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A Civic Potential for Video Games?

Linking the Social, Achievement and Immersion Motivations to Use Games With OnlinePolitical Participation and Political Decision-Making

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Abstract

A survey of college students in Australia, the Philippines, South Korea, and the U.S. (Guam, Hawaii, continental) ($N = 801$) was conducted to examine links between motivations to play video games, online political participation, and political decision-making. Findings suggest using games for achieving, socializing, and immersing is tied with increases in online political participation. Using games to achieve is positively linked with efficacy and skepticism; using games to achieve and immerse was inversely linked with apathy.

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A Civic Potential for Video Games?

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Video games are increasingly present in daily life as evidenced by the more than 1.2 billion gamers worldwide (Soper, 2013) and recent projections that the game market will surpass $100 billion by 2017 (Newzoo Games Market Research, 2014). The increasing reach and market demand for video games have compelled researchers to investigate whether their use could be linked with key civic outcomes (Kahne et al., 2009). In particular, several studies have demonstrated a positive relationship between video game play and political participation (Ratan et al., 2010; Steinkuehler & Williams, 2006).

Yet, despite recent scholarly interest regarding the civic potential of video games, the literature remains limited in scope in two important ways. First, a majority of studies to date have primarily concentrated on examining the effects that playing specific types of games (e.g., civic games, MMPORGs) and the frequency of game play (e.g., hours) might have on political participation (e.g., Skoric & Kwan, 2011; Williams, 2006). Thus, not much is known about how patterns of video game use may be linked with political participation, and more notably, online forms of political engagement. To be specific, the extant studies on the civic potential of video games have not fully examined the plausibility that because people have different motives for playing video games (e.g., Selnow, 1984; Yee, 2006), these motives may be differentially tied with online political participation.

Second, although past studies have shown that the use of certain types of digital media is related with key political decision-making variables—namely, efficacy, apathy, and skepticism (e.g., Pinkleton et al., 1998; Author, 2013)—the extant research has not specifically examined

the potential for video game use to be linked with key psychological political decision-making variables. This research is important because political decision-making has both negative and positive aspects that could impact political participation (e.g., Pinkleton & Austin, 2001, 2004; Pinkleton, Austin, Zhou, Willoughby, & Reiser, 2012). In order to extend scholarly understanding of the civic potential of video games, it is also vital to understand how patterns of video game use may be related with political decision-making.

With the growing global popularity of video games, it is important to investigate their potentially positive or negative links with civic acts and indicators. In this vein, the purpose of the present study is two-fold. First, we analyze the relationships between the achievement, social, and immersion motivations for the use of video games (Yee, 2006) and online political participation. Second, we explore the relationships between the achievement, social, and immersion motivations for the use of video games and three key dimensions of political decision-making: political efficacy, skepticism, and apathy. We employed a cross-national survey of participants living in Australia, South Korea, the Philippines, and the U.S. (with samples from the continental U.S., Hawaii, and Guam). We chose the research contexts because they allow us to examine the cross-cultural generalizability of our findings, and video games have been widely used in these countries. About 155 million Americans regularly play video games (Polygon, 2015). In Australia, 68% of the population play video games (Interactive Games & Entertainment Association, 2015). For the Philippines, there was a projected rise in the number of online gamers to about 29 million for in 2014 (Statista, 2015). Furthermore, more than half of South Korea's 50 million people play online games regularly (Zhou, 2015). The countries we sample from also share democratic political systems, yet they are socio-culturally distinct.

Motivations for Playing Video Games

Our research departs from extant studies that have sought explanations for the civic potential of video games by exploring the frequency of game play or the types of games that are played. Rather, our study is grounded upon the paradigm that video games serve different functions for users (Selnow, 1984; Sherry, Greenberg, Lucas, & Lachlan, 2006), and as such, individuals are motivated to use video games to fulfill distinct needs. Such motivations to use games could include achieving an accomplishment, escaping from real-world problems, or socially interacting with others (Sherry et al., 2006).

Previous research demonstrates that while some motives driving the use of communication technologies are linked with political participation, other motives are not (Campbell & Kwak, 2010; Park, Kee, & Valenzuela, 2009; Shah, Kwak, & Holbert, 2001). For example, Campbell and Kwak (2010) revealed that using mobile phones to exchange information and for personal recreation are both positively related with increases in political participation. However, the same study showed that using mobile phones for sociability was not related with political participation. On the other hand, Park, Kee, and Valenzuela (2009) showed that using Facebook groups for the purposes of socializing, seeking self-status, and gaining information are positively associated with political participation. Yet Park et al. also revealed that using Facebook Groups for entertainment is not associated with participation.

Yet scholars have not applied the understanding of the role of motives to investigate whether the different patterns of video game use would yield distinct relationships with political engagement and key political decision-making variables. Some players, for instance, may be driven to use games for the purpose of socializing (Yee, 2006), while other players may use games to escape the real world (Bartle, 1996). Given these distinct motives to use video games,

an important question to consider is: to what extent are they tied with key civic indicators? To fill this void in research, we focus specifically on Yee's (2006) motivations for the use of video games as indicators for patterns of use, and we explore how these motivations may be linked with online political participation and political decision-making.

