

INTERNATIONAL JOURNAL OF INTERDISCIPLINARY RESEARCH

VOLUME 1, NUMBER 2, December 2012

ISSN 2165-3240



**A PUBLICATION OF FROSTBURG STATE UNIVERSITY AND THE
INTERNATIONAL ACADEMY OF BUSINESS DISCIPLINES**

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INTERNATIONAL JOURNAL OF INTERDISCIPLINARY RESEARCH

Volume 1, Number 2

December 2012

Chief Editor

Ahmad Tootoonchi
College of Business
Frostburg State University
101 Braddock Road
Frostburg, MD 21532
Tel: 301-687-4740
tootoonchi@frostburg.edu

Associate Editor

Carolyn Ashe
College of Business
University of Houston-Downtown
320 North Main Street
Houston, Texas, 77002-1001
Tel: 713-221-8051
ashec@uhd.edu

Editor

Carol Gaumer
College of Business
Frostburg State University
101 Braddock Road
Frostburg, Maryland 21532
Tel: 301-687-4052
cgaumer@frostburg.edu

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ISSN 2165-3240

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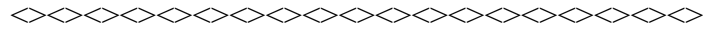
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Volume 1, Number 2, December 2012

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Volume 1, Number 2, December 2012

INTERNATIONAL JOURNAL OF INTERDISCIPLINARY RESEARCH

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December 2012

Selection process

The winter 2012 issue of the *International Journal of Interdisciplinary Research (IJIR)* has been the result of a rigorous process in two stages:

- Stage 1: all papers that were submitted to the 2012 IABD conference went through blind reviews, and high quality papers were recommended for publication in the *Business Research Yearbook (BRY)*.
- Stage 2: approximately ten percent of the articles published in the *BRY* and two invited manuscripts (originally reviewed by the Chief Editor) were selected for possible publication in *IJIR*, and the respective authors were contacted and asked to resubmit their papers for a second round of reviews. These manuscripts went through a rigorous review process by the editorial board members and external reviewers. In the end, four articles were recommended for publication in the winter issue of *IJIR*.

IJIR is committed to maintaining high standards of quality in all of its publications.

Ahmad Tootoonchi, Chief Editor
International Journal of Interdisciplinary Research

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SOCIAL FACILITATION AND THE MERE PRESENCE OF OTHERS: IMPACT ON BUYING BEHAVIOR

Carol J. Gaumer, Frostburg State University
cgaumer@frostburg.edu

Carol Arnone, Frostburg State University
carnone2@frostburg.edu

Amee Patel, former Graduate Assistant
akpatel09@gmail.com

ABSTRACT

In the field of experimental social psychology, social facilitation, the theory, originated as a means of explaining individual's behavior in social situations. Social facilitation is described as enhancing one's dominant response simply by being in the presence of others. Social facilitation, while not widely applied to consumer behavior, holds hope of becoming an interesting and useful tool in attempting to predict consumers' behavior, specifically, behavior in particular buying situations. This paper examines social facilitation theory, where the presence of others is central, as a good predictor of consumer behavior in buying situations, like: store crowding and waiting in line. Thus, this paper seeks to explore the impact of the mere presence of others on buying behavior. The paper explores topics, like: distraction-conflict, evaluation apprehension, and crowding. Before these areas can be applied, it is necessary to investigate the origin of social facilitation, the theory.

INTRODUCTION

Experimental social psychology originated the social facilitation theory as a means of explaining individual's behavior in social situations. Social facilitation is described as "the enhancement of an organism's dominant response by the simple physical presence of other species/mates" (Sanders, 1980). Social facilitation, while not widely applied to consumer behavior, is becoming an interesting and useful tool in attempting to predict consumer behavior, specifically, behavior in particular buying situations. This paper examines social facilitation theory, where the presence of others is central, as a good predictor of consumer behavior in shopping situations, like: store crowding and waiting in line. Thus, the following critical areas of social facilitation are explored: mere presence of others, distraction-conflict, evaluation apprehension, and crowding. Before these areas can be applied, it is necessary to investigate the origin of social facilitation, the theory.

LITERATURE REVIEW

Social Facilitation, the Theory

Social facilitation originated in experimental social psychology where social psychologists questioned whether or not the mere presence of others influenced a person's behavior. It is not surprising that social psychologists have been interested in the sources of influence on behavior for some time. As social facilitation refers to the arousal that humans experience as a result of the presence of others, research was undertaken to show that this arousal effect has both positive and negative consequences on behavior (Zajonc, 1965).

Norman Triplett is credited with the origination of the social facilitation theory resulting from his 1898 article on pace and competition. Triplett first investigated the influence of the presence of others on adolescents winding their fishing reels. He found that adolescents wound their reels more quickly when in the presence of other adolescents (Sanders, 1980). Triplett wanted to see if older children were influenced by the mere presence of their peers. His hunch was correct as the adolescents wound their reels much faster while in the presence of other adolescents. Triplett, enthused by his findings, sought to study cyclist's performance, alone and in groups. Triplett realized that cyclists seemed to ride faster against others than they would by themselves (Triplett, 1898). This observation corroborated his previous research and led him to conduct further experiments on social facilitation in social psychology.

Another widely cited early researcher of social facilitation was Robert Zajonc. In 1965, Zajonc's eloquent article concluded that performance is linked to a person's arousal state while in the presence of others. Zajonc and two associates conducted a study with cockroaches in 1969 that showed that cockroaches ran a *simple* maze faster when in the presence of other cockroaches than when alone (Zajonc, Heingartner, and Herman, 1969). Interestingly though, the cockroaches ran a *complex* maze more quickly alone than when in the presence of others. Zajonc attributed his research results to the context of the Hull-Spence drive theory in that "task performance varied systematically with the difficulty of the task" (Zajonc, 1965). Drive theory, through classical conditioning, anticipates that an increase in the respondent's drive will energizes the dominant responses to the stimulus. Further, Zajonc stated that dominant responses are 'correct' for easy uncomplicated tasks, but 'incorrect' for difficult and complicated tasks. Thus, the presence of others increases drive level and arousal, which facilitates the dominant response. Robert Zajonc concluded that in simple situations, increased arousal could help performance. On the other hand, in more complex situations, increased arousal hurt performance.

Mere Presence of Others

The mere presence of others does not necessarily affect all people in the same way. In fact, the mere presence of others can have quite different effects on different people. An assertion made by Blommel Michaels and others in 1982 proved that the presence of others could have both positive and negative effects. Michaels watched pool players at a university student union to observe the effects of social facilitation. He found that good players were affected positively by arousal [presence of others] in social facilitation; their performance increased by 9% when a group of people watched them play. Average pool players were affected negatively by arousal in social facilitation as their performance decreased by 11% when others were watching (Sanders, 1980, Guerin, 1993). The same can be said when analyzing consumer behavior. Depending upon the shopping situation, social facilitation can have both positive and negative consequences in persons' buying behavior. Additionally, the mere presence may not produce arousal in social facilitation, especially if there is minimal emphasis on evaluation and competition. In this instance, the presence of others does not attract much attention. It should be noted that, having others in the same room is different from perceiving those 'others' as evaluators of you and your purchases.

N.B. Cottrell, a researcher, argued against Zajonc's theory of arousal and the mere presence of others as increasing drive (1972). Cottrell claimed that it is through socialization that one learns to respond to stimuli and anticipate outcomes. Socialization, not the presence of others, leads to generalized drive and heightened drive is generated by others who are in a position of evaluating one's performance (Cottrell, 1972). Cottrell's later work summarized 55 studies that showed human and individual drive theories under the auspices of evaluation criteria. One such study cited by Cottrell included the roles of distraction and conflict in social facilitation.

Another study by Luo in 2005, stresses that the presence of others in a purchase situation has a normative effect. If one expects others' presence to be problematic or a source of negative influence then his/her purchase pattern will be thusly affected. One normative expectation may be that another or others will influence a purchase and apply undue pressure on a buyer. While holding an item in a grocery aisle, a buyer hears from another, "I wouldn't buy that brand if you paid me; I had a terrible experience with it." One's motivation may be to comply, with such external pressure to "not buy the brand," if that influencer is deemed credible. Luo (2005) sees two factors as influencing motivation to act: (1) susceptibility to social pressure; and (2) the nature of the interaction between individuals (individual-to-individual, a cohesive group, a non-cohesive group). Also, Luo states that the motivation to comply with others' depends upon one's relative 'liking' of that other person. If one 'likes' the potential influencer, then one is more motivated toward general susceptibility (i.e., succumbing to pressure).

Arousal Theory of Motivation

Motivation is the force that initiates, guides, and maintains goal-oriented behavior. It is what causes us to take action, like: grabbing a prepackaged snack at the grocery check-out in order to reduce perceived hunger. Forces that underlie motivation can be biological, social, emotional, or cognitive-in-nature (Guerin, 1993). Researchers have developed a number of different theories to explain motivation but each theory is limited in scope. The arousal theory of motivation suggests that it is human nature to take certain actions to either decrease or increase levels of perceived arousal. When arousal levels get very low, an individual might go to a thriller movie. When arousal levels are very high, one might look for ways to relax or meditate. Accordingly, people are motivated to maintain a stable, even optimal level, of arousal. This stable or optimal level of arousal varies individual to individual and by situation. In consumer behavior, the mere presence of others may induce a state of 'arousal discomfort' in a shopper, causing him to flee the store without a purchase, in an attempt to rid himself of that perceived discomfort.

Distraction-Conflict in Social Facilitation

Distraction-conflict theory, which has considerable empirical support, is built upon the premise that the mere presence of others can cause distraction and attention conflict leading to task completion complexity (Sanders, 1980). In other words, thinking about others, listening to others, and/or monitoring others can distract consumers from accomplishing a task, thus producing incompatible consequences for task completion. Cohen and Davis' study in 1973 examined the role of distraction-conflict in social facilitation. In this study, the subjects were told that an audience hidden behind a one-way mirror was evaluating them. Additionally, while performing the given task, the subjects heard a considerable amount of noise, unrelated to the experiment, from subjects in another room. The subjects, knowing that others were evaluating their task performance and hearing considerable noise from another room, were driven to distraction and conflict resulting in a lesser focus on the task at hand. Cohen and Davis surmised that the knowledge of being evaluated and the observed distractions produced attention conflict, which led to heightened arousal and lesser quality task performance (Cohen and Davis, 1973).

Evaluation Apprehension in Social Facilitation

Evaluation apprehension is described as the fear of being judged (Sanders, 1980). Both Zajonc and Cottrell's studies in social facilitation explored the origination of arousal, but it was the results of Cottrell's works that led support for the evaluation-apprehension theory of social facilitation. Cottrell felt that it was the inclusion of evaluative others not simply the mere presence of non-evaluative others that caused arousal. Simply put, it was the fear of having one's performance and/or behavior evaluated by others that affects attitudes and actions. It is this premise that has direct applicability to the field of consumer behavior. Waszak and Obrist's 1969 study had subjects being told that their performance would be compared for accuracy with the

work done by previous subjects in the experiment. This introduction of evaluative instruction had no effect on the subjects' drive level or social facilitation. This research on evaluation apprehension shows that when individuals must make a choice, subjects desire to present themselves in the most favorable light. This is often referred to as the "good subject role" in psychological testing (Cottrell, 1972). Concern with giving a positive self-presentation is also implicit in the social desirability realm where tested subjects offer what they deem a socially desired response, which threatens the validity of test results (Dahl, Manchanda, & Argo 2001).

In buying situations, evaluation apprehension suggests that the presence of others makes us more concerned about what others think about us and/or our purchases. The fear of being judged can increase arousal and apprehension. Evaluation apprehension also presupposes that individuals want to be valued, included, and accepted. For example, while standing in line at a drug store, a customer may be uncomfortable holding a box of suppositories. This 'embarrassing item' may cause the customer in-line apprehension and fear that others in-line may have a negative opinion of him. Another example of evaluation apprehension occurs when consumers are in-line to purchase an item, such as a camera, that is always stored behind a counter. While in-line, a consumer gets into a discussion with a fellow patron also waiting in-line. The other store patron raves about a particular brand of camera behind the counter. The pressure of acceptance may motivate the consumer to buy the brand favored by his fellow patron.

Crowding and Social Facilitation

Crowding generally refers to people's psychological response to density, that is to their feelings of being crowded and experiencing a lack of privacy or an increase in unwanted interactions, thus psychological distress (Luo 2005, Dahl et al 2001, Crothers et al 1993, Gove et al 1979, Jazwinski 1998). One's perception of crowding is "individual in nature" (Machleit, Eroglu, & Mantal, 2000). A subject in a crowded supermarket makes her way to the cereal aisle in order to purchase a 'no-name' cereal. Once in the aisle, she notices that there are many customers, none of whom were looking at the no-name cereals or generic brands. The subject decides to purchase a name brand cereal so as not to seem 'cheap' in front of others in the crowded aisle. Here crowding has influenced the subject's purchase behavior, hence her consumer behavior. Additionally, store crowding can intensify positive or negative emotions. For example, while in a crowded well-known video game store, poised to purchase a video game for her son, the subject hears many conversations around her regarding the various games available in the store. The subject's internal excitement in preparation of the purchase is building. By the time the subject reaches the counter, she has become so aroused and excited that she soon finds herself purchasing two or three video games, two were previously untended purchases. According to social facilitation theory, this subject's enthusiasm grew because the store crowding intensified her positive emotions toward the purchase experience.

