USES AND GRATIFICATIONS THEORY AND DIGITAL MEDIA USE: THE TEST OF EMOTIONAL FACTORS

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Abstract

We study online digital media use by adoption uses and gratifications theory and technology acceptance model. With an online survey, we collected data from 73 college students who enrolled in an IT course and analyze the data by using stepwise multiple regressions and semi-structured analysis. Through principal component analysis and multiple regression analysis we identify major motivations of online newspaper use. The purpose of the analysis is to understand whether affective constructs--entertainment, perceived enjoyment, and perceived playfulness--are different. The results suggest that entertainment is the most important use motivation of digital media use. Interestingly, information motivation is not the most salient motivation, assumed to be the major reason for media use. From the results we can see that the motivation of digital media is different from traditional media. Along with the theorization of the technology acceptance model, we also identify that perceived enjoyment and entertainment motivation are different constructs. The structured relationship of motivations and use intention is also tested.

Keywords
Uses and Gratifications Theory, Digital Media, Entertainment Motivation
1. Introduction

The internet makes it possible for new content creators to deliver new online. One of the major activities that users engage on the Internet is to read online news. Pew research center (2019) noted that big brand names of new sources are often the media that the audience relies on. Their main activity is to look for information online. It is therefore important to provide a good quality of news information service. For publishers and content providers, it is important to understand the reasons that the audience has access to new information and how to deliver them a successful online news application.

E-commerce is a big trend. Businesses make use of the Internet to provide e-services. Even though the dot com bust in the late 1990s created issues of Internet applications continued to be used, the strategic importance of the Internet remains. For big enterprises, the Internet is an opportunity for them to reach more customers. They have to keep themselves from being isolated from other users. For small businesses, the Internet is a low-cost solution for them to obtain more customers. As a result, the business value of the Internet and digital media makes it important for businesses to understand the issue of adoption. That is, why customers use the Internet and digital media. Investigating users’ adoption of the Internet and digital media allow businesses to create favorable user reactions and stickiness to the businesses and services.

The goal of this research is to test the emotional factors of digital media use. In previous IS (Information Systems) studies, the cognitive aspects of IS use have been attested. However, the emotional factors of IS use are not yet being fully understand. In this research we adopt the uses and gratification theory to study the emotional factors of digital media. In the following sections, we present the related literature and the research method.

2. Literature Review

U&G is a long-standing research approach in mass communication (Katz et al., 1973). Along with the 60 years of history, it demonstrates a unique capacity to explain traditional media use. It is also can be used to study new media such as the Internet. U&G is as widely studied and widely supported in the field of media usage as is TAM (Technology Acceptance Model, see Figure 1) in the field of technology acceptance. These two theories were proposed to understand the usage of new media (U&G theory) and new technology (TAM). They are discussed here.
because the Internet is considered as both new media and new technology. When studying Internet-enabled media, both theories can be applied.

As of U&G theory, one key postulate is that media use (we will term this behavioral usage BU) is motivated by gratifications (Plamgreen, Wenner, Rosengren 1985); that is, media use can be predicted by the same intrinsic ad extrinsic motivations that drive traditional media use (Hoffman and Novak 1996). Several assumptions connect to the uses and gratifications (U&G) theory. According to the U&G theory, the audience is active. They do not passively accept what media have offered to them. Instead, they seeking for gratifications via media consumption. McQuail (1987) noted that the audience’s choice is conscious; they are motivated to choose media contents and channels.

Along with the development of theory, Katz et al. (1974) described the approach. They mentioned that the needs and media exposure are connected: Among the several The approach is concerned with the social and psychological origins of needs, which generate expectations of the mass media or other sources which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications and other consequences, perhaps mostly unintended one. (p.20)

U&G researchers have been studies motive, gratification, and use dating back 60 years. The U&G scholars in particular were interested in motives of media use. Some of the concepts; however, were appeared less important in understanding user behaviors. Needs and expectations have been paid less attention, because needs have found to be redundant expectations are regarded as a concept hard to verify (McQuail, 1987).

**Figure 1: Technology Acceptance Model (Davis, 1989)**

In the past, U&G theory has been used to study media of all kinds including TV, radio, and newspapers (Katz et al., 1973; Palmgreen et al., 1985). In recent years, it is applied to study the use of the Internet and the motivational perspective is considered very useful in explained why and how people choose certain media (Oliveira et al., 2016; Ifinedo, 2016; Ng & Zhao;
Osatuyi & Qin, 2018). Comparing to the earlier U&G studied, the current U&G studies added more social, emotional/affective, and fun aspects of media use motivations which reflect user's motivations for using new media.