Yee's concepts of motivations for game play are primarily derived from the work of Bartle (1996), who developed and conceptualized four types of video game players each distinguished by the type of need game play meets for them. Bartles' four types of players include achievers (those who have and want to pursue game-related goals), explorers (those who use games to discover the virtual world), socializers (those who use games as a vehicle to interact with others), and killers (those who use games to impose distress upon others).

Bartle's conceptualization of the above four player types was subsequently extended and systematically examined by Yee, who then used factor analyses and implied that there are three general types of motivations that drive individuals to play video games. Yee's categories include social, achievement, and immersion. Yee's conceptualizations of the three types of motivations are similar to gratifications (e.g., Sherry et al., 2006). However, whereas motives are more like traits, gratifications are more like states.

Social. The social motivation is a reflection of the collaborative environment inherent in many games, where players help each other, chat, and work together toward a goal (Yee, 2006). Thus, social refers to gaining satisfaction from the social affordances of video games, which they achieve through meeting and forming relationships with others in coordinating a group effort. There are three subcomponents under the social category: socializing, relationship, and teamwork.

Achievement. The achievement motivation consists of three sub-components that refer to using games to gain symbols of power, wealth, or status ("advancement"); to seek game mastery, such as optimizing character performance, by analyzing rules, systems, and templates ("mechanics"); and to compete with others by provoking them ("competition").

Immersion. Bartle refers to immersion as "the sense that a player has of being in a virtual world" (p. 154). The immersion motivation consists of four sub-components that refer to using games in order to explore unknown or hidden things, such as characters and narratives ("discovery"), to engage in role-plays with other players by being characters of an improvised narrative ("role-playing"), to make or alter the appearances, accessories, or colors of their character ("customization"), and to relax their stress by escaping from unpleasant reality ("escapism").

Online Political Participation

As noted, our study first examines links between motivations to use video games and online political participation. Political participation encompasses actions by citizens that may impact election outcomes and public policies (Verba et al., 1995). It is through political participation that citizens exercise their power to affect public policies and the actions of government institutions (Best & Krueger, 2005). While voting is a salient political act, many citizens participate through various other means. For example, citizens can attend rallies, contact elected officials, or participate in community organizations or public meetings, all of which can be effective means for influencing government institutions and policies (Verba et al., 1995).

New avenues for collective action, such as expressing political opinions, encouraging others to participate, and seeking to influence officials, have emerged with the proliferation of the Internet. These advancements have brought calls to re-conceptualize scholarly models of

political participation, particularly among digital natives (e.g., Author, 2009; Gil De Zuniga, Veenstra, Vraga, & Shah, 2010; Towner, 2013). In recent years, exploration of online political participation has focused primarily on interactive social media spaces and their affordances for political interaction, expression, and collective engagement (e.g., Johnson & Perlmutter, 2012). For example, citizens can make online donations to candidates and political causes, contact elected officials via email or social media, sign online petitions, and urge others to support causes or vote for candidates via the web.

There is reason to expect that motives for playing video games are linked with online political participation. However, we make no predictions regarding the patterns of the relationships between the social, achievement, and immersion motivations of video game play and online political participation.

First, past research provides support for a positive link between social motives to use digital forms of media and political participation. As discussed, Park et al. (2009) found that using Facebook groups for the purpose of socializing was positively associated with offline political participation. However, Campbell and Kwak (2010) showed that using mobile devices for sociability was not related with offline participation. With respect to video games, Author's research (2015) indicated that the social motivation to use video games was not linked with offline political participation. On the other hand, a more recent study by Molyneux et al. (in press) found that the social capital acquired from gaming—or gaming social capital—is positively linked with offline civic participation, or action seeking to resolve community issues. Social capital is often examined alongside political participation, given both constructs are key indicators of a healthy democracy (Campbell & Kwak, 2010; Gil de Zúñiga, Jung & Valenzuela, 2012). Yet Molyneux et al.'s study did not focus on social motivations to use video games, but

rather social capital. Also, both Author (2015) and Molyneux et al.'s (2015) research did not examine online political participation. Given that limited research revealing mixed findings regarding the potential link between social motives to use digital media and political engagement, we propose the following question:

RQ1: *What is the relationship between the social motivation of video game use and online political participation?*

Park, Kee, and Valenzuela (2009) revealed positive links between using Facebook groups for seeking self-status (e.g., to make oneself look cool, to develop one's career) and both civic and political participation. Arguably, seeking achievement is similar to seeking self-status (Yee, 2006), therefore, we might expect that the use of video games to achieve may be similarly positively linked with political participation. Also, Yee (2006) has reported that playing games in order to achieve is positively related to, or goes hand-in-hand with playing games for the purpose of socializing. This implies that those who play games to achieve may also be playing games to socialize, and thus, the pattern of the relationship between achievement and online political participation may be similar to the pattern of the relationship between the social motivation and online political participation.