Conversely, crowding can intensify negative emotions and stress, such occurs when waiting in a long store line that seems to be moving extremely slowly. As the other patrons in line grow more

agitated, one finds himself getting more aroused and frustrated. The conditions are set: the crowding feels like an invasion of personal space, the long wait time exacerbates one's feeling of unimportance, and the crowd's growing discontent intensifies a subject's negative response. That consumer, who would not ordinarily become aggressive or openly rude, is now finding himself acting so. This understandable outcome is accentuated when high levels of crowding are not expected and an individual has a low tolerance for crowding, in general (Oliver, 1993). This phenomenon is called deindividuation, where individuals take on the personality or mentality of the crowd, positive or negative. This may help to explain those instances reported by the media where crowds act in destructive and violent ways, such as breaking retailers' windows and looting stores. "Our behavioral reactions to situations develop early and can affect perception, cognition, motivation, and behavior" (Izard, 1993, pg. 638). Lastly, shopper tolerance for retail crowding varies across retail outlets (a discount store versus a department store).

IMPLICATIONS FOR RETAILERS

Socially induced arousal is a necessary ingredient of social facilitation and shopping is one of the greatest social venues for engendering arousal or heightened awareness or emotion. As retailers pack stores with patrons in pursuit of sales, shoppers increasingly face retail crowding and perceived evaluation. This heightened awareness of others, mere presence of others, and a sense of being watched or evaluated is a key component of social facilitation affect in consumer behavior. This also has implications for the sales force that staffs and wanders the retail outlet.

While shopping satisfaction is increasingly important to retailers, due to the competitive nature of the retailing industry, it becomes critical to understand consumers' experiences or perceived experiences while engaging in consumer endeavors. According to Machleit and Mantel, the impact of consumer emotions while shopping is integral to the shopping experience (2001). Their study shows that consumers, who perceive the store as attempting to eliminate the human density or crowding in the store, have more positive emotions toward the shopping experience and transfer those positive feelings to the store. Sommer, Wynes, and Brinkley found in their 1992 study that consumers shopping in groups have more positive feelings toward the shopping experience, as more of a social event, hence these individuals in shopping groups spend more time shopping in the store and make larger purchases. According to social facilitation theory, shopping experiences and the presence of others produce an arousal effect, which heightens emotions [positive or negative] in the shopper.

CONCLUSION

Experimental social psychology's social facilitation theory seems to explain some of the many effects that the mere presence of others has on consumer behavior. Real world and experimental situations, previously described, seek to explain the effects of social facilitation and arousal on consumer attitudes and behaviors in a social environment. Whether standing in line with an

‘embarrassing’ item, anxiously waiting in a crowded slow-moving line, or being driven to distraction while in a buying situation, social facilitation affects consumer decisions and buying experiences both positively and negatively. There is a decrease in shopper satisfaction due to crowding that can be mediated by expectations and one’s tolerance for feeling ‘crowded’ or feeling influenced. The effects of the presence of others are likely to be greater when a group of individuals is cohesive. Such cohesive groups may include family, neighbors, close acquaintances, and friends.

As for the research, Zajonc (1965) found that the mere presence of non-evaluative others is sufficient to increase drive and impair performance, which is consistent with the social facilitation literature. Cottrell, on the other hand, found that mere presence of others is not sufficient in his learned-drive analysis where evaluative others increase a subject’s drive and affect performance (1972). Regardless of the existence of others, if consumers perceive others as evaluating them, studies show that they will behave differently. Consumers may purchase items that they normally would not; they may refrain from purchasing items that they normally would (out of fear of being evaluated negatively); or may buy more than originally intended due to the arousal and intensity felt while in the consumer situation. As social facilitation becomes more fully integrated into the consumer behavior discipline, much insight will be gained. Retailers will have access to empirical studies that test crowding and waiting in line for the effect on subsequent shopping satisfaction and consumers will be able to participate in shopping experiments designed to better elicit information about motivation, influence, and the effect of others.

IMPLICATIONS FOR FUTURE RESEARCH

At the meta-level, this research proposes a theoretical relationship between a social psychology construct, the mere presence of others, and its link to consumer behavior marketing. The next logical step is empirical work to examine the validity and depth of the relationship. Empirical research will involve hypothesis testing and construct measurement, which in turn must be operationalized. It is the researchers’ hope that future empirical and theoretical research will advance the relationship. Finally, this research suggests that the presence of others will impact shoppers’ motivation, attitude, satisfaction, and behavior, but we do so in a cursory, exploratory manner. Much more rigor in thought is needed to better understand how different consumer behavior scenarios, involving the presence of others, influence shopping outcomes. Future conceptual and empirical research may also wish to investigate the impact of crowding on shopping outcomes.

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USE OF BUSINESS INTELLIGENCE FOR COMPETITIVE ADVANTAGES BY THE BEAUMONT INDEPENDENT SCHOOL DISTRICT IN TEXAS

Kakoli Bandyopadhyay, Lamar University
bandyopaku@lamar.edu

Luke A. Bourgeois, Lamar Institute of Technology
luke.bourgeois@lit.edu

ABSTRACT

In this paper, we discuss the use of Business Intelligence (BI) for competitive advantages by Beaumont Independent School District (BISD) in Texas. First, we define Business Intelligence and its development in school districts in Texas. Second, we discuss how BISD gathers business intelligence and what the drivers of BI are. Third, we report what kind of tools and technologies and data analyses are being used. Finally, we discuss the competitive advantages achieved by BISD from the use of BI and the possible future options, that they may expand on and how other school districts may benefit from following BISD's example.

BUSINESS INTELLIGENCE IN BEAUMONT INDEPENDENT SCHOOL DISTRICT

Business Intelligence (BI) refers to architectures, tools, databases, applications and methodologies to help an organization acquire better understanding of its operations. Business Intelligence often aims to improve performance and support better decision making. BI can also help an organization create efficiencies with operations.

In an effort to bring greater public accountability to the educational community, the 68th Texas legislature, through House Bill 72, established the Public Education Information Management System (PEIMS). Bill 72 passed in 1984 and the legislature created the Texas Education Agency PEIMS division in September of 1986. PEIMS recorded its first student data during the 1989-1990 school year. Reporting PEIMS data is not optional for BISD and Texas law enforces its reporting across the state (Region 4 Education Service Center, 2010). The Texas Education Agency (TEA) measures student success on many factors including: student graduation rate, SAT/ACT scores, TAKS and STAAR scores, and student college attendance. To accomplish these goals, BISD must track massive amounts of data for students (Saveat, 2012). A list of acronyms is included in Table 1 at the end of the paper.

The TEA and PEIMS provide standard requirements for reporting Texas public school data to the Texas legislature so that the TEA can perform its purpose, which is to monitor Texas public schools (Texas Association of School Board, 2009). PEIMS is a set of rules and standards about Texas public school data; however, it also houses the data, but is not a database. PEIMS data that is available to the public exists on the TEA's website (Texas Education Agency, 2011). There are three main drivers for PEIMS data: Funding, Accountability, and Information Resources (Region 4 Education Service Center, 2010).

The Texas legislature uses PEIMS data to calculate how much funding goes to each school for title programs, school lunches, special education, and grant programs. For example, if a particular district, such as BISD, has a larger special needs group of students than average, then the Texas legislature knows to allocate more funding for those programs to that district (Region 4 Education Service Center, 2010). The Texas legislature uses the accountability data that PEIMS records to rate each school system and report the Federal Adequate Yearly Progress (AYP) (Education Week, 2011). It also does Performance-Based Monitoring (PBM) based on student test scores. The accountability driver also includes attendance audits and monitoring schools for drugs (Region 4 Education Service Center, 2010). See Figure 1 for 2011 data for an accountability summary of BISD's Westbrook High School.

Figure 1 illustrates what the TAKS test scores are for Westbrook High School students in 2011. This data comes from the TEA website, which is what the State of Texas uses to make PEIMS data available to the public. While the table explores some sub-populations such as economically disadvantaged, White, African American, and Hispanic, this site is unable to provide any data that would combine sub populations. For instance, if a school administrator wanted to know what percentage of economically disadvantaged, Hispanic students passed the math portion of TAKS, this table would not readily provide that information.

PEIMS data now, consists of all the data that Texas school districts provide to the TEA. This data is available to the public through the TEA website (Texas Education Agency, 2011). This data gathered is in a standard format that meets PEIMS requirements. BISD uses Pearson to create and grade TAKS tests, but Pearson sends the data first to BISD and BISD inputs the data into TEAMS, which then compiles a report to send to the TEA for PEIMS.

When data from a school district, or even a school within a district, shows a deficiency in a particular area of test scores, the TEA and the district decide how to fix this deficiency. First, administrators slice the data into different sub populations to discover the reasons why this is occurring. It may be that a particular school has a higher percentage of special needs students, or it has a higher Hispanic population whose first language is Spanish. Any data that might provide insight is used. Using this information, administrators make decisions on how to fix the deficiency. When the data comes from PEIMS, then this is a TEA or state mandated decision (Saveat, 2012).

TEXAS ASSESSMENT OF KNOWLEDGE AND SKILLS (TAKS) TABLE

----- 2011 ----- ----- 2010 ----- ----- Required Improvement ----- ----- Status by Measure -----																												
Performance Results	Number		Pct		Stu		Number		Pct		Met		Act		Met		RI		STD		RI		EXCP		***			
	Met	Std	Met	Std	Grp	%	Met	Std	Met	Std	Met	Std	Met	Std	Met	Std	RI	Chg	RI	Chg	RI	Chg	RI	Chg	RI	Chg		
Reading/ELA (70%/80%/90%)																												
All Students	1,618		96%	94%	100%		1,687		94%	93%			1,800		94%	93%		2						EX	-	-	EX	
African Amer	640		94%	93%	40%		720		93%	91%			775		93%	91%		1						EX	-	-	EX	
Hispanic	233		95%	91%	15%		213		95%	91%			235		91%	91%		4						EX	-	-	EX	
White	604		98%	96%	37%		637		98%	96%			661		96%	96%		2						EX	-	-	EX	
Econ Disadv	576		92%	90%	37%		673		92%	90%			747		90%	90%		2						EX	-	-	EX	
Writing (70%/80%/90%)																												
All Students	*		*	*	*		*		*	*			*		*	*		*		*	*				-	-	-	-
African Amer	*		*	*	*		*		*	*			*		*	*		*		*	*				-	-	-	-
Hispanic	*		*	*	*		*		*	*			*		*	*		*		*	*				-	-	-	-
White	*		*	*	*		*		*	*			*		*	*		*		*	*				-	-	-	-
Econ Disadv	*		*	*	*		*		*	*			*		*	*		*		*	*				-	-	-	-
Social Studies (70%/80%/90%)																												
All Students	1,031		97%	96%	100%		1,121		97%	96%			1,155		97%	96%		0						EX	-	-	EX	
African Amer	391		96%	96%	39%		463		96%	96%			484		96%	96%		0						EX	-	-	EX	
Hispanic	*		99%	98%	*		150		99%	98%			153		98%	98%		1						EX	-	-	EX	
White	411		98%	98%	39%		422		98%	98%			431		98%	98%		0						EX	-	-	EX	
Econ Disadv	341		97%	96%	33%		437		97%	96%			457		96%	96%		1						EX	-	-	EX	
Mathematics (65%/80%/90%)																												
All Students	1,432		85%	81%	100%		1,456		85%	81%			1,794		81%	81%		4						RE	-	-	RE	
African Amer	527		78%	73%	40%		561		78%	73%			770		73%	73%		5	4	Yes				AA	RE	-	RE	
Hispanic	202		83%	83%	15%		197		83%	83%			236		83%	83%		0						RE	-	-	RE	
White	570		92%	88%	37%		578		92%	88%			659		88%	88%		4						EX	-	-	EX	
Econ Disadv	475		77%	73%	37%		545		77%	73%			746		73%	73%		4	4	Yes				AA	RE	-	RE	
Science (60%/80%/90%)																												
All Students	952		90%	88%	100%		1,015		90%	88%			1,155		88%	88%		2						EX	-	-	EX	
African Amer	342		83%	83%	39%		401		83%	83%			486		83%	83%		0						RE	-	-	RE	
Hispanic	128		90%	88%	13%		133		90%	88%			152		88%	88%		2						EX	-	-	EX	
White	400		96%	93%	39%		400		96%	93%			430		93%	93%		3						EX	-	-	EX	
Econ Disadv	298		84%	82%	33%		374		84%	82%			457		82%	82%		2						RE	-	-	RE	

Source: Campus Accountability Data Tables. [Table] (2011) Retrieved April 28, 2012
from ritter.tea.state.tx.us/perfreport/account/2011/districtlist.srch.html

FIGURE 1. TEXAS ASSESSMENT

If a school is scoring poorly in English, but it has a high population of students who are ESL (English as a second language), then the decision may be to increase funding for programs that focus on ESL classes.

INTELLIGENCE GATHERING AND BI DRIVERS AT BISD

When the federal government passed the No Child Left Behind Act, it put enormous pressure on public schools in the U.S. The act made it difficult for public schools to have the option to fail students. This created issues in the classrooms because now teachers were required to re-teach. Districts refer to re-teaching as reviewing material that has already been taught if the students do not master the material the first time through. This also leads to re-testing which is allowing students to retake tests over the subjects in which they scored poorly. Instead of solely retaining grade records, the districts now have to keep records of which students are passing, and which students have been re-taught (Phillips, 2012).

The No Child Left Behind Act created the need for tracking new data. For example, now schools needed to know how many times a student has failed, which teacher taught them the material, which schools fail the most students, and what the potential causes are for these failures (Saveat, 2012).

