a final conclusions.

Since this undertaking is a case study of a specific company, primary research had to focus on similar companies and industries also involved in manufacturing capital equipment within the transportation marketplace. The field of focus for this project was 100 other companies in the same or similar market segments as Rotary Lift. Step one was construction of the sample group from which data would be collected. As such, a significant amount of visitation of actual web environments and associated social networking sites was completed. In terms of sequence, these visits were first conducted for other manufacturers of competitive lifts, then manufacturers of complimentary
products and finally manufacturers of products from similar Standard Industrial Codes (SIC) as established by the US Census Bureau.

In this phase of the primary research the goal was to identify trends that warranted further data collection and activities that warranted further study. By measuring activities (as informed by earlier exploratory research), the primary research was expected to reveal how many of the conceptual elements from the theoretical findings were actually being applied to social networks within the target industry. This measurement included an in depth analysis of the available tools being used by social network marketers.

The objective was to list the types of content, the frequencies of publication and ion for the potential indicators of performance. Activities of interest included general participation in social networks; specific sites used, combinations of sites used, categorization of content, frequency of content, etc. (Appendix C: Social Network Activities Measured). The objective of this primary research was to identify the most frequently applied methods that subject businesses employ when using social networks to market their products and services.

Measures of Performance

Within social networks, various behaviors by users were understood to be measures of engagement. These measures were believed to be the most important indicators of effective social network marketing. Previous exploratory research suggested that the efficacy of social network marketing activities could not be measured by traditional market metrics like units sold, orders entered or shipments.

Furthermore, understanding the impact of social network marketing activity according to these metrics would be impossible because statistical data such as “click-thru’s” would likely be considered competitive trade secrets and would therefore be unavailable to researchers (Shields, 2007). It was determined that the metrics had to be non-monetary measures that were openly displayed on the various social network sites being researched (Figure 5: Excerpt from Relevant Metrics for Social Media). During the study, MIT’s Sloan School of Business released “Relevant Metrics for Social Media Applications Organized by Key Social Media Objectives” Table 2: Excerpt from Relevant Metrics for Social Media) which identified numerous methods for estimating the effectiveness of social networking activities (Appendix E) using publicly available metrics from within the sites themselves (Hoffman, 2010).
From the many potential sources, it was determined that several metrics would offer an excellent general estimation of social network performance across the numerous sites surveyed. As such, an instrument for collecting and coding these few variables was created. The measures chosen from amongst the many possibilities included: Social Network Site(s) Used; Number of Subscribers (Friends/Followers); Number of Picture/Video Views; Number of “Likes”; Number of Comments; Number of Postings; Frequency of Postings; Content Type and Number of Responses Based upon Content Type.

Data collection took place for six months in total and data for any specific company was limited to 90 days of activity. Response rates were captured and analyzed for indications of any type of positive response trend. Measurement of the type of original posting and the number of responding comments were recorded and analyzed to determine which types of postings result in the greatest number of responses. The percentage of comments associated with a specific type of content were analyzed as a measure of its effectiveness (Table 3: A Sample Portion of the Primary Collection Instrument). These were also compared with the number of responses to comments made for other types of content.
Table 3: A Sample Portion of the Primary Collection Instrument

From these selected measures, a collection instrument was devised and the collection process began in earnest. 100 total companies were selected for research and data collection, and all were from the same industry as the target company (Appendix B). The industry specific data collection was gathered these companies according to the following distribution:

- 14 lift manufacturers that represent the entire membership of the Automotive Lift Institute, a non-profit safety advocacy group
- 15 non-member lift manufacturers
- 19 full line automotive equipment manufacturers offering lifts and other automotive repair equipment
- 51 manufacturers of automotive repair equipment that do not manufacture lifts but still service the same customer segment. These firms include manufacturers of tire changers, wheel balancers, brake lathes, lubrication dispensing equipment, welders, collision repair equipment, exhaust extraction equipment, refrigerant recycling equipment, wheel alignment systems, etc.

Data Collection “2.0”

The first phase of primary research was designed to cover a wide range of subjects but at a low level of detail. This technique provided some general direction and understanding but not great insight. It did however provide a focal point for redefining a second phase
of primary research. This process offered several indicators of where future research would produce the greatest degree of discovery.

Of the 100 companies surveyed, 24 demonstrated some form of engagement in social networks. Of the 24, six companies were “standouts” in terms of the number of fans or subscribers they had; how often their audiences responded to or provided content; frequency of posting and number of page views. For these companies, a second round of primary research was warranted.

**Comments and Replies/ Likes and Retweets**

If a Facebook or Youtube user is highly interested in a particular discussion thread, they might click that they “like” this, but they might also leave a comment. Doing so is the Facebook equivalent of subscribing to a Really Simple Syndication (RSS) feed for that posting. It tells the information system side of Facebook to notify the user electronically, if any new updates to this discussion thread are posted. It also notifies all other FB participants in that user’s list of friends that he or she has read something they considered worthwhile and allows those friends to click through to it.

Such an expression of interest is a particularly powerful measure of customer interest and as such, the analysis section of the thesis explored this phenomenon closely. As discussed earlier, “likes” attached to posts were used as determinants of what type of content receives the most interest. But analysis of the comments that trigger ongoing interaction were also be closely analyzed as indicators of the greatest impact… “Comments” are the responses that say readers are really engaged and they want more.

For example, a comparison of volumes was made between the response rates on posts which are product specific; news or event related; special offer, discount / sweepstakes related; or viral in nature (Figure 5: Content Type vs. Response Volumes). Assuming certain types of posts would result in the greatest number of responses, the analysis sought to determine which of these types of content generated the greatest impact. Figure six demonstrates how one particular social network marketer experienced a negative response ratio to celebrity endorsements and product promotions, but enjoyed a positive response ratio to other types of postings, especially contests and content targeted at automotive enthusiasts and motor sports fans.
twitter also offered tools that help determine what types of postings are most interesting to viewers. Many free applications allow researchers to mine twitter for subject matter and response rates. Backtype, twist, twittalyzer and tweetstats are just a few of the tools available for measuring twitter activity.

Analysis of twitter activity (Figure 6: Response to Promotional Offer) also offers an important part of determining effective techniques. As illustrated below, these tools offer a great deal of insight into what attracts attention on social networks, and or what can create a viral response.
Where data collection results suggested that a specific company was significantly outperforming its peer group, a more detailed analysis was undertaken to determine what activities were creating these more favorable results and how they might be duplicated. On Facebook for example, a posting from the site’s administrator begins a discussion thread. The audience then has an opportunity to comment on the posting which suggests a connection to the subject matter. Comments are a strong indicator of whether the posting resonates with the intended audience and multiple comments for the same posting suggests the content connects with users in a very significant way.

Several companies were identified as having a dramatically higher numbers of friends, respondents, page views, etc. These companies were creating social engagement rates that were significantly higher than most of the other companies within the target market. If a company’s metric placed it in the top 5% of the statistical distribution of followers or comments, an intensified evaluation of activity was undertaken.

For example, one company, BendPak, hosted a Facebook page that received an average of four “Likes” for every piece of content it added between May 1 and August 31, 2010. To understand this phenomenon better for this company and other best in class social marketers, another data collection instrument was designed.

This instrument facilitated data collection about specific tactics companies were using to grow their subscription base. The data gathered from these sheets were the most instructive and as such produced the greatest insight into the type of content information users desire and respond to on social networks(Table 4: Sample Response Frequency Data Sheet).

<table>
<thead>
<tr>
<th>Period</th>
<th>Facebook</th>
<th>%</th>
<th>Comments</th>
<th>%</th>
<th>Likes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/1/10-8/31/10</td>
<td>64</td>
<td>88</td>
<td>224</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity Volume</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>0.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product posts</td>
<td>19</td>
<td>0.30</td>
<td>16</td>
<td>0.18</td>
<td>34</td>
<td>0.15</td>
</tr>
<tr>
<td>News/ events posts</td>
<td>4</td>
<td>0.06</td>
<td>9</td>
<td>0.10</td>
<td>17</td>
<td>0.08</td>
</tr>
<tr>
<td>Contests</td>
<td>1</td>
<td>0.02</td>
<td>5</td>
<td>0.06</td>
<td>22</td>
<td>0.10</td>
</tr>
<tr>
<td>Celeb endorsement</td>
<td>11</td>
<td>0.17</td>
<td>9</td>
<td>0.10</td>
<td>22</td>
<td>0.10</td>
</tr>
<tr>
<td>Non product related</td>
<td>16</td>
<td>0.25</td>
<td>25</td>
<td>0.28</td>
<td>63</td>
<td>0.28</td>
</tr>
<tr>
<td>Auto Enthusiast</td>
<td>13</td>
<td>0.20</td>
<td>24</td>
<td>0.27</td>
<td>66</td>
<td>0.29</td>
</tr>
<tr>
<td>Totals</td>
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<td>1.00</td>
<td>88</td>
<td>1.00</td>
<td>224</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Table 4: Sample Response Frequency Data Sheet
Results and Implications: Social Networks are Necessary Business Tools

The most significant observation made as a result of this research effort is that there is significant potential in social networks. There appears to be very little adoption of social networking tools and a lack of clarity regarding how to create and manage marketing efforts within this new media space. Yet research strongly suggests that competitive advantage accrues to companies that employ social networking as part of their overall marketing strategy (Hoffman and Fodor, 2010).

