Associations among technology use, political involvement, and attitudes toward politics: A national survey

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Abstract— The purpose of this research was to examine the relationships among communication technologies, political attitudes, and political participation. The differences between new media and traditional media were also discussed. Digital communication technologies have created an environment for citizens to quickly gather and exchange information, and play an important role in the process of socialization and democratization. This research analysed data collected from a national survey (Taiwan's Election and Democratization Study, TEDS) in 2013. The results indicated that Internet use was positively correlated with political participation and political optimism. This research also argued that Internet/digital technologies provided a special way for citizens to perform their political participation, such as gathering political information and voicing their political concerns. However, an interesting result was found. Citizens who preferred to use traditional media to receive political information still showed higher interest in politics than citizens who preferred the Internet for political information. Whether communication technologies could further change political participation and attitudes is in need of future research.

Keywords— Internet technology, political participation, traditional media, politics interest

摘要— 本研究目的旨在瞭解網路科技的迅速發展對於台灣公民政治參與和態度之相關分析，並比較網路科技與傳統媒體對於政治參與的情形以及公民對於政治參與態度之重要性。網路傳播技術已經為公民創造了一個快速取得資訊的環境，並且在社會化和民主化的過程中發揮了重要作用。

本研究採用分析台灣選舉與民主化調查問卷，結果顯示，網路使用和政治參與及樂觀情緒是呈現正向關係。本研究認為網路提供特別形式的政治參與，包括政治資訊蒐集、政治意見表達。然而有趣的是，使用傳統媒體獲取政治資訊的人民相對於網路使用者來說，對台灣政治是更感興趣的。對於後續研究而言，傳播科技是否會進一步改變政治參與和態度，都是需要進一步研究的。

關鍵字— 網路科技，政治參與，傳統媒體，政治興趣

1. INTRODUCTION

Along with information technology growing rapidly, popularize of internet technology and all kind of new media grow up apace have bring many chances for political participation as well. However, there are still many problems in the process of using network and some political activities. According to discussion, technology and mass communication are provided with the ability of propagation. We can receive the informations about politics from daily newspapers, television, radio and magazines. Internet services also provide more and more political information for citizens. That is why we talk over the length of time using on the Internet can promote political involvement and make the democracy system become normal operation. The convenient of the network also provide a special way for communicating and discussing political issues (Bimber, 1998, 2000). Especially information technology growing rapidly

nowadays, the relationship among the degree of political participation, network communication and discussing the issues will be meaningful. To be sure, the Internet applications will be closely integrated with the civic life. When we walked into the daily lives of citizens, we expected that people whom use the Internet will be more and more. We have to focus on what will impact between politics interest of Internet technology and traditional media.

As information technology innovate, including variety of portable devices and wireless network that promote the popularization and cloud technology have already elevated information dissemination speed and convenience greatly (林東清，2008) and dissemination knowledge of political is also influence gradually (Bucy & Gregson, 2001; Tewksbury, 2003; Shaker, 2009; Kaufhold Valenzuela & Zúñiga, 2010). Bucy and Gregson (2001) indicate that since 1990s, mass media have a significant development and transform including the development and application of Internet, talk radio, TV call-in and digital forum. This had made mass media gradually change the traditional relationship between citizens and political affairs. Through these new media, citizens can have more contact with political knowledge, getting more affairs field to talk about politics and strengthen the development of democracy. In this popularization internet society, Information technology has changed the innate character of audience mode and conduct, and it's worthy to explore the relationship between the Internet and political knowledge (Tewksbury, 2003). Furthermore, Internet has real-time interactive features and provides politics affairs field for participation and discussion. Internet has changed the audience mode gradually for the citizens (Bucy & Gregson, 2001). Attitude of citizens that participate in politics on the Internet is one of the issues which concern in this research.

This research in order is to investigate the association among Internet usage conduct, political participation and correlation of political optimism. This research has employed secondary analysis to examine the relationships between technology uses and variables of political attitudes and interest. It is worthy to say that this research specifically focused on Internet user groups.