The 'No Child Left Behind' Act was a primary driver for developing BI in BISD. The need for demographic and socio-economic information grew. For example, an auditor for PEIMS may look at BISD TAKS test results and compare them to another district in the Southeast Texas area, such as Nederland ISD. The auditor may assume that BISD's use of funds is less efficient than Nederland ISD's. However, when considering BISD has one of the highest percentages of economically disadvantaged students in all of the Texas ISDs, then it creates a new paradigm for the auditor, because the auditor knows that economically disadvantaged students tend to score lower on standardized tests (Knight, 2012).

Before 2003, BISD primarily sent data to PEIMS using an AS400 IBM and a flat database in the form of a spreadsheet. The district used the data collected primarily for populating the state PEIMS data, which the TEA uses. The TEA analyzed the PEIMS data since the district itself did not have an effective BI solution. Also, this analysis stated a number of challenges in the existing data collection (IBM Global Business services, 2009):

- Aged PEIMS system and processes - The existing system is still primarily a batch collection system; the process for reviewing and approving data elements is slow and difficult, the efforts to support the system are labor intensive and expensive for the state.
- Untimely reporting of and access to data - The data is collected infrequently (many elements only once a year) and due to the time it takes to analyze and report the data, new

reports often represent data that is at least nine months old. The data is not available to stakeholders in an easy to obtain, easy to manipulate fashion.

- Data reporting redundancies - Due to the inefficiencies of PEIMS, many other data collections have evolved at TEA and some of these overlap with PEIMS.
- Data quality needs improvement - The districts must perform their own aggregation, business rules and analysis to provide the data as defined in the PEIMS data collections. Due to the complexities of creating the required data locally at the districts, these efforts are prone to error.
- Labor-intensive reporting burden to districts - The requirement for districts to create the required data from their source systems creates an expensive and time-consuming effort for both the districts and for the TEA, who must monitor their submissions for quality and completeness.
- Barriers to data sharing - Current stakeholders find it difficult to get data from the TEA. Many data requests require significant programming efforts by the TEA staff and may take weeks to provide. This is true for both internal TEA stakeholders who want to use the data and other, external stakeholders.

Administrators in BISD saw the growing need for analyzing data before getting feedback from the state. Having to wait for PEIMS data and the TEA would make decisions slower. If BISD has the data in real-time, decisions would be more effective because administrators could implement change faster. In 2004, Dr. Kimber Knight and Supervisor Programmer Darren Fredrick developed an in-house program to make it easier for teachers to report and retrieve district data. They developed the Item Analysis system (Knight 2012).

BI TOOLS AND TECHNOLOGIES AND DATA ANALYSES

Item Analysis was BISD's first BI system. Teachers would scan in Scantron data using Apperson scanners into an IBM AS400. The Apperson scanners, developed by Apperson Educational Products, read the information from the scantrons that the teachers scanned including answers keys and student tests. From the AS400, the district could run reports and sort data more efficiently. It also allowed teachers to access reports. Item Analysis is a traditional database system. After a short pilot test in 2004, BISD deployed Item Analysis into more and more schools. The Item Analysis data was a separate database from the PEIMS data. BISD primarily used Item Analysis to improve decisions made at the campus and teacher level. Since BISD made the information in Item Analysis available to teachers, it increased teachers' ability to make decisions about curriculum and re-teaching (Knight, 2012).

The more data teachers scanned into Item Analysis, the more apparent it became that one programmer could not manage such a large system. The district relied on Item Analysis, so downtime caused work stoppage. The programmer would have to drop his current project and focus on bringing the system back up. BISD realized this was not a cost effective solution (Fredrick, 2012). Administrators in BISD saw the need to have a real-time database for decision-making. In 2006, BISD implemented the TEAMS ERP system, developed by Prologic. TEAMS is a real-time database tracking system designed for inputting and tracking data. This database is responsible for all day-to-day transactions involving students at BISD. It is important to note that TEAMS is a BISD system and is not part of the PEIMS system. BISD integrated the TEAMS server into their IT infrastructure.

The TEAMS system tracks student data. When a new student enrolls in BISD, TEAMS creates a record of all of their demographic information, such as name, address, contact information, social security number, sex, ethnicity, economic background, etc. This data is important because it is a primary factor in decision-making. Not all data is available for inputting into TEAMS. For instance, a transfer student may not have records from a previous school. The more data TEAMS has, however, the more information teachers and administrators have to make decisions. The TEAMS system keeps a record of day-to-day information such as attendance, student grades, student test scores, and discipline (Saveat, 2012).

Teachers input the majority of students' day-to-day data. When a class period begins, the teacher takes attendance through the TEAMS system. TEAMS shows teachers which students were absent in a previous period, which students have already called to inform the school of their absence, and whether or not an absence is considered to be excused. This information is real-time and makes decision making easy for the teacher and administration. For example, if an attendance clerk notices that a student is continually marked absent for fifth period, but is present for fourth and sixth period, the clerk has the power to start an investigation into the possibility of truancy. Since, attendance is a primary driver of school funding and schools get state funding based on the number of students that attend class, BISD employees pay close attention to attendance (Saveat, 2012).

Teachers also input and maintain students' grades. Teachers maintain their grade books through TEAMS by creating assignments and giving grades to those assignments. A teacher has the power to maintain categories and assign those categories percentages of value. For example, a teacher can create three categories: Daily Grades, Tests, and Labs, and then assign 25%, 25%, and 50% respectively, to each category. As the teacher creates the assignments, they assign each assignment to a category. TEAMS then, calculates each assignment's value based on the percentage of value for each category. TEAMS will calculate six weeks averages based on the criteria inputted by the teacher. Each six weeks, TEAMS records the students' averages and places the averages into the students' permanent grade file (Phillips, 2012).

At the end of each semester, which is three, six-week grading periods; students receive a semester average, which TEAMS also calculates. At the end of the school year, TEAMS calculates both semester averages to get the final grade for the course (Phillips, 2012).

TEAMS also tracks standardized test scores such as TAKS tests. Pearson Education Inc. creates the TAKS test and BISD administers the test to the students. BISD ships the completed tests to Pearson where they are graded. Once Pearson grades the tests, they compile the results and send them back to BISD. BISD then inputs the test results into the TEAMS system (Knight, 2012). BISD sends data to the TEA and PEIMS four times per year. PEIMS mandates a Fall Collection or Submission 1, a Midyear Collection or Submission 2, a Summer Collection or Submission 3, and an Extended Year Collection or Submission 4. PEIMS deems the fall, Midyear, and Summer Collections mandatory, but the Extended Year Collection is reported only if there is data to report. BISD uses the TEAMS system to generate a report that the TEA uses for PEIMS data (Region 4 Education Service Center, 2010).

As BISD's reliance on BI data for decision-making grows, so does its need for more information. The TEAMS system provides an excellent way to input data and report data to PEIMS. However, it does not allow the slicing of data the way administrators need to view it without taxing BISD's IT staff. Using the TEAMS system for reporting, a BISD programmer had to write the report or hired Prologic to create a report if teachers or administrators needed new data. This became expensive and a cost prohibitive solution (Knight, 2012).

In the fall semester of 2011, BISD purchased Eduphoria!'s Aware package. Eduphoria! is a company that writes BI products that are designed to integrate into school districts infrastructure and assist with the reporting and tracking of information. Eduphoria! created the Aware package for benchmarking student performance. As stated on Eduphoria!'s website, "Aware redefines student data analysis, by making your data 'browsable' in a rich, interactive format. Drilling from district to school to individual teacher or student data is just a click away." BISD deployed Eduphoria!'s Aware district wide in January of 2012 (Knight, 2012).

Eduphoria! designed Aware to give easy access to school administrators and teachers for tracking student performance. It provides a platform for data that is easy to access and easy to understand. If an administrator is evaluating the performance of a particular school, he or she can drill down all the way to the percentage of African-American males that are economically disadvantaged who took geometry in the 11th grade from a particular teacher. That would allow an administrator the ability to know which teachers produce better test results and why. Then an administrator may be able to identify teachers in need of assistance or TINA (Knight, 2012).

The main advantage Eduphoria provides is the ability to slice all educational data stored in one place (Ector County Independent School District, 2012). This now includes initial testing at the first and second-grade level for reading and math and an IQ test. The results from these tests can

now follow a student throughout their K-12 career. In five years time, BISD expects to see results of improvement based upon these baselines. A TINA identification allows administrators to give aid to teachers in the form of additional training or incentives. BISD designed the concept of TINAs to assist teachers; however, teachers try to avoid receiving them due to their negative connotation (Knight, 2012).

COMPETITIVE ADVANTAGES AND FUTURE OPTIONS

BISD hosts the TEAMS system in house. This adds to the overall cost of running the system. Prologic created TEAMS and charges a yearly maintenance fee of \$200,000 per year. The BISD IT dept. hopes to move the system to Prologic's hosting services. This would increase the fee, but decrease the internal overhead created by the in house servers and salaries required to maintain the hardware, Eduphoria!, charges based on the modules used and not on a per user basis. The initial setup fee was \$2,000 and the annual maintenance fee is \$85,000.

Now that information is so readily available, both teachers and administrators in BISD can tailor programs to fit the needs of students. In the past, BISD would have to use Item Analysis or wait for the TEA to analyze the data TEAMS reported to PEIMS and then report that data back to BISD. Now, 'Eduphoria! Aware' provides real-time access to data as soon as a teacher inputs it (Knight 2012). See Figure 2 for how TEAMS populates Eduphoria!

Figure 2 will illustrate that the day-to-day data from TEAMS syncs to both PEIMS and Eduphoria! While BISD reports PEIMS data four times per year, TEAMS and Eduphoria! are in real-time sync with each other. When a teacher inputs into TEAMS, the data immediately is available in Eduphoria! for analysis. The real-time feature allows decision makers to have information much faster than in the past. It is important to note that Eduphoria! Aware is a different database than TEAMS and PEIMS. BISD employees enter data only through TEAMS. TEAMS is in real-time sync with Eduphoria! Aware, and sends PEIMS report data four times per year (Fredrick, 2012; Region 4 Education Service Center, 2010).

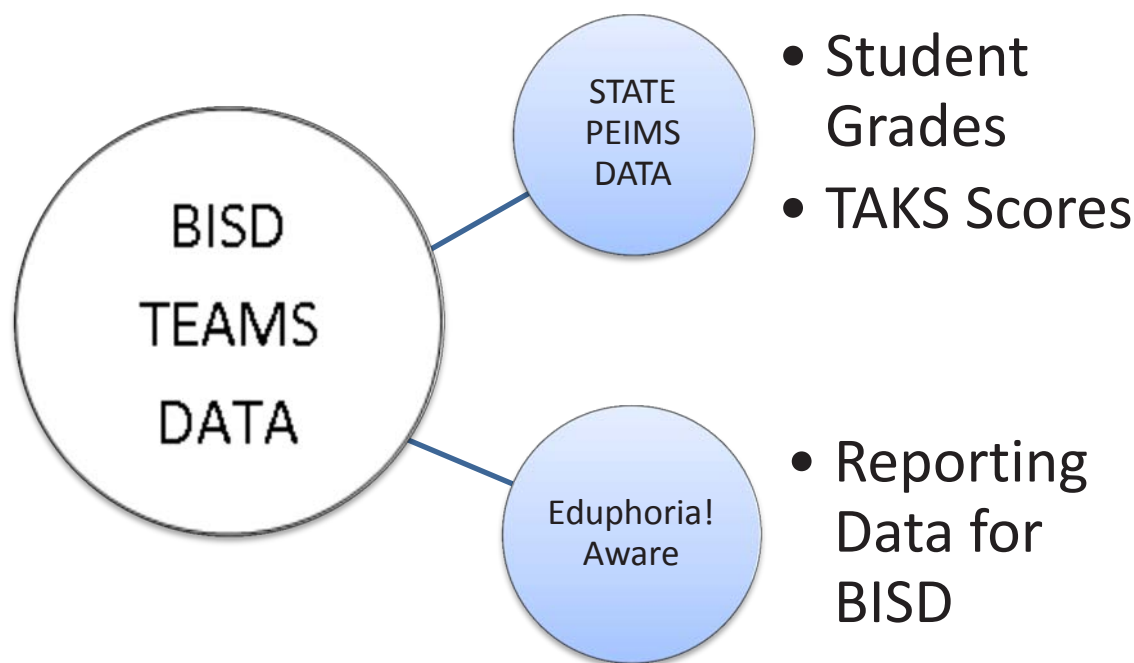


FIGURE 2. MAP OF DATABASE REPORTING AND SYNCHRONIZATION

It is clear that in the past ten years, BISD has made giant strides in BI. The district changed from reporting PEIMS data to the TEA four times per year via a flat database to having a real-time database capable of drilling down to any detail inputted into it. While the district-wide deployment of Eduphoria!'s Aware is four months old, as of April 2012, this gives teachers access to data that, until just a few years ago, administrators had a hard time getting. BISD provides this information through the use of its in-house TEAMS system developed by Prologic and Eduphoria!'s Aware system.

The largest issue that BISD employees face is familiarity with the “Eduphoria! Aware” system. Not all teachers are aware of how effective and useful the “Eduphoria! Aware” system is. Most teachers that do know about it do not know how to use the information to create an environment better suited for students. Part of the problem comes from the fact that in the past administrators made decisions using the detailed information provided by BI systems. Because teachers did not have the information, they received no training for its uses. Training teachers on how to use “Eduphoria! Aware” is the next step for BISD. BISD trained users in the Eduphoria! system in three phases: 1) When Eduphoria! was first introduced, only select administrators learned how to use the system; 2) The next phase was training a test group of teachers from every grade level for them to examine how the new system would benefit re-teaching; and 3) After the success of the test group, BISD gave all teachers the opportunity to train in the use of Eduphoria! by integrating it into the 2011-2012 staff development continuing education classes.