The overwhelming majority of companies within the same industry classification have no presence on any of the major social network sites. What many of these firms may not realize is that involvement in such sites not only enhances brand awareness, but it also affects ranking in online searches. Thus the deficit of participation offers a tremendous opportunity for those companies who establish themselves as front-runners in this online environment.

The primary research question of this thesis was whether a capital equipment manufacturer, like Rotary Lift, could benefit from a social network marketing initiative. There is an overwhelming volume of evidence to suggest that they can. In fact, firms must engage in this venue in order to maintain their market position within an increasingly competitive digital landscape. This thesis answers a marketing strategy question regarding changing information and communication technologies... Do companies NEED to do this?

Now more than four in five US online adults use social media at least once a month, and half participate in social networks like Facebook. While young people continue to march toward almost universal adoption of social applications, the most rapid growth occurred among consumers 35 and older. This means the time to build social marketing applications is now. Interactive marketers should influence social network chatter, master social communication, and develop social assets — even if their customers are older (Forrester Research, 2009).

Not only should these companies engage in social network marketing to offset the global shift from print to digital media, but they should also do so because their customers expect them to. According to a research survey by Cone, 93 percent of social media users believe a company should have a presence in social media, while an overwhelming 85 percent believe a company should not only be present but should also interact with its customers via social media. Additionally, 56 percent of users feel a stronger connection with and better served by companies when they can interact with them in a social media environment (Cone, 2008).

With such strong indicators about the need to participate, the thesis data collection activity was designed to accumulate information about what general marketing strategies exist for companies engaged in this activity. The process was also designed to identify
the most frequently used tools within the social network environment and to highlight the specific tactics various companies were already using.

**An Underserved Market**

Social network marketing is significantly underutilized in this industrial segment. 80 percent of the firms that manufacture automotive lifts make no use of any of the tools available in this online space. Discovering that so few companies have embraced these tools suggests most firms within this industry are well behind the times and have some catching up to do. Of the roughly 30 lift manufacturers, only five (20 percent) use any type of social networking tool.

To expand the pool of possible data collection points, the survey also went beyond companies that just build lifts to include firms that manufacture other types of automotive service equipment sold to the same target customer. Of the 100 companies that manufacture lifts and all other types of automotive service equipment just 26, are engaged in social network marketing. Such low levels of participation suggest that most of the firms in the automotive equipment industry need to commit to social networks as an important part of a complete market strategy.

To provide recommendations and quantify results that are indicative of an effective campaign, the research sought out companies whose social network activity produced dramatic results. Given the time available and constraints regarding user surveys, just a few of the available indicators were used. Using population distribution analysis, the data collected from within the industry was compiled to identify firms that could be characterized as “best in class”. Initial performance measures included number of “friends”, “followers”, “likes” and “comments”, all of which are measures of social engagement.

Firms whose data fell near two standard deviations beyond the mean were studied the closest. Two firms (Miller Electric and Snap-On Tool) whose performance fell three standard deviations above the mean were excluded from the population distribution as “statistical outliers”. However, since they generate social network engagement results so far beyond that of their counterparts, their marketing activities were studied very closely for specific tactics, frequency and other methods employed.

Ultimately, three performance measures were used; number of views, number of friends and number of followers. All companies within the automotive equipment industry that could generate roughly 75000 picture or video views; had approximately 5000 friends or 1000 followers were identified as leaders in social networking. These firms had documented performance which placed them statistically, in the top 5% of the study group. Their methods, tactics and activity levels were studied closely for best practices.

**Most Frequently Used Tools**

The intent of this research was to identify which of the tools social networking are used most in this industry and which appear to be the most effective. Several trends emerge as
a result of surveying each of the participant’s sites to help determine how they use the available tools (Table 5: Most frequently used social networking tools). The most popular sites/ tools by order of volume are Youtube Facebook and twitter

<table>
<thead>
<tr>
<th>Site/ Tools</th>
<th>Percentage of Firms Using the Site/ Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>YouTube</td>
<td>24%</td>
</tr>
<tr>
<td>Facebook</td>
<td>16%</td>
</tr>
<tr>
<td>Facebook and YouTube</td>
<td>12%</td>
</tr>
<tr>
<td>twitter</td>
<td>11%</td>
</tr>
<tr>
<td>Facebook, twitter and YouTube</td>
<td>7%</td>
</tr>
<tr>
<td>Blog</td>
<td>3%</td>
</tr>
<tr>
<td>twitter and YouTube</td>
<td>2%</td>
</tr>
<tr>
<td>Myspace</td>
<td>2%</td>
</tr>
<tr>
<td>Facebook and twitter</td>
<td>1%</td>
</tr>
<tr>
<td>Digg</td>
<td>1%</td>
</tr>
<tr>
<td>Flickr</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 5: Most frequently used social networking tools

Amongst these tools numerous tactics also emerge as most frequently used within the above mentioned sites. Those companies that excel in building relationships with “friends” and potential prospects do so by engaging in several specific activities. They employ certain tactics on a predictable basis and at regular frequencies. Also, certain tactics on social networks are highly ineffective and appear to discourage participation by an intended audience.

**A General Framework for Social Network Use**

To understand what methodology to apply to social network marketing for an audience such as the one Rotary Lift caters to, it is important to look at social networks through the eyes of the user. Marketers must put themselves in the mind (and hearts) of the audiences they wish to serve and answer the question asked by all consumers; WIFM… or “What’s in it for me?” People participate in social networks to satisfy a variety of needs or desires. Many use social networks to stay in touch with friends, make new friends, pass some time in a leisurely way or share common interests. But it is also important that marketers recognize social networks in a very different context; as that of an information system.

The social network is the store house of all the combined knowledge of all the people online who participate. It offers an infinite amount of data about our social, political, cultural and scientific world. This framework suggests that many people who use social networks are seeking something… The WIFM is answers… People often use social networks because they view social networks as a place to find answers to their questions.
Additionally, research indicates that our society is becoming increasingly distrustful of advertisers (Morris Teevan & Panovich, 2010). As a result of being overwhelmed by marketing messages in every form of media, the public is increasingly turning away from traditional advertising as an information resource and more toward their social networks. Of the various sources people might use to acquire knowledge, social networks with peer-to-peer information systems score highest on the “trust” scale (E-Commerce Optimization, 2007). Research confirms a strong correlation between user-generated content and increased sales. Data shows more click-thru’s from product reviews, higher sales and reduced cognitive dissonance (Ecommerce Optimization, 2007). In forming opinions about products, sites like Facebook, twitter myspace, etc. allow consumers to obtain the input of peers whom they respect and trust more than they do the messages they typically receive from advertisers.

Social Networks as the “GO-TO” Resource

It is helpful to think of these tools as information systems, but it’s also important to know what users typically seek and why they turn to this resource as opposed to others. In April of 2010, researchers asked 239 social network users three important questions about networks. The first task was to determine what these users ask of their preferred sites (Table 6: Breakdown of question types for the 249 example questions survey respondents asked their networks). Users responded that they turn to their social networks to ask questions about: recommendations, opinions, factual knowledge, rhetorical questions, invitations, favors, social connections or offers. The primary reason people turn to their social networks to ask questions is to seek recommendations suggesting the “social connection” is secondary to the information they seek.

<table>
<thead>
<tr>
<th>Question Type</th>
<th>Percent</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation</td>
<td>29%</td>
<td>Building a new playlist – any ideas for good running songs?</td>
</tr>
<tr>
<td>Opinion</td>
<td>22%</td>
<td>I am wondering if I should buy the Kitchen-Aid ice cream maker?</td>
</tr>
<tr>
<td>Factual knowledge</td>
<td>17%</td>
<td>Anyone know a way to put Excel charts into LaTeX?</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>14%</td>
<td>Is there anything in life you’re afraid you won’t achieve?</td>
</tr>
<tr>
<td>Invitation</td>
<td>9%</td>
<td>Who wants to go to Narya Lounge this evening?</td>
</tr>
<tr>
<td>Favor</td>
<td>4%</td>
<td>Needing a babysitter in a big way tonight... anyone?</td>
</tr>
<tr>
<td>Social connection</td>
<td>3%</td>
<td>I am hiring in my team. Do you know anyone who would be interested?</td>
</tr>
<tr>
<td>Offer</td>
<td>1%</td>
<td>Could any of my friends use boys size 4 jeans?</td>
</tr>
</tbody>
</table>

Source: Morris Teevan & Panovich, 2010

Table 6: Breakdown of question types for the 249

Example questions survey respondents had asked their networks
Researchers also asked was what topics people ask questions about (Table 7: Breakdown of question topics for the example 249 questions survey respondents had asked their networks). Questions covered technology, entertainment, home and family, professional issues, places, shopping and ethics and philosophy. Shopping represents just 5% suggesting that very few people use social networks because they want to buy something. Therefore, a marketing agenda that stresses product promotion too aggressively in this media venue is likely to fail.

