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It's Not All About the Music: User Preference for Musicians on Facebook

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ABSTRACT

To better understand hedonic utility of social media users, we conducted a study among university students using musicians' Facebook pages for digital content consumption. Our study measures the effects of peer influence and media richness as subjects evaluated different musician's pages with different levels of both effects. The results show support for our key hypothesis that social media users are influenced by peer influence in making choices to "like" something. More importantly, the key aspects of the product (in our case, music) were less of a predictor of consumer choice.

Keywords

Social media, Facebook, peer influence, media richness, social presence, digital music.

INTRODUCTION

Social media offers a tremendous opportunity for those willing to harness the power of the community to develop, disperse, and maintain their brand. Over the course of the last decade, since the dot-com bubble burst, we have seen networks such as MySpace, Facebook, and Twitter rise from the ashes like a digital phoenix. Facebook stands out as the clear favorite among these sites. Facebook has grown from a mere 1 million users in December 2004 to 845 million worldwide users, as of February 2012 (CBS, 2012). And there is no indication that this exponential growth will slow anytime soon. The company brought in revenue of $3.71 billion in 2011, according to their SEC filings, with an IPO pending by the end of 2012 (SEC 2011).

In terms of information systems research, the broad majority of the work has not examined hedonic consumption on social networking sites (SNS). The focus has predominantly been on the organizational perspectives and utilitarian gains from employing these services (Culnan et al., 2010; Sykes, Venkatesh and Gosain, 2009). Our assertion is that hedonic utility is enhanced differently in the context of a social network. Ultimately, the decision-making process surrounding hedonic consumption follows a different set of rules on something like Facebook than it would with a normal merchant, even a digital retailer. Normally, when we make decisions to purchase a good that increases our hedonic utility (ex. an MP3 album, a digital movie, etc.), the decision is made in private. We seek information from others and sample content, but we typically make the purchase in a vacuum. An SNS like Facebook changes that dynamic significantly. Now our decisions are made with the eyes of our community upon us (Bearden and Etzel, 1982). There is no anonymity. Thus with the gaze, and judgment, of our peers looming over us, we have a strong tendency to adjust our behavior to conform to the group's expectations of us (Park and Lessig, 1977).

In an effort to study further this notion of consumption in a social media context, we sought to examine the factors that influence a person's decision to consume a good that increases their overall hedonic utility. In the context of Facebook, this can be reflected in a person's decision whether or not to "like" the provider of digital goods, one of the most common being digital music. When a person evaluates the Facebook page of a musician with whom they are not familiar, they generally want to sample some of their songs offered with differing levels of media richness (Daft and Lengel, 1983), typically either audio or video. They will then seek out the opinions and judgments of their peers before making the final decision to click "like" which will then broadcast their decision on their own Facebook page, informing their friends and other weakly connected groups of people of their decision. Put simply, the decision to "like" exists at the intersection of media richness and the influence from others' opinions regarding "liking" said artist on Facebook.

In this preliminary study, we aim to answer the following research questions: (1) Does the presence of rich media on an artist's Facebook page drive a person's decision to click "like"? (2) Is peer influence a stronger driver to click "like" on an artist's Facebook page than the presence of rich media? (3) Are these effects observed independent of the individual users' feelings of social presence in their community on Facebook? And (4) do these factors overshadow the user's inherent preferences for specific musical genres?

RESEARCH MODEL

The dynamic of the decision-making process shifts when it is made in a social context. Previous research differentiates social media from other communication by three factors: 1) the public nature of the communication/conversations, 2) the succinct nature of the content of the messages, and 3) a "highly connected social space" (Naaman, Boase and Lai, 2010). We've seen the impact that social buying has on the ultimate decision-making process (Bearden and Etzel, 1982; Park and Lessig, 1977). However, these studies assumed a limited influence of a small, immediate group of peers. What happens when the network of peers expands exponentially?