Another recommendation is a dashboard for the Eduphoria! Aware platform, which displays menu driven navigation. BISD does not have access to a dashboard for Eduphoria! Aware, though it would provide even faster access to data. Users would have even more control with a customizable dashboard for each individual login. By making these changes, BISD would have a very effective BI system in place to make decisions.

School districts, more than most other organizations, are required to and benefit from logging incredibly large amounts of data. As a result, the amount of data to enter, track, and analyze can be a cumbersome responsibility. A few of the ways, that other school districts can benefit from following BISD's example, are: 1) Improve attendance by having a clear picture of attendance percentages by individual, grade, school, and district and by sharing that information with students; 2) Create simple communication streams between administrators and teachers and between teachers and teachers district wide; and 3) Give all system users easy access to critical student information. With contact information, test scores, attendance, behavior history, and more within reach, wasted time and misplaced files can be reduced (School District Solutions, 2012). However, a very few Texas ISD's are currently using a BI system this complex due to the cost of implementation in conjunction with the current budget cuts.

We plan to re-examine the progress BISD test scores and re-teaching takes in the next five years. BISD implemented Eduphoria! district-wide in 2012 so there is no measurable progress for reforms yet Eduphoria! is a new implementation. In five years, BISD expects to see improved standardized test scores in comparison to districts with similar demographics and 2011 test scores. Over the next five to ten years, we will know more about the effects of this particular BI system in BISD compared to other districts that still use benchmarking only. Since Eduphoria! is a new implementation, there is no data to compare. One of the ways to measure progress in education is in awarded grants. Through the innovation of the Item Analysis system, BISD was able to secure a grant through the Michael and Susan Dell Foundation (MSDF) whose funding allowed the expansion into their current BI system.

TABLE 1. ACRONYM LIST

PEIMS	- Public Education Information Management System
TEAMS	- Total Education Administrative Management Solution
BISD	- The Beaumont Independent School District in Beaumont, Texas
AYP	- Adequate Yearly Progress reported to the federal government
TEA	- Texas Education Agency
PBM	- Performance-Based Monitoring
TAKS	- Texas Assessment of Knowledge and Skills
STAAR	- State of Texas Assessment of Academic Readiness
OLTP	- Online Transaction Processing
OLAP	- Online Analytical Processing
ERP	- Enterprise Resource Planning
TINA	- Teacher in Need of Assistance

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SOCIAL MEDIA: ARE THE POSITIVE ASPECTS OVERWHELMED BY THE NEGATIVE?

Hy Sockel, DIKW Management Group
hysockel@yahoo.com

Louis K. Falk, University of Texas at Brownsville
louis.falk@utb.edu

ABSTRACT

The construct of social media is relatively new in terms of the Internet, World Wide Web, and Communication. In less than ten years social media went from something that no-one ever heard of, to something that many cannot live without. It has challenged both the traditional business marketing and interpersonal communication models. It is an evolving form of communication that has been adopted by the young and the old, individuals and organizations, education and entertainment. As social media is being adopted unintended consequences have become visible. This paper discusses the roots of social media; some of the major reasons individuals and business use it, and some of its problems. The paper also suggests some possible solutions on how to manage social media.

INTRODUCTION

Over the years, the Internet has gradually grown from being a tool used mainly by scientists and academics to one of consumer and commerce use. This is not because of a radical change in web technologies but rather the results of cumulative changes in the ways software developers and end-users use the Web (Wikipedia, Sockel, and Falk, 2010). Social networks are a byproduct of the way end users utilize the Internet and the World Wide Web (WWW).

There is no doubt that social media has changed the way some businesses and people communicate. Many businesses and individuals espouse social media's virtues, to include ease of use, and expansiveness. But is this type of communication really beneficial or are the unintended consequences overwhelming it. Social media's roots are in the Internet and the World Wide Web. While the Internet had its humble beginning in the United States, it has developed into global phenomenon that is not limited to any one country, region or language. The social aspects of the Internet are well known. The public is tuned in to the scale and extent of the beneficial, as well as harmful sides of online content.

The popularity of social media has become a modern day phenomenon. People use social media for entertainment, escape, work, keeping up with friends, job searches, research, shopping, dating, and general communication. Facebook, Twitter, LinkedIn, Blogs, MySpace, YouTube, Flickr, Wikipedia are some of the more popular social media channels.

What differentiates a social networking site from the run of the mill typical Web site? CareerBuilder (2009) indicates that a typical website is controlled by a small group of individuals (sometimes just one person) with centralized control, for the purpose of simply pushing information out and perhaps doing commerce. Social networking sites typically invite users to contribute to the content. Much of this content can come from the public. Users become active members by contributing content, thus giving them a stake in the success of the site.

Originally Web sites were statically designed, providing little opportunity of interaction beyond clicking an "icon" to follow a hyperlink. However, modern software components on the WWW work together beyond a simple point-and-click interface. The WWW has evolved into a medium where web site contents are presented using animation, multimedia, and dynamic generation of customized features. These features are found in traditional media but they also exhibit a unique form of user interfaces. For example, video demonstrations on the WWW approach the level of interactivity of traditional TV's, but with the aid of screen capture devices or software tools, users are able to extract certain frames of video sequences for other purposes. The captured video frames can be easily stored and duplicated. This synergy which was not seen in the past has contributed to the popularity of social media and to Web 2.0.

The term Web 2.0 describes the range of user-controlled publishing and networking websites that have emerged over the past 5 years, allowing people greater connectivity, autonomy, and voice in online activities. With this newer approach, there is a "blurring of the boundaries between Web users and producers, consumption and participation, authority and amateurism, play and work, data and the network, reality and virtual-reality" (Zimmer, 2008, p 1).

The nature of these increasingly interactive participative environments enriches the users' experience and contributes to Web 2.0 ecology which includes social networking, media sharing, site manipulation, data add-ons, web mash-ups (where the term mash-up means the mixing of at least two different services from disparate, and sometimes competing Web sites), conversational arenas, virtual worlds, social bookmarking, blogs, wikis, and other collaborative editing sites (Crook, 2008).

WHAT IS SOCIAL MEDIA?

Charlene Li and Josh Bernoff, in their book *Groundswell: Winning in a World Transformed by Social Technologies*, describe social networking as a "social trend in which people use

technologies to get the things they need from each other, rather than from traditional institutions like corporations” (Li and Bernoff, 2008).

CareerBuilder (2009) further indicates that users are central to the social media concept and its success. These users are often the creators and the drivers of the platform content. Social media is not a one-way street. Organizations that understand how to interact with users on a personal level are often greatly rewarded. Companies are realizing that their online content can’t compete with the various social media offerings out there. The candy maker Skittles is one example.

Schroeder (2009) writes few have taken it so far as candy maker Skittles, which replaced its entire homepage with its Twitter stream. The only thing that’s left is a widget-like navigation console in the upper left part of the screen. Instead of pointing you to some company statement, it sends you to the Skittles entry on other popular social destinations: Wikipedia, YouTube, and Flickr. Additionally, according to “Simply Measured” and based on Interbrand’s Top 100 Best Global Brands, a year after Google began letting organizations create brand profiles on its Google+ site - the top 100 brands have accumulated more than 23 million fans. While an impressive feat, the “top 100 club” still trails Skittles candy online fans Wasserman (2012).

POPULAR SOCIAL MEDIA SITES

Facebook

Facebook on their webpage (<http://www.facebook.com/peering/>) indicates that they are “a social utility that helps people communicate more efficiently with their friends, families and co-workers.” They further state that they develop technologies that facilitate the sharing of information through the social graph, the digital mapping of people's real-world social connections. Anyone can sign up for Facebook and interact with people they know in a trusted environment. As the second most trafficked Web site in the world, Facebook claims to have more than 900 million active users, of which 50% of them log on to Facebook in any given day.

Moreover, Facebook claims that there are more than 30 billion pieces of content (web links, news stories, blog posts, notes, photo albums, etc.) shared each month (<http://www.facebook.com/press/info.php>, 2010).

Twitter

According to Twitter.com/about, Twitter is a real-time information network powered by people all around the world that lets them share information. Twitter tries to answer a simple question

“what’s happening now?” It does this by allowing users to send and receive very short messages called “tweets.” A tweet can be a maximum of 140 characters.

Twitter was launched in 2008 as a free micro-blogging site that enables users to maintain a web log (blog). Its popularity has grown exponentially - they now have more than 17 million registered users.

LinkedIn

LinkedIn is a free professional networking site that enables members to post resumes, recommendations from friends, and connect with other industry professionals. With over 53 million members in over 200 countries and territories around the world LinkedIn is a powerful resource for those that need help with employment. According to a LinkedIn site search (conducted July 29, 2009) it was found that five percent of U.S. users were recruiters, headhunters, or HR professionals.

Blogs

Wikipedia (2012) at <http://en.wikipedia.org/wiki/Blog> indicates that the term blog was derived from the phrase "weblog" in 1999. A blog can be viewed as a multiuser or a participatory diary. Blogs have at least one “owner,” but may have many contributors and commentators supplying site content. Typical metrics (i.e., success) is measured by the number of (unique) readers, by the site’s ability to generate meaningful reader comments, and links from other blogs and Web sites.

According to Wright and Hinson (2008), quoting from a 2004 *BusinessWeek* article, companies such as Microsoft, Dell and Sun have encouraged their employees to blog. They indicate that:

- Blogs and diaries can be a seductive way to lure customers into conversations
- Blogs are sticky - readers check back several times a day
- Blogs are efficient. Posted questions get instant, mass feedback
- Blogs for the most part are free
- Blogs let employees know exactly what customers want
- Blogs can humanize faceless behemoths

In recent times the popularity of Blogs has fallen among teens and young adults, not only are they not posting - they are also not commenting. By comparison the adult Internet blogging use has remain steady with one in ten maintaining some form of online journal (Lenhart, Purcell, Smith, and Zickuhr, 2010).

USERS

The Internet has become popular with just about every age group. According to a Pew Internet and American Life Project on a typical day 43% of online adults use social networking. Their report indicates that social networking sites are “most popular with women and young adults under the age 30.” They further indicate “no significant differences in the use of social networking sites based on race, ethnicity, household income, education level or geographical location” (Madden and Zickuhr, 2011).

It should also be no surprise that adolescents are for the most part more comfortable with new technology. Many are introduced to this technology early in elementary school, and through regular use of the home computer. This group is not afraid of the technology, because for the most part, they grew up with it, and to them it is not work related. The familiarity with the equipment as entertainment, allows this group to be comfortable with it.

Adolescents are skilled at creating and publishing new media content; contributing to creations such as artworks, audio, video, photographic products, and creative writing postings. Researchers have found that their increasing usage is altering their social identities, styles of learning, and information exchange around the world (Facer, Furlong, Furlong, and Sutherland, 2003).

Another Pew Internet & American Life Project Report shows 65% of all adult Internet users also engage in social media. It is not just younger adults, seniors are testing the waters too. Many “Baby Boomers” are making a trip to the social media pool part of their daily routine. In 2011, “Boomers” increased their usage of social media by 60%. According to a study by Hallmark and Nielsen “Boomers” account for \$230 billion dollars in U.S. sales, which is over half (55%) of total sales per year. Further, a report by CBS News postulates that boomers are engaging in social media out of a desire to connect with their kids and grandkids. Not only is Facebook a great place to reconnect with old friends, it is an ideal place to show Mom and Dad the weekend festivities with the kids. It is no wonder businesses are targeting Boomers.

WEB 2.0 TECHNOLOGIES

O’Keeffe and Clarke-Pearson (2011) state that surfing social media Web sites has become among the most common activity of today's children and adolescents. Accessing these sites consistently can lead to a new phenomenon called “Facebook depression,” which is defined as depression that develops when users (specifically preteens and teens) spend a great deal of time on social media sites, such as Facebook, and then begin to exhibit classic symptoms of depression (p. 22-27). While not typical, the potential for harmful side effects is there.

Education

Education has evolved from the earliest times. Schools in the late 1800s and early 1900s were designed to teach rote memorization activities, thus preparing farmers to adapt to an urban environment and for the factory age. Today, highly developed schools provide advanced digital tools with the idea that they are giving their students a leg up for college and beyond. Computer proficiency and social networking skills may well be the key to acquiring future high-paying jobs and global competitiveness.

The educational use of social media can be a very positive endeavor. Social Media/Web 2.0 technologies are currently very popular among young people, and to view them purely as destructive technologies loses a great opportunity to capitalize on their potential for learning. Neither complacency, about students' interactions out of school, nor alarm about the dangers of such interactions, are appropriate ways to view this phenomenon. A more complete picture is needed to locate the emerging dangers in the context of patterns of usage across technologies. Evidence indicates there is a growing use of Web 2.0 technologies in formal schooling. Crook (2008) identified 11 categories of possible educational Web 2.0 activity, such as media sharing, blogging, and collaborative editing.

The National School Boards Association (2007) reported that almost 60 percent of students who use social networking talk about education topics online, and surprisingly, more than 50 percent talk specifically about schoolwork. Yet the vast majority of school districts have stringent rules against nearly all forms of social networking during the school day even though students and parents report few problem behaviors online (Deube, 2009).

Many inventive and creative teachers are using Web 2.0 tools in both traditional and online settings, for example, podcasting using teacher or student-created material (Schuck, Aubusson, and Kearney, 2010), blogging to develop verbal and visual literacy (Freedman, 2006; Huffaker, 2005) and RSS feeds to aid information literacy (Evans, 2006).