<table>
<thead>
<tr>
<th>Question Topic</th>
<th>Percent</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>29%</td>
<td>Anyone know if WoW works on Windows 7?</td>
</tr>
<tr>
<td>Entertainment</td>
<td>17%</td>
<td>Was seeing Up in the theater worth the money?</td>
</tr>
<tr>
<td>Home &amp; Family</td>
<td>12%</td>
<td>So what’s the going rate for the tooth fairy?</td>
</tr>
<tr>
<td>Professional</td>
<td>11%</td>
<td>Which university is better for Masters? Cornell or Georgia Tech?</td>
</tr>
<tr>
<td>Places</td>
<td>8%</td>
<td>Planning a trip to Whistler in the off-season. Recommendation on sites to see?</td>
</tr>
<tr>
<td>Restaurants</td>
<td>6%</td>
<td>Hanging in Ballard tonight. Dinner reoc?</td>
</tr>
<tr>
<td>Current events</td>
<td>5%</td>
<td>What is your opinion on the recent proposition that was passed in California?</td>
</tr>
<tr>
<td>Shopping</td>
<td>5%</td>
<td>What’s a good Mother’s Day gift?</td>
</tr>
<tr>
<td>Ethics &amp; Philosophy</td>
<td>2%</td>
<td>What would you do if you had a week to live?</td>
</tr>
</tbody>
</table>

Source: Morris Teevan & Panovich, 2010

Table 7: Breakdown of question topics for the example

249 questions survey respondents had asked their networks

Perhaps the most insightful of all the questions asked in the Microsoft/MIT survey is why people turn to social networks to answer these questions (Appendix D: Survey Respondents Reason for Asking a Social Network Instead of Conducting a Web Search. 25 percent of those surveyed, answered “trust”. People trust the answers from social networks more than information from other sources. This is consistent with findings suggesting a trend away from traditional advertising as a way people choose to become informed. Opinion formation is more heavily influenced by social connections.

An additional 21.5 percent said that search engines could provide data, but not the kind of answers or opinions people sought and 15.5 percent responded that search engines did not work well when compared to their social networks. In total, 60 percent of those surveyed identified social networks as the preferred information resource over search engines (Morris, M.R. Teevan, J. & Panovich, K., 2010). If this many people prefer social networks as their information system of choice, marketers must engage and do so according to the users’ preferred methods.

An Informed Approach

If marketers recognize that social networks combine conversations, and information systems, then they can also recognize that like a conversation, certain “rules of etiquette” ought to be followed for maximum impact. For example, social networks need to be
dynamic. Posting comments once or twice a month does not stimulate much discussion and as a result, hosts that post infrequently are the ones that have the fewest subscribers. Postings must be made regularly and must be checked for replies often. All of the companies in the top 5 percent of those surveyed, post content to their sites every day.

Understanding that users do not turn to social networks to be “sold”, suggests that orders booked are not the only appropriate measure of performance for social network marketing. In 2005, Forrester Research reported that 40% fewer people agree that ads are a good way to learn about new products, 59% fewer say they buy products because of ads and 49% fewer find ads entertaining (Forrester, 2005). What if not advertising then, is the functional role of the social network site in the context of marketing? In a word, “Relationships”. Social networks are a way to show prospects and customers that businesses care about what is important to them.

Social networks allow users to interact with suppliers and build a relationship for the products and or brands they may connect with in their daily lives. They are the vehicle through which these parties strike up a friendly (non-promotional) conversation. The conversation serves several functions. It demonstrates that the company is concerned with the things the users care about. It creates an opportunity for interaction, exchange and connection. It also generates familiarity which translates into confidence and trust.

This process, when properly executed, repeats itself, and actually snowballs. This trust manifests itself in the form of increased word of mouth (referrals and viral) which boosts sales and increases user experience with the brand (Steffes & Burgee, 2009). These experiences produce even more familiarity and confidence (Figure 7: The social network relationship loop) which motivates additional user generated content.

![Figure 7: The social network relationship loop- Source: Hubspot](image)

**Social Means Social**

The data demonstrated a deficit when it comes to User Generated Content (UGC). This applies not just to the target company but to most companies within the target industry.
While some posts invite UGC and offer subject matter to inspire conversation, most do not. At the target company for example, the majority of the Facebook postings, 84 percent, and 94% of the twitter posts collected between March 1 and August 30 advertised goods and services the company sells. But this is not consistent with earlier findings of the content that users want.

“…You do not make money with social media. You make money by doing business with people that know like and trust you…” (Underhill & Kurit, 2009). What the target company and many other firms may not fully grasp is that social networks are voluntary public spaces that hold the attention of audiences purely by catering to their needs, wants and desires (Screvens, 2000). One social networking professional suggested that these tools must be seen as a new way to connect to potential customers as opposed to a new channel to sell through. “…It’s about communication, NOT commerce…”

In a marketing context this is a critical point. A company’s website is typically the place where a prospective customer goes when they know what they need and they are ready to purchase. By comparison, social networks are NOT where people go when they are ready to purchase products which highlights the need for marketers to deliver differing functionalities than they would on their home page or website. Individuals participate in social networks because they may need information; they want to connect with others; they might want to share feelings or opinions or they might just be keeping up with their hobbies. Rarely however, are they willing to be bombarded by solicitation in the process.

The building block of a thought provoking conversation is exchange. People in a conversation exchange valuable pieces of data in a transactional way that permits each participant to both give and receive in the course of the transaction. A healthy, conversation however, permits back and forth exchange. Marketers must be mindful of their audience’s needs and foster discussions that seek feedback and allow participants to express themselves freely as an equal partner in the dialogue. If visitors do not feel a sense of inclusion, most will tire quickly of the conversation and leave.

**Content**

Another way that social networks resemble conversations is in their content. Like a chat between two friends, the subject matter of the conversation will pertain to something of interest to each participant in the discussion. The content of a conversation must also be valued by both parties. Marketers must understand the likes and dislikes of their audience in a social context. One noticeable trend in the data gathered amongst the most active social networking sites is the “how to” phenomenon.

Posts that detail how customers use a product, how it operates or how it makes a person’s job easier typically enjoy the greatest viewership. Marketers should consider the concerns prospects or recent buyers have or look to their own “Frequently Asked Questions” (FAQ) pages for inspiration on content. If many prospects ask the same question about a product, answer those questions on social networks. Show them another end-user operating it in their own home or business. If people have questions about it, then marketers have an excellent starting point for social network content.
Another example observed with several of the businesses within the target company’s industry revolves around hobbies. The target company, Rotary Lift, services the automotive aftermarket. Its end-user customers are mechanics and car collectors. In studying the social networking market strategies of other companies in the same industry, a great deal of content was observed that caters to auto and power sports enthusiasts.

Postings that offer information about the NASCAR or Indy Car racing circuit garner high response rates. Stories about off-road 4 x 4, customized vehicles, concept cars and muscle cars also prompt a great deal of discussion and comment. Combining these points of interest with contests, sweepstakes, and other “give-aways” targeted exclusively to “friends”, dramatically enhances participation. The data shows clearly that the hobbies and interests of the target audience inspire increased levels of conversation whereas heavy promotion of the host company’s products alone has the opposite effect.

**Youtube**

Youtube is a very powerful tool and is used by more surveyed marketers than any other tool. 62 percent of American adults are active on video sites like YouTube (Pew Internet 2010). It can serve marketers as a part of a larger social network strategy or it can be the only social networking tool a company uses. There is a wide variation in how the different companies present their videos. In several examples of what not to do, there are no links from the company’s home page to the video content they host on Youtube. This suggests these marketers don’t understand how YouTube works or they assume users want to know about these products enough that they will seek out the material on their own. But the companies that enjoy the greatest response rates demonstrate a far more deliberate approach. YouTube links are prominently featured both on the company homepage and within other social networking sites. It was not uncommon to find one company’s YouTube video which had been viewed 200 to 300 times while a different company’s video covering the same subject might have been viewed 50,000 times or more. These differences are explained in the approach marketers take to using Youtube and how the tool is promoted.

Videos with the highest viewer counts are not randomly posted, they are “hosted” on a “YouTube Channel”. A channel aggregates all of the company’s video content. With a channel, a viewer will be exposed to all the video content a marketer has available and they can subscribe to be notified of new content. Channels present videos in a more professional and integrated way featuring only those videos posted directly by the marketer. Videos that are not provided by the manufacturer are not listed which prevents them from being encountered accidentally.