Peer Influence

Peer influence addresses the predilection people have toward others influencing their behavior. Bearden, Netemeyer and Teel (1989) developed a two-dimensional scale for measuring interpersonal influence in consumers, based on Deutsch and Gerard's (1955) assertion that interpersonal influence is manifested through either informational or normative factors. They describe *informational* peer influence as being rooted in a person's "tendency to accept information from others as evidence about reality," this occurs in both active and passive manner (Bearden et al., 1989). In a consumer context, we see examples of this in people seeking reviews/evaluations of a product or service (ex. Amazon.com reviews). *Normative* peer influence is a pairing of value expressive and utilitarian influences: being the adoption of behavior based on the observation of others with whom the consumer shares a close personal relationship and a person conforming to what they perceive other's demand of them, either for personal gratification or to avoid punishment (Park and Lessig, 1977).

Studies surrounding social contagion and viral/word-of-mouth marketing have shown that passive broadcasting on social networking platforms, such as an automatic wall post stating you clicked on the "like" button on a product/service's Facebook page produce a 246% increase in the rate of adoption of the product/service by your friends, demonstrating a potential impact of peer-influence effect (Aral and Walker, 2011). Given this, we intend to measure the impact of normative vs. informational peer influence and their impact compared to that of the media content that a particular artist has on their Facebook page.

Hypothesis 1 (H1): Normative peer influence will be a strong driver of the decision to "like" an artist on Facebook.

Media Richness

Media richness theory refers to properties of various communication channels/mediums and their ability to convey meaning, relevance, and information to a specific target audience (Daft and Lengel, 1983; Markus, 1994). The amount of social, non-verbal cues that can be extracted from a particular outlet determines the level of richness of the media involved, for example, face-to-face communication is considered the richest while a text-based message (email, SMS, etc.) would be considered the leanest messages (Markus, 1994; Simon and Peppas, 2004). Application of media richness theory in the context of new media communications (Internet, television, etc.) has reinforced traditional media richness theory. For example: television (video, rich media) advertisements have proven to be more reliable and effective for marketing to consumers than print or radio ads (audio, leaner media) (Edell and Keller, 1989; Keller, 1993, 2003). Recent studies have shown that media richness holds for consumer satisfaction and attitude in the context of websites involving complex vs. simple products (Simon and Peppas, 2004).

The distinction here is important, as these more recent studies have demonstrated that for less complex products, leaner media may be the preference when the product or service is less complex; for example, a song is far less complex of a purchase than an automobile (Simon and Peppas, 2004). This is consistent with previous studies that examined new media forms of communication as they emerged in the mid-to-late 1990's (Carlson and Zmud, 1999; Dennis and Kinney, 1998). As such, we will test the impact of media richness on the decision to like a musician on Facebook.

Hypothesis 2 (H2): Leaner media (audio) will be a strong driver of the decision to "like" an artist on Facebook.

Social Presence

Social capital is the term given to resources gathered through relationships and associations with other people (Coleman, 1988). The Internet and social networking platforms enhance the generation of social capital in relationships via the formation and cultivation of weak ties (Ellison, Steinfeld, and Rampe, 2007). SNS also have the effect of strengthening social capital gains through the creation of vast networks of these weak ties (Donath and Boyd, 2004). Personality has also been shown to be a strong driver of usage and influence on social networking platforms; personality being a) the level of activity on Facebook, b) the number of "friends" one boasts, and c) the nature of the messages posted to a Facebook wall or Twitter feed (Naaman et al., 2010; Rui and Whinston, 2011).

We refer to the measure of how much a medium enables people to create a personal connection with their peers as *social presence* (Short, Williams and Christie, 1976). The importance of social presence in terms of social networking has to do with the appearance of one's peers being present, if only in a psychological manner (Fulk, Steinfeld, Schmitz and Power, 1987). Social presence has been evaluated, in particular, in the context of online shopping. Given that there can be a feeling of isolation and a cold sterilized environment of Internet shopping, social presence has become an important metric for success, to enhance the experience that people have with other's in a collective sense (Kumar and Benbasat, 2006; Schubert, 2000). Given the intensely personal nature of social presence and the direct relation to personal relationships, we will test the effect that social presence has on the user's decision-making process.