John Ragsdale, V.P. of Technology Research at Technology Service Industry Associates, suggests that school systems have generally been cautious about using social technologies in the classroom. Many schools are banning social web-spaces out of concern for the safety of their charges, fear of complaints, and legal consequences. Hull and Schultz (2001) urge researchers to help bridge the vast gulfs that separate and continue to widen between children and youth who succeed in school and those who do not by seeking a collaborative understanding of the relationship between formal classroom learning and the informal learning that flourishes in a range of settings outside school.

Europe

One of the most significant drivers of behavioral change in Europe has been the rapid rise in popularity in social networking sites. A UK survey conducted in June 2006 of over a thousand 11- to 16-year-olds and parents (NCH, 2006) found that 33% of the young people regularly used the Internet for blogging. Within this group 79% said they used Instant Messaging regularly (Schuck, Aubusson, and Kearney, 2010).

In the UK, almost three quarters (72%) of children have visited a social networking site and more than half of these set up their own profile (Ward, 2008). Withers' (2008) indicates that the attraction to these sites lie in the fact that they are easy, free, and fun to use. Social media/networks are based on openness and sharing. By their very nature, these type of sites demand self-disclosure. In order to 'exist' users must "write themselves into being" (Boyd, 2006).

In another study conducted in Europe (UK), 653 parents, 653 children (aged 5-17 years from the same household), and 279 non-parents were surveyed. The report's key findings are:

- The Internet is used and valued by everyone; children, parents, and the non-parent adults
- Almost two-thirds of the population is online
- Nearly all (99%) children aged 8-17 indicated that they use the Internet
- 80% of households with children have home Internet access (vs. 57% without children)
- Average Internet usage (12-15-year-olds) has increased from 7.1 hours/week in 2005 to 13.8 hours/week in 2007
- Internet use (and importance) increases with a child's age in terms of both hours of use and in its status as the medium the child would miss the most
- Overall, 16% of children have a computer with Internet access in their bedroom (UK Parliament OFCOM report, 2008)

These findings are significant because they point to the potential emergence of considerably large populations submerging themselves within the Internet and on social networking sites.

Social Media

Thanks to the global popularity of social networking, an estimated 900 million people have personal online profiles; friends, prospective employers and enemies alike are able to access photographs, videos and blogs that may have been long forgotten with a few simple clicks of a mouse (Taylor, 2010). One of the main uses of social media has been to enable individuals to keep contact with a variety of friends and family whether local or long distance.

Social media has made it easy for both the sender and receiver. To broadcast a message the sender only needs to post a note, add pictures, video, and/or audio to his/her personal page on a supporting service such as Facebook or Twitter. In most cases the person's friends and family are alerted to the new contents by the service. Then the intended contacts (receivers) merely have to log on to the service to be brought up to date in a semi-secure fashion.

Dating

The creation of online profiles is a prerequisite to joining just about any social media site. A natural extension of creating a profile is that it provides an online environment for people to communicate and exchange personal information for a variety of reasons - one being dating. While online dating intentions can vary from looking for a one time date, to short-term relationships, to long-term relationships, social media can help with the process (Garrett, 2008; Kricke, 2008).

Computers were used for match-making/dating long before the Internet with its ability to effectively and efficiently communicate with clients. A group of Stanford University students in 1959 developed the "nation's first foray into computers in love" for a class project in a mathematics course (Gillmor, 2007, p. 74). Early endeavors with computer dating failed because the communication medium of the Internet was not available, and the machines were not powerful enough to handle data loads from many users. Enter the new era, with powerful machines and the Internet, online dating became viable.

Finkel, et al. (2012) indicates that online dating is fundamentally different from its offline conventional dating counterpart by three key services: Access, Matching, and Communication (see Ahuvia & Adelman, 1992):

- Access refers to users' ability to assess romantic partners they might be unlikely to meet
- Matching refers to a site's use of a math based algorithms to select potential partners
- Communication refers to the possible use of computer-mediated communication (CMC) to interact with potential partners via the dating site before meeting face-to-face.

Finkel, et al. (2012) believe that the "ways in which online dating sites implement these services has fundamentally altered the dating landscape in both the acquaintance process and the compatibility matching process." They point out that, rather than meeting potential partners, getting an impression of them and their mannerisms, and then slowly learning various facts about them - online dating reverses the "Access" process. The user learns a broad range of facts about potential partners before deciding whether to meet them.

Recognizing the unique properties numerous Web sites have risen to provide services to people seeking romantic relationships. To which millions of seekers use these sites, often paying substantial fees for the privilege. To attract customers online dating sites typically emphasize two aspects of the services they offer; they indicate their services are unique and cannot be duplicated, and their services are superior to traditional dating offline. Online dating sites indicate that the services their site offers “deliver more than just dates”, instead it promises connections to “singles who have been prescreened on . . . scientific predictors of relationship success” (eHarmony.com, 2012, under section labeled, “Start Dating with eHarmony”). In the end, they indicate that they have access to knowledge unavailable to the layperson.

The decline of the dating site industry has been attributed, at least in some part, to the rise of social networking sites. These sites excel by emulating the best parts of meeting someone new, especially, when you share a friend, you get a few glimpses into their world. If dating sites have managed to digitize the awkward process of a blind date, Facebook has digitized the thrill of an invite to your cool friend's house party where you just might meet someone new (Smalera, 2010).

Voice

Social networks by their very nature gives a voice to those that otherwise might not have one. The technology necessary for a blogger or an artist to spread their word, poetry, or song . . . is straight forward and inexpensive. Social media has led to new avenues and new industries where individuals are self-publishing. At one time musicians were tied to recording companies to publish, market, handle the legal aspects, do their bookings, handle logistics, hire stage hands, ticketing, and selling their material. Singing groups like *Metallica* helped turn the industry on its head by introducing the concept of self-publishing to the music industry. The self-published construct has led to support industries where every aspect of the process can be done by the band or outsource in piecemeal approach. In the end self-publishing using social media has led to the creation of cottage industries for graphic artists, consultants, and authors - many writing, “How to” articles and books.

Furthermore, social networking provides a voice and relief to a large number of people who are for the most part are tied to their home because of disabilities, illness, distance, and/or finances. They use the Web as a surrogate to connect with friends and family. Social networks provide a convenient affordable way for them to share memories, pictures, and thoughts. This is especially true in the time of a down economy, where some do not have a job, nor the finances or desire to mingle with the crowd at the local mall.

Additionally, not everything always goes the way the constituents would like and sometimes they want a venue to vent their anger and frustration, social media serves this group as well. Falk and Sockel (2002) indicate that “unhappy people are almost guaranteed to find some

community on the Internet where their opinions will be supported.” Sometimes, the individual wants a stronger voice and because it has a low cost and low effort level, they choose to create dedicated gripe web sites or new chat rooms or additional "threads" in a newsgroup at a sponsoring site.

Philanthropic

The rise of social networks also allows philanthropic organizations to harness its power. Social networks can successfully connect otherwise fragmented industries and small organizations without the resources needed to reach a broader audience of interested and passionate users. Users benefit by interacting with a like minded community and finding a channel for their energy, as well as a cause.

Donors and volunteers are switching from direct mail to the Internet and social media to get the word out and for fund raising (Silverman, 2007). They're sending Web-based fund-raising pitches to their friends and families, encouraging them, in turn, to forward the appeals to their own contacts. It is not just enthusiasts, a growing number of charities are launching profiles on popular social networking sites, hoping that young people will link up to the pages. They are also encouraging bloggers to promote their causes to help raise thousands of dollars in small donations from readers.

Marketing

Social Media is no longer about chatting with friends. It's about driving business. These Social Networks are not just limited to personal contacts, they can play an important role for an organization as part of their routine business practices. CareerBuilder (2009) points out that ... nearly every type of organization from grocery stores, to alumni associations are finding a way to market their business, products, and services using social networking sites or what is now most commonly referred to as simply social media. Basically, by encouraging interaction among users, these sites create an interactive experience that users do not get from a typical Web site.

Companies worldwide are struggling with how to incorporate the strengths of the emerging landscape of social technologies into their organizational strategies. There are benefits for companies to be had from a solid understanding of social media that are impossible to ignore. Regardless of the organization's focus whether it is in marketing, advertising, public relations or interactive, there are distinct competitive advantages for both individuals and businesses if they have a better understanding of the social web.

Social media can help organizations with several key challenges such as loyalty and retention. It is obvious that the longer the customers maintains relationships with a company the more value they generate (Reichheld, 1996). As such, loyalty is considered a critical factor to determine customer value (Berger and Nasr, 1998; Rosset et al., 2002; Maicas et al., 2006). In the end, it behooves companies to create mechanisms to enhance brand loyalty (Casalo et al., 2007; Royo and Casamassima, 2011).

The traditional marketing is evolving as social media is being incorporated to enhance communication, increase awareness, and to generate leads (Hensel & Deis, 2010). Social media provides low cost capability and ease of obtaining data input from users via the Internet. In additionally, social media can build credibility, and increase the number of connections (Das, 2009). While the initial process of developing customized applications and processes can be costly and time consuming, it will pay off over time because of the valuable information that marketers can use to target specific market areas. The data makes it easier for organizations to create and enhance lines of business, augment selling opportunities, and receive employment recommendations (Das, 2009).

John Lewis, President of Consumer North America, pointed out that the augmented use of social media has permitted firms to more efficiently reach out, and that firms should increasingly use social media, to insure the even distribution of the three major advertising avenues: Television, Mobile, Internet (Garcia, 2009).

Falls and Deckers (2012, p. 1) state that “no single subject has exploded into society and the business world the way social media marketing has.” They indicate prior to 2008 few people could accurately describe it and there were no set of rules or best practices on how to benefit from it. In the business realm, small businesses were willing to try it because they needed any advantage they could get. According to Falls and Deckers (p. 9), “social media reached its peak of expectations in 2009 and early 2010. Facebook exploded into the hundreds of millions of members and early corporate social media adopters such as Dell began sharing sales data from social programs. Companies’ marketing managers worked themselves into a frenzy, trying to grab the social media’s reins and hang on for the ride.”

Falls and Deckers report that there are seven things social media marketing can do for a business:

- 1) Enhance Branding, Awareness, and its Perception
- 2) Protect Brand Reputation
- 3) Enhance Public Relations
- 4) Build Community
- 5) Enhance Customer Service
- 6) Facilitate Research Development
- 7) Drive Leads and Sales

Jody Nimetz (2007), author of *Marketing Jive*, basically agrees with Falls and Deckers but adds a few additional items in her five major uses for businesses and social media list:

- 1) Create Brand Awareness
- 2) Online Reputation Management Tool
- 3) Recruiting
- 4) Learn about New Technologies and Competitors
- 5) Lead Generation

Charlene. Li (Odden 2009) offers more advice on how to incorporate social media into a business she states:

- 1) Never forget that the groundswell is about person-to-person activity. You are not speaking as “the company”, but as a person. Most companies don’t know how to do this, and it takes a lot of practice to find that voice and feel comfortable with it.
- 2) Be a good listener. All companies say they listen to their customers, but do they really LISTEN and let people know that they are listening?
- 3) Be patient. This takes a long time because you are going to be transforming your company, one person at a time.
- 4) Be opportunistic. Start small with the people who are most passionate about building relationships with customers.
- 5) Be flexible. You never know what’s going to happen so you have to constantly adjust your thinking and learn.
- 6) Be collaborative. You need people from up and down the management chain to buy-in.
- 7) Most importantly, be humble. Remember that you are not as powerful as the groundswell. If you forget this, they will let you know.

Not to be out done, even government agencies have begun using social networking sites. These social networking tools serve as a quick and easy way for the government to get the opinion of the public and the keep the public updated on their activity.

As part of this marketing process some organizations scour the Internet for both positive and negative comments and act upon them. Their attitude is, if someone is willing to dedicate the time, effort, and expense to create a site to attack them, the issues may be a real concern. In this regards Gripe sites can act as a positive indicator on how an organization addresses its customers concerns. An example would be Dunkin Donuts. An unhappy customer created a Gripe site because the chain didn't carry his favorite type of low-fat coffee creamer. Within the page he invited others to post complaints about anything Dunkin Donuts related. Ultimately Dunkin Donuts found value in this forum and used the web site information to its own advantage. The site became so beneficial and popular that Dunkin Donuts eventually bought the site in 1998 (Hearn, 2000).

Other organizations, medical for instance, have adopted social networking as a means to manage institutional information, disseminate peer to peer knowledge and to highlight individual physicians and institutions. The advantage of using a dedicated medical social networking site is that all the members are screened against the state licensing board's list of practitioners (Gjorgjevska and Donev, 2010). This use social networking extends to pharmaceutical companies who spend approximately "32 percent of their marketing dollars" attempting to influence the opinion leaders of social networks (Sniki, 2008).

The marketing aspect of social media has developed additional creative ways to sell products and services. Some sites, like YouTube, use sponsorships by placing advertisements on popular videos. Others like Facebook mine the information posted on the various pages and direct the advertisements to the user. Major video game studios have extended their social media marketing of their products to be included in an online, as well as local of version of games. These efforts are massive and have been credited with helping to break down barriers: On-line gamers meet and cooperate together in virtual worlds with people all over the globe from China, Russia, Japan, Italy ... providing an interesting opportunity to learn about each other's cultures and perhaps have a positive impact on future international relations and commerce.

False Profiles

Credibility on the Internet can also be an issue. It has been reported numerous times that fake profiles have been set up by individuals. One of the most famous cases is the mother who set up a profile to attack her daughter's rival. Other cases involve setting up fake Facebook pages that claim to represent business, or government issues.

While Facebook policy requests people to use their real identities (in fact the site is built on that premise) other sites such as Twitter allow aliases. Sengupta (2012) writes that "fakery is all over the Internet. Twitter which allows pseudonymous is rife with fake followers, and has been used to spread false rumors."