While no examples surfaced, for the target company, other companies demonstrated how this strategy could be very important, Consumer generated videos like “i-Pad SUCKS!!!” and “XBOX DOESN’T WORK?! (Day 115- 11.04.09)” are not very flattering. Yet these videos did turn up when YouTube searches were made for i-Pad and X-Box. Social network marketers can avoid having such negative media pop up inadvertently by linking YouTube videos directly through a hosted site versus posting them randomly outside a home page.
To further put the power of Youtube in perspective, also consider it in the context of “information system”. YouTube enjoys 20 times more unique views per month than Facebook does and represents upwards of 25 percent of all the keyword searches being carried out on Google (Comscore 2010). Recognizing this search engine strength of YouTube should offer social network marketers an important perspective on the venue. The more videos a company offers, and the more links that point to these videos, the more likely a customer is to find them.

Facebook

Facebook was the second most used website within the surveyed industry segment. Just 16% of the companies use this tool but those who use it well have created relationships with tens of thousands of users. Snap-on Tool for example has 65000 friends on Facebook while our target company Rotary Lift has just 211. The mean number of friends for the total 100 companies surveyed was 1136 friends…Our target company is significantly below the average in terms of performance even after statistical outliers were removed.

Many businesses use Facebook This industry however is slow in adopting Facebook and our target company has a big opportunity if it can improve its performance within this space. Once again the formula for accumulating friends is based on content. Two of the companies surveyed showed significant activity volume on Facebook. Their sites offered numerous contests, sweepstakes and premiums available to people who “friend” their pages. On occasion, rewards were offered based on the number of friends who commented on content. This is a particularly important tactic because it enlists the user to recruit new friends to the site (viral). Free products were given away to users every month, contests with prizes were held regularly for people who used the firm’s products most efficiently, imaginatively or artistically.

Product information and some promotion is interspersed within the site, but most content featured power-sports racing results for company sponsored dragsters, NASCAR events and even dirt bike races. Numerous project cars, restorations, custom paint jobs and off-road racing results are featured on these sites and these postings generate a significant number of user “comments” and “likes”.

Comments and Likes are important measures of performance within Facebook. Both demonstrate social engagement and were key indicators of what content is most interesting to social network users. Likes also have become a social networking tool outside of Facebook and are appearing all over the internet. Likes are now visible on over 2 Million internet websites and are a considerable driver of web traffic(O’Dell, 2010).

The NHL for an example, reported that page views per user was up by 92 percent, time on-site was up by 85 percent, video-viewing increased by 86 percent more and videos and overall visits went up by 36 percent after adding the like button to the NHL.Com website (O’Dell, 2010). Such results are measureable in terms of search rankings and they are far too powerful for marketers to ignore.
twitter participation was employed by 11% of the surveyed companies. Although a number of companies are using twitter, results show markedly poorer performance with twitter than with other available tools. The data shows that hosted twitter feeds have fewer followers than Facebook and the vast majority of host tweets do not generate a response. 9 of the 11 twitter sites surveyed had no postings from the public during the six month data collection period of April 1 through September 30. Responses appear with an @ symbol before the reply message. This lower performance outcome can likely be explained by twitter’s format and by the way it is being employed by most companies.

First, twitter’s micro-blog format permits just 140 characters and no pictures. It compresses messages which can adversely impact understanding and it does not permit images, which might otherwise enhance the communication. twitter is also unusual in that most of the content posted refers users away from the site via URL link. By comparison, links on Facebook or YouTube can be opened within the hosted site and visitors need not leave the site to view the referenced content.

A second factor likely leading to lower adoption rates of twitter is the format of discussion threads. Postings to the twitter site (tweets) are listed chronologically regardless of subject matter. It has no integrated discussion thread format postings like a bulletin board (like) Facebook which makes twitter more difficult to follow. If users want to discuss multiple products, subjects or events on a hosted twitter page, the discussion becomes very difficult to track because discussion threads are not as easily aggregated by topic or contributor.

A final observation which explains why fewer companies are using twitter is redundancy. Of the seven companies surveyed that use both twitter and Facebook, all the postings are the same between social network sites. The posts may be shorter or may have URL links unique to twitter, but generally they still convey the same message on twitter that is posted on Facebook. There is little reason to subscribe to both, and Facebook provides a simpler user interface with more information capacity.

These issues act as barriers to wider adoption of twitter. Within the target industry, there are far fewer participants on twitter than Facebook. For example, companies whose YouTube channels document 500,000 views or more, (Miller Electric and Snap-on Tool) still both have fewer than 1000 followers on their twitter feeds and the mean number of followers within this segment is just 352. Both companies’ respective Facebook fans however, number well into the thousands.

While twitter is not as widely accepted in this industry, it may however still have a role to play in social network marketing. First, twitter is concise and instantaneous. Announcements, information that must be delivered quickly or brief notifications are ideally suited to twitter. A monthly “special” or limited time offer is an excellent way to use twitter’s quick message functionality with its accompanying ability to be forwarded easily to all the user’s friends (retweets). twitter also functions exceptionally well in a texting format which favors the growing trend toward mobile handheld computing.
Additionally, tweets like links, are measured by Google and are counted in search rankings. Like Facebook and Youtube, each tweet about a company adds to the firm’s likelihood of being found when a prospect uses a search engine to find a specific product, service or brand.

**Lack of Viral**

Another significant finding from the research suggests that few, if any of the companies studied, recognize or have mastered the power of Word-of-Mouth (WOM) or the potential of viral marketing. One company, Bend-Pak did repeatedly direct its visitors to view “viral videos” on Youtube, but these video’s featured subject matter such as high speed police chases, daredevil stunts and stunning car crashes. The content could be characterized as entertaining, but they do very little to introduce site visitors to the company, its brand or product portfolio. There is some benefit to entertaining guests that visit the firm’s social network site, but it’s not really a tactic that should be considered “viral marketing”. Videos such as the ones featured on the Bend-Pak site do help users build some familiarity with the host firm, but that does not necessarily build a relationship, trust or collect data for additional marketing activities. Nor does it leverage Word-of-Mouth.

Recall viral campaigns are online word-of-mouth product endorsements.”…This emerging form of marketing is the transmission of marketing messages through various Internet-based channels by peers. Over the months during which data was collected, no participant from the target company’s immediate market segment delivered messages clearly intended to be forwarded to peers. There were no contests with requests for the best personal experience with products or enticements designed to enlist friends in any word-of-mouth campaigns.

Outside the immediate industry segment, just one company (Figure 8: Hotsy Pressure Washers Viral Ad) had created a viral media campaign designed to deliver messages that were humorous and focused on the company’s products. The videos featured a retired stunt-man, “Carl”, getting blasted off his moped by a Hotsy pressure washer. The video actually included a button making it easy for users to email their friends about watching the video.
Figure 8: Hotsy Pressure Washers Viral Ad

Given what has been learned about creating relationships and the level of trust people place on emails that come from peers, much more of this activity should have been encountered. This void represents a tremendous opportunity for the target company or any other firm in the industry that is savvy enough to commit the resources.

Limitations and Future Research

This research and the resultant recommendations were the conclusion of a seven month study of a medium sized division of a publicly held company in a very narrow market segment. Time and resource constraints necessitated a highly confined scope of data collection and a generalized study of the tools available within this online environment. A number of opportunities for additional research still exist and these areas would undoubtedly enhance the impact of the strategies recommended herein. Due to the limitations of time and manpower, most data collection took place at each surveyed company just one time. Over a six month time frame, subscribership grew at many of the surveyed companies and so those measured most recently would likely experience some degree of collection bias. Future research would benefit by follow up investigation and by further collection of activity from each company during concurrent time frames.

Additional data collection would also be especially helpful in areas of both content and promotion. Generalized study of content strongly suggests that various content types profoundly impact response rates. Primary and secondary research also both suggest that the frequency at which new content is added has a direct relationship to audience participation.

The ideal frequency was not considered a significant area for closer study but preliminary data collection demonstrates that infrequent posting of content (i.e. 1 - 2 times per month) does not stimulate high levels of participation. Site administrators are reminded that first,
social networks are conversational and long pauses between discussion points and counter-points are not representative of conversational exchange. This type of activity does however resemble a static web page and sacrifices much of the benefit of social networks to its users.

Secondly, social networks are frequently used as information systems. Secondary research indicated that people turn to these sites because they often believe results will be superior to using search engines (Morris, Teevan, & Panovich, 2010). Failure to respond quickly to inquiries on social networks undermines this perception and is a disincentive for people to return when they have inquiries in the future. It is therefore vital for social network marketers to be highly responsive to user postings and inquiries understanding that information seekers will employ the strategies that take the least effort to execute in their quest to become informed (Morville, 2005).

In contrast to infrequent activity, is the notion of social network “spam”. It is clearly understood that too much “advertising content” is detrimental. But greater understanding of the preferred content types would be valuable information. Specifically, no product “rating” tools were offered by any of the firms identified. Content about motor sports was frequently found to have high response rates, but more research about other types of content would also provide direction on how best to attract subscribers and keep them engaged.

Within this context, media formats as a content type is also an area of future research. For example, researchers might explore whether social network users have preferences for text-only formats (including text messaging), visual text or video content. Also what subject matter(s) engender the strongest response? Knowing what user preferences are regarding material content would be especially helpful as marketers could then tailor postings to the unique profiles of their target audience for such things as “how-to” videos; humorous content; industry headlines; sweepstakes; etc.).

