
웹 2.0에서 사용자 특성과 플로우 간 관계

문윤지

Exploring Individual Differences and Flow in Web 2.0 Services

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요 약

플로우 이론에 근거해서 본 연구는 개인의 성격이 UCC를 활용할 때 개인의 플로우 경험과 사용 형태에 어떠한 영향을 미치는가를 탐색하고자 한다. 연구결과는 외향성은 사용자가 오락의 목적으로 UGC를 활용할 때 긍정적인 영향관계를 보인다고 시사하고 있으며, 반면 커뮤니케이션이나 정보추구의 목적일 때는 부정적인 관계가 있음을 나타냈다. 한편, 신경성은 오락 및 커뮤니케이션 목적의 UGC 활용과 긍정적인 관계가 있었으며, 정신병리적 성향의 경우 정보추구적 목적의 UCC 활용과 부정적인 관계를 보였다. 본 연구는 플로우의 선행요인과 영향요인을 포함한 실증연구를 제시함으로써 플로우 이론을 확장함에 그 의의가 있다.

ABSTRACT

Using flow theory as our foundation, we empirically tested the impact of three personality traits on the level of flow state experience and three user-generated content (UGC) usage types. Findings indicate that extroversion is positively related to the use of UGCs for entertainment, and negatively related to the use of UGCs for communication and information; neuroticism is positively related to the use of UGCs for entertainment and communication; and psychoticism is negatively related to the use of UGCs for information. In addition, only extroversion has an influence on flow, which is positive, and flow has a positive influence on UGC usage for entertainment and communication. This study extends flow theory by exploring antecedents and outcomes of the flow state experience.

키워드

user-generated content, UGC, flow theory, personality

1. Introduction

Over the last twelve years or so, the Internet has been changing the ways its users communicate, learn, and research. Lately, it has expanded beyond its origins as a reading and writing tool, and has become an ever more interactive and recursive tool. The recent rise of web 2.0 has led to an interesting new phenomenon: user generated content, or UGC, as it is known in this study. Some examples of UGCs (i.e., web2.0 applications) are Wikipedia, Youtube, and Flickr to name a few. UGC is defined as content made publicly available over the Internet, which reflects a creative effort,

and is created outside of professional routines and practices (Vickery and Wunsch-Vincent, 2006). If these UGC users are not driven by monetary motives, then why do they engage in this type of peer production (i.e., mass collaboration)? This study, then, explores the fundamental motivation for users' participation based on their personal factors—that is, on their individual differences.

For decades, information systems (IS) researchers have recognized how important users' personal factors are for predicting technology adoption and use (Amiel and Sargent, 2004). Personal factors in previous IS research can be classified into two broad

categories: relatively mutable factors and dispositional factors (McElroy et al., 2007). More mutable factors include individual attitudes and personal perceptions, and less mutable dispositional factors include general personality factors, cognitive style, and self-efficacy. Dispositional factors, such as personality, have been largely ignored in the MIS context, and there has also been a lack of targeted research on the role of dispositional factors in IS adoption and use (McElroy et al., 2007). Although the role of user perceptions, such as perceived ease of use and usefulness, continues to dominate models of technology acceptance, personal factors affecting IT use also need to be acknowledged as important variables. This study, therefore, identifies the role of individual differences in the acceptance of UGC.

Specifically, this manuscript explores the effect of personality on flow (Csikszentmihalyi, 1990), or playfulness (Webster and Martocchio, 1992), in computer interactions, and in turn the impact of flow on behavior (i.e., UGC usage). Flow is defined in the literature (Csikszentmihalyi, 1990) as “the holistic sensation that people feel when they act with total involvement.” Individuals are predisposed to behave in a more or less playful manner when interacting with technology (Woszczynski, 2000). When surfing or creating UGC, individuals may behave playfully, experiencing the “flow state.” Thus, flow is defined here as the state of playfulness occurring in computer interactions, such as navigating a network (Woszczynski, 2000). The extent of flow (i.e., level of flow state experience) in computer interactions can vary based on personality traits, because flow has been found to be a function of individual psychological traits (Webster and Martocchio, 1992). However, the previous literature on playful human-computer interactions does not properly reveal the function of personality traits, and an in depth understanding of how users actually interact with the Internet has not been forthcoming. Furthermore, users enjoy UGC sites for different purposes, such as information acquisition, entertainment, or communication. Since each type of UGC usage may be differently associated with a particular level of flow state experience, an exploration of the different patterns of association between the level of flow state experience and types of UGC usage (e.g., information, entertainment, or communication) is needed. To fill this gap in

the literature, this paper will investigate a proposed theoretical model reflecting the following general research questions: “How is individual personality related to the state of flow in UGC usage?” and “What is the impact of experiencing the flow state on UGC usage?”

II. Research Model

2.1 Individual Differences in UGC Usage

How people behave in any particular situation is determined, at least in part, by their personality (Eysenck et al., 1985). Recently, personality traits have been revealed to be linked to IS adoption and use (Amiel and Sargent, 2004; McElroy et al., 2007). Extraverts report taking part in social interactions and indicate a greater preference for stimulating, active, and unusual situations, and they have fewer tendencies to avoid stressful situations (Eysenck et al., 1985). Thus, extraverts prefer face-to-face interactions and typically spend less time on the Internet. In other words, extraverts do not rely on the Internet for their social interactions, and do not use the Internet for information acquisition, such as viewing mainstream news (Amiel and Sargent, 2004). On the other hand, extraverts will use the Internet as a tool to acquire things to share with others, such as music downloads for entertainment (Amiel and Sargent, 2004).

Hypothesis 1a: Extraversion will positively influence UGC usage for the purpose of entertainment.

