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Stumbling upon news on the Internet: Effects of incidental news exposure and relative entertainment use on political engagement



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ABSTRACT

Contemporary concerns that the Internet might lead to political apathy are based on suggestions that people would use the Internet for entertainment purposes rather than news consumption. However, what if someone stumbles upon news when surfing the Internet? Would this incidental news exposure online be helpful in promoting citizens' political engagement? This study tests whether and how incidental news exposure (INE) and relative entertainment use (REU) on the Internet are associated with political participation. Drawing from US national data, results revealed a significant and positive relationship between INE and offline and online political participation while REU was negatively associated with offline and online political participation. More importantly, the role of INE in facilitating citizens' online political participation was stronger for those who consume less entertainment online, indicating that incidental news exposure may increase existing gaps in political participation between people who prefer news and people who prefer entertainment online.

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1. Introduction

Given that an active citizenry has important implications for democratic society (Dahl, 1989; Delli Carpini & Keeter, 1996), communication scholars have focused on how the Internet may either contribute to or be harmful in informing citizens and promoting their political engagement. Some scholars see the Internet as having the potential for a more healthy democracy since it provides citizens with easy access to ample information about politics and news and offers less costly venues for engagement in politics. Others argue that the Internet may be harmful for democratic society because increased opportunities for individual control of online content enables individuals to avoid news and information about public affairs. That is, although the Internet provides a vast amount of information, it allows people to consume media content that matches their individual interests and needs (Sunstein, 2001; Tewksbury, 2005), which in turn might increase opportunities to select mainly entertainment content and avoid news: thereby leading to a decrease in political participation (Prior, 2005, 2007; Scheufele & Nisbet, 2002).

Yet an important phenomenon needs to be taken into consideration in the debate over the role of the Internet in a democratic process, which is incidental news exposure online. There are

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increasing opportunities for people to stumble onto news even when they surf the Internet for non-news items (Pew Research Center for the People and the Press, 1999). Moreover, recent changes in the contemporary Internet environment (e.g., search engines, social networking sites, and microblogs like Twitter) suggest that the role of unintentional news exposure may have a significant potential for providing information about politics and public affairs (Kim, Hsu, & Gil de Zúñiga, 2013). With increased opportunities for unintentional exposure to news on the Internet, more people may be exposed to a greater number of stories about politics and public affairs, including mobilizing information (Lemert, 1984). As a consequence, surfing the Internet might inadvertently contribute to participatory citizenship—that is, engagement in political activities—through incidental news exposure.

Unfortunately, however, very little is known about the effects of incidental news exposure on political variables (e.g., political knowledge and political engagement). One notable exception (Tewksbury, Weaver, & Maddex, 2001) examined the effects of incidental news exposure online on individuals' current affairs knowledge and found that accidental news exposure may have a positive role in informing citizens. Despite the fact that the possibilities of getting news accidentally online have increased in the contemporary new media environment, very little attention has been paid to this topic, which calls for further investigation of the role of incidental exposure. In particular, while Tewksbury et al. (2001) shed light on an understudied area – namely, the role of unintentional news exposure in the democratic process – they

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did not take into consideration the role of incidental exposure in promoting citizens' political engagement.

Nor has research to date inquired about the relationship between incidental news exposure and relative entertainment use - individuals' preferences for entertainment over news on the Internet. In other words, how do these two possible types of exposure - incidental exposure to news online and relative entertainment use or selective exposure to entertainment - interact with each other in affecting individuals' political participation behaviors? Existing studies have produced inconsistent findings about whether the Internet has a positive or negative effect on political participation, in part, due to different operationalization of Internet use (Boulianne, 2009). In general, however, it is agreed that entertainment use may have a negative impact on the public's political knowledge and their political engagement whereas news consumption may have a positive effect (Prior, 2005; Scheufele & Nisbet, 2002). Yet unanswered is this question: what if someone stumbles upon news when surfing the Internet for a different purpose? Is this incidental news exposure online helpful for democratic citizenship (i.e., participatory democracy)?

The present study aims to fill a gap in the literature by examining whether and how incidental news exposure online and relative entertainment use are associated with individuals' political participation; also, how incidental news exposure and relative entertainment use interact with each other to influence political engagement.

2. Literature review

2.1. Incidental news exposure and political participation

Literature has demonstrated that news media use positively influences people's political participation by providing mobilizing information and facilitating political conversations among citizens (Lemert, 1984; Norris, 2000; Shah, Cho, Eveland, & Kwak, 2005; Wolfinger & Rosenstone, 1980). Specifically, studies have identified increased levels of political engagement among individuals who are exposed to news online or who discuss public affairs over the Internet (Rojas et al., 2005; Shah, Kwak, & Holbert, 2001), Meanwhile, studies on effects of news media use have focused mainly on the audience's active or goal-oriented consumption of news through mainstream media (Jung, Kim, & Gil de Zúñiga, 2011; Shah et al., 2005) or via less conventional sources such as social media (Gil de Zúñiga, Correa, & Valenzuela, 2012; Gil de Zúñiga, Jung, & Valenzuela, 2012). In other words, researchers have assumed that the audience's intentional motivations (e.g., surveillance motivations) to consume news may result in media effects, such as raising political knowledge along with forming or influencing individuals' attitudes and behaviors.