Furthermore, with respect to the question of whether being immersed in video games is linked with political participation, Author's (2015) study cited above found that a factor comprising of items serving as measures for the subcomponents of the immersion motivation (discovery, role-play, and customization) positively predicted offline political participation.

On the other hand, while research suggests achievement and immersion might be positively linked with online political engagement, it is equally logical to assume that being too motivated to achieve (e.g., spending countless hours analyzing a game's mechanics) and being

immersed in a game (e.g., playing to escape real-life) may reduce a player's time and willingness to engage in online political activities. For instance, players may become so addicted to games that this hinders their engagement in other activities such as politics (for a review, see Limperos et al., 2013).

Yet because of the limited research examining how the achievement and immersion motivations to use video games are linked with online political participation, we propose the following research questions:

RQ2: *What is the relationship between the achievement motivation of video game use and online political participation?*

RQ3: *What is the relationship between the immersion motivation of video game use and online political participation?*

Political Efficacy, Apathy and Skepticism

The second purpose of our study is to examine the relationships between motivations to use video games and key indicators of political decision-making. The work of several scholars shows political decision-making variables could motivate or disinhibit political participation (e.g., Pinkleton & Austin, 2001, 2004; Pinkleton et al., 2012). Political-decision-making is essential to the notion of an informed and engaged public (Verba & Nie, 1972; Verba, et al., 1995). It is in this regard that we investigate key underlying political decision-making variables that are known requisites of political participation. Below, we discuss three variables commonly examined for their role in the political decision-making process.

Political efficacy is the belief that one can influence the political process (Campbell, Gurin, & Miller, 1954) and it is an important indicator of the state of a democracy (Craig, Niemi & Silver, 1990). Political efficacy is commonly studied given its known association with

political participation, voting, and political expression (Pinkleton & Austin, 2001; Pinkleton & Austin, 1998; Scheufele & Nisbet, 2002; Wang, 2007). Efficacy is often distinguished along internal and external factors. The present study is interested in internal political efficacy, or one's sense of competence in affecting political outcomes, whereas external political efficacy represents beliefs about how responsive government entities are to public will (Craig et al., 1990; Niemi, Craig, & Mattei, 1991). Internal efficacy, thus, represents an individual's psychological state and is more appropriate to an investigation of personal political dispositions. Further, internal efficacy is a known predictor of first-time voting (Moeller, de Vreese, Esser, & Kunz, 2013), an age-appropriate behavior for the subjects of interest in this study: young adults.

Political disaffection broadly refers to political sentiments or dispositions that are negative, though they do not necessarily imply political disengagement (Austin & Pinkleton, 1995; Pinkleton, Austin, Zhou, Willboughby & Reiser, 2012). Our present study examines two aspects of disaffection often studied in the literature: apathy and skepticism.

First, *apathy* represents a lack of interest, concern, or attention to politics (Bennett, 1986). It represents psychological disengagement from politics (Bennett, 1986). As such, apathy is distinct from, but often confused with, political cynicism (Pinkleton & Austin, 2004). Apathy represents either a disinterest or reluctance to get involved in politics (Austin & Pinkleton, 1995). Evidence suggests that apathy is negatively related to political efficacy, political involvement, public affairs media use both offline and online, and voter turnout (Austin & Pinkleton, 1995; Pinkleton & Austin, 2004; Author, 2013). Thus, those with apathy may be become disengaged from politics (Austin & Pinkleton, 1995).

Second, *skepticism* represents disbelief or questioning of the political process without dismissing it (Cappella & Jamieson, 1997). As such, it does not necessarily represent

disengagement with politics, as Pinkleton et al. (2012) explain, "skepticism is a constructive response to political blunders and public affairs news media, representing a critical but open posture toward news media and politicians" (p. 26). Indeed, skeptics recognize the limitations of media coverage and politicians thus motivating information-seeking in order to evaluate existing knowledge and information (Lau & Erber, 1985; Pinkleton & Austin, 1998). Skepticism, while a representation of frustration with politics and media, does not drive disengagement, but rather serves as a motivating side of dissatisfaction that is linked positively with efficacy, and which enhances participation (Pinkleton et al., 2012). For example, research has demonstrated a positive link between skepticism and online political expression behaviors (Author, 2013).

We expect that one's motivations for game play could explain differences in political decision-making outcomes across players. However, we make no predictions regarding the patterns of the relationships between the social, achievement, and immersion motivations of video game play with political efficacy, apathy, and skepticism. It is nevertheless important to identify potential patterns in the relationships between the motivations examined in our study and key political decision-making variables.

Scholars have conventionally conceptualized media use as a predictor of efficacy, apathy, and skepticism (e.g., Pinkleton et al., 1998; Author, 2013). For example, research indicates that attention to traditional online news sources is positively associated with efficacy (Moeller et al., 2013; Author, 2010) and negatively associated with apathy (Author, 2013). Radio and newspaper news use also positively predict efficacy (Author, 2010; Moeller et al., 2013).