Statistical analysis of the impact of online “give-aways” would also help determine what types of offers create the most interaction with prospects and the public in general. Starbucks Coffee for example, while not in the same industry, has demonstrated that a free pastry offer via its twitter page can generate ten times the normal volume of response from users and propel the site to the top of the trending topics list for the day (Trendistic.com, 2009). Understanding which types of content are most powerful for this market segment would be very helpful to future marketers and the target company in particular.

Closely related to this understanding is the integration of viral marketing in whatever promotional activity is used. Viral is somewhat misunderstood, at least by the majority of firms within this industry. Rarely was an offer made by an industry participant that linked a reward to the activity of enlisting others in the dissemination of marketing messages. More secondary research would identify many of the specific tactics of this growth technique and while valuable, were beyond the scope of this project. Viral marketing is however a powerful tool and should be exploited in this venue, but additional primary
research (data collection) would be appropriate in determining which tactics are most effective.

To fully advocate greater investment in social networks it would be very helpful to have measures of long term impacts available. This project was of relatively short duration. However, it would be advisable to create a diary of activity and growth for the primary target company and any other companies of interest. Data regarding the increase of subscribers or page views etc could be correlated to specific approaches employed over extended periods of time.

Several extended measures of performance might also be gathered through a long term data collection plan including such metrics as search engine rankings, responses (tweets, comments, likes, etc). Collecting data over a longer term would create perspective not currently available and would eliminate the biases of measuring companies of different size, customer base and length of time participating in various networks. A first mover advantage does exist in social networks and it would be of beneficial for the target company to keep track of other companies just entering the social media scene.

**The Future of Social Networking**

Finally, there are trends that will likely affect performance of these initiatives for this firm and all firms engaged in social networks. This list was not intended to be all inclusive, but instead to touch on some of the more salient factors as critical elements of success in these new spaces. There are however many changes and developing tools that will undoubtedly have an impact going forward.

The more significant ones include the increasing move toward greater portability, the increasing “Wi-Fi-ification” of public spaces; the expanding use of text messages versus email by younger information consumers; the increased use of predictive technologies for targeted marketing and the growth of tracking tools like “FourSquare” that enable users to “locate” nearby “friends”, but also allow advertisers to create marketing messages that are customized a user’s location as indicated by their mobile devices.

In summary, there is far more that is known about social networking opportunities than the automotive equipment industry’s activities would suggest. The opportunities are real, substantial and worth pursuing aggressively. The decisions to exploit these spaces however, must be based upon sound marketing principles which demand an intimate understanding of the target segment.

Marketers interested in social networks as a promotional vehicle should be encouraged by the conclusions reached through this research effort. They should employ and expand upon the strategies identified and customize them to their own specific needs. More importantly, they should measure the results their efforts produce and continue to strive for increased understanding of these powerful yet highly dynamic tools.
Conclusion

In summary, the research findings offer dozens of examples of social network marketing successes which are applicable to Rotary lift’s type of product and their industry. Even the most superficial measures of performance from within the target industry show that “reach”; the number of people exposed to a marketing message via social networks, can be equal to or even greater than that of print media. Additionally, social network marketing is “persistent” meaning it will always be resident on the web when someone is searching for similar content (boyd, 2007).

Despite the evidence that social networks should be a component of a company’s overall marketing plan, most companies within the target industry are not engaged in this activity even though their customers want to interact with them this way (Comscore, 2008). There is clearly a disconnect between most companies within this industry and their customers. Further, trend analysis suggests that continued neglect of social media will further undermine the diminishing trust which already exists between advertisers and prospective buyers. The good news is that social networks represent a significant opportunity for those firms that embrace its unique nature and adapt to the changing roles within this venue. More importantly, there is an apparent “first mover” advantage in this medium which early adopters can enjoy if they do move swiftly.

It’s important that marketers recognize the connection between social network marketing activity and search rankings. The sooner a company enters this venue, the sooner they can begin accumulating friends, views and “likes”. These measures of performance are more than just indicators of who knows about a product or brand, they are also “pointers” that search engines tally up when they process the inquiries of people seeking information about companies and products. Getting into this contest for position early creates a competitive advantage that late comers will have a difficult time overcoming.

Given the mandate that such research supports, there still are two significant deficits that marketers must overcome to be successful in social networks. Firms must first recognize that social networks are different from most advertising mediums they are familiar with and they must acknowledge the role of the user as an author/ editor of content. Unless marketers embrace this new paradigm of User-Generated-Content and the changing balance of power that exists between advertiser and information consumer, they will not be successful.

Where a firm does adapt to the requirements of success in this arena, there are tremendous opportunities for sustainable competitive advantage. Delivering content that addresses the wants, needs and preferences of social network users offers the marketer opportunities to unleash the power of Word-of-Mouth advertising and mobilize the most trusted referral sources in their total marketing effort. This phenomenon is extremely powerful but can only be released through an appropriately designed offering of content.

One significant commonality between other types of marketing and social network marketing is the importance of customer intimacy. Understanding what a social network user wants in an online experience helps companies unleash the power of this tool. In the
study group, Rotary Lift benefits most by creating content that appeals to its subscribers’ love of automobiles and power sports. Postings that offer such content allow the company to engage audiences who will occasionally tolerate promotional messages and even allow themselves to be recruited if the benefits outweigh the inconvenience.

“…Social Media Marketing is about finding people interested in your products or services, delivering quality content, capturing information and staying in touch so that when they buy, it’s from YOU…” (Hubspot, 2008). Achieving the appropriate balance then, transforms the social web user into a prospect and a promoter which creates sales, endorsements and the prized viral event. Even better, the strategy builds upon itself. The more a site appeals to one automotive enthusiast, the more he or she will refer their friends. The friends will see the sites their friends “like” and in many cases, visit them as well. This functionality does not exist in print media. Nor does it exist within a company’s own website. It only takes place on the social web and while this venue is currently not well understood across many industries, it is far too powerful to be ignored.

**Implications and Future Research**

Online social networks have been characterized as “fun”, as “fad” as “hype” and as “powerful marketing tool”. But social networks are pervasive and now touch the lives of the majority of internet users. While the operative word may be ”Social”, there are definitely some associated commercial elements that can influence our daily lives. Some of these commercial aspects are having a profound impact on the way businesses interact with individuals and with other businesses. Our awareness of these dynamics is growing, but it is not fully developed simply because the advance of the social network is a recent and highly dynamic phenomenon. As such the commercial application of these tools is the subject of much debate and misunderstanding.

Consider the Nielsen report on social networking communities (March, 2009) … One of the main themes in this report was the notion that adults, ages 35-49 were the fastest growing segments of social network users. In that research, Nielsen intimated that it wasn’t just teens who were twittering so much. In a dramatic example of just how powerful these networks are, the discussion of “Teens don’t tweet” went viral and became the leading trending topic on twitter and rose to the top of other significant media outlet discussion boards.

The example illustrates that social media is transforming the way that people communicate, the way they share ideas and the way they retrieve information. This transformation is not a fad. Social networks have been criticized as being the venue of narcissists, and celebrity “wanna-be’s”. They’ve been characterized in television as the domain of absurd triviality by commercials like Verizon’s “I am on the porch”, featuring a father twittering incessantly tweeting about his totally meaningless status updates. Despite the evidence that confirms social network banter is not always vital communication, these tools do have some very powerful and important functionalities.

The preponderance of research suggests that these networks are an important part of people’s social lives and of their consumption of information. Despite a deep recession
and historical levels of unemployment, mobile internet usage for social networks grew by 106% between 2008 and 2009 (ComScore, 2010). There is no sign whatever, that this growth is slowing down and with 70% of the online community participating in the social web, there is no validity to the argument that these networks will disappear any time in the foreseeable future. Social networks are here to stay and people whose livelihoods are dependent upon effective communication and thoughtful information design need to prepare for this new reality.

What’s the big deal?

Social networks are certainly getting a lot of publicity. Time Magazine’s 2006 Person of the Year was “YOU”. The news magazine acknowledged that the social web had so dramatically empowered individuals that their communal and collaborative nature had made them more influential than any single individual anywhere. “…It’s about the many wrestling power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes (Grossman, 2006).

The paradox that exists then, is how can a phenomenon that enables postings like “…Off to the beach…” be taken seriously in a commercial or even professional context? The answer can be found in theories on diffusion of innovation. Innovation is something of a chain reaction; it often takes on a life of its own. A new technology is introduced and its creators anticipate it will be used in a particular way. But early adopters are also innovators themselves and these first users adapt and blend the innovations in ways that their creators never envisioned (Rogers, 1995).

The adapted technologies expand reach and performance enabling new capabilities that dramatically enhance the original technology’s usefulness. In many cases the process repeats itself, expanding as it goes. In this context, it becomes easier to understand how a social network tool like twitter can play an important role in the Iranian election protests of 2009 or how a kitchen blender manufacturer can turn a YouTube video featuring the destruction of an i-phone into a viral marketing campaign that increases their sales by 600% and attracts nearly ten million views (Blend-Tec).