In fact, people are often exposed to information while they are navigating online for other purposes—that is, people inadvertently consume news and information on the Internet when they are not actively seeking it. These encounters, considered a "byproduct" of online activities, are referred to as incidental exposure (Tewksbury et al., 2001, p. 533). In the same way that people are known to receive general news and information either intentionally and incidentally (Beaudoin, 2008; Tewksbury et al., 2001) it is likely that when people surf the Internet they will unintentionally be exposed to news and information about politics.

The concept of incidental or accidental news exposure is not entirely new; Rubin (1984) proposed that how audiences use the media can be either instrumental or ritual. Instrumental use refers to an active, selective, and purposive consumption of certain media content for specific purposes while ritualized use is the habitual consumption of a medium for diversion. Compared to instrumental use, people who practice ritualized use have greater exposure to, and attachment to, the medium but in a less active, goal-oriented

manner. As a result, media use can differ significantly depending on people's goals. Some people may find the Internet to be a resource for active information seeking, while others may consider the Internet a place to find pleasurable experiences by simply surfing and linking online. In other words, people may be oftentimes incidentally informed while habitually using media (Zukin & Snyder, 1984). The concept of information cost for the process of learning sheds light on incidental exposure (Downs, 1957). Active seeking of information requires individuals to pay information costs (e.g., time, effort, and money), while the alternative route of getting information – accidental exposure to news and information – allows people to obtain information without seeking it and without paying much cost for it. In that way, individuals can also learn about public affairs through incidental news exposure; and that process is called incidental learning (Downs, 1957).

A notable study examined how incidental news exposure online influences individuals' political knowledge and supports the positive influence of incidental news exposure on informing citizens (Tewksbury et al., 2001). To date, however, no studies have investigated the role of incidental news exposure in participatory democracy. In light of the increasing possibilities and importance of incidental exposure on the Internet, it is necessary to develop a better understanding of the role it plays in individuals' political participation, especially when very little attention has been devoted to the understanding of whether incidental news exposure online may facilitate political engagement.

Today's online environment is constantly evolving, shaping, and offering new avenues for people to acquire information about current events in ways that differ from other media; likewise, it offers new ways in which to participate politically (Gil de Zúñiga, Puig-i-Abril, & Rojas, 2009). For instance, the evolution of some sites from being solely search engines to now being portal web sites, such as Yahoo!, Baidu, AOL and MSN.com - each among the most popular web sites that people visit on the Internet – provides information from diverse sources in a holistic way. Some now serve as personalized services with a consistent look and feel allowing controlled access to multiple applications and databases (Tewksbury et al., 2001). As a consequence, when people start their Internet activities, it is possible they may encounter news stories or political information with the absence of motivation to become informed. The increasing online use of other Internet applications, such as social networking sites like MySpace and Facebook, or microblogging services as Twitter, also increases opportunities to encounter news while updating information on social networks (Nielsen Reports, 2009).

Given the increasing opportunities of obtaining news and information incidentally and its significant role in providing information about current affairs (e.g., Tewksbury et al., 2001), incidental news exposure may contribute to greater levels of political participation because it provides users with mobilizing information during campaign periods. Therefore, we posit the following hypotheses:

H1a. There will be a positive relationship between incidental news exposure on the Internet and offline political participation.

H1b. There will be a positive relationship between incidental news exposure on the Internet and online political participation.

As described above, in the contemporary new media environment, incidental news exposure on the Internet may happen in a variety of forms and on websites such as portal sites, blogs, and social networking sites. Despite the originality of Tewksbury et al.'s (2001) study examining the role of incidental news exposure online, their study used a single, fairly abstract and weak question for measuring incidental news exposure—a single item asking

whether participants were exposed to news and information on current events or politics when they were online for a purpose other than to seek news. To fill this gap and to better capture the phenomenon of incidental news exposure in the current media environment, this study used a set of questions which asked respondents to report the extent to which they are incidentally exposed to news and information about politics on various online websites in which people might inadvertently encounter news (e.g., search engine like Google, portal sites, forums or listservs, blogs, and social networking sites).

2.2. Relative entertainment use and political participation

There have been concerns that the Internet might lead to political apathy. Scholars have voiced pessimistic concerns that the consequences of a high-choice media environment might lead to a decline in an informed and active citizenry (Prior, 2005, 2007; Tewksbury, 2005). These concerns are based on arguments that people may use the Internet for entertainment purposes rather than for news consumption (Putnam, 1995, 2000).