With respect to interactive online media, recent research suggests that paying attention to user-generated political content on social media positively predicts apathy and negatively predicts skepticism (Author, 2013), actively expressing oneself online positively predicts

skepticism and political involvement. However, paying attention to user-generated political content on social media is not related with apathy (Author, 2010; Author, 2013). These results indicate that active engagement with civic and political messages from peers online, such as through political expression may be key to positive political outcomes. Hence, other forms of engagement with political or civic situations in online interactive environments, such as video games, may be positively related with political outcomes. In one of the most comprehensive studies on this topic to date, which looked at the civic gaming experiences of teens in the U.S., Kahne et al. (2009) showed that games' civic potential may be explained by their capacity to afford learning experiences that promote engagement in non-game civic contexts. Such experiences include "simulations of civic and political action, consideration of controversial issues, and participation in groups where members share interests" (Kahne et al., p. 23). Kahne et al.'s study revealed that more frequent game play was not linked with a greater interest or engagement in politics. Rather, one's exposure to games that contained civic-like, problem-solving elements that were social in nature—such as guiding or assisting other players or organizing or managing guilds—was related to greater political interest and engagement.

Similarly, research by Raphael et al. (2010) suggests that games could potentially afford opportunities for individuals to learn or develop civic skills. It could be that as players are motivated to learn these socially oriented, problem-solving skills through games, their sense of political efficacy—i.e., their confidence to participate in the political process—is also enhanced. Given the links between efficacy, apathy, and skepticism revealed in previous studies (e.g., Author, 2013), it is logical to expect a link between being motivated to use games for social reasons apathy and skepticism toward the political process. However, with the narrow research investigating the direction of this link, we propose the following research question:

RQ4: *What are the relationships between the social motivation of video game use and a) efficacy, b) apathy, and c) skepticism?*

Playing games to achieve facilitates opportunities to overcome challenges, thus fostering the cognitive rewards of accomplishment (Yee, 2006). In this respect, players who play games to achieve may also be high in efficacy. As noted above, the achievement motivation consists of three sub-components that describe the use of games in order to gain symbols of power, wealth, or status; to seek mastery, such as optimizing character performance, by analyzing rules, systems, and templates; and to compete with others by provoking them. As civic-like experiences in games can promote civic experiences in non-game contexts (Kahne et al., 2009; Raphael et al., 2010), the user who is motivated to achieve in games may also experience an increase in efficacy that translates to non-game contexts. Put another way, those motivated toward achievement in games may gain a sense that politics is also a civic "game" where a system of rules and social structures can be mastered in order to achieve desired outcomes. As such, these individuals may have a greater sense of political efficacy. Given the research on the direction of the links between efficacy, apathy, and skepticism noted above (e.g., Author, 2013), it is fair to expect that players motivated to use games to achieve may also become less apathetic toward, yet more skeptical of the political process.

On the other hand, Author (2015) has suggested that being too motivated to achieve in a game may demobilize political engagement, and as such, we might also expect achievement to be inversely associated with efficacy and skepticism, while being positively associated with apathy. With the limited research in this area, we propose the following research question:

RQ5: *What are the relationships between the achievement motivation of video game use and a) efficacy, b) apathy, and c) skepticism?*

As discussed, immersion refers to a player's sense of being present in a game world (Bartle, 2003), and consists of the discovery, role-playing, customization, and escapism subcomponents. Author (2015) found that a factor comprising of the discovery, role-play, and customization sub-components of immersion was positively linked with political engagement. Arguably, these subcomponents of immersion similarly entail the expression of one's personal identity (e.g., customizing a character to one's liking). Recently, Stokes and Williams (in press) suggested that players who use games to express their identities might be also likely to engage in non-game politically expressive acts. In this case, playing games in order to discover, role-play, and customize may be positively linked with political efficacy and skepticism, while being negatively related with apathy. However, the same may not hold for immersing oneself in games to escape the real world. Indeed, Author's (2015) study also suggested that becoming too immersed in games in order to escape the real world might inhibit offline political engagement. Therefore, those who play games to escape may also have lower political efficacy and skepticism, while being more apathetic toward the political process. With limited research in these areas, we propose the following research question:

RQ6: *What are the relationships between the immersion motivation of video game use and a) efficacy, b) apathy, and c) skepticism?*

Method

Procedure

A survey of college students was conducted between September 2013 and the March 2014. The survey included students enrolled in the universities of the coauthors of this study. The research sites included a public university in northeastern Australia (n = 86; females = 21, males = 65; mean age = 26.11), a public university in central Guam (n = 210; females = 141,

males = 69; mean age = 20.76), a public university in the Eastern U.S. mainland (n = 77; females = 47, males = 30; mean age = 22.06), a public university in Hawaii (n = 132; females = 71, males = 61; mean age = 22.42), a public and a private university in Metro Manila, Philippines (n = 87; females = 59, males = 28; mean age = 19.60), and various private and public universities in Seoul (n = 67) and other areas (n = 148) in South Korea (n = 215; females = 104, males = 111; mean age = 22.78). The surveys were conducted via the Web using Qualtrics. However, pen-and-paper surveys were also conducted in the Philippines due to Web access issues in that country. Surveys were in English in all locations except for South Korea, where it was administered in Korean.[1]

Participants who had reported playing a video game within the past year were recruited in communication classes and offered course credit for their participation.[2] This sampling approach was appropriate to our goal because, as we discussed above, our study did not seek out to examine the effects of intensity of playing a specific type of game or the frequency of playing games. Our study was mainly concerned with examining motivations of playing video games as a psychological mechanism that could explain why games can foster political engagement. It was our assumption that these motivations would be present among individuals who had played games within the past year. The final sample size was 801.

