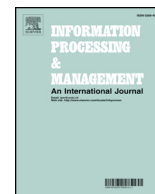




Contents lists available at ScienceDirect

Information Processing and Management

journal homepage: www.elsevier.com/locate/infoproman

A diary study of information encountering triggered by visual stimuli on micro-blogging services[☆]

Tingting Jiang^{a,b,*}, Qian Guo^a, Yaping Xu^a, Shiting Fu^a

^a School of Information Management, Wuhan University, Wuhan, 430072, China

^b Center for Studies of Information Resources, Wuhan University, Wuhan 430072, China

ARTICLE INFO

Keywords:

Information encountering
Visual stimuli
Diary study
Micro-blogging services

ABSTRACT

Despite various models established to present the process of information encountering (IE), little research has been done on the stimulus that plays an essential role in attracting users' attention and eliciting the subsequent behavioral responses during an IE process. This study was particularly interested in visual stimuli which are superior to textual ones in enhancing information processing and sensory experience. A diary study of IE was conducted in the context of micro-blogging services. They demonstrate the environmental characteristics conducive to IE and are especially abundant in visual stimuli. A total of 189 valid IE incidents triggered by visual stimuli on a representative micro-blogging service were collected with an online questionnaire created based on the critical incident technique (CIT) and analyzed both quantitatively and qualitatively. As found in this study, most of the visual stimuli triggering IE excluded text or motion, and their comprehensibility and novelty were both perceived to be high while humorousness much lower. The encountered micro-posts covered a wide range of topics and were published by different types of micro-bloggers. When interacting with the posts, the participants sometimes just examined their visual or textual content, but sometimes further captured the posts by liking, reposting, commenting, and following, etc. The significant results indicate that the visual stimuli excluding text and those with higher comprehensibility or humorousness were more likely to induce intense approach to the micro-posts. These findings inform micro-bloggers of the means of engaging the audience in intense interactions with their posts to gain persistent profit or reputation. The combination of diaries and the CIT is effective for data collection in IE research.

1. Introduction

In contrast to active and purposive information seeking, information encountering is finding unexpected information passively (Case, 2012; Erdelez, 1995). It has been investigated extensively in the field of information behavior, however under a variety of terminologies, including information encountering (IE), serendipity, accidental/opportunistic discovery of information (ADI/ODI), and opportunistic acquisition of information (OAI) and incidental information acquisition (IIA), etc. Erdelez (1999) described IE as unanticipated discovery of useful or interesting information when one is looking for other information. Serendipity was originally defined as “making discoveries by accident and sagacity, of things which one is not on quest of”, such as scientific discoveries (Foster

[☆] The authors claim that none of the material in the paper has been published or is under consideration for publication elsewhere. No conflict of interest exists in the submission of this manuscript, and manuscript is approved by all authors for publication.

* Corresponding author at: School of Information Management, Wuhan University, Wuhan, 430072, China.

E-mail address: tij@whu.edu.cn (T. Jiang).

<https://doi.org/10.1016/j.ipm.2018.08.005>

Received 9 April 2018; Received in revised form 19 August 2018; Accepted 20 August 2018
0306-4573/ © 2018 Elsevier Ltd. All rights reserved.

& Ellis, 2014, p. 1015). The “acquisition” in OAI/IIA implies that the incidentally discovered information is further captured or received into possession (Erdelez, 2004; Heinström, 2006). ADI and ODI are more general terms that refer to a special information phenomenon which may not only occur in information seeking but in all kinds of routine activities (Allen, Erdelez, & Marinov, 2013; Erdelez, 1997).

In particular, IE is used consistently throughout this paper to avoid possible confusion. As in its initial definition, this term emphasizes the low involvement in finding the information as well as the low expectation that the information will be found (Erdelez, 1995). In addition, low intentionality, i.e. the lack of intention to find the/any information, can be considered as a third defining characteristic of IE (Bates, 2002). This study also removes the limitation that IE occurs only in information seeking and extends its context to all kinds of online and offline activities. In a sense, it is used in a way very close to ADI/ODI. This study intends to concentrate on the point of encountering and investigate the trigger of and users’ reactions to the encounter.