The Internet has been considered to provide users with not only greater content diversification but also with increased control over information selection (Kim, 2012; Zillmann, Chen, Knobloch-Westerwick, & Callison, 2004). The Internet has been found to offer conditions more conducive to selective exposure when compared with television news, newspapers, and talk shows (Bimber & Davis, 2003). Therefore, with higher selectivity (i.e., the extent which people select media content on the Internet is greater than for other mass media such as newspapers), Internet users have the ability to choose the content they prefer (Tewksbury & Althaus, 2000). On the Internet, people are provided with greater opportunities to select news when they are interested in politics; but for those who prefer nonpolitical content, it is easier for them to avoid political information and be attracted by other types of content that take the place of news consumption (Prior, 2005).

When presented with greater media choices, many people may abandon news content for entertainment content simply because they like it better or because the selection of entertainment content can maximize their comfort through the provision of pacifying information (Prior, 2005; Zillmann & Bryant, 1985). Scheufele and Nisbet's (2002) study found that using the Internet for entertainment purposes may decrease political participation compared to those who attend to the Internet for information-seeking purposes. Prior demonstrated that people's relative preferences for entertainment over news may have negative influences on political knowledge and voter turnout (2005). To conclude, an increase in people's attention to entertainment instead of news content-which we refer to as relative entertainment use online or REU-may logically translate into a decline in people's attention to an interest in news and information about politics, thereby leading to a decrease in political participation.

H2a. There will be a negative relationship between participants' relative entertainment use to news (REU) and offline political participation.

H2b. There will be a negative relationship between participants' relative entertainment use to news (REU) and online political participation.

2.3. Interactions of INE and REU: The role of REU in participation gaps

More interesting, from our perspective, are possible interactions between incidental news exposure and relative entertainment use in terms of influencing people's political engagement. In the context of the Internet, no research to date has examined how relative entertainment use interplays with incidental news exposure with regard to explaining people's political participation. Even though the interaction relationships between REU and INE have not been addressed in extant literature, we acknowledge there may be widening participation gaps between people who prefer entertainment and people who prefer news. Prior's study (2005) provides insights that content preference (i.e., relative preference for entertainment over news) may widen political participation gaps in the highchoice media environment. According to Prior (2005), when people have a great number of media choices, such as cable TV and the Internet, those who like news may take advantage of abundant news and information about politics while people who prefer entertainment may avoid political information and become less interested in politics and less likely to engage in political activities. thereby leading to widening participation gaps. The same rationale can be applied to the context of incidental news exposure online. People who like entertainment might abandon or ignore news and information when they stumble upon news inadvertently. By contrast, people who prefer news might take advantage of incidental news exposure, such as mobilizing information, when they accidently encounter information about politics.

The limited-capacity information processing model helps to explain our rationale for a possible interaction between INE and REU. This model posits that the availability of individuals' resources for information processing is limited, and that the human's information-processing system is operated by allocating their limited-resources to a specific message depending, for example, on the goals and needs of individual (Lang, 2000). Therefore, people who use the Internet primarily for entertainment may not allocate their resources to content other than entertainment; thus they may ignore news about politics and mobilizing information even when they are incidentally exposed on the Internet. On the other hand, people with greater preferences for news than entertainment may be more likely to allocate their limited resources to news and information about politics when they accidently encounter that type of content. Therefore, this study proposes the following hypotheses:

H3a. Relative entertainment use (REU) will moderate the relationship between incidental news exposure (INE) and offline political participation. That is, the effects of INE on offline participation will be stronger for those who reporting lower REU—offline participation gaps between people who prefer entertainment and people who prefer news.

H3b. Relative entertainment use (REU) will moderate the relationship between incidental news exposure (INE) and online political participation. That is, the effects of INE on online participation will be stronger for those who reporting lower REU—online participation gaps between people who prefer entertainment and people who prefer news.

3. Research method

3.1. Data

The data for this study was collected via an online survey of adults in the US from December 15, 2008 to January 5, 2009. The data set used in this study is based on an online panel administered by the Media Research Lab at the University of Texas at Austin. The Media Research Lab based this national sample on two US Census variables: gender and age. For a more accurate

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representation of the population, the matched sample using census data has been validated in previous research (lyengar & Hahn, 2009). After matching a 10,000 random draw, 1432 e-mail addresses turned out to be invalid. The remaining panel participants were invited to participate in the survey via email. This invitation provided participants with a time estimate for completing the survey and an explanation of the monetary incentive. The first invitation was sent December 15, 2008, with three reminders sent in the following three weeks to improve response rates. A concluding reminder was sent January 5, 2009. After removal of invalid email addresses, of the remaining 8568 participants, 1159 completed the survey. The American Association of Public Opinion Research's (AAPOR) RR3 calculation yielded a 22.8% response rate (2008, pp. 34–35).