Hypothesis 1b: Extroversion will negatively influence UGC usage for the purpose of communication.

Hypothesis 1c: Extraversion will negatively influence UGC usage for the purpose of information acquisition.

Neuroticism is comprised of a number of sub-elements, including anxiousness, depression, guilt, low self-esteem, tension, shyness, irrationality, moodiness, and emotional displays (Eysenck, 1990). Neurotic individuals have been found to spend extensive time on the Internet seeking a sense of belonging (Amiel and Sargent, 2004; Hamburger and Ben-Artzi, 2000), and may use the Internet as a medium through which to communicate with the world. Therefore, neuroticism is expected to be associated with using the Internet for social

activities, such as chatting, e-mail, and other interpersonal communication activities. In addition, one's feelings of loneliness have been found to be positively associated with entertainment programming. Depression and loneliness may not be positively associated with information services, such as news sources, because exposure to such content may result in an emotionally negative experience for such viewers.

Hypothesis 2a: Neuroticism will positively influence UGC usage for the purpose of entertainment.

Hypothesis 2b: Neuroticism will positively influence UGC usage for the purpose of communication.

Hypothesis 2c: Neuroticism will negatively influence UGC usage for the purpose of information acquisition.

At the extreme, psychotics tend to be aggressive, cold, egocentric, impersonal, impulsive, antisocial, un-empathetic, creative, and tough-minded (Eysenck, 1990). Psychotics, who are characterized as breakers of societal rules, have been found to reject traditional media use motives, including passing time, companionship, relaxation, information gathering, and stimulation (Weaver, 2001). Psychotics' lack of interest in the social goings-on, as well as their general lack of regard for social conventions, may result in such individuals expressing less interest in UGC usage for the purpose of communication. In the same vein, it has been found that psychoticism is negatively associated with attention to information services, such as news and reality programming (Amiel and Sargent, 2004), because psychotics are not particularly interested in what happens to others.

Hypothesis 3a: Psychoticism will negatively influence UGC usage for the purpose of entertainment.

Hypothesis 3b: Psychoticism will negatively influence UGC usage for the purpose of communication.

Hypothesis 3c: Psychoticism will negatively influence UGC usage for the purpose of information acquisition.

2.2 Individual Differences in Flow Formation

Csikszentmihalyi (1990) emphasized that experiencing the flow state is associated with personality. This raises the question: "Which

personality types are predisposed to have higher levels of flow state experience?" Considering extraverts' active, venturesome qualities, people high in extraversion are expected to become highly involved in online media, and this active engagement may allow them to attain a high level of flow state experience. People who are at ease and relatively free from anxiety will have an easier time experiencing the flow state (Webster & Martocchio, 1992; Woszczynski, 2000). Therefore, we expect that individuals with higher neuroticism (i.e., high anxiety) may be easily frustrated in computer interactions. Therefore, we propose that these individuals will more likely be nervous when interacting with a new type of web service such as UGC, and may find it more difficult to enter the flow state experience. Recall that individuals high in psychoticism are represented by impersonal, impulsive, disorderly and antisocial behaviors, and these individuals show less concentration and attention compared to extraverts and neurotics. This implies that for a psychotic individual, control is most likely limited to control of him or herself.

Hypothesis 4a: Extraversion will positively influence the level of flow state experience.

Hypothesis 4b: Neuroticism will negatively influence the level of flow state experience.

Hypothesis 4c: Psychoticism will negatively influence the level of flow state experience.

2.3 Flow Influences on UGC Usage

Woszczynski (2000) found that the level of flow state experience is significantly associated with users' playful behaviors in computer usage. Because people experience playfulness and pleasure when they are in the flow state, they are more likely to continue prolonged engagements with those activities that offer them the chance to enter this state (Csikszentmihalyi, 1990; Trevino and Webster, 1992). Users exhibiting exploratory behaviors generally enjoy unfamiliar websites for the sake of variety, novelty, and curiosity (Novak et al., 2000), namely, for the purposes of entertainment, information, and communication. Therefore, this study hypothesizes the following:

Hypothesis 5a: The level of flow state experience positively influences UGC usage for the purpose of entertainment.

Hypothesis 5b: The level of flow state experience positively influences UGC usage for the purpose of information acquisition.

Hypothesis 5c: The level of flow state experience positively influences UGC usage for the purpose of communication.

III. Results

The hypotheses were tested with a structural equation path model, using AMOS version 7.0. The hypothesized model was tested across the sample (N = 370). The resulting χ^2 (23) = 50.84, $p < .01$; GFI = .97; AGFI = .93; CFI = .96; RMSEA = .06 suggests that the hypothesized model fits the data. In Table 5, we present the resulting standardized parameter estimates. Within the overall model, the estimates of the structural coefficients provide the basic tests of the proposed theory. Although all the proposed hypotheses corresponded with the expected signs, six hypotheses (H-2c, 3a, 3b, 4b, 4c, 5c) out of the fifteen were rejected.

IV. Conclusions

In conclusion, the overarching goal of this paper was to enrich our understanding of UGC usage. Using flow theory as our foundation, we empirically tested the impact of three personality traits (extroversion, neuroticism, psychoticism) on the level of flow state experience and three UGC usage types (entertainment, communication, information). Findings indicate that extroversion is positively related to the use of UGCs for entertainment, and negatively related to the use of UGCs for communication and information; neuroticism is positively related to the use of UGCs for entertainment and communication; and psychoticism is negatively related to the use of UGCs for information. In addition, only extroversion has an influence on flow, which is positive, and flow has a positive influence on UGC usage for entertainment and communication. This study extends flow theory by exploring antecedents and outcomes of the flow state. Several avenues for future research remain, and we hope this study will stimulate others to extend this line of research further.

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