Social networks have capabilities that extend far beyond the role of re-connecting high school classmates or alerting paparazzi to the most recent celebrity sighting. These are powerful information systems that have the ability to influence presidential elections; to displace primary outlets of journalism and to either disrupt businesses or to propel them to unanticipated levels of success.

The challenge to marketers however, lies in the understanding. As a business tool it’s equally as important to understand what social networks are not, as it is to understand what they are. Social networks are not another sales channel but can be part of a customer relationship management (CRM) system. They are not just another page of the company’s website but can serve as an information resource about a business for its users. They are not static, but are living documents that change and grow every day. They are not a “read only” environment but can be a point of great collaboration.
Social networks are a tool of interaction and exchange. They are a “public” space that people visit willingly because they are attracted to the environment or conversation they find there. They are spaces filled with information consumers who are also information authors, editors and commentators. They are an escape from the endless barrage of commercial messages that detract from many other online experiences. Finally, they are the digital version of the water cooler; the place where people touch base with friends, chat, flirt or gossip. They are where people go to learn about new job opportunities, to get information and most importantly, it’s the place people prefer to turn to find honest answers to their information needs (Morris, Teevan, & Panovich, 2010).

Social Evolution

Social networks aren’t new… They’ve just moved onto a digital stage. Group interaction and exchange still satisfy many of the same needs for connectedness and interaction, but online this connection is geometrically expanded and the barriers of time, space and culture are drastically reduced. People have been sharing pastimes, career tips and recipes for as long as there have been civilizations. So what then is really new? It’s the way that these tools are being used together that creates this great transformation.

Innovations in communication, information technology and the internet in particular have facilitated a number of functional capabilities that are novel by themselves but are monumental when combined together.

- Consider the impact of search engines on the process of becoming informed... We no longer need to go to a library and select sources from what resides within its walls. The entire world is our library.

- Consider the speed of digital transfer... Why wait to get a newspaper to read about yesterday’s news when we can have it today? Now, just seconds after it’s happened.

- Consider the flexibility of cellular phones. Find associates and family members no matter where they are. Imagine having your phone tell you when you and your old fraternity brother happen to both be in the same airport at the same time…

- Consider the richness of education on the web where video can enhance understanding by augmenting instruction with visual images. Or where distance learning enables graduate students in Indiana to collaborate on projects with their peers in New York.

- Consider the portability of data… Why use maps when a phone will speak to you and tell you when and where to turn? Why guess about where to eat dinner in an unfamiliar town when you can see what restaurant 25 other people before you have recommended?

When these tools are integrated together the result is a phenomenon known as “convergence”. The combined strength of all these innovations squeezed down into a 3” by 5” super-computer that also plays music… Putting all these tools together in one place
(social networks) and packaging them into on one highly portable device (the web enabled phone) creates synergies that will fundamentally alter the way we interact forever.

**Convergence**

This word “convergence” is often used to describe the cumulative effect of technological change. It instructs that the whole is far greater than the sum of its parts. The innovations named in the above five examples make our lives easier, more productive and more enjoyable. But the list above doesn’t even come close to being a complete one. Consider as well: instant messaging; digital cameras; email; Really Simple Syndication (RSS); trending topics; Peer-to-Peer networks, file sharing; etc. All of these tools individually empower us to do amazing things. But together, these tools imbue every individual with the knowledge and the resources to match the power of large corporations and even governments. Now tie these tools into the social web, where users are enabled and empowered at virtually no cost…

Consider one more result of convergence. Apply the combination of social networks with James Surowiecki’s notion of the *wisdom of crowds*, which suggests “…groups are remarkable intelligent, and are often smarter than the smartest people in them…” (Surowiecki, 2004). Multiply this crowd intelligence by all the people who are on all the social networks worldwide and statistically speaking, this crowd has unlimited knowledge. Put all this innovation together in a single device, connect every person participating on the web via social networks and we now we have a populace that has the potential to be more intelligent than Socrates, Jefferson, Nobel or Einstein.

Each person also now has the tools available to potentially ask questions of the most trusted and reliable source for any information they could ever seek; they have at their fingertips, at all times, access to all their friends, family and the entire online world (Morville, 2005). In this context we can now begin to appreciate implications of social networks on the future of communication and information exchange. The magnitude of change brought about by these networks is revolutionary. Its here now and it is here to stay.

**The Marketplace**

The results of convergence and these more recent capabilities are sometimes referred to as Web 2.0, suggesting that they represent an evolution of or revision to whatever the earlier version of the internet represented. There is some debate about whether the newer “social web” is really new or whether it’s something that was always envisioned by its originator Sir Tim Berners-Lee. For businesses, the point is moot. Social networks represent a “game changing” shift in media consumption habits and marketers need to be prepared.

The web in general and social networks in particular, are rapidly luring audiences away from print media as well as other advertising formats like television and radio. To maintain market share and remain competitive in this rapidly evolving environment,
businesses need to become fluent in the language of social networks. They need to be intimate with the unique characteristics of the social web and they need to understand perfectly, the reasons why their prospects flock to such sites and how they might engage with them while they are there.

More importantly, marketers must recognize that social networks dramatically expand our interpretation of the word “friend”. Online, friends are people we “know” and “like”. We know far more people through our social networks because these tools make it very easy to connect with others who share the same interests, have similar experiences or bought the same widget. As a result of our participation in social networks, we can “like” far more people than we ever could before.

We “like” the content they post to their social networks and we “like” the comments they make when they offer opinions on other people’s content. We really like it when they tell us about their purchase experiences and offer rankings of the products and services they buy. Most importantly, we can like companies too. We further expand the universe of people we like by “following” them on the web; by “subscribing” to their feeds and links and by asking them to add us to their “friend” list. The key behavior here is the formation of relationships.

Sharing the same social network with another individual or business entity offers us an opportunity to create a relationship with them. Even if it is a shorter term experience, that relationship creates familiarity and a level of comfort. But to the marketer, this relationship is the Holy Grail. People buy from people they know and people they like. People also prefer to buy from people they trust. Social networks are the key to helping people get to know a company which builds confidence and reduces cognitive dissonance (e-Commerce Optimization, 2007). It engenders positive feelings from the user.

These spaces allow firms to show their customers that they care about what is important to them through content. This helps people “like” the firm. These spaces also allow businesses to earn users’ respect by not overwhelming them with spam and excessive promotion. This helps people develop trust in the company. In sum total, social networks offer marketers the opportunity to build a relationship that makes a user want to buy from their firm when they need the products the firm offers. All other things being equal, people will prefer to buy from those companies whom they know, like and trust over those whom they do not.

The Goal

The purpose of this research was to determine the viability of a social marketing campaign for an industrial manufacturer of automotive lifts. At inception there was insufficient evidence to conclude whether the undertaking was worthwhile. Further there was some doubt about whether such a specialized target market would be receptive to marketing via the social web.

In conducting the research, the market’s opportunity is clear. Social network users want businesses to participate in these online spaces (ComScore, 2009). They want to be able
to engage with businesses and doing so improves their relationship and ultimately their likelihood of becoming a customer.

The primary research also indicates the opportunity is significant. Although there are very few lift companies active on social networks, there are numerous companies within the larger automotive repair equipment market and several of these companies are generating significant levels of interaction. Firms are leveraging YouTube to deliver valuable content to users that helps them understand the performance characteristics of their products and show how their equipment speeds up or simplifies daily tasks. Many of these “how to” product videos were viewed tens of thousands of times.

Facebook pages for several companies enjoy subscriber bases in the thousands and most of the product related comments by users are very favorable. But even the unfavorable comments represent marketing opportunities. Fixing a problem that a customer complains about on a social network has a great deal of publicity value. Other potential buyers see these comments online and they form opinions about how they will be treated by a company by watching how others are treated on social networks.

**The Approach**

The greater challenge in marketing via social networks is not whether it can work for a company in a business to business setting or for a company that has a relatively small market size in a highly specialized manufacturing segment. It was assumed from the start that the undertaking was viable. There has been a great deal of press coverage for firms leveraging social networks and the target firm had already in fact, committed to the activity.

But the wisdom of the decision remained to be proven and more importantly, the critical success factors were not well defined. As such the tactics have been more hit and miss than finely tuned target marketing. This research defines the intersection between strategic/ tactical marketing and the evolving landscape of social networking.

The resulting recommendations are a recipe that blends the practices of marketing and information design. The marketing component seeks to identify a target audience; define their needs and wants and devise a mix of products, pricing, placement and promotion techniques that satisfy those needs. Theoretically, the marketer delivers a package of these elements that outperforms the offerings of alternative suppliers competing for the same customers’ attention. As a result the business builds a favorable reputation, a degree of loyalty and consequently they generate revenue.

The information designers’ role in this collaboration is to “systematically design and deliver information in an effort to share their [the company’s] perceptions of the world (and their own products) and persuade others to reach the same conclusion…..” (Jacobson, 2000). The current theory underlying this activity suggests that it emphasizes:

Two interrelated concepts: edification and commutativity. Edification is the process of personal enlightenment, while commutativity is the process of mutual
change. Contemporary information designers seek to edify more than persuade, to exchange ideas rather than to foist them on us. We have learned well that the person who issues designed information is just as likely as its intended recipients to be changed by it, for better or worse… The best information design acknowledges and uses the interactive nature of communication to convey meaning and heighten understanding among all parties in an activity or event (Jacobson, 2000).