3.2. Operationalization

3.2.1. Offline political participation

Respondents were asked whether, during the past 12 months, they had attended a public hearing, town hall meeting, or a city council meeting; called or sent a letter to an elected public official; spoken to a public official in person; posted a political sign, banner, button or bumper sticker; attended a political rally; participated in any demonstrations, protests, or marches; written a letter to a news organization; participated in groups that took any local action for social or political reform; and been involved in public interest groups, political action groups, political clubs, or party committees. Scores of each item were added into an index (α = .82, range = 0–9, M = 2.09, SD = 2.38).

3.2.2. Online political participation

An index for online participation was created from six items measuring how often subjects used the Internet to do the following activities: write to a politician; make a campaign contribution; subscribe to a political listserv; sign up to volunteer for a campaign/issue; send a political message via e-mail; and write a letter to the editor of a newspaper. Respondents answered on a 10-point scale; scores were added to create an index (α = .87, range = 6–60, M = 15.02, SD = 10.75).

3.2.3. Relative entertainment use online (REU)

Using a 10-point scale, respondents were asked the frequency with which they used the Internet for entertainment and sports information. Respondents were also asked to rate how often they used the Internet for news. They were asked to rate how often they subscribed to RSS feeds such as Google Reader or Outlook RSS feed for news and how often they got news via other sources, for example, Twitter. To compute respondents' relative entertainment use on the Internet, we created an index comparing relative entertainment use on the Internet to online news use, based on Prior's (2007) indicator of relative entertainment preference.²

We calculated respondents' relative entertainment use (REU) by dividing respondents' scores of online entertainment use by scores combining online entertainment and news use (M = .69, SD = .18).

REU = (entertainment use)/(entertainment use + news use)

For example, an entertainment-use score of 10 and news-use score of 0 would yield a REU of 1 (10/(10+0)), with higher REU indicating a higher level of entertainment use compared to news use on the Internet.

3.2.4. Incidental news exposure online (INE)

Unintentional exposure to news on the Internet was measured with a question based on a previous study (Tewksbury et al., 2001). Respondents were asked to estimate on a 7-point scale how often they unintentionally encounter news when they were going online: via search engines (like Google), headlines on a portal (like AOL or Yahoo!), via personal e-mail, forums or listservs, blogs, social networking sites, via advertisements, or instant messaging (α = .81, range = 8–80, M = 30.69, SD = 14.49).

3.2.5. Control variables

A set of additional variables, which have been found to be related to political participation, were included in the regression models to control for potential confounds. A variety of demographic variables were included for control purposes. The respondents' age (M = 45.79, SD = 11.31), gender (Male = 33%, Female = 67%), and race (White = 84%) were asked in the survey. Respondents were also asked about their highest level of formal education attained, which ranged from 1, indicating "less than high school," to 8, indicating "doctoral degree" (M = 4.15, SD = 1.57, Mdn = 2-year college degree). Income was measured with 15 categories, with 1 indicating under \$20,000 and 15 indicating over \$150,000) (M = 6.05, SD = 4.03, Mdn = \$50,000 - \$59,999).

Strength of respondents' party identification and political efficacy have been identified as predictors of increased political knowledge and political interest as well as political engagement (e.g., Kim, 2011; Mutz, 2002). Measured with an 11-point scale ranging from strong Republican to strong Democrat, this item was folded into a 6-point scale and recoded ranging from weak partisanship to strong partisanship (M = 3.31, SD = 1.79). Respondents' political efficacy was measured with the question: "I think people like me can influence government," and ranged from 1 = "not at all" to 10 = "all the time" (M = 4.97, SD = 2.54).

Respondents were also asked to rate on a 7-point scale how often they used news media to get information about events, public issues, and politics. The survey included 8 items: network TV news, cable TV news, local TV news, radio news, print newspapers, online newspapers, print news magazines, and online news magazines (α = .68, range = 1–56, M = 23.35, SD = 8.78). In addition, given the importance of discussion in predicting political activities (Valenzuela, Kim, & Gil de Zúñiga, 2012), this study controlled for this effect. Respondents' were asked items that indicated how frequently they engaged in interpersonal discussion. For both items, subjects needed to rate on a 10-point scale how often they talked about politics or public affairs with their family or friends and co-workers and acquaintances (α = .73, range = 0–18, M = 9.75, SD = 5.17).

3.3. Data analysis

In order to test the hypotheses, two sets of OLS (ordinary least squares) hierarchical regressions were employed for each dependent variable—offline political participation and online political participation. The respondents' demographics, strength of partisanship, political efficacy, news media use, and political discussion were entered as control variables in the first block. These were followed by two primary independent variables—incidental news exposure (INE) and relative entertainment use (REU). The interaction term (INE × REU) was entered in each model to test

¹ The formula for RR3 is (complete interviews)/(complete interviews + eligible nonresponse + ε (unknown eligibility), where ε was estimated using the proportional allocation method, i.e., (eligible cases)/(eligible cases + ineligible cases). While the response rate was relatively low, it was within the acceptable range for panel webbased surveys (Sax, Gilmartin, & Bryant, 2003) and yielded similar generalizability confidence to those reported by the Pew Research Center and the Internet & American Life Project as well as other organizations that employ a random-digit dialing sampling (Pew Internet & American Life Project, 2009).