Hypothesis 3 (H3): Social Presence will moderate the effect of Peer Influence on the decision to "like" an artist on Facebook.

Model

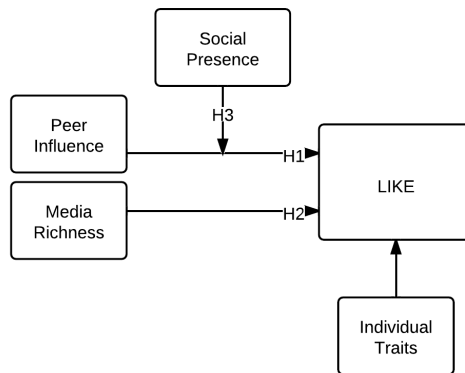Figure 1 presents the conceptual research model evaluated in this study.

Figure 1. Research Model

The goals of this research are to evaluate *peer influence* and *media richness* and their respective impacts on a Facebook user's decision to click "like" for a particular musician. We evaluate two types of individual traits - *social presence* and *peer factors* (the individual's susceptibility to peer influence). In addition, a number of demographic variables are used as controls.

	Media Richness	
Peer Influence	Informational Peer Influence (PI=0) Lean Media (MR=0) The Shins (A1)	Informational Peer Influence (PI=0) Rich Media (MR=1) Buckcherry (A2)
	Normative Peer Influence (PI=1) Lean Media (MR=0) Gangstagrass (A4)	Normative Peer Influence (PI=1) Rich Media (MR=1) Kevin Fowler (A3)

Table 1. 2x2 Experiment Design

EXPERIMENT DESIGN

Our experiment, presented in Table 1, uses a 2 x 2 between-subjects design on the factors of *peer influence* and *media richness*. This first factor is varied on two levels, *informational peer influence* (PI = 0) and *normative peer influence* (PI = 1). The second factor was also varied on two levels, *lean media* (audio, MR = 0) and *rich media* (video, MR = 1).

Round 1 - Baseline

To study impact of immediate peer influences, a baseline of "likes" was required. For this, an initial survey was conducted to evaluate the preferences for a specific series of musicians' Facebook pages. A group of 762 undergraduate business students

(52% Male, 48% Female | 30% age 18, 28% - 19, 26% - 20, 16% - 21+) was shown a selection of four musicians' Facebook pages across four different genres (pop, rock, country, and rap – all insignificantly correlated or even negatively correlated (Patchet and Cazaly, 2000; Rentfrow and Gosling, 2003), two which had a selection of audio but no video, and two with video clips of their songs. They were played a selection of two clips from each artist's page, each clip for two minutes. During this time, the artist's Facebook page was left open on the screen for them to evaluate while they listened/watched the clips. After each artist's selections were complete, the students were asked to evaluate whether or not they would choose to "like" this artist and to provide a brief reason why, in their own words. They finished by answering a selection of demographic and Facebook questions. The relevant results of this round of surveys are presented in Table 2.

Artist	Genre	Number of "likes" on Facebook	Number of "likes" by subjects
The Shins (A1)	Pop	359,342	425
Buckcherry (A2)	Rock	84,080	295
Kevin Fowler (A3)	Country	203,022	359
Gangstagrass (A4)	Rap	24,519	112

Table 2. Survey 1 Results

A cursory examination of this baseline study reveals an implicit test of the peer influence and media richness effects. Each student in the 762-subject sample was shown all four artists, experiencing both levels of media richness (audio – A1, A3; video – A2, A4). There was also an implied normative peer influence factor, as the subjects were shown the artist's Facebook page throughout the media clip playing, showing the number of "likes" for that artist from the Facebook community at large. This information is listed in Table 2. It is interesting to note that the number of "likes" from the students closely mirrors those of the total Facebook population, albeit on a different order of magnitude. While there appears to be an impact from peer influence here, we see no apparent impact of media richness in this first round of surveys.