Measures

Independent variables.

Measures of motivation for playing video games were derived from the work of Yee (2006). We used a 5-point Likert-type scale with "tremendously" and "not at all" as anchors to assess motivations. We included a total of 30 items that measured advancement, mechanics, competition, socializing, relationship, teamwork, discovery, role playing, customization,

escapism, and arousal. To reduce the large number of motivations examined into a more manageable and parsimonious set of predictors, we performed a principle component analysis with varimax rotation to obtain a final solution. Five factors emerged with eigenvalues greater than 1, which in total explained 59.40% of the variance. The results of this analysis are reported in our results section and on Table. Two of the 30 items initially analyzed in the PCA had high cross loadings with several factors. As such, we did not include these items in our analyses (how important is it to enjoy exploring the game's world just for the sake of exploring; how important is it to enjoy finding new things in a game that most people don't know about), resulting in 29 total items analyzed.

Dependent variables.

Online political participation was measured by evaluating how frequently (1 = not often, 5 = very often) respondents engaged in the following behaviors: exchanging opinions online about political issues, politicians, elections, and candidates online (e.g., blogs, Facebook, Twitter, etc.); writing blog posts on political issues, politicians, elections, and candidates; writing posts on political issues, politicians, elections, and candidates on online social networks. These measures were derived from prior research (Author, in press; Author, in press) with responses summed and averaged to form a single construct (M = 1.74 SD = .84, $\langle$ = .85).

Efficacy was measured with the following three items adapted from previous studies (e.g., Craig, Niemi, & Silver, 1990), which specifically tapped into internal efficacy: I consider myself to be well-qualified to participate in politics; I feel I have a pretty good understanding of the important political issues facing our country; I feel that I could do as good a job in public office as most other people. The three items were combined and averaged to form a single index (M = 3.04, SD = .85, $\langle$ = .70).

Apathy was measured by assessing the following three items on a 7-point Likert-type scale (1= strongly disagree; 7=strongly agree): voting takes too much time; participating in elections is more trouble than it's worth; staying informed about the government is too much trouble. These items, derived from prior research (Austin & Pinkleton, 1995; Austin, Chen, Pinkleton, & Johnson, 2006; Austin et al., 2008; Pinkleton & Austin, 2004), formed an additive index ($M = 2.35$, $SD = .85$, $\langle = .70$).

Skepticism was measured with the following items, each on a 7-point Likert-type scale (1=strongly disagree; 7=strongly agree): it's important to critically evaluate statements made by government officials; I think about the things elected officials say before I accept them as believable; it's important to critically evaluate what news stories say. These five items, adapted from Cuillier and Pinkleton (2011) and Pinkleton et al. (2012), formed an averaged index ($M = 3.98$, $SD = .75$, $\langle = .74$).

Demographics and other measures.

Demographic variables including age, sex, and location were included as controls to evaluate independent effects of the theoretical variables. Age was measured in an open-ended format ($M = 22.14$, $SD = 4.53$, range = 17-54). Sex was dummy coded and measured with females as the high value (54%) and males as the low value (46%). For country, three dummy variables were used, which included Australia, Philippines, and South Korea; the three U.S. research sites (i.e., Guam, Hawaii, U.S. mainland) served as the reference group and thus were not included as controls in the regression models described below. In addition, political interest (1 = *not interested*, 5 = *very interested*; $M = 3.14$, $SD = 1.37$) and political ideology (1 = *very conservative*, 5 = *very liberal*; $M = 2.77$, $SD = .97$) were measured respectively with single items.

Results

Principle Component Analysis for Motivations of Game Play

A principal component analysis was run in order to reduce the large number of motivations examined into a more manageable set of predictors. As Table 1 shows, the data merged into 5 factors, which we interpreted along the following constructs: (a) achievement factor 1 (M = 1.85, SD = .80), (b) achievement factor 2 (M = 2.77, SD = .97), (c) social (M = 1.85, SD = .80), immersion factor 1 (M = 2.45, SD = 1.07), and immersion factor 2 (M = 2.20, SD = 1.04). We identified achievement factor 1 as advancement/mechanics and achievement factor 2 as competition. We interpreted and identified immersion factor 1 as discovery/role-playing/customization and immersion factor 2 as escapism. The five factors were satisfactorily reliable with Chronbach's alpha scores greater than .70.