² Prior's indicator of relative entertainment preference (REP) = Entertainment Viewing/(Entertainment Viewing + News Viewing). See Prior, 2007, p. 124, for more about this

interaction effects of INE and REU on offline and online participation. To avoid multicollinearity, the component variables were standardized prior to the formation of the interaction term (Cronbach, 1987; Eveland, 1997). SPSS 18.0 was used for the analyses.

4. Results

Table 1 presents the results of the regression models predicting offline and online political participation. The statistical models explained 22.8% of the variance of offline political participation and 32.7% of the variance of online participation. Consonant with previous research, individuals' age, education, income, strength of partisanship, political efficacy, news media use, and political discussion were positively associated with offline political participation or online political participation.

H1 predicted that INE would be positively related to offline political participation (H1a) and online political participation (H1b). As predicted, incidental new exposure was significantly associated with offline political participation (β = .086, p < .05) and online political participation ($\beta = .240$, p < .001). Thus, both H1a and H1b were supported. Individuals exhibiting greater degrees of incidental news exposure were more likely to engage in political activities both offline and online.

H2, relative entertainment use will be negatively associated with offline and online political participation, also was supported. As Table 1 shows, REU was negatively and significantly related to offline political participation ($\beta = -.131$, p < .001, **H2a**) and online political participation ($\beta = -.143$, p < .001, **H2b**). Those who were more likely to use the Internet for entertainment were less likely to participate in traditional and online forms of political participation. These results suggest that the Internet for entertainment use may have a negative impact on a participatory democracy.

Beyond establishing the main effects of INE and REU, exploring the interplay of selective exposure to entertainment and incidental news exposure to political participation is a key purpose of the

Table 1 Predicting offline and online political participation.

	Offline participation	Online participation
Block 1: Control variables		
Age	.119***	.069°
Gender (female)	.017	.002
Education	.186***	.104**
Income	.099**	024
Race/ethnicity (white)	.009	.015
Strength of partisanship	.018	.099***
Political self-efficacy	.127***	.188***
News media use	.092**	.087**
Political discussion	.167***	.128***
ΔR^2 (%)	20.4***	23.3***
Block 2: REU and INE		
Relative entertainment use (REU)	131***	143***
Incidental news exposure (INE)	.086*	.240***
ΔR^2 (%)	2.4***	7.9***
Block 3: Interaction		
$REU \times INE$	019	131***
ΔR^2 (%)	.0	1.5*
Total R ² (%)	22.8***	32.7***

Note: Sample size = 952; coefficients are standardized regression coefficients (betas). The variance inflation factor (VIF) of all independent variables was less than 10. suggesting that there was no multicollinearity problem (Neter, Kutner, Nachtsheim, & Wasserman, 1996).

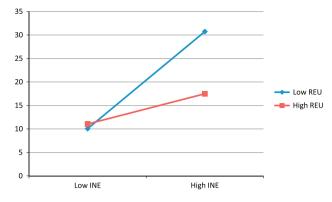


Fig. 1. Interaction of INE and REU on online political participation.

current study. H3 predicted that the influence of incidental news exposure on offline political participation (H3a) and online participation (**H3b**) would be moderated by relative entertainment use—that is, there will be participation gaps between people who prefer entertainment and people who prefer news. For traditional forms of political participation, there was no significant interaction effect of INE and REU. For online forms of political participation, however, the interaction between REU and INE was found to be significant for online political participation (see the right column in Table 1). Thus, H3a was not supported while H3b was supported. The relationship between REU and INE on online political participation was plotted in Fig. 1.

As Fig. 1 presents, the positive effect of incidental news exposure on online political participation was stronger for respondents with lower levels of relative entertainment use. In other words, individuals who used less entertainment (i.e., lower REU) tended to participate more in political activities than those who used more entertainment (i.e., higher REU) if they were accidentally exposed to news more often. These findings indicate that incidental news exposure online may contribute to widening citizens' online political participation between people who use the Internet more for entertainment and people who prefer news.

5. Discussion

This study sheds light on the role of the Internet for participatory democracy by examining how and whether incidental news exposure and relative entertainment use online are related to citizens' political participation. It does so in a unique way by further analyzing how people's incidental news exposure and selective or relative entertainment use interplay in influencing individuals' political engagement. The results of our analysis offer evidence that unintentional or accidental news exposure on the Internet may play a significant role in facilitating people's political participation. INE was found to have significant effects on both traditional forms and online forms of participation. These results indicate that incidental news exposure online may have a positive role in promoting citizens' political participation-as well as informing citizens (Tewksbury et al., 2001).