In combining these two areas of practice we see there is much synergy. We also see there is much interdependence. Firms that want to participate in these new online communities need to master the marketing and the information design theories that apply to social networks. Then they need to build strategies that are based upon sound business fundamentals tailored to the unique nature of this highly interactive media. Only through the integration of the practices of marketing and information design will successful campaigns be crafted. But where they are blended harmoniously, social network marketing represents a very dramatic opportunity for sustainable competitive advantage.
References


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Rylee, J. (2010), *Personal interview* conducted on 15 May 2010


Appendix A: Research Questions

I. Is social network marketing an appropriate strategy for increasing the subject company’s competitive position?
   A. How is a successful effort defined?
      1. What data can be collected that would provide measures of impact?
         a. What are the limitations that affect data collection?
         b. How can data acquired?
         c. How much data needs to be collected?
         d. How big should the sample be?
         e. What statistical measures should be applied to the data?
      2. What are the appropriate formats for collecting and presenting data?
         a. What secondary research is available to support such an effort?
         b. Are there measures that can look back at historical data?
         c. What is an appropriate period of time to collect data from?
         d. Are there data collection measures that should continue forward?
      3. Are there multiple measures of success?
         a. What are the results from the collection activity?
         b. What conclusions can be drawn from these results?
         c. Are there and elements that might impact the validity of the conclusions?
   B. Is SNS worth the effort? (i.e., is there any ROI?)
      1. What are the costs?
      2. What are the potential benefits?
      3. How can “reach” be measured?
      4. Are costs worse than, similar to or lower than other activities?
   C. What are the common components of successful campaigns?

II. What is the overall strategy?
   A. What is the company trying to accomplish?
   B. What, if anything, does the social network user want from an interaction?
   C. Is the strategy focused on selling or socializing?
D. In what ways is this activity different than using a company website?
E. What are the limitations to achieving strategic goals?
F. What are the most common strategic imperatives in SNS?

III. What are the major theoretical foundations associated with SNS?
A. What are the Sociological implications of SNS?
   1. How is opinion formation influenced by group membership?
B. What are the Anthropological implications of SNS?
C. What are the Psychological implications of SNS?
D. What are the Communication theories at work?
   1. What is the impact of Word of Mouth (WoM) on marketing within SNS?
E. What are the Marketing theories at work?
   1. What are the perceived differences in information that originates from
      SNS’s versus other media/promotional sources?
F. What are the Information System theories being applied?
   1. What is the relevance of information overload in this setting?

IV. What companies are already using SNS?
A. Are there other lift companies?
B. What percentage of companies are participating in SNS?
C. Are there other companies within the Automotive aftermarket
D. Are there sister companies connected to the case study firm engaged in SNS?
E. Are there customers and or suppliers to the case study firm engaged in SNS?

V. Which sites are being used most?
A. Why are these tools being used most?
B. Are these sites being used alone or in conjunction with other sites/tools?
C. What tools within the sites are used the most?
D. What types of content generate the strongest responses?

VI. What are the tactics?
A. What promotional tools are being used?
B. What is the frequency of use of these tools?
C. What are the common types of content being provided?
D. What appear to be the most effective techniques for increasing subscribership?
E. What tactics appear to be the least effective?
## Appendix B: Target Study Group

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### Lift Product Competitors

- **ALLLift**
- **AM-Lift**
- **American Lift**
- **ALLM**
- **ALLP**
- **ALLR**
- **ALLS**
- **ALLT**
- **ALLU**
- **ALLV**
- **ALLW**
- **ALLX**
- **ALLY**
- **ALLZ**

### Full Line Industry Competitors

- **Acme Industries**
- **AutoLift**
- **Bassett**
- **BendPak**
- **Bosch**

### Continues
## Appendix B: Target Study Group Part 2

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<tbody>
<tr>
<td>25-Oct</td>
<td>California Motor</td>
<td>Automotive</td>
<td><a href="http://californiamotor.com">californiamotor.com</a></td>
<td><a href="https://www.youtube.com/californiamotor">californiamotor</a></td>
<td>120,000</td>
<td>120</td>
<td>20,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>26-Oct</td>
<td>Benssens</td>
<td>Automotive</td>
<td><a href="http://benssens.com">benssens.com</a></td>
<td><a href="https://www.youtube.com/benssens">benssens</a></td>
<td>200,000</td>
<td>200</td>
<td>20,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>27-Oct</td>
<td>Hunter</td>
<td>Automotive</td>
<td><a href="http://hunter.com">hunter.com</a></td>
<td><a href="https://www.youtube.com/hunter">hunter</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>28-Oct</td>
<td>Mack</td>
<td>Automotive</td>
<td><a href="http://mack.com">mack.com</a></td>
<td><a href="https://www.youtube.com/mack">mack</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>29-Oct</td>
<td>LKQ</td>
<td>Automotive</td>
<td><a href="http://lkq.com">lkq.com</a></td>
<td><a href="https://www.youtube.com/lkq">lkq</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>30-Oct</td>
<td>Freightliner</td>
<td>Automotive</td>
<td><a href="http://freightliner.com">freightliner.com</a></td>
<td><a href="https://www.youtube.com/freightliner">freightliner</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>31-Oct</td>
<td>everdurengen America</td>
<td>Automotive</td>
<td><a href="http://everdurengenamerica.com">everdurengenamerica.com</a></td>
<td><a href="https://www.youtube.com/everdurengenamerica">everdurengenamerica</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
</tbody>
</table>

### Complimentary Product Industry Companies

<table>
<thead>
<tr>
<th>Date</th>
<th>Company Name</th>
<th>Industry</th>
<th>Website</th>
<th>YouTube Channel</th>
<th>Followers</th>
<th>Likes</th>
<th>Views</th>
<th>YouTube vids</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-Oct</td>
<td>Electric</td>
<td>Automotive</td>
<td><a href="http://electric.com">electric.com</a></td>
<td><a href="https://www.youtube.com/electric">electric</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>31-Oct</td>
<td>E-e-Strips</td>
<td>Automotive</td>
<td><a href="http://eestrips.com">eestrips.com</a></td>
<td><a href="https://www.youtube.com/eestrips">eestrips</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>31-Oct</td>
<td>Echomaster</td>
<td>Automotive</td>
<td><a href="http://echomaster.com">echomaster.com</a></td>
<td><a href="https://www.youtube.com/echomaster">echomaster</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>31-Oct</td>
<td>Echomaster</td>
<td>Automotive</td>
<td><a href="http://echomaster.com">echomaster.com</a></td>
<td><a href="https://www.youtube.com/echomaster">echomaster</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
</tbody>
</table>

### Other Industry Companies

<table>
<thead>
<tr>
<th>Date</th>
<th>Company Name</th>
<th>Industry</th>
<th>Website</th>
<th>YouTube Channel</th>
<th>Followers</th>
<th>Likes</th>
<th>Views</th>
<th>YouTube vids</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-Oct</td>
<td>Chevrolet</td>
<td>Automotive</td>
<td><a href="http://chevrolet.com">chevrolet.com</a></td>
<td><a href="https://www.youtube.com/chevrolet">chevrolet</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>31-Oct</td>
<td>Cadillac</td>
<td>Automotive</td>
<td><a href="http://cadillac.com">cadillac.com</a></td>
<td><a href="https://www.youtube.com/cadillac">cadillac</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
<tr>
<td>31-Oct</td>
<td>Chrysler</td>
<td>Automotive</td>
<td><a href="http://chrysler.com">chrysler.com</a></td>
<td><a href="https://www.youtube.com/chrysler">chrysler</a></td>
<td>500,000</td>
<td>500</td>
<td>50,000</td>
<td>15,245 views</td>
<td></td>
</tr>
</tbody>
</table>
## Appendix C: Social Network Activities Measured