2. LITERATURE

2.1. Political Participation

Political participation makes a general reference that is "the general public influence or attempt to affect the conduct of operations and results (Kasse & March, 1979: 42). Although Brady (1999) considered that there are many different definitions of political participation, he summarized it into three elements that are "conduct", "impact" and "political outcomes". Political participation is very diverse, and Conway (1991) divided it into negative and active aspects. Negative aspects refer to collect political information and contact, and active aspects refer on voting, joining campaign, donated to political party or candidate, volunteering, convince the voting intentions of people, express their views to legislator etc (Verba & Nie, 1972). In addition, network can help the political elite mobilizing and communicating. Network provided some political participation communication and ways to respond significantly different from traditional methods. This research also investigates the relationship between Internet and political participation in different aspects.

2.2. Internet usage time relationship with political participation

As previous description, people's time resource was limited, so time of using media would divide others activities time. According to alternative theories of time, using the Internet will decrease their disposal leisure time, and substantially reduce user political participation on the real society. As so far the results are still divided. As Lin and Lim (2002) conducted their research in South Korea, they found that using Internet had reduces political trust (as an important predictor of political participation). Bucy D'Angelo and Newhagen (1999) research found that user who visit the political website have higher political interest, but user that always involve in voting the situation of using network were more common. In addition, Jennings and Zeitner (2003) research also showed that there is a positive relationship between Internet use and political interest because voting is actual performance of the political participation, and political interest is a positive target of political participation. So Bucy et al. (1999) , Jennings and Zeitner (2003) research shows that Internet use have positive influence for political participation.

2.3. Internet provides a special way of political participation

Bimber (1998) consider Internet user can easily carry out more direct alternative political participation. The general public needs to rely on representatives of political parties or organizations, and the information obtained also relied on news organizations operate. Although after internet in common use decrease the main function of organization, but the possibility of public directly participation without rely on representatives of political parties had increase. According to Bimber (1998) version, when people have more opportunity to communicate with government, the more political activities they will participate, and people also can increase political influence relatively. Another scholar emphasized (Corrado & Firestone, 1996) social networks can be more organize and mobilize effectively by e-mail, and encourage to participate in politics activities. Although the Internet may have cut up the time of participate community activities and political activities in real world, the convenience of the network conducive to mobilize, communicate and conducive in democracy activities. Some researchers have already found that the network is most important pipeline to get political information for the adolescent. According to a U.S. research (Project Vote Smart, 1999), 70% adolescent believe that the network provide an effective conduit of political issues, and its importance is more than news, newspaper, advertisements, magazines and personal communication. Based on political knowledge can enhance the political effectiveness effectively (Braima, Johnson, & Sothirajah, 1999), it's not difficult to understand that internet is a positive benefits for users who rely on the internet to get political information. In addition the network can help political elite mobilizing and communicating, and also it can play an important role for voters who do not participate actively in politics. Delli Carpini (2000) has ever analysed the internet. The internet not only provides political elite to build social network pipeline in order to enhance communication with the mobilization opportunity but also reduces its cost for the active participation of citizens. It provides more diversified participation in the pipeline. Most importantly, the network is effective in contacting some of the less active political participation of young ethnic to provide relevant information to facilitate the use of alternative and effective way to engage in political participation. Moreover, the Internet offers some political participation, communication and ways to respond significantly different from the traditional model of political participation. Delli Carpini (2000) has been an example to discuss environmental issues that alternative ways to participate in the exclusive network. He thinks that environmental issues forum on the network not only can use hyperlinks connected to related sites, but also can provide a letter to the object (such as legislators, government officials, etc.) of the e-mail address, or can act as environmental volunteer service units that available to support environmental action. Such practices not only reduce participation costs, but also provide a number of possibilities pipeline. In addition, Delli Carpini (2000) emphasized the advantages of a network of alternative participation to enhance the speed and quantity of bulk transfer of political information, thereby effectively gather some friends scattered in all directions, which at the political level with similar interests. Chang (2000) study in Taiwan showed that the situation of college students to express views on political issues through the Internet is higher than other media (such as newspapers wrote a letter, call-in radio or TV political talk shows, television media to participate in telephone voting). The finding's result echoes the above Delli Carpini (2000) view that young people frequently use the internet. The Internet provides an efficient pipeline alternative political participation. General expression, access to political information, the exchange of political opinions, political views are core element of political operation. From Bimber (1998) and Delli Carpini (2000) discussions can be summed up as the network provides three modes of political participation: First, the Internet allows citizens more easily find information on government policies. Second, network is another pipeline that provides others to discuss political issues. Third, the Internet provides citizens contact representatives of the people to express their views pipes. Lin and Lim (2002) study conducted in South Korea found that using Internet reduces political trust (as an