Pessimistic concerns regarding Internet use relative to political participation also turned out to be supported. Results indicate that Internet use for entertainment may have an overall negative impact on citizens' political engagement. Significant negative relationships were found between the respondents' relative entertainment use and political participation. Consistent with previous studies, if people tend to abandon news for entertainment in a digital media environment that provides users with diversified content and increased control over information selection, they

^{*} p < .05.

p < .01. p < .001.

may be less likely to be involved in political activities both offline and online. These results suggest that the increasing abundance of content in the media environment may facilitate inactive citizenship or political apathy by allowing people to selectively avoid news and selectively expose themselves mainly to entertainment on the Internet.

More importantly, Internet users' selectivity of content (i.e., relative selection of entertainment) and accidental exposure to news on the Internet take place simultaneously. Given these mixed characteristics of the Internet, beyond the main effects of INE and REU on political participation as described above, this study emphasizes the interplay of INE and REU on people's engagement in political activities. We found a significant interaction between incidental news exposure and relative entertainment use on online forms of political participation. Those who prefer news to entertainment were more likely to engage in political activities online than people who prefer entertainment, when they were accidently exposed to online news. These differences between people who prefer news and entertainment, as mentioned earlier, may be due to differences in preexisting motivations of consuming news and entertainment or content preferences between news and entertainment. Given the differences in preferences for consuming news versus entertainment, individuals who prefer news may be more likely than people who prefer entertainment to pay attention to news and information online, even when they are accidentally exposed to it.

However, the interaction of INE and REU did not have a significant impact on traditional forms of offline political participation. This indicates that the interplay of incidental news exposure and relative entertainment use might not influence gaps in traditional forms of political participation. This is not to say that INE might not lead to traditional forms of political participation given the significant direct effects of INE found on offline political participation. The interaction analysis of INE and REU was designed to test the participation gap between people who prefer entertainment and people who prefer news; thus, results indicate that the participation gap is not affected for offline political participation while it may happen for online forms of political engagement. This finding seems reasonable because incidental news exposure and relative entertainment use in this study are based on the Internet, which is an online platform. Since people can more easily make a campaign contribution or send a political message via e-mail with lower costs and effort in a shorter time compared to traditional forms of participation (e.g., attending a public hearing and town hall meeting), the interaction of INE and REU may have significant influence on online platform-based political activities rather than on offline forms of participation.

In sum, while unintended news exposure on the Internet has been found to contribute to participatory citizenship, our findings indicate that this positive impact of incidental news exposure on online political participation was stronger for people who prefer news than for people who use the Internet for entertainment; thereby leading to participation gaps.

The results of the study build on literature regarding participation gaps that is derived from the knowledge gap hypothesis. That hypothesis posits that the gap in knowledge between segments of the population by socioeconomic status (SES) tends to increase

when mass media information gets into a social system because higher SES individuals tend to acquire information from mass media at a faster rate (Tichenor, Donohue, & Olien, 1970). Eveland and Scheufele demonstrated participation gaps between higher and lower education groups among newspaper readers (Eveland & Scheufele, 2000). While most studies about knowledge gaps and participation gaps have focused on gaps between higher and lower socioeconomic status (SES) - especially, known SES indicators like level of education (e.g., Evland & Scheufele, 2000; Kim, 2008) - this study takes into account the concept of relative entertainment use (i.e., content preference for news versus entertainment), acknowledging that content preference becomes an important factor influencing political engagement (Prior, 2005). While our findings suggest that accidental news exposure online may contribute to mobilizing citizens in political activities, there are further indications that incidental news exposure may also broaden gaps in participatory activities between those who have different content preferences—that is, between people who use the Internet mostly for entertainment as opposed to people who

This study has several limitations. First, because of the crosssectional data analyzed, we cannot conclude the causal directionality between the independent variables and the dependent variables. Although we have assumed that independent variables, such as incidental news exposure, have causal impacts on political participation, it is also possible that those who are politically active may be more likely to have greater INE. Second, although consistent with previous research (Tewksbury et al., 2001), one of the limitations of the current study is the self-reporting method employed to measure the frequency of incidental news exposure on the Internet. In answering survey questions, the respondents had to recall and estimate the frequency of their incidental exposure to news content, which may not exactly capture the respondents' amount of incidental news exposure on the Internet. A more valid measure would be to capture such exposure under a controlled experimental design; of course, this is a suggestion for future research. Nevertheless, previous research has noted that different methods may have different originality and implications; and experiments would lose the representativeness of national survey samples (Wojcieszak & Mutz, 2009).