SPSS version 22 was used to analyze the data, and investigate the research questions. A series of hierarchical regression models were created. For each model, age, sex, country (three dummy variables were used for country with U.S. [i.e., mainland, Hawaii, Guam] as the reference group), political interest, and political ideology were added as controls. Because some of the zero-order correlations between the sub-components of motivations for video game play were .40 and above, and preliminary analyses suggested that multicollinearity was indeed affecting our regression models, each of the five subcomponents of motivations for video game play—achievement factor 1, achievement factor 2, social, immersion factor 1, and immersion factor 2—were uniquely analyzed with their own respective regression models (see tables 2-5).

We first investigated how the social (**RQ1**), achievement (**RQ2**), and immersion (**RQ3**) motivations to use video games are related with online political participation. As shown in table 2, social (β = .12, $p < .001$), achievement factor 2-competition (β = .08, $p < .05$), immersion factor 1-discovery/role-play/customization (β = .07, $p < .05$), and immersion factor 2-escapism

($\beta = .11$, $p < .001$) each positively predicted online political participation. However, achievement factor 1-advancement/mechanics was unrelated with online political participation.

RQ4 explored the patterns of the relationships between the social motivation to use video games and the three political decision-making variables. Results show that social was not a significant predictor for efficacy, apathy, and skepticism.

RQ5 investigated the relationship between the achievement motivation to use video games and the three political decision-making variables. As shown in table 3, achievement factor 1-advancement/mechanics ($\beta = .07$, $p < .05$) and achievement factor 2-competition ($\beta = .12$, $p < .001$) were significant positive predictors of efficacy. Both achievement factors 1 ($\beta = -.07$, $p < .001$) and 2 ($\beta = -.09$, $p < .001$) were also significant negative predictors of apathy (table 4). Interestingly, while achievement factor 1-advancement/mechanics ($\beta = .14$, $p < .001$) was positively associated with skepticism, achievement factor 2-competition was negatively related ($\beta = -.06$, $p < .10$) with skepticism (table 5).

RQ6 examined the relationship between the immersion motivation to use video games and efficacy, apathy, and skepticism. Immersion factor 2-escapism ($\beta = -.12$, $p < .01$) was a significant negative predictor of apathy (table 4). The two immersion factors, however, were unrelated with efficacy and skepticism.

Discussion

Scholars have been interested in the pro-social potential of video games in fostering political and civic behaviors (Kahne et al., 2009; Ratan et al., 2010; Steinkuehler and Williams, 2006; Author, in press). Our present study employed a cross-national survey of participants. The first purpose of our study was to analyze how the motivations to use games to achieve, socialize, and immerse were related with online political participation. Our findings contribute to

the current literature by revealing that playing games to compete, socialize, discover, role-play, customize, and to escape the real-world are linked positively with online political participation. Politics involves the struggle to solve problems in often-contentious social environments, and possessing the cognitive and communicative skills and confidence to solve problems may make one more confident to participate in politics. Previous research suggests that the discovery, role-play, and customization motivations may only be tied with increased offline political participation (Author, 2015). Yet we additionally found that the drive to use games to compete, socialize, and escape are also associated with increases in online political participation.

The differences between our findings for the relationships between motivations for game play and offline and online political participation could be explained by the previous work of Best and Krueger (2005), which revealed that civic skills predict offline participation and Internet skills predicting online participation. In this case, the technology of video games may be fostering Internet skills, which in turn, is translating to greater rates of online political participation. Moreover, Best and Krueger (2005) found that persons encouraged to participate in politics online and those contacted online are more likely to engage in online politics, but that this does not predict offline participation. Scholars have also noted that the Web lowers barriers to political participation that may bring more individuals into the political process, reducing the resources necessary to engage in politics (Best & Krueger, 2005; Ellision, Steinfeld, & Lampe, 2007). Research demonstrates that video game use is positively linked with Internet use (e.g., Holtz & Appel, 2011), and Internet skills have been shown to predict online political participation (Best & Krueger, 2005). While the positive relationship between the social motivation to use video games and political engagement may not extend to offline engagement as was shown by Author (2015), it is possible that the social motivation may better translate to

online engagement. Put another way, comfort and savvy in the online world, which can be fostered via virtual interactions with others through games, may lower barriers to political participation online.

The second purpose of our study was to explore the potential links between the achievement, social, and immersion motivations to use video games with three key political decision-making variables: efficacy, apathy, and immersion. First, while previous research has primarily focused on the social aspect of video games as an explanation for their civic potential (e.g., Molyneux, Vasudevan & Zuniga, 2015), our study shows that the social motivation to use games is not linked with the three political decision-making variables examined in our study. We speculate that this could be because the items used to measure social processes that are more behavioral and external in nature, whereas political decision-making is an internal and cognitive process. We recommend that future research be conducted to explore this potential.