important predictor of political participation). Bucy, D'Angelo and Newhagen (1999) study found that the internet user who visited the website of political, their political interests are higher. And often voters are more common using the network. In addition, Jennings and Zeitner (2003) studies also showed that there is a positive relationship between using Internet and political interest. As a result of the actual performance of the voting political participation and political interest are also positive indicators of political participation. So Bucy et al. (1999), Jennings and Zeitner (2003) research show that using the Internet should have positive influences for political participation. The conclusion is when people use the Internet more and more frequent, it is also subject to the higher level of socialization. In other words, when people contact the network with longer time, they receive the more information. They will also understand operational and public policy formulation of the existing political system. Based on the above literature construct, assuming that extend out as follows:

1. People use network for longer time daily shows that the participation in politics will be higher level.

2. People use the network for longer time daily means that they optimistic about Taiwan's politics.

3. People use Internet to obtain information is less interesting in politics than people who use traditional media in Taiwan.

3. METHODS

This research was a secondary data analysis. The data was provided by a large national survey about democratization and election in Taiwan. A total of 2292 participants agreed to join this study. There were 1134 males (49.5%) and 1158 females (50.5%). The average age was between 40 and 49.

Three major variables selected by this research were political involvement, political pessimism, and technology/Internet use. Political involvement comprised 7 items that asked participants whether they have engaged in certain political actions, such as protesting or voicing opinions on the Internet. Political pessimism comprised 7 items that asked participants to

indicate that how they feel about politics, and the government. Sample items include "We cannot do anything to influence the government", "most of the time, the government is right". With regard to technology use, this study measured the hours an individual spends on the Internet each day and what media they usually use to acquire political information.

4. RESULTS

First, a correlation analysis showed that Internet use (i.e. how many hours a person spends on the Internet) was positively associated with political involvement (r = .08. p < .001). This result indicated that a person who spent more time on the Internet on an average day was more likely to have higher levels of political involvement.

Another correlation analysis was performed to analyse the relationship between Internet use and political pessimism. A positive association was found (r = .12. p < .001), indicating that people who spent more time online were more likely to have negative attitude toward politics and the government (high levels of political pessimism).

The third hypothesis attempted to know the difference between traditional media users (TV, radio, etc.) and Internet users with regard to their political interest. An interesting result was found. The results of a T-test (t (2177) = 2.93, p < .001) indicated that individuals who usually preferred to use traditional media to obtain political information (M = 3.67) were more interested in politics than individuals who preferred to use the Internet for political information (M = 2.91).

		1	2	3
1.	Internet Use	1		
2.	Political Pessimism	.12***	1	
3.	Political Involvement	.08***	.02	1

5. DISCUSSION AND CONCLUSIONS

We get benefit from the emerging information technology innovation. Information dissemination capabilities of Internet technology can provide far-reaching citizens easier, richer and more immediate political news. It has a

significant impact on the political knowledge of spread pipeline. In other words, the vigorous development of the Internet for citizens creates a rich information environment. It not only significantly enhances the information content and quantity but increases the freedom of citizens to choose the information. Political participation of citizens is one manifestation of democracy. One important condition for political participation is owing to operational knowledge and understanding of politics and political systems. This political knowledge is about political awareness, understanding and evaluation for citizens. Over this few years, political communication scholars began to explore the Internet and the implications for political communication after the popularity. The main focus is on " using Internet " and " political participation " relations. Although scholars have pointed out media replace and time replace from angle. Based on limitation resources of time, using increasingly time of network will reduce time that reading the newspaper, social interaction, and also political participation indirectly. However, other scholars hold the opposite view. They think that the popularity of the network reduces the cost of the knowledge obtained indirectly encourage people "citizen participation" and "political participation" (Bimber, 2000). Based on the results of these inconsistencies, coupled with the country's national conditions are different cultures. In this case for example of Taiwan, they attempted to clarify the use of the network between "political participation" and "political perceptions" may be positive or negative relationship. After data analysis, "political participation" and "political perceptions" are positive relationship between the using network and the length of time. Convenience Network provides more options to participate in the pipeline and methods. Results shows that Bimber (2000) and Delli Carpimi (2000) inferences are the same. In fact, the network provides political participation more convenient and diverse pipeline. Political participation isn't limited to media entities. Internet communication is a new media. It's a two-way, interactive and freedom characteristics determine the shortcomings in the traditional media coverage. But the Internet media collect and publish news by their own. It can probably cause errors news and public opinion. People like to read what kind of information depends on reader personal reading habit. The printing media brings a sense of authority for a long time. It