Another limitation is that our sample was skewed in terms of participants' gender (more females compared to US Census data), which suggesting caution in proclaiming representativeness. However, the fact that the general characteristics of our sample are not significantly different from those of US census and Pew data (see Appendix A) should ease concerns about the representative nature of the sample used in the study. In addition, while the relationships of REU and INE-especially their interplay-with respondents' political participation is statistically significant, findings are limited to relatively small explanations (R squares). These relatively modest effect sizes are consistent with the findings of a number of previous studies examining the effects of the Internet on political participation (e.g., Kenski & Stroud, 2006). Nevertheless, it also should be noted that many controls were introduced in this study which share part of the overall variance. To overcome these limitations in future studies, analysis of long-term or panel data matched with a variety of data sets as well as refined research designs and measurements (e.g., experimental design) should be considered.

Appendix ADemographic profile of study survey and other comparable surveys.

	Study Survey Dec. 2008- Jan. 2009	Pew Internet & American Life Project Post-Election Survey Nov. –Dec. 2008	US Census American Community Survey (adults only) 2005–2007
Gender			
Female	67	52.8	50
Male	33	47.2	50
Age			
18-24	3.5	6.0	13.1
25-34	18.9	9.9	17.8
35-44	21.6	13.5	19.4
45-64	50.5	40.5	33.2
65 or more	5.5	30.2	16.6
Race			
Caucasian	84.4	79.8	65.8
Hispanic	4.5	6.1	15.0
African American	5.0	9.2	12.1
Asian	3.0	1.3	4.0
Education			
High school or less	15.4	38.4	46.7
Some college	28.1	27.7	22.3
College degree	37.2	19.8	22.4
Graduate degree	19.2	14.1	8.6
Income			
Less than \$49.999	41.1	51.2	50.1
\$50,000 to \$99,999	37.9	31.8	30.9
\$100,000 or more	21.0	17.1	19.0
Voting turnout 2008	80.3	85.2	-

References

- American Association of Public Opinion Research. (2008). Standard definitions: Final dispositions of case codes and outcome rates for surveys. Retrieved July 8, 2009, from http://www.aapor.org/uploads/Standard_Definitions_04_08_Final.pdf.
- Beaudoin, C. E. (2008). The Internet's impact on international knowledge. *New Media and Society*, 10(3), 455.
- Bimber, B., & Davis, R. (2003). *Campaigning online: The Internet in US election*. New York: Oxford University.
- Boulianne, S. (2009). Does Internet use affect engagement? A meta-analysis of research. *Political Communication*, 26, 193–211.
- Cronbach, L. J. (1987). Statistical tests for moderator variables: Flaws in analyses recently proposed. *Psychological Bulletin*, 102, 414–417.
- Dahl, R. A. (1989). Democracy and its critics. New Haven, CT: Yale University Press.Delli Carpini, M. X., & Keeter, S. (1996). What Americans know about politics and why it matters. Boston, MA: Yale.
- Downs, A. (1957). An economic theory of democracy. New York: Harper.
- Eveland, W. P. (1997). Interactions and nonlinearity in mass communication: Connecting theory and methodology. *Journalism & Mass Communication Quarterly*, 74, 400–416.
- Eveland, W. P., & Scheufele, D. A. (2000). Connecting news media use with gaps in knowledge and participation. *Political Communication*, *17*, 215–237.
- Gil de Zúñiga, H., Correa, T., & Valenzuela, S. (2012). Selective exposure to cable news and immigration in the US: The relationship between FOX news, CNN, and attitudes toward Mexican immigrants. *Journal of Broadcasting and Electronic Media*, 56, 597–615.
- Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal* of Computer Mediated Communication, 17(3), 319–336.
- Gil de Zúñiga, H., Puig-i-Abril, E., & Rojas, H. (2009). Weblogs, traditional sources online and political participation: An assessment of how the Internet

- is changing the political environment. New Media and Society, 11(4), 553-574.
- Iyengar, S., & Hahn, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication*, 59(1), 19–39.
- Jung, N., Kim, Y., & Gil de Zúñiga, H. (2011). The mediating role of knowledge and efficacy in the effects of communication on political participation. Mass Communication and Society, 14, 407–430.
- Kenski, K., & Stroud, N. J. (2006). Connections between Internet use and political efficacy, knowledge, and participation. *Journal of Broadcasting and Electronic Media*, 50(2), 173–192.
- Kim, S.-H. (2008). Testing the knowledge gap hypothesis in South Korea: Traditional news media, the Internet, and political learning. *International Journal of Public Opinion Research*. 20(2), 193–210.
- Kim, Y. (2011). The contribution of social network sites to exposure to political difference: The relationships among SNSs, online political messaging, and exposure to cross-cutting perspectives. Computers in Human Behavior, 27, 971–977.
- Kim, Y. (2012). Politics of representation in the digital media environment: Presentation of the female candidate between news coverage and the website in the 2007 Korean presidential primary. Asian Journal of Communication, 22, 601–620.
- Kim, Y., Hsu, S.-H., & Gil de Zúñiga, H. (2013). Influence of social media use on discussion network heterogeneity and civic engagement: The moderating role of personality traits. *Journal of Communication*, 63, 498–516. http://dx.doi.org/ 10.1111/jcom.12034.
- Lang, A. (2000). The limited capacity model of mediated message processing. *Journal of Communication*, 50, 46–70.
- Lemert, J. B. (1984). News context and the elimination of mobilizing information: An experiment. *Journalism Quarterly*, *61*, 243–249.
- Mutz, D. C. (2002). The consequences of cross-cutting networks for political participation. *American Journal of Political Science*, 46(4), 838–855.
- Neter, J., Kutner, M., Nachtsheim, C., & Wasserman, W. (1996). Applied linear regression models. Chicago: Irwin.