Second, we found that playing games to achieve for advancement/mechanics, which we labeled as achievement factor 1, and playing games to achieve in competition, which we labeled as achievement factor 2, are both positively linked with increases in efficacy, while being both inversely linked with apathy. Similarly, our results suggest that playing games to achieve for advancement/mechanics is linked with increases in skepticism. While these results could imply a politically mobilizing role for the achievement motivation, it is important to highlight that we also found playing games to achieve in competition is linked with decreases in skepticism. We offer an explanation for these findings. First, the achievement factor 1 questions are more aimed at the attainment of goods and resources that are important to ones' success—they inherently require you to have an investigative mindset towards analyzing information and seeking opportunities or strategies for addressing them. It is logical to assume that someone who is

motivated to achieve, in both realms, would have low apathy; this is a person who cares deeply about the outcome and their relation to it, which could then be linked with increases in skepticism. Second, with regard to the results or the achievement factor 2, it could be because the person is so focused on winning (e.g., on dominating other players) that critical analysis of information and seeking out additional information, a key underlying foundation of skepticism, isn't their focus. Their focus instead could be on exerting themselves and proving themselves. This warrants further research to examine whether or not this is the case.

Finally, we found that being motivated to play games to escape the real world, which we labeled as immersion factor 2-escapism, is linked with decreases in apathy. While it may seem counterintuitive on the surface, this implies that playing games to escape the real world may not foster disengagement or decrease interest in politics. When coupled with our other result that escapism is positively related with online political engagement, this implies a politically mobilizing potential for escapism. While escape may be interpreted as indicating avoidance tendencies when faced with current realities in the real world, it does not necessarily mean one is inactive or apathetic about current conditions. On the contrary, a tendency towards escapism may indicate that one is idealistic about possible alternatives to the current situation and is highly involved in participating in alternative scenarios that offer more acceptable configurations of problematic realities. Escapism may be an indication that one cares about a situation enough to seek out and participate in environments with more idealistic social configurations that transcend the socio-political limitations of one's reality. Experiencing video game worlds that do not face these problems, may motivate a sense that these problems could also be rid from reality. In other words, escapism may be a unique and creative way of caring about problems. This may help explain why we found no relationship between escapism and efficacy, as a tendency to escape

into more appealing worlds may also mean that the person is disconnected from a sense of their own ability to solve the problem, either positively or negatively. We urge future studies to analyze this potential.

Limitations and Conclusion

Some limitations should be acknowledged, along with directions on how researchers may build upon these limitations to advance this rather recent and emerging area of study. First, due to the cross-sectional nature of our study, we could not empirically observe and test our research questions. As such, we recommend that future studies employ experimental designs to test and confirm whether being too motivated to achieve, socialize, and immerse oneself in video games may in fact be mobilizing gamers in plausibility.

Second, the controls we incorporated as predictors in our regression models were not exhaustive. Notably, because our study was not intended to examine specific types of games used or hours played, it could not be determined whether they may be affecting online political participation and the three political decision-making variables examined in our study. For example, certain types of games may have stronger or weaker relationships with online political participation and political decision-making than other types of games. In other words, the relationships that motivations for game play have on online political participation and political decision-making may have been reduced in our dataset because our participants may have played several different types of games, including both role-playing games and non-role-playing games. We thus suggest that further research includes measures for specific types of games used or hours played to examine these how they may relate to online political participation and political decision-making. Second, our study did not incorporate other dimensions of political decision-making, such as external efficacy, cynicism, and political trust. Thus, because we could not

examine whether motivations for game play may be linked with these other political decision-making variables, we recommend that future studies in this line of research consider examining them.

In spite of the above-noted limitations, we conclude that motivations to play video games may have an up-side when it comes to online political participation and political decision-making. Our study's findings complement other research on the growing recognition of the pro-social potential of video games in the civic process (Author, in press; Kahne et al., 2009; Ratan et al., 2010; Steinkuehler & Williams, 2006). Future research should continue to explore the civic potential and ramifications of video game play given the pervasiveness of video games in global society today.

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Table 1. Principle component analysis results for measures of motivations for video game play.

	Achievement Factor 1: Advancement/ Mechanics	Achievement Factor 2: Competition	Social	Immersion Factor 1: Discovery/ Role-Play/ Customization	Immersion Factor 2: Escapism
How important is it that your game character is optimized as much as possible for their profession/role?	**.712**	.060	.188	.231	.163
How important is accumulating resources, money, or other in-game items?	**.683**	.092	.112	.274	.146
How important is it for you to become powerful when you play video games?	**.669**	.329	.094	.229	.175
How important is acquiring rare items in games that most players will never have?	**.623**	.261	.224	.302	.057
How important is it for you to level up your character as fast as possible?	**.596**	.309	.088	.167	.091
How important are the precise numbers and percentages underlying a game?	**.593**	.234	.286	.080	.158
How important is it for you to compete with other players?	.420	**.574**	.254	.080	.024
How important is it for you to irritate other players?	.058	**.747**	.131	.067	.096
How important is it for you to dominate other players?	.407	**.702**	.082	.157	-.018
How important is it to get to	.281	.068	**.728**	.195	.121

