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# The most potential principles of social media\*

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#### ABSTRACT

In this hyper-competitive and dynamic contemporary social media era, the need to satisfy a broad range of diversified users can present a challenge to technology companies. In order to identify the most potential principles of social media, this research paper crossapplies the Quality Function Deployment of House of Quality (QFD-HOD) method and the Multiple Criteria Decision Making (MCDM) method to synthetically cross-evaluate the results of completed questionnaires given to experts across various fields. This evaluation is done through interplay analyses of sixteen social media user desires (WHATs) and sixteen social media technological functions (HOWs). To further strengthen the research reliability and validity, the Analytical Network Process (ANP) model is applied to re-testify these measured consequences from an individual, group and environmental perspectives employing the Social Cognitive Theory (SCT). The results conclude that the five most significant social media principles are multiple device accessibility, content reality, individualizational, keyword-search engine and identity feature functions that will largely fulfill the needs of social media users.

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#### 1. Introduction

In the 1990s', the slow transmission speed of wireless bandwidth equipment was a serious restricted barrier in the development of Information Technology (IT) because users had to depend on traditionally fixed network lines to surf the latest news and information on the internet. This led to users having to be extensively limited to a specific physical location to access the internet as well as having only the ability to one-way surf on the internet. In particular, the majority of websites' content at that time were provided by enterprises that results in the information asymmetry between companies and IT users [1]. As a result of the technological development of wireless transmission, the majority of internet users began to not be satisfied with passive one-way internet surfing and started to want two-way internet surfing in order to write and upload information to websites for the purpose of actively being able to express their preferences and standpoints through diversified IT technology functions such as picture-sharing, vlogs, wall-postings, email, instant messaging, crowdsourcing and so forth. In the 2000's, two interactive two-way internet technologies were developed. The first one, Bulletin Board System (BBS), was created through the connection between IT users' modulator-demodulator (Modem) and internet world and it was considered an innovative IT technology because BBS can offer various digital functions such as bulletin boards, classified forums, digital news and games and so forth. The second technology, a virtual chatroom (chatroom), is a kind of website on a computer network where online conversations are held in real time by a number of IT users. Chatrooms are able to provide the communicated platforms between each IT user at the same chartroom or chartchannel through

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Fig. 1. The developed tendency periods of SM internet.

words and voice formats. The most well-known chatrooms are Windows Live Messenger (MSN), Halapo, Meebo and OPEN-ICQ (QQ). In succession, the "blog" were created by Jorn Barger on December 1997 through the functional integration with the blog and chatroom in order to daily record and comprehensively share individual experiences. Consequently, internet users have started to focus beyond commercial websites and have begun to pay more attention to public BBSs and personal blogs because they want to freely express not only their own comments and opinions in association with any particular issue but to also enable them to individually express their thoughts and experiences to each other. Consequently, this has resulted in the formation of individual virtual social network and communities. The swift development of IT transmission bandwidth and wireless technology in the 2000's has contributed to the introduction of Social Media (SM) and the world wide popularization of SM websites such as Facebook and YouTube [2], and provided various social media technological functions such as dynamic photos, voice and video files, real-time messages, global positioning system function, and etc. [3] to a bulk of internet users. The openness of IT coding functional technologies has opened up internet and IT users to the ability to dynamically create their own diversified blogs and websites with the various SM technological functions [4]. Consequently, the level of user's autonomy has rapidly increased since the beginning of 2000s'.

Since 2010, most internet and IT users have depended on obtaining comprehensive information from websites in anytime and anywhere through various wireless devices such as notebooks, tablet computers, smart phones and so forth [5], as a result of the rapid development of transmission bandwidth of wireless and telecommunication technologies, such as Wi-Fi transmission system, fourth generation of mobile phone mobile communication technology standards (4G). Due to the popularity, easiness and convenience of these various 3C devices [6-7], a significant number of internet users have become extensive users of SM enabling them to actively write and upload the individual information and news in an anytime and anywhere mode without time and location restrictions [8]. Consequently, a SM user can further create their own personal diversified mobile software applications ("APP") of SM technology to express their individual opinions and video-oriented data immediately which leads to a high level of user's autonomy and less reliance on web content provided by commercial enterprises. Fig. 1 illustrates and describes the four developed tendency periods of SM technology.

With reference to the developed tendency, SM technology has played crucial roles in the extensive websites' livability and for this reason; the majority of websites have commenced to find out the most influenced and potential elements and functions of SM technology in order to achieve users' extensive satisfaction. However, after reviewing the relative literatures in the SM research field [9-11], no research exists that have analyzed and discussed the comprehensive dependences and correlationships between the SM technological functions and users' desires from user-behavioral perspectives. For this reason, this research employs the Quality Function Deployment of House of Quality (QFD-HOD) method [12] to extensively verify the most influenced principles through the cross-measurements between Social Media User's Desires (WHATs) and Social Media Technological Functions (HOWs) to increment research validity. It also comprehensively applies the Grey Relation Analysis ("GRA") approach [13], entropy method, Fuzzy Theory (FT) and the Technique for Order Preference by Similarity to Ideal Solution ("TOPSIS") approaches [14] of Multiple Criteria Decision Making (MCDM) methodology [15] for the addition of the research reliability. In succession, with reflect to the raise of the research representativeness and verification, this Download English Version:

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