There are five widely supported Internet motivations included in U&G. Entertainment is one of the five motives related to Internet use. A total of five motives were described in the below statements:

Pass the time: It refers to users have nothing to do, so they use the digital media to occupy idle time, and to relieve boredom.
Entertainment: Using digital media to enjoy the time.
Information seeking: Digital media is used to get information about events and people.
Interpersonal utility: Several needs are fulfilled by using digital media. For instance, needs of affection, socialization, and surveillance.
Convenience: Using the digital media as an easy and inexpensive approach to get information or to reach others.

We select entertainment, perceived enjoyment, and perceived playfulness as the factors that are related to the emotional aspects of digital media use. The later appears in IS studies as important factors of IS adoption. In contrast with perceived usefulness and ease of use in TAM, entertainment, perceived enjoyment, and perceived playfulness is an emotional aspect of IT use. They are not functional reasons which are mandatory IT use in an organizational context. These emotional aspects of IT use is worthy of study because they reflect the non-utilitarian use of IT with applications such as online newspapers and social media.

3. Method

The digital media in our study is online newspapers. We conducted several runs of surveys that were conducted to test our sample. Through the data collection, we wish to see the pattern of data reflects our research model. We select a few online newspaper websites as the research setting. Portals such as Yahoo, MSN, and AOL were not included. All studies were administrated at a major U.S. university. The empirical setting was online news information services, namely, online newspaper Websites. We collected 73 responses from students who enrolled in IT classes. They were instructed to give responses to the online questionnaire. All 73 responses were valid for analysis.
Principal Component Analysis: Principal component analysis is used to decrease the redundancy of a large number of variables. The procedure is useful to sort out and reduced the number of variables into a smaller number of principal components in which researchers can further identify the components that account for most of the variance in obtained variables. A total of 31 variables were used in our research to measure motives. Given the large numbers of variables were used to measure motives, the correlations among the variables can be expected. In particular, we used those variables to measure the same construct. Using the Principal component analysis producer, these 31 variables can be reduced into a small set of artificial variables. These variables are known as principal components. We then used these components to perform further analysis with the multiple regression analysis producers.

Multiple Regression Analysis: To identify the relationship between variables, we perform several runs of multiple regressions. To be clear with the relationship to be tested, we conducted several stepwise regressions. The purpose to perform stepwise regression is to figure out what are the most silent motives and the relationship between motives and usage. Since most U&G studies from communication, scholars aim to figure out why audiences use media. It is not of interest for communication scholars to figure out the major motives, given that audiences often have multiple motives using traditional media. In Information systems; however, research results are used to inform system design and implementation. Therefore, it is important to understand the major motive. Stepwise regression analysis enables us to examine all the possible simple linear regression models at one time. The results indicate the highest coefficient of predictor among all the motives.

We performed two regression analyses to identify the emotional factors and relationships with digital media use. To test whether those emotional factors are identical, we perform factor analysis.

These analyses were based on the assumption that the U&G Theory entertainment motive is a different construct than perceived enjoyment, perceived playfulness, and computer playfulness in IS literature. In this section we formally test that assumption.

4. Data Analysis

Descriptive Statistics: Descriptive statistics provide summaries. In the analysis, the properties of samples and measures were described. We focus on the particular demographics of our subjects and the measurement of the use of digital media.
To test if the affective/emotional measures found in IS literature and U&G’s entertainment motive are conceptually and empirically different, we collected data from 73 business students. The questionnaire included effective measures that have been tested in IS literature including perceived enjoyment, perceived playfulness, and computer playfulness (van der Heijden 2004; Moon and Kim 2001; Venkatesh 1999, 2000, respectively).