Round 2 – To Like, or Not to Like

To evaluate the user's decisions across our factors, a similar survey was conducted across four different undergraduate business classes of approximately 33-45 students in each group. The students, after having the procedure explained to them were given a small set of questions to determine their genre preference, across the four predetermined genres (pop, rock, country, rap), only picking one, as well as two questions to gauge their approximate Facebook usage (ex. How many Facebook friends do you have? How many hours per week do you spend on Facebook?). From there, they were shown the appropriate Facebook page and related content for the artist chosen from the four in advance, at which point they were asked to evaluate whether or not they would chose to "like" this artist (yes/no) along with a brief reason why, in their own words. Once they had completed this, they were presented with a series of questions on a seven-point Likert scale to measure *peer factors and social presence*. They closed out with a series of demographic questions (age, gender, race).

Media Richness Factor

For the changes in media richness, students were shown a musician's Facebook page with one of two types of media present. For *lean media* pages (MR=0) the pages featured only audio clips of sampled tracks by that particular artist. For *rich media* pages (MR=1) the pages demonstrated featured a selection of video clips of music videos featuring the artist performing a song from their catalog, some pages included live clips of the artist playing music.

Regardless of the media type present, the subjects involved were played two clips of approximately two minutes in length. Given that the typical audio sample present in the major digital audio stores (iTunes, AmazonMP3, etc.) are 90 seconds in length, two minutes was more than adequate for the subjects to formulate an opinion. This also afforded them the time to examine the artist's Facebook page to gauge aesthetics present (types of wall postings, photos, etc.). After the clips were finished, the subjects were asked to record their decision and reasons.

Peer Influence Factor

Changes in the peer influence factor involved the type of information revealed to the subjects about peer opinions regarding that particular musician. For *informational peer influence* (PI=0) the subjects were shown a series of subjective rankings and opinions from professionals and fellow users. First, a page showing positions on the Billboard charts over the course of that artist's career was presented; this was followed by a compilation of critic's review rankings for various albums and

performances by that artist; finally, they were shown a few brief reviews from fellow users, taken from Apple's iTunes Music Store.

For *normative peer influence* (PI=1), the information collected during the first round of baseline surveys was presented. First, the subjects' attention was brought to the number of followers reported by that artist on their Facebook page then, between the clips were played they were told "of your peers shown this same artist's page, *X* number of them chose to 'like' this artist" (*X* being drawn from the baseline surveys). After this information was presented to them, the subjects were then asked to record their decision and reasons.

Covariates

While these main effects are of critical importance in the decision making for someone deciding to join a new part of the community and engage with these new musicians, there are other influencing elements at play. Aside from basic demographic information collected at the conclusion of every survey we have an interest in the nature of the subject's feelings about the network around them, specifically related to how often they engage with and may be influenced by their community on Facebook, as well as how a musician's page may evoke a sense of a personal experience for them.

For measuring susceptibility to *peer factors* we used a measure adapted from Bearden et al. (1989). These measures follow the same two levels of the peer influence construct in the main effects, but allow the user to self-report their own feelings of how these factors may be dealt with in a generic context. To measure *social presence* we adapted the measure from Kumar and Benbasat (2006) based on a validation of short et al.'s (1976) original construct.

RESULTS AND ANALYSIS

Statistics for the data collected during the study are shown in Table 3. These data are reported after clean up. Observations were omitted from the final analysis from respondents under the age of 18 and if they reported either zero for number of Facebook friends or number of hours per week on Facebook, as this indicates they are not actual Facebook users.

N	129
Age	(18-19): 22 – 17% (20-21): 55 – 43% (22-23): 25 – 19% (24+): 27 – 21%
Gender	Male: 86 – 67% Female: 43 – 33%
Ethnicity	Caucasian (=0): 92 – 71% African-American (=1): 4 – 3% Hispanic (=2): 13 – 10% Indian (=3): 2 – 2% Asian (=4): 9 – 7% Native American (=5): 7 – 5% Other (=6): 2 – 2%
# of FB Friends	Min: 2 Max: 1,219 Mean: 332.91 Median: 280
# of FB Hours (week)	Min: 0.1 Max: 72 Mean: 8.33 Median: 5
Genre Preference	Rock (=1): 59 – 46% Pop (=2): 17 – 13% Rap (=3): 34 – 26% Country (=4): 15 – 12% NR: 4 – 3%

Table 3. Descriptive Statistics for Covariates

Table 4 presents the correlation matrix for all of the main variables that we used in evaluating our study, from which we find no indication of multicollinearity present in our study.

