



Displacement or complementarity? Assessing the relationship between social media and public library usage in the U.S., South Korea, and Singapore



Sei-Ching Joanna Sin^{a,*}, Nahyun Kwon^b

^a Wee Kim Wee School of Communication and Information, Nanyang Technological University, 31 Nanyang Link, Singapore 637718, Singapore

^b Department of Library and Information Science, Myongji University, 50-3 Namgajwadong, Seodaemun-gu, Seoul 120-728, South Korea

A B S T R A C T

The relevancy of public libraries is often called into question, with some saying that library services have been or will be displaced by, among other things, new media such as social media. This study tested this displacement hypothesis with survey data collected from three nations (the U.S.: $N = 879$; South Korea: $N = 700$; and Singapore: $N = 987$). Ordinal regressions were used to investigate the relationship between the use of social media and nine public library services, taking into account individual demographic differences. The results show that for all three nations, social media use has significant complementary relationships with all nine library services examined. Computer and information literacy training showed the largest effect size. However, signs of displacement effects were observed in the odds ratio statistics, particularly among daily social media users and in reference services, library visits, and time spent in the library, suggesting that where displacement is concerned, these areas warrant extra attention.

1. Introduction

The meteoric rise of social media—which are “highly interactive platforms...[through which] individuals and communities share, co-create, discuss, and modify user-generated content” (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011, p. 241)—prompts questions about their impact on individuals and society. The number of active social media accounts exceeds two billion worldwide (Statista, 2016). People of different age groups increasingly turn to social media not only for social connection, but also to obtain and exchange news and information (Pew Research Center, 2015; Statista, 2015). It is a pressing question how this trend affects the use and relevancy of other information sources, particularly tax-funded institutions such as public libraries (Hernon & Schwartz, 2015). It is not uncommon to see public expressions which question the value of public libraries, citing that socio-technological developments have, or will soon, render libraries obsolete (Siegler, 2013; Worstall, 2014).

2. Problem statement

Does social media use undermine the use of public libraries, as suggested by the media displacement theory? The Internet has been

found to have displaced several traditional media outlets, such as TVs, radios, and newspapers (De Waal & Schoenbach, 2010; Nie & Hillygus, 2002). However, findings have been inconsistent (Lee & Leung, 2008). Concerning library use, the few studies testing the Internet's effects on public libraries have found a complementary relationship instead (D'Elia, Jörgensen, Woelfel, & Rodger, 2002; Vakkari, 2012, 2014). Social media platforms, with higher levels of interactivity than traditional Web sources, may affect the use of other information resources in different ways. Currently, it is unclear whether social media use displaces or complements the use of different public library services and resources (hereafter, “library services”).

In light of this research gap, this study tests the displacement hypothesis between social media use and public library use with survey data from three nations (the U.S., South Korea, and Singapore). The research questions (RQs) are:

RQ1: How does the frequency of social media use relate to the frequency of using different public library services, after accounting for individual differences (e.g., age, gender, education, income, and Internet use)?

RQ2: Do the aforementioned relationships manifest in similar ways in the three countries?

* Corresponding author.

E-mail address: joanna.sin@ntu.edu.sg (S.-C.J. Sin).

The implications of this research are three-fold. First, it can provide insights into the ecology of consumers' information horizons, particularly in reference to individuals' behaviors regarding the potential competition or complementarity between two notable information sources: public libraries and social media. In so doing, the study serves as a broad environmental scan and user assessment, which will be of interest to policy makers and information professionals seeking to shape the vision and future direction of the information landscape. Second, the study accounts for core individual demographic differences by investigating the displacement hypothesis using ordinal regression, which is a class of generalized linear models for analyzing the relationships between a set of explanatory variables and an ordinal dependent variable (Garson, 2014). In addition, the hypothesis was tested using data from three nations. This approach is rarely used in analyzing social media vis-à-vis public library use. The results, therefore, can contribute to theory verification and development with regard to the displacement effects of social media. Last but not least, some libraries have leveraged or are considering leveraging social media to deliver and market library services. This research investigates how the users of social media use a variety of library services. It will contribute to a more fine-grained understanding of the characteristics and behaviors of social media users, which can be of use to librarians interested in developing and designing library services using social media.

3. Literature review

3.1. Media displacement and media complementarity

Research on potential media displacement can be traced back to Lazarsfeld's (1940) research regarding the effect of the radio on printed media. Media displacement theory suggests a negative relationship between the use of new media and that of older media. Research suggests two potential mechanisms: time displacement and functional equivalence. The premise of the time displacement hypothesis is that each person has only a limited amount of time to spend on media use. A zero-sum relationship is posited, suggesting an increase in use of a new medium will reduce the amount of time available to spend on previously existing media. The functional equivalence hypothesis states that consumers may perceive different media as serving the same or similar "gratification niches" or "functional niches" (Dimmick, 2003). If an individual considers a new medium to be superior in serving a specific need (i.e., the new medium has competitive superiority), users will forgo an existing medium that is functionally equivalent or similar (Himmelweit, Oppenheim, & Vince, 1958).