called " black and white ". Knowledge power and knowledge systems of human society have established from writing the text. Broadcast news in after that full grasp timeliness using the human voice affinity to abstract people. Traditional media's credibility is much stronger than the credibility of the network information for political standpoint. After all, another worthy follow-up study and analyse in depth is: Even if the using network ethnic political participation is relatively high. But there is no significant relevance between usage conduct with Internet-based media and political interest in the emerging. Public using of internet technology is not to capture richer political knowledge or participation in political affairs. After a significant development in the past few years, no matter the relationship between the use of emerging Internet technology and political interests have changed, and how to change, this issue is still worthy to be concerned about the future researchers.

REFERENCE

[1] 林東清（2008）。資訊管理：e 化企業的核心競爭力。智勝文化，台北。

[2] Bimber, B. (1998). The intent and information transformation: Populism, community, and accelerated piuralism. *Polity, 31,* 133-160.

[3] Bimber, B. (2000). The study of information technology and civic engagement. *Political Communication, 17,* 329-334.

[4] Bucy, P. E. & Kimberly S. Gregson (2001).Media Participation: A Legitimizing Mechanism of Mass Democracy. *New Media & Society*,3(3): 357-380.

[5] Tewksbury, D. (2003). What Do Americans Really Want to Know? Tracking the Behavior of News readers on the Internet. *Journal of Communication*, 53 , 694-710.

[6] Shaker, B. Lee .(2009). Citizen's Local Political Knowledge and The Role of Media Access. *Journalism & Mass Communication Quarterly*, 86: 809-826.

[7] Kaufhold, K, B. Valenzuela and Homero Gil de Zúñiga. (2010) Citizen Journalism and Democray: How User-Generated News Use Relates to Political Knowledge and

Participation *Journalism & Mass Communication Quarterly*, 87: 515-529.

[8] Brady, H. E. (1999). Political participation. In Robinson, J. P., Shaver, P. R., & Wrightsman, L. S. *Measures of Political Attitudes*. San Diego, CA:Academic Press.

[9] Braima, M. A. M., Johnson, T.J., & Sothirajah, J. (1999). *An efficacy model of electoral campaigns: The 1996 Presidential election.* Paper predented at the Association for Education in Journalism and Mass Communication annual convention, New Orleans, LA.

[10] Bucy, E. P., D' Angelo, P., & Newhagen, J. (1999). The engaged electorate: New media use as political participation. In Kaid, L. L., & Bystrom, D. G. (Eds.), *The Electronic Election: Perspectives on the 1996 Campaign Communication.* Mahwah, NJ: Erlbaum.

[11] Chang, C. (2002). *Media perception, media in the political socialization of college students in Taiwan.* Paper presented at the Annual Convention of Association for Educcation in Journalism and Mass Communication, Miami Beach, Florida.

[12] Conway, M. (1991). *Political participation in the United States.* Washington, D. C.: CQ Press.

[13] Corrado, A., & Firestone, C. M. (1996). Elections in cyberspace: *Toward a new era in American politics.* Washington, D. C.: Aspen Institute.

[14] Delli Carpini, M. (2000). Gen.com: Youth, civic engagement, and the new information environment. *Journal of Communication, 17,* 341-349.

[15] Jennings, M. K., & Zeitner, V. (2003). Internet use and civic engagement: A longitudinal analysis. *Public Opinion Quarterly, 67 ,* 331-334.

[16] Kasse, M., & March, A, (1979). Political action: A theoretical perspective. In S. H. Barnes, NM. Kaase, et al., Political action: Mass participation in five Western democracies (pp.27-56). Beverly Hills, CA: Sage.

[17] Lin, Y., & Lim, S. (2002). Relationships of media use to political cynicism and efficacy: A preliminary study of young Korean votes. *Asian Journal of Communication, 12(1),* 25-39.

[18] Verba, S., & Nie, N. H.(1972). *Participation in America.* Ann Arbor, MI: Inter-University Consorium for Political and Social Research.

[19] Jennings, M. K., & Zeitner, V. (2003). Internet use and civic engagement: A longitudinal analysis. *Public Opinion Quarterly, 67 ,* 331-334.