The fakery problem on Facebook comes in many shapes. False profiles are easy to create; hundreds can pop up simultaneously, sometimes with the help of robots. Fake Facebook friends and likes are sold on the web like trinkets in a bazaar (p.1).

Social Media Consequences

While social media marketing can help businesses it also has a down side. Major corporations like Facebook's social networking site are very complicated. A lot of the users are not aware of

the unintended consequences of some of the features. The “likes” feature has been used by some groups to attack the profile owner. In the recent political season, employees have been terminated based on using the like feature for specific politicians on Facebook (Matyszczyk, 2012). In another instance on one of the rating sites YELP, a restaurant owner’s overall business rating was lowered by individuals because he gave the President of the United States an affectionate “bear hug.” It was found that the individuals that gave negative feedback, which caused the restaurant ranking to be lowered, had never visited his business and lived in other states (Jackson, 2012). The trend of abuse continues with employers accessing potential employees’ Facebook pages to search for reasons not to hire them (Hill, 2012). Other employers monitor their employee web page content and postings to make sure negative things are not written about their companies (Eddy, 2012). While not every organization uses the social network site in this manner. The precedent has been set.

The content of social media has become an issue with some platform service providers. Many platform providers have decided that as the host of the data that they have legitimate rights to it. In this regard, providers have felt that they have the right to take some of the data, massaged it, aggregated it, and market it as an alternate revenue stream. Consequently, many providers are coming under increased scrutiny over their privacy policies and data sharing practices. While collecting data from the members of these sites may be good for a company, the collecting of this data may not be good for the consumer. The selling and using of this data can be very annoying to the profile creators to say the least. For the most part, on these types of sites if a profile creator writes they like something or asks questions about a product or service they are inundated with ads from that product category. In response individual users try to adjust the settings in their profile to filter out unwanted solicitations but because of the complicated settings and the ever changing policies they are always playing catch up.

The anonymity of the posters can also become an issue. Posting comments, opinions and beliefs take on a whole new life when the poster does not have to worry about being identified. In some cases these postings are inappropriate. The fact that posting can be anonymous has led to many using this technology for unintended purposes. One of the inappropriate uses of this technology is for lurkers (anonymous viewers) to inundate a site with spam messages if they don’t agree with the content. Another inappropriate use is posting false reviews - in effect turning the review sites in to gripe sites.

Livingstone (2008) noted “it is commonly held that at best, social networking is time wasting and socially isolating, and at worst it allows pedophiles to groom children or permits teenagers to conjure suicide pacts while parents think they are doing their homework” (p. 461). Consequently, in all likelihood there are millions of teenagers and young adults who, in a very short period of time (five to ten years) will find that there is so much embarrassing stuff about them online that they cannot successfully obtain employment.

The inherent cavalier behavior of the young has caused a host of web based issues (Withers, 2008). The nature of risk has changed from viruses and such, to an assortment of web-based sexual abuse and cyber-bullying (Liebert, 2008; Turvey, 2006). Another concern is the easily accessed links to sites promoting unhealthy lifestyles and conditions, such as anorexia, extreme groups, and unethical practices: cheating, plagiarism, and breaches of copyright (Albion and Maddux, 2007).

A different concern is ‘To Much Information’ (TMI). In the process of building a digital identity by sharing information about themselves oftentimes young and/or inexperienced individuals disclose not only too much information, but the wrong type of information as well. It is not uncommon for them to supply an incredible amount of Personal Identification Information (PII); including their: name, address (location), birthday, image, e-mail, screen names, instant messenger addresses, local and mobile phone numbers, and information concerning likes and dislikes about a variety of areas: sports, music, television, films, books and so on. Lenhart and Madden, (2007) write that one in 20 (5%) of teenagers with social networking profiles disclose their full names, photos of themselves and the town where they live.

While all this information may not be necessary children wanting to be part of something larger add information to profiles in the hopes that it will make them more popular. Although this behavior can be detrimental to the user, it is optimal for marketers, and as a result it can cause serious problems. In the nature of exploring, it is not uncommon for teenagers (and sometimes those that who should know better) to tell and show too much in photos.

Withers’ (2008) writes that in adolescent users’ profiles on social networking sites in the U.S.:

- 79% have included photos of themselves
- 66% photos of their friends
- 49% the name of their school
- 40% their instant message screen name

This type of information according to Osterman Research Inc. (2010) leads to the statement “the Web is a Dangerous Place... there has been an enormous increase in malicious Web-borne content, including user generated content posted to traditionally good Web sites, email messages that contain links to dangerous or newly compromised Web sites, attachments that are little more than stage-one down-loaders of malicious code from the Web . . .” (p. 3).

One of the main uses of social media has been to enable individuals to keep contact with a variety of friends and family whether local or long distance. Once a user updates their personal page all of their contacts are notified. If anyone of the contacts responds a message is sent back to group and the cycle continues. The fact that the same message is sent out to everyone can be problematic for a few reasons. A majority of the users seem to forget that every message that is sent out is not fit for consumption by all contacts. This issue alone has led to countless

disagreements, and has destroyed relationships with friends and family. The sending of one message to everyone has also disclosed information to acquaintances that many would think is private - including real time location, political beliefs, medical history, and likes and dislikes. Another issue is the erosion of interpersonal contact. Instead of taking the time to call or visit with someone, a generic message is sent. Relationships evolve and so do people. Keeping contact in this fashion tends to lead to a sense of isolation for some individuals. A lot of these issues allow businesses and acquaintances the opportunity to take advantage of the situation, some for marketing purposes and others for unscrupulous reasons.

Privacy Issues

Some people say that privacy is a thing of the past, to that end they point out that there are many web sites dedicated to erasing privacy. Some of these sites are devoted to posting embarrassing photos of well-known celebrities, as well as people of notoriety. Even security experts such as the head of British foreign intelligence and the former director of the CIA have suffered potential embarrassment through social networking activity. The future queen of England, Kate Middleton, has also had embarrassing photos of her posted on social networking sites.

Governments are also not immune. The U.S. government has had hundreds of thousands (251,287) of supposedly secure diplomatic cables leaked by an organization named WikiLeaks. The whole episode has been referred to as, "Cablegate." According to WikiLeaks, they began releasing documents on November 28, 2010. Cablegate is said to be the largest set of confidential documents ever to be released into the public domain. The documents gave an unprecedented insight into US Government foreign activities (Wikipedia, 2012).

A person does not have to be famous to have their privacy violated. Blumberg and Eckersley (2009) point out that "when you leave your home you sacrifice some privacy." Someone might see you enter the clinic on Market Street, or notice that you and your secretary left the Hilton Gardens Inn together. Furthermore, even in the world of ten years ago, all of this information could be obtained by people who didn't like you or didn't trust you. Another technology that has been developed by organizations (as well as governments) are computer systems created for the explicit purpose of capturing movements of individuals across public spaces. These systems have a huge upside (as well as a downside). Organizations using location-based digital services can subvert individuals' mobile geocentric devices (cell phones, iPads, laptops...) thus, enabling store owners to broadcast sales to the public as they walk by or perhaps send selective advertisements tailored to a specific individual. Fortunately or unfortunately, this localization software can make it easy to track individuals. Such software allows groups and individuals to track members, employees, parishioners, and children... to find out if they were at school or work? Were they visiting bars and clubs over lunch? Who are they eating with? Did they visit with a competitor, a hospital, a doctor's office, an abortion clinic, or attend an anti-government rally?

SUGGESTIONS

To alleviate problems associated with social networking from a user prospective many things should be considered. Debra Littlejohn Shinder (2009) makes the following ten suggestions when posting to a social networking site:

- 1) Where are you? What are you here for? The first thing to consider is the nature of the social networking site(s) you're using. Some sites are geared toward professional and business relationships, while others are more purely social.
- 2) Who's in the audience? Social networking is generally (but not exclusively) a form of communication. The first rule of writing is to know your audience; because that determines not only what you say but also how you say it.
- 3) Do you dare mix business with pleasure? One of the biggest dangers of social networking comes when you mix your audiences - having business associates on the same account as personal friends can get complicated quickly.
- 4) It's not just what you post that can get you in trouble, your friends posts and responses may be able to seen by some or all visitors to your page (including embarrassing photos they post on their own sites that "tag" (identify) you as one of the subjects.
- 5) A picture is worth a thousand words, and can be a thousand times more embarrassing
- 6) Sensitive subjects can come back to bite you
- 7) Avoid the perils of 'Posting Under the Influence' (PUI)
- 8) Be ready to reject a friendship request or "unfriend" someone
- 9) Are you familiar with the site's settings and options? One of the most important things you can do when you start using a social networking site is to completely familiarize yourself with how it works and the settings and options you can configure.
- 10) Should you use a pseudonym? One might wonder if the best way to avoid problems is to create a fake persona. But, besides sidestepping the whole purpose of social networking - getting to know people and letting them know you - it is also a violation of the Terms of Service of most social networking sites.

Be smart and don't post information that can be used against you. Sites such as Foursquare encourage users to send messages detailing current location. What's more, many individuals have used social networking sites to broadcast location while on vacation / trips. While letting friends and other users know where you are and how much fun you are having through social networking has become for some the go-to form of communication, it has the potential to create problems.

On the website - <http://PleaseRobMe.com> – it is suggested that individuals using an online restaurant reservation system (such as Foursquare and Twitter) that allows patrons to "check in" are in affect publically broadcasting the users are not home (Anthony Bettini of McAfee, 2010).

Additionally, if you allow people that work with you to have access to your social media they can also view your habits, thoughts and location.

- Your employer doesn't need to know whether, where, or how often, or you go to church.
- Your co-workers don't need to know how late you work or where you shop.
- Your sister's ex-boyfriend doesn't need know when she spends time with her new beau.
- Competitors don't need to know who your salespeople are talking to.

Posting resumes on career sites can also be risky. The Career News online publication (2010) warns users should not to be “too splashy” when it comes to posting a resume on a public site. Users should keep in mind that their profile can be seen by everyone, including the users’ current boss. Career News warns individuals should use discretion at all times and not to do job-hunting from work. Most companies monitor the sites employees visit, as well as their email.

Password security can also be problematic. Having a secure password system decreases the odds of someone not only stealing your data but also changing your profile. Passwords are only as secure as the people using them. Unfortunately, people can remember only so many things at one time. Organizations tell users that they should not use the same passwords for more than one account (“the Keys of the Kingdom” scenario – if someone gets access to one password they can get into everything). They also state that the passwords have to be changed every 45 days, be significantly different than the previous and the last three versions of the passwords can’t be reused. The organization then says remember the password to sign onto your personal computer, the network, the project databases, and email. With just these four application areas, that’s 12 passwords that the user must remember not counting his/her own personal ones. Is it any wonder that passwords are written down and are notoriously susceptible to compromise?

Users should create a system to generate specific passwords for different sites. A simple way to do this is to use a common root word within the pass code and surround it with letters and numbers that are particular to that site.

Clean up your profile. According to Becky Worley (2012) “a study from Microsoft Research indicates that 70% of online recruiters have nixed candidates because of search results that come up around their names.” Becky Worley, of upgrade your life, goes on to suggest a few things that you can do to clean up your online reputation:

- 1) Hide and Delete - delete all questionable posts on all social networks you are affiliated with. In addition, take control of your privacy settings and make sure your posts are only shared with trusted friends. Also go through and make sure there are no references to what you listen to, watch, and read. Next, if your friends have posted pictures that are questionable (with you in them) untag yourself or request that they be taken down.

- 2) Bury the Bad Stuff - once things are created on the Internet a lot of times you can't control them and they can't be removed. To counter act any negative results or reviews post positive or neutral information that is more current.

CONCLUSION

Various aspects of social media have been present since the Internet first came into being. The Internet is a tool that is mostly used for communication. Information is either gathered or distributed among its users, by its users. By its definition social media has taken all the separate ways individuals have collected data and dispensed information and combined them into one source, utilizing a new type of delivery system.

Social media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content (Kaplan and Haenlein, 2010).

The term social networking for some is used interchangeably with social media. In actuality the term social networking is "the practice of expanding the number of one's business and/or social contacts by making connections through individuals" (Rouse, Margaret, 2006). For the most part the users of major sites or players in social media (Facebook, Twitter) combine both the aspects of social networking and social media. The extraordinary range of the Internet allows these users to fulfill many purposes that in the past would have been accessed from different sources. Some of the general functions that in the past have been controlled by dedicated sites and have now been supplanted/enhanced by social networking include dating, marketing, email, job searches, voyeurism, communication, and vanity. These social media sites in effect create super profiles of its users.

Many individuals and companies have embraced the social media phenomena. According to recent data, some 34% of the 7 billion people on our planet now have access to the Internet (InternetWorldStats.com, 2012). The Internet provides entrance worldwide to over two billion people and as such offers unprecedented opportunities for businesses, as well as the relationship-seeker to extend their personal social networks. This technology erases the proximity factor that has limited business and personal relationships in the past. Further, this technology facilitates nearly instantaneous communication via multiple channels (i.e., text, voice, image, and video).