**Table 1: Factor Loadings of Affective Measures**

| Latent Construct | Item | Latent Construct  |
|------------------|------|-------------------|
|                  |      | Perceived Playfulness (PPlay) | Penj | CmPlay | Entm |
|                  | pplay01 | 0.703 | 0.029 | 0.281 | 0.166 |
|                  | pplay02 | 0.699 | -0.051 | 0.291 | 0.049 |
|                  | pplay03 | 0.728 | -0.018 | 0.328 | 0.083 |
|                  | pplay04 | 0.772 | 0.364 | 0.032 | 0.274 |
|                  | pplay05 | 0.816 | 0.337 | 0.036 | 0.213 |
|                  | pplay06 | 0.833 | 0.288 | -0.130 | -0.021 |
|                  | pplay07 | 0.707 | 0.304 | 0.115 | 0.157 |
|                  | pplay08 | 0.689 | 0.353 | 0.166 | 0.109 |
|                  | pplay09 | 0.697 | 0.409 | 0.088 | 0.139 |
|                  | Penj01 | 0.287 | 0.849 | 0.171 | 0.145 |
|                  | Penj02 | 0.287 | 0.779 | 0.298 | 0.086 |
|                  | Penj03 | 0.180 | 0.873 | 0.246 | 0.152 |
|                  | Penj04 | 0.227 | 0.715 | 0.327 | 0.127 |
|                  | cmplay01 | 0.046 | 0.166 | 0.789 | 0.127 |
|                  | cmplay02 | 0.272 | 0.159 | 0.758 | -0.069 |
|                  | cmplay05 | 0.150 | 0.346 | 0.730 | 0.231 |
|                  | cmplay07 | 0.158 | 0.288 | 0.803 | 0.173 |
|                  | V18 | 0.127 | 0.061 | 0.087 | 0.887 |
|                  | V19 | 0.147 | 0.162 | 0.098 | 0.911 |
|                  | V20 | 0.250 | 0.193 | 0.179 | 0.880 |
We performed a multiple regression to identify the causality between usage and satisfaction. The results of the analysis suggested there is a significant relationship between behavioral usage and satisfaction ($b = 0.48$, $\beta=0.45$, $F (1, 130) = 33.46$, $p<.0001$). Variance explained and adjusted variance explained were 0.2047 and 0.198, respectively.

We thus can conclude that usage explains 20.47% of the variance in satisfaction. We built up the model with U&G theory, with two rounds of multiple regression (See Figure 2 for the conceptual model).

Legend: BU=Behavioral Usage; S=Satisfaction

**Figure 2:** **U&G Causal Path Findings**

The research question asks to what emotional factors predict the use of digital media. The findings indicate that the U&G model provides adequate explanatory power of behavioral usage. Stepwise regression analysis suggests that entertainment is the most crucial motive; it explains 34% of the variance in behavioral usage. Similarly, behavioral usage explains a substantial proportion of the variance in satisfaction; it accounted for 20%-28% of the variance in satisfaction.
We also analyze five U&G motives. With principal component analyses of studies, we found that information seeking, interpersonal utility, entertainment, pass [the] time, and convenience are five major digital media use motivation. The results are consistent in studies one and two. All the item loadings are loaded in intended constructs. Information seeking came out as the first factor of motive using digital media. We also found that few variables loaded in this motive such as 1) a new way of doing research, 2) ease of access, 3) free information, and 4) to look for information. We can infer that information seeking motive is related to getting updated information freely and easily. The second motive, interpersonal utility, is associated with interpersonal communication. Items loaded in this motive included 1) to help others, 2) to participate in discussions, and 3) to express opinion and input to editors freely. In comparison with traditional media, digital media is considered more to users a forum where they are able to express their opinions, ideas, and concerns without disclosed their identities. Entertainment, the third motive, implies that users are able to obtain gratification via interacting with digital media. With the ease of use of GUI, they are taking advantage of entertainment offered on the Web and the gratification is often instant.

5. Discussion

We contend that digital media use is driven by emotional reasons. Even though many media studies have confirmed that information seeking and escapism are the major motives of media use. Our study; however, finds that Entertainment motive, predicts the usage. Entertainment is considered an intrinsic reason for media usage; it is effective and non-extrinsic. Our results are consistent with previous IS studies where the adoption of digital media is found to be effective driven. We also found that satisfaction plays a crucial role in adoption. In practice, the results may be beneficial to practitioners. Especially for content providers, they may base on the results to develop their marketing strategy and contents of digital media. In particular, our results inform practitioners pay attention to entertainment as well as creating an easy to use and useful Internet news service. Our study has several limitations. When generalizing the research findings, cautions are needed. First, university students are our subjects. They are only a part of the Internet user group. When generalizing our findings e-service on the Internet, cautions have to be taken into account. Re-testing the integrated model with a different user group may be appropriated. Secondly, measurement bias occurs when using self-report scales. Some scholars believed that self-report measures should serve only as a
relative indicator of use. They are not precise measures. Ideally, it is better to measure the actual use; however, when research resources are limited, it is less likely to obtain the actual usage. Developing a more direct and objective measure for digital media use to get an in-depth understanding of how the media is utilized.

6. Conclusion

We apply U&G theory to explain online newspaper use. We found that entertainment motivation is the most salient motivation. We also identify whether entertainment, perceived enjoyment, and playfulness are different constructs. A total of 73 college students were recruited to an online survey. The results can be generated to the population have similar prosperity. Future research may focus on new media such as social media, given its popularity, to see whether entertainment remain to be the most important motivation.

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