ABSTRACT

The study explored overall and cohort-specific trends in Internet political efficacy from an age-period-cohort approach with a cross-sequential design. Perceived Internet influence on political efficacy is found to increase with age. Significant difference between Internet users and nonusers is also found in some cohorts. Online news reading and online chats/discussions have a positive impact in some cohorts.

INTRODUCTION

The influence of Internet adoption and usage on political efficacy has been documented in cross-sectional studies. However, it is questionable that individuals will consistently perceive that the Internet can improve their political efficacy across ages, periods, and cohorts. Pateman has argued for the necessity to adopt a dynamic view to examine political efficacy. Political socialization research has also demonstrated the development of individuals’ political attitude and knowledge across ages. Therefore, it is theoretically informative to examine the trend of perceived Internet influence on political efficacy from an age-period-cohort analytic perspective. With a steadily increasing rate of Internet adoption and an unstable political environment since 2000, Hong Kong has provided an excellent opportunity to examine this trend.

Due to scarce findings in the literature on perceived Internet influence on political efficacy, we put forth three research questions for the current study: (a) What are the total and cohort specific trends of perceived Internet influence on political efficacy from 2000 to 2005 in Hong Kong? (b) Is there any difference between Internet users and nonusers in their perceived Internet influence on political efficacy? (c) What is the relationship between Internet usage and users’ perceived Internet influence on political efficacy?

METHOD

The data came from a series of annual telephone surveys in Hong Kong from 2000 to 2005 (six surveys were conducted in the period. The survey of 2001 is not included in the analysis because it did not measure perceived Internet influence on political efficacy; methodological details available on request). The sample size varied between 1,007 and 1,707 per year. Since the focus of this study was on adults, only the respondents age 18 and older were included in the analysis.

To measure the perceived Internet influence on political efficacy, respondents were asked to express
their agreement with the following four statements on a 5-point scale (1, strongly disagree; 5, strongly agree): (1) the Internet makes me have more political power; (2) the Internet makes me have more say about government; (3) the Internet helps me better understand politics; (4) the Internet makes officials care more about the public. Because the four items are highly correlated (with Cronbach’s alpha ranging from 0.713 to 0.793 in the five surveys), a composite score was created by averaging these items to measure perceived Internet influence on political efficacy (labeled Internet political efficacy hereafter).

Five independent variables were selected. Age of respondents allowed construction of a cohort measure that distinguishes different birth cohorts. Year of the survey was used as the variable period. Internet adoption status was measured as a dichotomous variable: user and nonuser. Internet usage, applicable only to Internet users, was measured by the amount of time per week spent on three types of online activities, including online news reading, online chats/discussions, and online entertainment. Education was included as a control variable given its established relationship with political efficacy.

Our overall analysis approach was a cross-sequential design that allowed intra- and inter-cohort comparisons over time with a focus on cohort and period effects. Five 10-year cohorts were extracted from the pooled sample (see Table 1). Following Glenn and Frisbie’s suggestion, we paid more attention to the patterns of change in the perceived Internet influence than to the source of the changes. Our analytic strategy was implemented by a combination of ANOVA, multiple regressions, and graphical techniques to help disentangle trends along age, period, and cohort.

RESULTS AND DISCUSSIONS

ANOVA tests show that Internet users are significantly different from nonusers in Internet political efficacy ($F_{1,4509} = 118.17, p < 0.001$) in the total sample. While nonusers demonstrated significant differences across periods on Internet political effi-

Table 1. Adjusted Mean Score of Perceived Internet Influence on Political Efficacy by Birth Cohort and Year of Study

<table>
<thead>
<tr>
<th>Birth cohort</th>
<th>Year of study</th>
<th>Cohort mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>(0.67)$^b$</td>
<td>(0.52)</td>
</tr>
<tr>
<td></td>
<td>278$^c$</td>
<td>306</td>
</tr>
<tr>
<td></td>
<td>(0.58)</td>
<td>(0.63)</td>
</tr>
<tr>
<td></td>
<td>207</td>
<td>250</td>
</tr>
<tr>
<td>1953–1962</td>
<td>3.16</td>
<td>3.20</td>
</tr>
<tr>
<td></td>
<td>(0.50)</td>
<td>(0.62)</td>
</tr>
<tr>
<td></td>
<td>154</td>
<td>237</td>
</tr>
<tr>
<td></td>
<td>(0.35)</td>
<td>(0.47)</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>88</td>
</tr>
<tr>
<td>1923–1942$^d$</td>
<td>3.59</td>
<td>3.63</td>
</tr>
<tr>
<td></td>
<td>(0.34)</td>
<td>(0.41)</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>66</td>
</tr>
<tr>
<td>Period mean</td>
<td>3.28</td>
<td>3.33</td>
</tr>
<tr>
<td></td>
<td>(0.80)</td>
<td>(0.92)</td>
</tr>
<tr>
<td></td>
<td>719</td>
<td>947</td>
</tr>
</tbody>
</table>