Erick Qualman (2009) points out that social media is not a fad but a basic shift in the way people and organizations conduct themselves:

- Gen Y outnumber Baby Boomers - 96% of them have joined a social network
- Social media has overtaken porn as the #1 activity on the Web
- 1 out of 8 couples married in the U.S. last year met via social media

- In 2009 a US Department of Education study revealed that on average, online students out performed those receiving face-to-face instruction
- Generation Y and Z consider e-mail passé -in 2009 Boston College stopped distributing e-mail addresses to incoming freshmen
- What happens in Vegas stays on YouTube, Flickr, Twitter, Facebook...
- There are over 200 million blogs
- Wikipedia has over 13 million articles...
 - some studies show it's more accurate than Encyclopedia Britannica...
 - 78% of these articles are non-English
- 25% of Americans in the past month said they watched a short video...on their phone

Like it or not, social networking / social media technologies have changed the way we work and interact. They have crept into a large percentage of organizations, offering users new ways to collaborate and communicate. These Web 2.0 technologies utilized through social media allow users generate web content: blogs, wikis, social networking sites and RSS feeds. While social media can yield enormous benefits, such as increasing reach, and building and enhancing customer loyalty, it also has downsides including creating security risks, data mining for questionable purposes and the loss of personal contact. As various groups embrace this technology and find new uses for it (some dubious) the question remains, do the negative aspects out way the positive? Every person and business needs to decide this question for themselves.

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THE IMPACT OF COGNITIVE STYLE ON INTERPERSONAL TRUST DEVELOPMENT

K. Damon Aiken, Eastern Washington University
kaiken@ewu.edu

Wendy Eager, Eastern Washington University
weager@ewu.edu

ABSTRACT

This paper explores the nature of interpersonal trust development in relationship to cognitive style. The authors propose that individuals build trust according to internal schemata in accordance with personal cognitive styles, along with influence from affective and cognitive components guiding a dynamic process. Further, the authors develop propositions concerning specific issues and strategies for building interpersonal trust. The paper concludes with a series of research questions designed for future study.

INTRODUCTION

Trust is recognized as a critical component in both business and social exchanges and has, therefore prevailed as a subject of much cross-disciplinary research. Whether conceptualized as an attitude, belief, expectation, or emotion, its significance to relationship-building is critical. Lewis and Weigert (1985) explain that trust allows freedom from rational prediction and provides confidence to individuals in social interactions. Trust is commonly viewed as the very foundation upon which relationship marketing is built (Berry, 1995). Additionally, trust can be seen as a mechanism of organization control (Bradach and Eccles, 1989), as a response to the emphasis on opportunism that pervades agency theory and transaction cost economies (Etzioni, 1988), and as a primary element in the operation of networked forms of organizations (Miles and Snow, 1992; Miles and Creed, 1995). Moreover, trust represents the cornerstone of many business relationships across diverse cultures (Marshall and Boush, 2001). Indeed, general folk wisdom tells us not to enter into any form of business relationship with a person or a company that we do not trust.

While trust can be directed towards an individual, a firm, or an entire industry (e.g. consumers' trust in a particular bank teller, a specific bank, or the banking industry in general), for purposes of this paper, we will turn our attention solely to interpersonal trust. Given this scope, the paper has three main objectives. First, theoretical explorations will be made concerning the concept of trust. We will examine various definitions, discuss the general types of trust, and explore the

emergent relationships between these classifications. Second, we will discuss the notion of cognitive style and the important role of this variable relative to interpersonal trust development. Third, a series of propositions suggestive of future research will be presented regarding the processes and strategies involved in building trust in consideration of individual cognitive styles. Accordingly, we will present two conceptual models designed not only provide evidence of important theories but also to explicate the relational processes of interpersonal trust development and cognitive style. The proposed models provide insight into the cognitive and affective bases of trust along with subsequent movements in strategic interpersonal trust development based on information processing preferences. We conclude with a series of research questions designed to further advance theory through future research.

LITERATURE REVIEW

Defining Trust

The analytical evolution of the concept of trust has led researchers to examine two basic components. Researchers have found that trust can logically be divided into cognitive and affective elements (Lewis and Weigert, 1985; Ganesan, 1994; McAllister, 1995; Doney and Cannon, 1997; Aiken and Boush, 2006). In this sense trusting behavior is determined by the rational and emotional components that guide it. It follows that trust can be defined as a generated expectancy of reliability formed from cognitive and affective bases.

The process of giving definition to such an abstract issue as trust relies heavily on psychological and sociological concepts. Rotter's (1980) premise that reliability is a primary element of trust is expanded and brought to business academia by Morgan and Hunt (1994) who state, "Trust exists when one party has confidence in an exchange partner's reliability and integrity" (p. 23).

Whereas reliability has implications of rational prediction and cognitive processing, the idea of integrity incorporates an emotional aspect. Similar to the sociological findings of Lewis and Weigert (1985), business researchers such as McAllister (1995), Ganesan (1994), and Doney and Cannon (1997) have found significant support for the dual nature of trust – identifying bases of affect and cognition. Doney and Cannon (1997) conceive of trust as made up of perceived credibility and benevolence. Credibility, relating directly to the cognitive dimension, is formally defined as an expectancy that an exchange partner's word or written statement can be relied upon. Benevolence, an idea tied to the affective base, is described as the extent to which one partner is genuinely interested in the other partner's welfare and motivated to seek joint gain (Doney and Cannon, 1997). Taking a cross-disciplinary approach, Rousseau et al. (1998) summarize trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviors of another" (p. 395).

With this division of affect-based and cognition-based trust in mind, many researchers have shifted attention to gaining an understanding of the nature of trust development. Already, trust development has been tied to relationship development through relationship marketing. One specific model presents commitment and trust as the two key mediating variables in relationship marketing (Morgan and Hunt, 1994). Berry (1995) reasons, that trust is absolutely essential for the growing number of society's "black box" services. Salespeople, across a wide range of products and services, are consistently cited as a beneficial influence on the development of positive customer attitudes, intentions, and trusting behaviors (Swan, Bowers, and Richardson, 1999). Dwyer, Schurr and Oh (1987) also endorse trust as a critical construct, recognizing that buyer-seller exchanges are not discrete events, but rather a singular process of continual relational exchange within which trust plays an essential role. Indeed, it is difficult to conceive of an ongoing, and mutually beneficial, personal or business relationship that does not harbor some degree of trust.

In an attempt to answer the fundamental question, "How does trust develop in a business relationship?" many authors have recognized various antecedents (Doney and Cannon, 1997; Ganesan, 1994; Morgan and Hunt, 1994; McAllister, 1995; Swan, Bowers, and Richardson, 1999; Yoon, 2002). Antecedents are generally viewed as contributors to the process that brings a trustor away from a state of either neutrality or distrust. The process of trust development relies on the formation of expectations (under the influence of individual perception) about the motives and behaviors of a trustee. These antecedents are often accurate predictors of the existence of trust in a business relationship. For example, Doney and Cannon (1997) relate positive correlations between salesperson likability and buyer's trust. Likewise, Morgan and Hunt (1994) posit communication as an antecedent to trust. However, readers are left to speculate if it is communication frequency, perceived "openness" in sharing information, or some alternative attribute of communication that leads to the development of trust. Interpersonal trust development is not likely a matter of communicating, in general, but rather an ongoing process of saying the right things, in the right way, at the right times. Such ambiguity highlights the difficulties associated with identifying and compiling a comprehensive list of antecedents.

Still, it seems that the recognized antecedents can be classified into the aforementioned cognitive and affective bases. While the cognitive base of trust revolves around the knowledge and rationality that people have regarding a potential trust partner, the affective foundation consists of the emotional bonds formed between entities. Thus, while antecedents seen as largely rational may guide cognition-based trust, antecedents that are emotional in nature may greatly influence affect-based trust. Classifying previous work, we view the rationality-based antecedents as: firm size (Doney and Cannon, 1997); transaction-specific investment and security (Ganesan, 1994; Yoon, 2002); termination costs and switching costs (Morgan and Hunt, 1994); frequency of interaction (McAllister, 1995; Doney and Cannon, 1997); communication frequency (Doney and Cannon, 1997); perceived expertise (Doney and Cannon, 1997); third-party certification (Schurr and Ozanne, 1985; McAllister, 1995; Aiken and Boush, 2006); demographic similarity, trustworthy behavior, and shared perspective (Levin, Whitener, and Cross, 2006); ability to manage uncertainty (Mallin, O'Donnell, and Hu, 2010); and, frequency and level of cooperative choices in interpersonal decision-making situations (Lewicki, Tomlinson, and Gillespie, 2006).

The affect-based antecedents can be classified as: shared values (Morgan and Hunt, 1994), similarity and likability (Doney and Cannon, 1997), communication relevancy (Morgan and Hunt, 1994), perceived reputation (McAllister, 1995), emotions (Dunn and Schweitzer, 2005), mood (Lount, 2010), and propensity to trust of trustor and trustee (Yakovleva, Reilly, and Werko, 2010). The goal in classifying these antecedents is to facilitate the study of how the diverse set of variables relates to the two primary bases of trust.

Finally, many researchers recognize that trust is target and context specific (Johnson, George, and Swap, 1982; Larzelere and Huston, 1980; Schurr and Ozanne, 1985; Aiken and Boush, 2006). For example, while most consumers would proudly proclaim trust in their insurance agents, their stockbrokers, and their auto mechanics, they likely only trust these individuals in specific situations. For instance, auto mechanics are usually not asked about investment advice, auto maintenance is not left to insurance agents, and consumers do not call on stockbrokers to quote insurance rates. Regarding the importance of situational context, one need only ponder the level of thought given to directly providing personal information to a salesperson compared to indirectly giving personal information over the Internet. It seems that there are contextual elements that influence interpersonal communications and information processes and therefore influence the trust development process.

Interpersonal Trust Development

An analysis of various streams of research reveals that trust development likely stems from complex interactions of external environmental factors with internal psychological factors. It seems logical to reason that trust develops along a curvilinear continuum with influence from an affective element (i.e., emotionality) and a cognitive element (i.e., rationality). These conceptual relationships are derived from the work of McAllister (1995), Lewis and Weigert (1985), and Doney and Cannon (1997). In addition, Aiken (1999) first explored interpersonal trust development and integrated research from psychology, sociology, and management into a *Trust Curve*. The curve posits that individuals develop trust according to internal trust schemata, with influence from affective and cognitive components, guiding a dynamic process.

A schema, or social knowledge structure, is defined in a general sense as a person's naïve psychology about the relevant tactics used to achieve various goals (Rule and Bisanz, 1987). A trust schema is considered dynamic in nature and consists of criteria that individuals use to process trust episodes, i.e. affective and cognitive inputs (Aiken, 1999). These two elements will have different effects on individuals depending on their predispositions and personal information processing preferences, especially cognitive style.

Trust Development and the Impact of Cognitive Style

Psychology research has embraced dual-process theories in connection with information processing, suggesting that there are two basic information processing modes by which we adapt to our environments (Chaiken and Trope, 1999; Epstein et al., 1996). Although there is strong agreement that there are two distinctive modes, there is no consensus on the terms designated to each mode. Here, we adopt the terminology of the Cognitive-Experiential Self-Theory (CEST) (Epstein et al., 1996), which is currently the most represented theory advocating information processing by two parallel, yet interactive systems. CEST differentiates between the *rational system* in which information processing is described as explicit, conscious, intentional, analytic and affect-free, and the *experiential system* in which information processing is implicit, automatic, preconscious, holistic, and emotional. According to CEST, task characteristics and individual differences in cognitive style determine the choice of one information processing system over the other. The individual differences in cognitive style translate into a preference for processing information either analytically or intuitively. Some people look at information very analytically; they look for logical connections and objective evidence before making a decision. Others like to make decisions intuitively, based on feelings rather than deliberate reasoning. It seems that these individual differences should have an impact on how to best build interpersonal trust. Moreover, while individuals use both such information processing modes as described by the different dual-process theories, there are personal preferences for either the experiential or rational system as one's predominant cognitive style.

There are several instruments to measure cognitive style, for example the Myers-Briggs Type Indicator (MB), the Human Information Processing Survey (HIP), or the Personal Style Inventory (PSI). CEST research has validated the use of the Rational-Experiential Inventory (REI) and the Faith in Intuition scale (Epstein et al., 1996). Allinson and Hayes (1996) have developed a measure especially designed for use in an organizational context. Their cognitive style measure, the Cognitive Style Index (CSI), allows for a classification of people on the intuition-analysis dimension of cognitive style.

Given the two primary elements of trust (i.e., the affective and cognitive bases), we propose that people with different cognitive styles will be more receptive to emotional or rational antecedents (as well as appeals to trust) within the development of interpersonal trust. The affective component of trust should be most prominent for people with a highly experiential (intuitive) cognitive style, whereas the rational component is expected to be most influential for people with a highly rational (analytical) cognitive style.

PROPOSITIONS

Two key assumptions emerge from the integration of the literature. First, in terms of their respective contributions to the developing interpersonal trust, changes in emotionality are

distinctly different from changes in rationality. Thus, the graphic illustration of trust development is curvilinear because changes in emotionality are clearly unlike changes in rationality. This assumption implies that as one moves through different stages of trust development (Holmes and Rempel, 1989; Luo and Najdawi, 2004), judgmental significance between emotionality and rationality shifts. At different stages in a relationship, and in different contextual settings, rational appeals to trust will carry different meanings and varied weights of importance compared to emotional appeals.

The second assumption follows from the notion of target and context variability (Aiken and Boush, 2006; Johnson-George and Swap, 1982; Larzelere and Huston, 1980; Schurr and Ozanne, 1985). In essence, it seems that people maintain and utilize an extensive array of trust schemata that will vary according to individual differences, as well as situational and contextual differences. As social beings, we each create and maintain internal conceptual schemata with regard to trust and trusting behavior. Consequently, the developmental process itself remains fairly dynamic.