	V1	**V2**	**V3**	**V4**	**V5**	**V6**	**V7**	**V8**	**V9**	**V10**	**V11**	**V12**	**V13**
Mean	0.49	0.52	0.33	22.65	0.93	330.83	8.29	0.46	0.13	0.12	0.26	2.84	3.69
Std. Dev.	0.50	0.50	0.47	5.36	1.67	260.70	10.08	0.50	0.34	0.32	0.44	1.07	1.36
V1 - Peer Influence	1												
V2 - Media Richness	0.063	1											
V3 - Gender	0.078	-0.166	1										
V4 - Age	0.191	-0.271	-0.019	1									
V5 - Ethnicity	0.013	0.007	0.340	-0.107	1								
V6 - FB Friends	-0.031	-0.030	0.086	-0.332	0.038	1							
V7 - FB Hours	0.003	0.098	0.069	-0.138	0.017	0.277	1						
V8 - Rock	0.187	0.098	-0.212	0.120	-0.300	-0.211	-0.088	1					
V9 - Pop	-0.017	0.005	0.266	0.060	0.362	-0.092	0.041	-0.362	1				
V10 - Country	0.030	-0.187	0.211	0.010	-0.116	0.093	0.011	-0.337	-0.143	1			
V11 - Rap	-0.152	0.062	-0.108	-0.186	0.164	0.276	0.075	-0.545	-0.231	-0.215	1		
V12 - Peer Factors	0.111	-0.067	0.124	-0.146	0.147	0.107	-0.024	-0.164	0.277	-0.005	-0.028	1	
V13 - Social Presence	0.193	0.040	0.200	-0.069	0.042	-0.002	-0.022	-0.079	0.094	0.106	-0.014	0.367	1

Table 4. Correlation Matrix

Tables 5 and 6 report the results of several different models iterations to estimate the impact of our factors of interest on our DV: a user deciding to "like" (LIKE). Table 5 lists the results of each of the key main effects and Table 6 displays the results of our main effects with covariates.

	Dependent Variable: LIKE			
	Model 1	**Model 2**	**Model 3**	**Model 4**
Independent Variable	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
	(Std. Error)	**(Std. Error)**	**(Std. Error)**	**(Std. Error)**
Peer Influence	0.6786***		0.7001***	0.1974
	(0.2311)		(0.2334)	(0.3247)
Media Richness		-0.1166	-0.192	-0.773**
		(0.2258)	(0.2328)	(0.3596)
PI * MR				1.061**
				(0.4808)
Constant	-0.6985***	-0.2869*	-0.6134***	-0.3774*
	(0.1688)	(0.1612)	(0.1977)	(0.2206)
χ^2	8.79***	0.27	9.47***	14.45***
	*** p < 0.01	** p < 0.05		* p < 0.10

Table 5. Analysis: Main Effects, Interaction

We can see from Table 5 that peer influence (PI) has a positive effect on LIKE. This seems to indicate potential support for H1, as *normative* peer influence (PI=1) leads to this positive effect on LIKE. Additionally, we see no support emerge for H2, given the insignificant effect that media richness has on LIKE (Models 2 and 3). The interaction term (PIxMR) lends further support to H1. In this case we have normative peer influence (PI=1) and richer media (MR=1), which leads to a positive effect on LIKE. However, media has no positive effect on LIKE without normative peer influence present.

Before deciding on models with covariates, we ran a series of analyses examining the varying effects of all the covariates from Table 4's matrix as well as the test for the mediating effect of social presence (SP) on PI. We found no effects from the genre preference (ROCK, POP, COUNTRY, RAP), age (AGE), or from the Facebook usage variables (FB_FRIENDS, FB_HOURS). There was also no mediation effect present between SP and PI. Based on this, they were omitted from the final analysis.