- Nielsen Reports (2009, March 9). Social Networks & Blogs Now 4th Most Popular Online Activity, Ahead of Personal Email. http://www.nielsen.com/us/en/pressroom/2009/social_networks__.html (Retrieved 03.20.10).
- Norris, P. (2000). A virtuous circle: Political communications in postindustrial societies. Cambridge: Cambridge University Press.
- Pew Internet & American Life Project. (2009). About our survey methodology in detail, http://people-press.org/methodology/about/> (Retrieved 07.10.09).
- Pew Research Center for the People and the Press. (1999). *The Internet news audience goes ordinary*. http://people-press.org/report/72/the-internet-news-audience-goes-ordinary.
- Prior, M. (2005). News vs. entertainment: How increasing media choice widen gaps in political knowledge. *American Journal of Political Science*, 49(3), 577–592.
- Prior, M. (2007). Post-broadcast democracy: How media choice increase inequality in political involvement and polarizes elections. New York, NY: Cambridge University Press.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65–78.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.
- Rojas, H., Shah, D., Cho, J., Schmierbach, M., Keum, H., & Gil de Zúñiga, H. (2005). Media dialogue: Perceiving and addressing community problems. Mass Communication and Society, 8, 93–110.
- Rubin, A. M. (1984). Ritualized and instrumental television viewing. *Journal of Communication*, 34(3), 67–77.
- Sax, L. J., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. Research in Higher Education, 44(4), 409–432.
- Scheufele, D. A., & Nisbet, M. C. (2002). Being a citizen online: New opportunities and dead ends. Harvard International Journal of Press/Politics, 7(3), 55–75.
- Shah, D. V., Cho, J., Eveland, W. P., & Kwak, N. (2005). Information and expression in a digital age: Modeling Internet effects on civic participation. *Communication Research*, 32(5), 531–565.

- Shah, D. V., Kwak, N., & Holbert, R. L. (2001). "Connecting" and "disconnecting" with civic life: Patterns of Internet use and the production of social capital. *Political Communication*, 18(2), 141–162.
- Sunstein, C. R. (2001). Republic.com 2.0. Princeton, NJ: Princeton University.
- Tewksbury, D. (2005). The seeds of audience fragmentation: specialization in the use of online news sites. *Journal of Broadcasting and Electronic Media*, 49(3), 332–348.
- Tewksbury, D., & Althaus, S. L. (2000). Differences in knowledge acquisition among readers of the paper and online versions of a national newspaper. *Journalism and Mass Communication Quarterly*, 77(3), 457–479.
- Tewksbury, D., Weaver, A. J., & Maddex, B. D. (2001). Accidentally informed: Incidental news exposure on the world wide web. *Journalism and Mass Communication Quarterly*, 78(3), 533–554.
- Tichenor, P. J., Donohue, G. A., & Olien, C. N. (1970). Mass media flow and differential growth in knowledge. *Public Opinion Quarterly*, 34, 159–170.
- Valenzuela, S., Kim, Y., & Gil de Zúñiga, H. (2012). Social networks that matter: Exploring the role of political discussion for online political participation. *International Journal of Public Opinion Research*, 24, 163–184.
- Wojcieszak, M. E., & Mutz, D. C. (2009). Online groups and political discourse: Do online discussion spaces facilitate exposure to political disagreement? *Journal of Communication*, 59(1), 40–56.
- Wolfinger, R. E., & Rosenstone, S. J. (1980). Who votes? New Haven, CT: Yale University Press.
- Zillmann, D., & Bryant, J. (1985). Affective, mood, and emotion as determinants of selective exposure. In D. Zillmann & J. Bryant (Eds.), Selective exposure to communication (pp. 157–190). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Zillmann, D., Chen, L., Knobloch-Westerwick, S., & Callison, C. (2004). Effects of lead framing on selective exposure to internet news reports. *Communication Research*, 31(1), 58–81.
- Zukin, C., & Snyder, R. (1984). Passive learning: When the media environment is the message. *Public Opinion Quarterly*, 48, 629–638.