Existing studies on IE can be categorized into two major streams, i.e. how and why IE occurs. The former stream has contributed a number of models which demonstrate the process of IE (Erdelez, 2004; Jiang, Liu, & Chi, 2015; Lawley & Tompkins, 2008; Makri & Blandford, 2012a; McCay-Peet & Toms, 2015), while the latter has identified various factors that may affect the chance of IE from the user (Erdelez, 1999; Heinström, 2006; McCay-Peet, Toms, & Kelloway, 2015), environment (McCay-Peet et al., 2015), and information dimensions (Jiang et al., 2015). In essence, IE follows a basic psychological process in which humans interact with the world – making behavioral responses to outside stimuli, only that the stimuli are accidentally encountered and lead people to information. It has been found that different characteristics of the stimuli may cause differences in both the direction and intensity of behavior. The behavioral direction mainly divides into approach and avoidance, and the behavioral intensity refers to the level of efforts people make to approach or avoid the encountered. For example, when encountering online ads, some users might just glance at the ads while others might further follow the links to view the products advertised, which represent respectively low and high intensity of approach (Elliot, Eder, & Harmon-Jones, 2013; Tang, Zhang, & Wu, 2015).

Although researchers have realized the indispensability of stimuli or triggers in initiating the IE process (Jiang et al., 2015; McCay-Peet & Toms, 2015), there still lacks focused research into the stimuli and how they elicit the subsequent behavioral responses. Despite the diversity of stimuli, this study was particularly interested in visual stimuli which are sensed through vision and distinguished from textual stimuli. Visual information, such as images and videos, is ubiquitous in online environments. It is superior to textual information in enhancing information processing and sensory experience (Blanco, Sarasa, & Sanclemente, 2010; Hsieh & Chen, 2011). Visual information can be processed 60,000 times faster than textual (Jibril & Abdullah, 2013). It is also more effective in reducing communication gap and in forming initial impression and persistent memory (Blanco et al., 2010; Kim & Lennon, 2008; Yoon & Chung, 2016). Moreover, approximately 65% of the humans are visual learners who prefer visual information over textual by nature (Vakos, 2003).

Micro-blogging services are typical online environments that are abundant in visual stimuli. Micro-bloggers post about a wide range of topics for various purposes. Micro-posts are small messages composed of short sentences, images, videos, and/or links, and they can be reposted, commented, and liked (Wang, Zhou, Jin, Fang, & Lee, 2017). According to some recent Twitter (<https://twitter.com/>) statistics, tweets with images receive 18% more clicks, 89% more likes, and 150% more retweets.¹ So micro-bloggers have a strong motivation to include visual elements in their posts. Also take Sina Weibo (<https://weibo.com/>) for example: approximately 60% of their posts contain images and more than 10% videos.² Trigger-rich is one of the most important environmental characteristics that are conducive to IE (McCay-Peet et al., 2015). In addition, most users visit micro-blogging services for news reading and other daily monitoring activities, during which IE are very likely to occur (Heinström, 2006). Hence, this study chose micro-blogging services as the context to explore IE triggered by visual stimuli.

The aim of this study was to gain an insight into the process of IE in which visual stimuli attract users’ attention and then users respond to the stimuli. The focus was on how the characteristics of visual stimuli influence users’ behavioral intensity in approaching the encountered information. To achieve this aim, a diary study was conducted to collect a large number of real-world IE incidents from micro-blogging service users. The significance of this study consists not only in drilling deeper into the IE process to reveal the relationships among the noticing, examining, and capturing phases, but also in providing a deeper understanding about the strengths and weaknesses of IE research methods.

2. Literature review

2.1. User behaviors on micro-blogging services

Consuming, contributing, and creating constitute the three levels of user behaviors on social media, with consuming featuring the lowest user participation while creating the highest (Casalo, Flavián, & Ibañez, 2017). As a popular type of social media, micro-blogging services allow users to post, share or repost, like, reply to, and comment on personal or public messages (Riquelme & González-Cantergiani, 2016). Existing related studies have investigated all these behaviors (Jansen, Zhang, Sobel, & Chowdury, 2009; Kim & Yang, 2017). According to Kim and Yang (2017), the least commitment is required for the liking behavior and the most for sharing, with commenting in the middle. Sabate, Berbegal-Mirabent, Cañabate, and Lebherz (2014) instead believed that commenting involves more active cognitive activities than sharing and liking as users need to spend time and effort to express their

¹ <http://www.adweek.com/digital/twitter-images-study/>

² <http://data.weibo.com/report/reportDetail?id=404&sudaref=www.baidu.com&display=0&retcode=6102>

Download English Version:

<https://daneshyari.com/en/article/10225989>

Download Persian Version:

<https://daneshyari.com/article/10225989>

[Daneshyari.com](https://daneshyari.com)