	Dependent Variable: LIKE			
	Model 1	**Model 2**	**Model 3**	**Model 4**
Independent Variable	**Coefficient** **(Std. Error)**	**Coefficient** **(Std. Error)**	**Coefficient** **(Std. Error)**	**Coefficient** **(Std. Error)**
Peer Influence	0.2396 (0.3303)	0.2138 (0.3705)	0.2235 (0.3329)	0.2109 (0.3345)
Media Richness	-0.642* (0.3697)	-0.6193* (0.3705)	-0.632* (0.3756)	-0.6235* (0.3756)
PI * MR	0.956** (0.4917)	0.9573** (0.4922)	0.856* (0.5022)	0.8681* (0.5027)
Gender	0.4598* (0.2691)	0.4494* (0.2709)	0.4212 (0.2768)	0.422 (0.2773)
Ethnicity	0.1144 (0.0741)	0.1064 (0.0751)	0.116 (0.0753)	0.1117 (0.076)
Peer Factors		0.123 (0.1175)		0.0618 (0.125)
Social Presence			0.1626* (0.099)	0.1472 (0.104)
Constant	-0.6983*** (0.2548)	-1.034*** (0.4124)	-1.26*** (0.4465)	-1.374*** (0.5061)
χ^2	22.23***	23.33***	25.16***	25.40***
	*** p < 0.01	** p < 0.05		* p < 0.10

Table 6. Analysis: Main Effects, Interaction, Covariates

As seen in Table 6, adding the covariates into the mix does not appear to significantly alter the influence of the main effects from Table 6 on LIKE. The exception here is the significant positive direct effect that SP has on LIKE, while we find no mediation effect as predicted in H3. The finding indicates that social presence acts as an independent predictor of consumer choice on social media pages (irrespective of the nature of peer influence and media richness purported by the social media provider). Table 7 lists the summary of the findings related to the hypotheses.

Hypothesis		**Findings**
H1	Normative peer influence drives "like"	Partially supported. PI had a positive effect on "like" which may prove to have greater statistical significance with a larger n.
H2	Leaner media (audio) drives "like"	Not supported. MR proved insignificant in the absence of the PIxMR interaction (PI=1)
H3	Social Presence moderates peer influence	Not supported. However, SP had a significant positive impact on "like" when measured outside of any interactions

Table 7. Summary of Hypotheses and Findings

There are limitations present in the study as it currently exists. Time and other immediate constraints led us to conduct this study with a fairly small sample size (n=129), offering limited observations per cell (n1=33, n2=32, n3=45, n4=28). In addition to this, we were limited to presenting one different artist per cell. Based on these preliminary results, we are confident that running this study again with a larger sample size and more effective controls for genre preference and artists shown per cell group will provide the robust results needed to conclusively provide evidence on the hypotheses we have offered on this subject.

CONCLUSION

Actions in a social media context adhere to a different set of rules than we have seen in e-commerce to date. The nature of the "community" has adjusted to conform to a new paradigm of human interaction and decision-making that is a better fit for the evolving social networking eco-systems.

In this preliminary study, our aim was to evaluate the impact of social pressures vs. media richness on hedonic decision-making on the Facebook SNS. With the limitations present with a small sample size we were able to evaluate results that gave us enough confidence in our assertions to proceed with running this study with larger groups and more variety of artist choice, incorporating new controls for individual differences (genre preference, Facebook usage, community commitment).

The value of studying hedonic consumption in social networks extends beyond musicians. Digital content providers of all stripes will be able to better design their portals on popular SNS, even within rigid UI design constraints, to provide more effective content and better engagement with the communities relevant to evoke strong, positive emotional responses in the individual users. Even organizational SNS can benefit from increases in hedonic utility among their employee base. After all, in the words of the late, great Bob Ross, "you do your best work if you do a job that makes you happy."

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