<table>
<thead>
<tr>
<th>Activity</th>
<th>Relevant Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Firms Using Social Networks</td>
<td>Evidence of Test-Marketing</td>
</tr>
<tr>
<td>Specific Social Network Sites Used</td>
<td>Connection between Website and Social Network</td>
</tr>
<tr>
<td>Use of Multiple Social Networks</td>
<td>Frequency of Host-Sponsored Content</td>
</tr>
<tr>
<td>Requests for Referrals</td>
<td>Frequency of Promotional Messages</td>
</tr>
<tr>
<td>“Like” Buttons</td>
<td>Presence of Discussion Sub-Categories</td>
</tr>
<tr>
<td>Use of Specialized Social Networks</td>
<td>Appearance of “Special Offers”</td>
</tr>
<tr>
<td>Content Media Type(s)</td>
<td>Links to Unrelated Businesses</td>
</tr>
<tr>
<td>Content Subject Matter</td>
<td>Use of Blogs or Press Releases</td>
</tr>
<tr>
<td>Percentage of Product Related Content</td>
<td>Presence of Instructional Media</td>
</tr>
<tr>
<td>Use of Humorous Content</td>
<td>Use of Internal and External Albums</td>
</tr>
<tr>
<td>Date of First Use</td>
<td>Monitoring Sites for Customer Satisfaction</td>
</tr>
<tr>
<td>Evidence of Viral Campaigns</td>
<td>Product Demonstrations</td>
</tr>
<tr>
<td>Types of Word-of-Mouth Promotion</td>
<td>Availability for Direct Contact</td>
</tr>
<tr>
<td>Use of Custom Graphics/ Backgrounds</td>
<td>Ability to “Forward to a Friend”</td>
</tr>
<tr>
<td>Use of Channels</td>
<td>Sweepstakes and Premiums</td>
</tr>
<tr>
<td>Sponsorship of External Social Events</td>
<td>Have Friends Vote for your Content</td>
</tr>
</tbody>
</table>
Appendix D: Survey Respondents Reason for Asking a Social Network Instead of Conducting a Web Search (Morris Teevan & Panovich, 2010)

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Percent</th>
<th>Example Survey Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>24.8%</td>
<td>- Because I trust my friends more than I trust strangers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- People that I know are reputable.</td>
</tr>
<tr>
<td>Subjective questions</td>
<td>21.5%</td>
<td>- A search engine can provide data but not an opinion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- It has no definite answer, it’s more about collecting views rather than finding specific info.</td>
</tr>
<tr>
<td>Belief search engine would not work</td>
<td>15.2%</td>
<td>- Because search engine technology doesn’t work that well yet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- I’m pretty sure a search engine couldn’t answer a question of that nature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Because search engines don’t have breaking news.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Search engines aren’t updated often enough.</td>
</tr>
<tr>
<td>Specific audience</td>
<td>14.9%</td>
<td>- Friends with kids, first hand real experience.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Better visibility among expert users of SQL Server.</td>
</tr>
<tr>
<td>Connect socially</td>
<td>12.4%</td>
<td>- I wanted my friends to be aware that I was asking the question.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- I wanted to ask the question but also express my frustration to my social network.</td>
</tr>
<tr>
<td>Answer speed</td>
<td>6.6%</td>
<td>- Quick response time, no formalities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Needed information ASAP.</td>
</tr>
<tr>
<td>Context</td>
<td>5.4%</td>
<td>- Friends know my tastes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Search engine is not personalizable.</td>
</tr>
<tr>
<td>Failed search</td>
<td>5.4%</td>
<td>- I tried searching and didn’t get good results.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- A quick search on the search engine didn’t give me any useful results.</td>
</tr>
<tr>
<td>Easy</td>
<td>5.4%</td>
<td>- It’s easier. Results are targeted... don’t need to sift out the ‘junk’.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- There are too many choices on the web, I wanted something more filtered.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Didn’t want to look through multiple search results for answers.</td>
</tr>
<tr>
<td>Answer quality</td>
<td>4.1%</td>
<td>- Human-vetted responses.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Better quality results some of the time.</td>
</tr>
<tr>
<td>No harm</td>
<td>3.3%</td>
<td>- No cost.</td>
</tr>
<tr>
<td>Fun</td>
<td>2.1%</td>
<td>- More fun.</td>
</tr>
<tr>
<td>Non-urgent</td>
<td>1.7%</td>
<td>- I didn’t need an answer straight away.</td>
</tr>
</tbody>
</table>
## Appendix E: Relevant Metrics for Social Media Applications Organized by Key Social Media Objectives

<table>
<thead>
<tr>
<th>Social Media Application</th>
<th>Brand Awareness</th>
<th>Brand Engagement</th>
<th>Word of Mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blogs</td>
<td>• number of unique visits</td>
<td>• number of members</td>
<td>• number of references to blog in other media (online/offline)</td>
</tr>
<tr>
<td></td>
<td>• number of return visits</td>
<td>• number of RSS feed subscribers</td>
<td>• number of retweets</td>
</tr>
<tr>
<td></td>
<td>• number of times bookmarked</td>
<td>• number of comments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• search ranking</td>
<td>• amount of user-generated content</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• average length of time on site</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• number of responses to polls, contests, surveys</td>
<td></td>
</tr>
<tr>
<td>Microblogging (e.g., Twitter)</td>
<td>• number of tweets about the brand</td>
<td>• number of followers</td>
<td>• number of references to project in other media (online/offline)</td>
</tr>
<tr>
<td></td>
<td>• valence of tweets +/−</td>
<td>• number of followers</td>
<td>• number of additional tags</td>
</tr>
<tr>
<td>Coocation (e.g., NIKED)</td>
<td>• number of visits</td>
<td>• number of creation attempts</td>
<td></td>
</tr>
<tr>
<td>Social Bookmarking (e.g., StumbleUpon)</td>
<td>• number of tags</td>
<td>• number of followers</td>
<td></td>
</tr>
<tr>
<td>Forums and Discussion Boards (e.g., Google Groups)</td>
<td>• number of page views</td>
<td>• number of relevant topics/threads</td>
<td>• incoming links</td>
</tr>
<tr>
<td></td>
<td>• number of visits</td>
<td>• number of individual replies</td>
<td>• citations in other sites</td>
</tr>
<tr>
<td></td>
<td>• valence of posted content +/-</td>
<td>• number of sign-ups</td>
<td>• tagging in social bookmark</td>
</tr>
<tr>
<td>Product Reviews (e.g., Amazon)</td>
<td>• number of reviews posted</td>
<td>• length of reviews</td>
<td>• offline references to the forum or its members</td>
</tr>
<tr>
<td></td>
<td>• number and valence of other users’ responses to reviews (+/−)</td>
<td>• relevance of reviews</td>
<td>• in private communities: number of pieces of content (photos, discussions, videos); chatter pointing to the community outside of its gates</td>
</tr>
<tr>
<td></td>
<td>• number of wish list adds</td>
<td>• valence of other users’ ratings of reviews (i.e., how many found particular review helpful)</td>
<td>• number of “likes”</td>
</tr>
<tr>
<td></td>
<td>• number of times product included in users’ lists (i.e., Listmania! on Amazon.com)</td>
<td>• number of wish list adds</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• overall number of reviewer rating scores entered</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• average reviewer rating score</td>
<td></td>
</tr>
<tr>
<td>Social Networks (e.g., Bebo, Facebook, LinkedIn)</td>
<td>• number of members/fans</td>
<td>• number of comments</td>
<td>• frequency of appearances in timeline of friends</td>
</tr>
<tr>
<td></td>
<td>• number of installs of applications</td>
<td>• number of active users</td>
<td>• number of posts on wall</td>
</tr>
<tr>
<td></td>
<td>• number of impressions</td>
<td>• number of bookmarks</td>
<td>• number of reposts/shares</td>
</tr>
<tr>
<td></td>
<td>• number of bookmarks</td>
<td>• number of reviews/ratings and valence +/-</td>
<td>• number of responses to friend referral invites</td>
</tr>
<tr>
<td>Video and Photosharing (e.g., Flickr, YouTube)</td>
<td>• number of views of video/photo</td>
<td>• number of replies</td>
<td>• number of embeddings</td>
</tr>
<tr>
<td></td>
<td>• valence of video/photo ratings +/-</td>
<td>• number of page views</td>
<td>• number of incoming links</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• number of comments</td>
<td>• number of references in mock-ups or derived work</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• number of subscribers</td>
<td>• number of times republished in other social media and offline</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• number of “likes”</td>
</tr>
</tbody>
</table>
Cataloging Worksheet

Many SUNYIT master’s theses are on advanced technical topics. These topics often do not have established Library of Congress Subject Headings, which are required to catalog your thesis and to help others find your work. Please suggest keywords you feel other library users will use when looking for theses like yours.

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Author: Roger Perlstein

Title: The Application of Social Networks to the Marketing of Industrial Products

Keywords: Social Media; Social Networks; Social Networking; Social Network Marketing; Social Network Marketing Cycle; Viral Marketing; Word-of-Mouth; Social Networking for Manufacturers; Convergence; Peer-to-Peer; User Generated Content; Facebook; Twitter; Youtube; Likes; Comments; Page Views; tweets; Friends; Followers; Content; RSS Feed; Blog; Microblog
Vita

Roger Perlstein was born on February 7, 1963 in Newark, NJ. In 1987 he received a B.S. in Business Administration from Northeastern University’s School of Business Administration graduating Suma Cum Laud. In 2008, he received his MBA in Technology Management from SUNYIT in Utica, NY.

Since attaining his bachelor’s degree, Roger has held the position of President of Automotive Service Equipment, a mechanical Contract firm in Hopkinton, MA. In 1997 he was hired as Assistant Sales manager for Mohawk Resources in Amsterdam, NY. In 2002, he was hired as Vice President of Marketing for O.S. Walker in Worcester, Mass and then in 2004 he was hired as a Director of Sales and Marketing for Rotary Lift in Madison, Indiana.