Review of the literature indicates that some studies have found displacement effects in different media, for example, the displacement of comic book reading and movie viewing by television viewing (Himmelweit et al., 1958; Hornik, 1981), and the displacements of television, radio and newspaper by the Internet (De Waal & Schoenbach, 2010; Dimmick, 2003; Kayany & Yelsma, 2000; Kraut, Kiesler, Boneva, & Shklovski, 2006; Lee & Leung, 2008; Nie & Hillygus, 2002; Shim, Kim, & Ha, 2009; Yu, 2004). Given the evolving socio-technological development and changing information environment, continuous empirical testing is needed to examine whether similar displacement effects can be found today. In addition, while there has been evidence of displacement effects, the findings have been inconsistent. For example, some studies found no significant displacement effects regarding Internet use (Nguyen & Western, 2006), while other studies even found a positive relationship between the use of the Internet and other media (Robinson, 2011; Robinson, Kestnbaum, Neustadt, & Alvarez, 2000; Stempel, Hargrove, & Bernt, 2000).

Dutta-Bergman (2004) proposed the media complementarity theory, which suggests that different media types can complement one another. This theory centers on content complementarity. It posits that individuals interested in a particular topic (e.g., politics, sports) may use a combination of media sources (e.g., online news and printed

news) to optimize their access to information in the domain of interest. Some information behavior studies have found complementary effects across media types, such as in health information seeking (Ruppel & Rains, 2012; Tian & Robinson, 2008). In light of prior inconclusive results, the current study seeks to explore empirically whether individuals' use of public library services and social media exhibit a pattern closer to the displacement or complementary relationship.

3.2. Displacement effect on public library use

There are few large-scale multi-national studies testing the potential displacement effect of social media on a variety of public library services. Given the dearth of research on this topic, a brief review of a related medium—the Internet—may be of interest. Overall, studies on Internet use and public library use suggest a complementary effect. For example, D'Elia et al. (2002) conducted a national survey of 3097 respondents in the U.S. and concluded that Internet use and library use were complementary. They cautioned, however, that libraries are experiencing competition from the Internet. About 20% of respondents used only the Internet and not public libraries. Even among respondents who used both the Internet and libraries, the Internet was considered superior to the library in 10 out of 16 characteristics (including range of resources, ease of use, ease of access, and enjoyment) (D'Elia et al., 2002). More recently, Vakkari (2012) studied a national stratified random sample of 1000 Finns aged 15 to 79 and found that public library use had a statistically significantly positive relationship with Internet use on four aspects of public library use: studying, work and business, everyday activities, and leisure activities. Notably, subsequent analyses revealed that Internet use remains a significant predictor of library use and perceived benefits, even after accounting for individual differences (Vakkari, 2012, 2014).

Currently, it is unclear whether the effect of social media on library use is similar to the effect of the Internet on libraries. While social media shares certain characteristics with the Internet (e.g., virtual access), the former offers a higher level of interactivity. Rather than focusing on locating documents that already exist within the traditional Web, social media makes it easy to actively ask questions and seek help from friends or complete strangers. The speed and scale with which individuals exchange information through social media, especially during crises, have drawn significant attention (Austin, Liu, & Jin, 2012; Heverin & Zach, 2012). The Q & A function of social media is quite similar to that of reference services offered by libraries (Oh & Worrall, 2013; Shah & Kitzie, 2012; Shah, Oh, & Oh, 2009). Patrons who used to ask questions of reference librarians may now turn to social media platforms, such as Facebook, Twitter, or Yahoo! Answers, to obtain quick answers from multiple people. Through these social interactions, social media may also be considered to overlap, to an extent, with the function of libraries as places for meeting and spending time (Audunson, Essmat, & Aabø, 2011; Di Marino & Lapintie, 2015). Given the wide range of functions libraries provide, the displacement effect of social media may vary across different types of library services. It is important to measure and identify the specific library services that are affected.

There remains a question as to whether the effects of social media are the same across countries, as countries may differ in their socio-technological and cultural environments or in library provision and usage patterns. In terms of Internet and social media use, Kemp (2016) provides snapshots of Internet and social media statistics of 30 countries, which were used in the present study to compare the basic information and communication technology patterns of the three nations. As of 2016, the Internet penetration rate in Korea was the highest among the three nations (90%). This was followed by 87% in the U.S. and 82% in Singapore. The rates were all higher than the global rate (46%). The proportion of people with active social media accounts was highest in Korea (76%), followed by Singapore (64%), and the U.S. (59%). U.S. users on average spent more hours per day on social media

Download English Version:

<https://daneshyari.com/en/article/5123871>

Download Persian Version:

<https://daneshyari.com/article/5123871>

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