In addition, certain universal axioms must be laid out with regards to trust schemata. First, all trust schemata are bi-directional. The sociological perspective claims that trust is everywhere, that practically everyone has a notion of what trust is and the social role it plays (Luhmann, 1979; Lewis and Weigert, 1985). Having played both roles in their lives, trustors and trustees both have knowledge of the other's perspective. Second, trust schemata are goal specific. This notion implies that both parties in an interpersonal trust episode maintain trust-related knowledge and objectives. Both parties wish to achieve distinctly salient goals. The pursuit of personal goals may help or hinder the trust development process. Just as entering into a successful, trusting business relationship may be a viable goal, so too may be avoiding the sting of betrayal. Finally, trust schemata are dynamic in nature. Johnson-George and Swap (1982) recognize the ever-changing nature of interpersonal trust stating, "Intimate personal relationships have both a history and a future. They are not static laboratory still-frames nor can they be explained purely in terms of each individual's personal characteristics, dynamics, or style" (p. 1307). While trust episodes are situationally unique, so too are the individual models of trust knowledge and behavior. That is to say, every individual maintains and utilizes a unique set of trust schemata (e.g., the trust schema that facilitates dealings with a used-car salesperson is notably different from the schema that facilitates trust of a certified financial planner).

We expect the effectiveness of rational and emotional judgments to be moderated by an individual's corresponding cognitive style. Emotional appeals are expected to be more affective with experiential people, whereas rational appeals should be more successful with more rationally oriented people. Thus:

- P1a: Affect-based trust has a stronger impact on individuals with more experiential cognitive styles than on individuals with more rational cognitive styles.

- P1b: Cognition-based trust has a stronger impact on individuals with more rational cognitive styles than on individuals with more experiential cognitive styles.

Moreover, we posit that this distinctive impact of emotional or rational appeals will be more apparent at the beginning of the trust-building process. At a later point in the trust development process, individual differences in cognitive styles will have less impact on the effectiveness of emotional versus rational judgments. Regardless of cognitive style, both elements will play a similar role. Consequently:

- P2: The impact of affect-based trust on individuals with experiential cognitive styles (or, the impact of cognition-based trust on individuals with rational cognitive styles) is especially pronounced during the early stages of interpersonal trust development.
- P3a: As time increases, emotional judgments and affective beliefs become equally important to both experiential and rational individuals.
- P3b: As time increased, rational judgments and cognition-based beliefs become equally important to both experiential and rational individuals.

Figures 1 and 2 illustrate the suggested relationships between cognitive style and affect-based trust, and cognitive style and cognition-based trust respectively. The two figures differ in their behaviors in the last stages of trust development. For instance, it seems reasonable that affect-based trust has a definite limit. Once an individual can use phrases like “I trust him/her like a brother/sister,” they have approached an affective limit. Further appeals to affect-based trust will not increase total trust. Cognition-based trust, on the other hand, can theoretically grow endlessly as more rational knowledge is accrued. Therefore:

- P4a: Affect-based trust has an emotionality limit. As time passes, the affect-based trust curve flattens out. Further emotional appeals will affect trust levels minimally.
- P4b: Cognition-based trust theoretically has no limit. As time passes, the cognition-based trust curve continues to ascend. Further, rational appeals will affect trust significantly.

A general observation for both trust curves is that at any given point in the relational life cycle, a measurement of trust can be made along the curve. We must note that individuals can conceivably start from a position of trust. This is inferred from the noted cultural and social

predisposition to trust (Bhide and Stevenson, 1990; Mutz, 2009; Rotter, 1980). Entering the upper section of the models, the trust curves relate the idea that an individual has engaged in some form of trusting behavior (i.e., they have made a purchase, signed a contract, formed a partnership, etc.). Additionally, it is hypothesized that a trust schema governs the slopes of the curves and the speeds with which individuals move along it. As a relationship progresses, trust and interdependence grow in multiple domains and at deeper levels. This conception of relational development along a trust curve is enhanced by the flexibility of a trust schema. Recognizing that every individual works from the script knowledge of a trust schema allows for differentiation. Some individuals (and, consequently, some trust curves) reach their emotionality limits rather quickly, while others may continually adjust for longer periods wherein rationality judgments are of greater importance. While trust curves will vary across individuals (and, in fact, across situations), they will all have the same elemental shape (slopes will vary widely). Furthermore, an individual's cognitive style will greatly affect the shape of the curve, as well as movement along it.

Explorations in Affect-Based Trust

Individuals with a preference for experiential information processing will be more prone towards affective judgments and emotional appeals than individuals who are more rationality-oriented, especially during the early stages of a new business relationship. Figure 1 illustrates that emotionality plays a more pronounced role in building trust for highly experiential people.

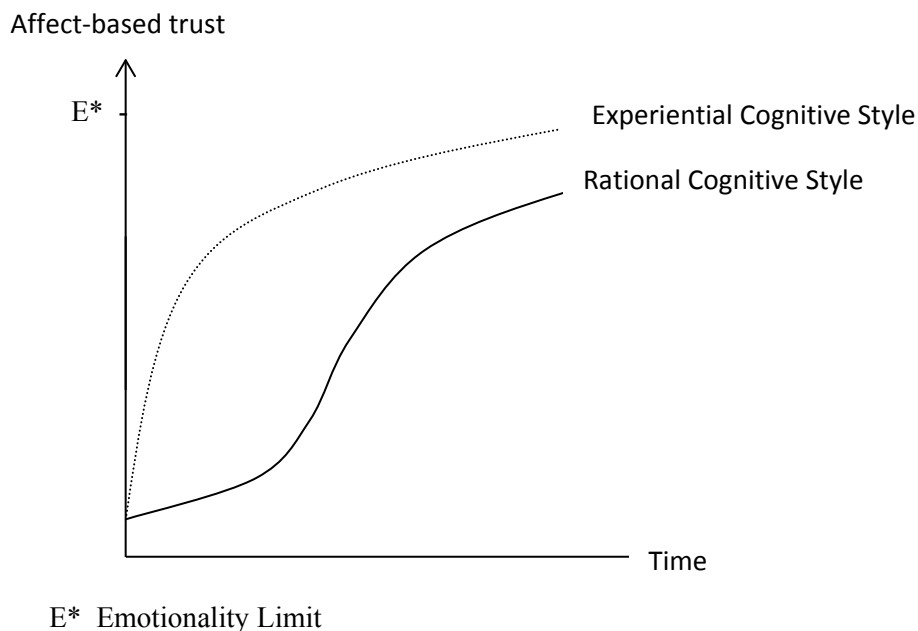


FIGURE 1. THE TRUST CURVE – AFFECT-BASED TRUST

Given the proposition above, managers should use emotional appeals before rational appeals to overcome any initial lack of trust from experiential individuals. In parallel researchers should test affect-based antecedents of trust against cognition-based antecedents. We hypothesize that the initial stages of trust have a deeper emotional base, and therefore can be overcome by providing mainly emotional appeals, followed by rational appeals in the later stages. This proposition receives tangential support from the premise that first impressions emerge largely from an emotional base (Park, 1986). When evaluating individuals for the first time, people very often have little cognitive information and therefore rely heavily on affective reactions and “gut instincts.”

Figure 1 further showed that at the beginning of a business relationship, a rational individual starts from a similar baseline compared to his/her experiential counterpart. While the impact of affect-based trust is smaller for the rational individuals in the beginning, as they learn more about a potential trust partner, they gain more insight from emotional perceptions. As the relationship evolves, there is movement up the trust curve. A point of inflection signifies a judgmental shift wherein rationality is now given greater weight in further trust development. Eventually, interpersonal business relationships and interdependent trust behaviors evolve into issues of a more affective nature. The slope of the curve flattens out and approaches an emotionality limit.

Explorations in Cognition-Based Trust

During the early stages of relationships, people do not have the “emotional investments” that are often formed over time. This idea conveys the notion that rational, logical appeals will be more effective in moving an individual towards initial levels of cognition-based trust. This is especially true for people with a more rational cognitive style.

Figure 2 will show the cognition-based trust curve. Its development is similar to the affect-based trust, however, now the curves for the two different cognitive styles have switched. As individuals with a rational cognitive style learn more about a potential trust partner, they gain more insights from cognitive perceptions. The impact of cognition-based trust appeals and antecedents is smaller for the experiential individual in the beginning, but it evolves to approach the level of the rational individual in the later stages of trust development. In contrast to the affect-based trust curve that flattens out and approaches an emotionality limit, the cognition-based trust curve is ascending theoretically ad infinitum.

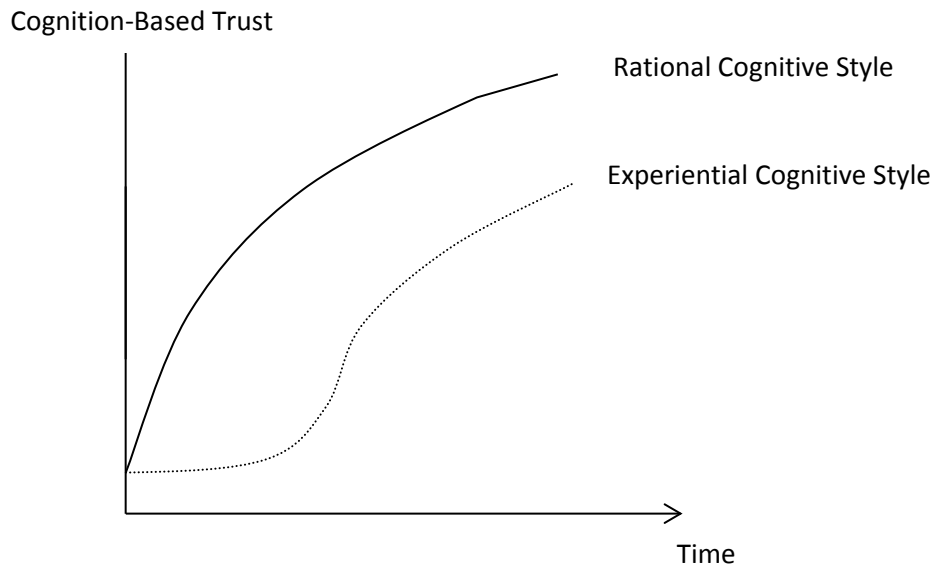


FIGURE 2. THE TRUST CURVE – COGNITION-BASED TRUST

FUTURE RESEARCH

Some very interesting questions lie at the heart of attempts to further explicate the social-psychological dynamics of trust. The propositions contained in this paper are designed to stimulate thought about the complex nature of the processes involved in interpersonal trust development. Since previous research has been a “snapshot,” one-time measurement of subjects’ feelings and opinions, it appears that the logical next step would be to measure trust at various points in a relational life cycle. This would allow researchers and managers to better understand and direct trust development. Furthermore, researchers could more thoroughly explore longitudinal, relational issues. However, before conducting survey research aimed at various relational cross-sections, we must address the need for adequate measures with which to assess emotional and rational components of trust.

A series of questions follows:

- Can we say with confidence which factors influence rationality (cognition-based trust) and which influence emotionality (affect-based trust)?
- What are the information processing factors in interpersonal trust development?
- Precisely what impact does cognitive style have on interpersonal trust development?
- How does trust change over time? Are there judgmental shifts in the importance of cognitive and affective factors?

With regard to the theoretical and graphical construction of the trust curve, there are many factors that have yet to be explored.

Numerous research questions arise, such as:

- How do the antecedents tested in previous research relate to movements in affect-based and cognition-based trust? What factors affect the slopes in a curve?
- How does time affect the curve?
- What would it take to force a shift of the curve, rather than a movement along it?
- It is conceivable that the two models presented here are both valid depending on individual and contextual factors. Thus, initial attempts at developing trust could be more successful with emotional appeals or rational appeals, depending on situational factors, schema-related factors, and personal cognitive styles. It would be interesting to examine differences in these variables.
- Demographically speaking, does one model fit better with males compared to females? Are there age-related differences, or differences based on levels of income or experience? Do we find cultural variations in that one culture responds better to emotional than to rational appeals in the beginning of relationship development?
- What situational factors play prominent roles in trust development?
- How exactly do situational characteristics relate to schema-based characteristics?

Finally, in the search to better understand the developmental process of interpersonal trust, it is important to recognize that there are optimal levels of trust (Wicks et al., 1999). Approaching the trust curve's emotionality limit and trusting an individual "like a member of the family" may prove inefficient. In this sense, it may not be ideal for a businessperson to instill the highest levels of affective trust in their customers, partners, or employees. Managers may want to avoid "over investing" in the process of trust building to save resources and avoid unnecessary risks.

Therefore, the question remains whether it is typically wise to strive for the emotionality limit. Important issues arise, such as:

- Are there truly optimal levels of trust? And, how do we determine these optimal levels?
- Perhaps more importantly, how do we reach those optimal levels of trust? Is there an optimal mix of cognitive and affective appeals/antecedents to facilitate the process of interpersonal trust development?

A better understanding of interpersonal trust development and the factors that guide it will serve managers in a wide variety of business situations. Certainly, middle-level managers and human resources managers will better understand employees in matters of trust. Of course, sales and marketing managers will better understand trust issues in terms of consumer behavior. Perhaps most interestingly, Internet commerce will benefit immensely from a better understanding of interpersonal trust. In the specific context of the Internet, communications and commerce are greatly influenced by the media involved. The more well-defined knowledge of interpersonal trust development between people communicating through electronic means is critical to global business. Regardless of the important and wide array of applications, the theoretical and

graphical conceptualizations of the Trust Curve require more insightful analysis and scientific exploration.

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***INTERNATIONAL
JOURNAL OF INTERDISCIPLINARY RESEARCH***

Volume 1, Number 2

December 2012

Published By:
Frostburg State University and the International Academy of Business Disciplines
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ISSN 2165-3240
Printed in the USA by Commercial Press Printing Company

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