$^a$Mean score of Internet political efficacy adjusted by period and cohort.
$^b$Number in parentheses is the standard deviation of the adjusted mean score.
$^c$Number of respondents by birth cohort and year of study.
$^d$Since the sample sizes of last two cohorts (1933–1942 and 1923–1932) are small, they are combined in the study.
COHORT TRENDS IN INTERNET POLITICAL EFFICACY

Internet political efficacy ($F_{4,1828} = 6.80, p < 0.001$), Internet users’ political efficacy remained unchanged across periods ($F_{4,2673} = 1.04, p > 0.05$). Regression analysis was conducted in the total sample to examine the influence of age and Internet adoption/usage on Internet political efficacy controlling for education. It was found that age ($\beta = 0.12, p < 0.001$) and Internet adoption ($\beta = 0.13, p < 0.01$) exert significant influence on Internet political efficacy; the influence of Internet adoption is moderated by age ($\beta = -0.22, p < 0.001$) (see Fig. 1). For Internet users, online news reading ($\beta = 0.10, p < 0.001$) and online chats/discussions ($\beta = 0.05, p < 0.05$) exert significant influence on Internet political efficacy, whereas the influences of age and online entertainment are nonsignificant.

Significant difference on Internet political efficacy was found across cohorts ($F_{4,4112} = 25.74, p < 0.001$). ANOVA tests for five specific cohorts revealed significant differences between Internet users and nonusers in Internet political efficacy for three cohorts: 1963–72 cohort ($F_{1,1088} = 18.50, p < 0.001$), 1953–62 cohort ($F_{1,1000} = 35.96, p < 0.001$), and 1943–52 cohort ($F_{1,471} = 5.67, p < 0.05$), but no

**FIG. 1.** Mean score of Internet political efficacy by Internet adoption and by age in total sample ($N = 4,832$).
significant differences between users and nonusers for the youngest (1973–82) and the oldest (1923–42) cohorts.

Regression analyses were also conducted for five cohorts separately with period and Internet adoption/usage as independent variables and education as a control variable. Only one significant period effect is identified for the 1963–72 cohort ($\beta = -0.07, p < 0.05$) (see Fig. 2). Internet adoption exerts significant influence on Internet political efficacy for the 1963–72 cohort ($\beta = -0.08, p < 0.05$) and 1953–62 cohort ($\beta = -0.13, p < 0.01$). For Internet users, period exerts significant influence on Internet political efficacy only for the 1963–72 cohort ($\beta = -0.08, p < 0.05$); online news reading significantly affects Internet political efficacy for the 1973–82 cohort ($\beta = 0.10, p < 0.01$), 1963–72 cohort ($\beta = 0.13, p < 0.01$), and 1953–62 cohort ($\beta = 0.13, p < 0.01$); online chats/discussions have a significant impact on Internet political efficacy for the 1963–72 cohort ($\beta = 0.09, p < 0.05$). Again, online entertainment, which does not have much political meaning, has nonsignificant influence on Internet political efficacy in each of the five cohorts.

In summary, the study demonstrates the necessity for controlling for cohort variations when examining Internet political efficacy. For example, the youngest cohort (1973–82) has the highest rate of Internet adoption (about 90%) in Hong Kong but, as their counterpart elsewhere, lacks political experience. More time is needed to detect changes of Internet political efficacy in the cohort because its members are undergoing great transitions in their life span. On the other hand, with the lowest rate of Internet adoption (about 14%), the oldest cohorts (1943–52 and 1923–42) have formed political attitudes through the years, which are highly enduring and, as such, not likely to be changed by Internet adoption.

Once the above two extremes of the age cohorts are removed, the relationship between Internet adoption and political efficacy becomes easily interpreted. For the mid-age cohorts (1963–72 and 1953–62) who are most sensitive to political, social, and economic issues, the negative relationship found between Internet adoption and Internet political efficacy is consistent with the rationalization argument about individuals’ perceptions of the Internet. It is then reasonable to conclude that with realistic experience in Internet activity and direct involvement in political events, individuals will make a more rational evaluation of Internet influence on their own political efficacy. Despite the differences between Internet users and nonusers, there is a different story among Internet users: the heavy users are more positive than the light users about Internet political efficacy. The finding is consistent with previous research that has shown that an increase in exposure to information media or in interpersonal communication leads to an increase in political efficacy.

ACKNOWLEDGMENTS

Tai-Quan Peng is a Ph.D. candidate at the City University of Hong Kong where Jonathan J. H. Zhu is a professor of communication and new media. The study was funded by the University Grants Committee of Hong Kong SAR (CityU 1152/00H), the City University of Hong Kong Strategic Research Grants (7001506 and 7001882), and the City University of Hong Kong Centre for Communication Research respectively.

REFERENCE


Address reprint requests to:
Tai-Quan Peng
Department of English and Communication
City University of Hong Kong
Tat Chee Avenue
Kowloon, Hong Kong.

E-mail: enwinson@cityu.edu.hk