know other players?					
How important is it to help other players?	.358	-.190	**.618**	.143	.111
How important is it to chat with other players?	.235	.085	**.727**	.149	.097
How important is having meaningful conversations with other players?	.143	-.005	**.787**	.147	.106
How important is it to talk to your gaming friends about your personal issues?	-.041	.236	**.712**	.046	.197
How important is it to have your gaming friends offer support to you when you have a real life problem?	-.007	.237	**.656**	.108	.187
How important is it for you to work and collaborate with other players in a group?	.457	.027	**.632**	.138	.001
When working on a task in a game, how important is it for you to be grouped with others?	.415	.208	**.630**	.099	-.018
How important is it that your game character's outfit matches in color and style?	.194	.140	.070	**.728**	.100
How important is it to customize your video game character during character creation?	.350	.044	.063	**.718**	.159
How important is it that your game character looks different from other characters?	.286	.107	.150	**.712**	.131
How much do you enjoy	.141	.110	.288	**.574**	.151

collecting distinctive objects or clothing that have no functional value in the game?					
How important is it to enjoy trying out new roles and personalities with your video game characters?	.284	-.039	.243	**.507**	.358
How important is it to role-play your game character?	.116	.055	.260	**.460**	.369
How important is it to play games in order to escape from the real world?	.100	.116	.148	.165	**.835**
How often do you play games so you can avoid thinking about some of your real-life problems or worries?	.147	.121	.147	.145	**.821**
When you play video games, how important is it to enjoy being immersed in a fantasy world?	.271	-.082	.071	.342	**.571**
How important is it to play games so you can relax from the day's work?	.463	-.006	.232	.169	**.538**
Eigenvalues	1.667		2.091	8.425	1.087
Variance explained (%)	8.336%		10.454%	42.124%	5.434%

Table 2. Hierarchical regression results for predictors of online political participation.

Age	.01	.02	.02	.02	.02
Sex (female)	.00	.02	.04	.01	.02
Australia	.01	.02	.01	.00	-.02
Philippines	.24***	.24***	.23***	.23***	.22***
South Korea	-.04	.07+	-.09*	-.07+	-.07+
Political interest	.40***	.40***	.40***	.40***	.41***
Political ideology (liberal)	.07*	.07*	.07*	.07*	.06+
Achievement factor 1: Advancement/Mechanics	-.01	--	--	--	--
Achievement factor 2: Competition	--	.08*	--	--	--
Social	--	--	.12***	--	--
Immersion factor 1: Discovery/Role-Play/ Customization	--	--	--	.07*	--
Immersion factor 2: Escapism	--	--	--	--	.11***
R^2	26.8%	27.4%	28.0%	36.7%	27.9%

Table 3. Hierarchical regression results for predictors of efficacy.

Age	.07*	.07*	.06+	.06+	.06+
Sex (female)	-.08**	-.07*	-.10**	-.09**	-.10**
Australia	.08*	.09**	.08*	.08*	-.08*
Philippines	.08*	.10**	.09**	.09**	.09**
South Korea	.05	.05	.09*	.07*	.08*
Political interest	.50***	.50***	.50***	.50***	.50***
Political ideology (liberal)	-.01	-.01	-.01	-.01	-.01
Achievement factor 1: Advancement/Mechanics	.07*	--	--	--	--
Achievement factor 2: Competition	--	.12***	--	--	--
Social	--	--	-.02	--	--
Immersion factor 1: Discovery/Role-Play/ Customization	--	--	--	.02	--
Immersion factor 2: Escapism	--	--	--	--	-.02
R^2	32.4%	33.2%	32.1%	32.1%	32.0%

Table 4. Hierarchical regression results for predictors of apathy.

Age	-.01	-.01	.00	.02	-.01
Sex (female)	.02	.03	.03	-.02	.03
Australia	-.00	-.01	-.00	.03	.02
Philippines	-.06+	-.08*	-.07*	-.05	-.06
South Korea	.07+	.05	.05	.08*	.06+
Political interest	.39***	.40***	.39***	.38***	.38***
Political ideology (liberal)	.03	.03	.03	.04	.04
Achievement factor 1: Advancement/Mechanics	-.09*	--	--	--	--
Achievement factor 2: Competition	--	-.07*	--	--	--
Social	--	--	-.06	--	--
Immersion factor 1: Discovery/Role-Play/ Customization	--	--	--	-.15***	--
Immersion factor 2: Escapism	--	--	--	--	-.12**
R^2	16.6%	16.4%	16.2%	18.1%	17.2%

Table 5. Hierarchical regression results for predictors of skepticism.

Age	.06	.03	.04	.04	.04
Sex (female)	.06+	.02	.05	.04	.03
Australia	.12**	.13***	.13***	.13***	.12**
Philippines	.15***	.17***	.17***	.16***	.16***
South Korea	-.15***	-.07*	-.11**	-.10**	-.10**
Political interest	.32***	.33***	.33***	.33***	.33***
Political ideology (liberal)	.08*	.09**	.08**	.08**	.08*
Achievement factor 1: Advancement/Mechanics	.14***	--	--	--	--
Achievement factor 2: Competition	--	-.06+	--	--	--
Social	--	--	.06	--	--
Immersion factor 1: Discovery/Role-Play/ Customization	--	--	--	.05	--
Immersion factor 2: Escapism	--	--	--	--	.04
R^2	21.0%	20.0%	19.9%	19.9%	19.8%

Note: Tables 2, 3, 4 and 5 present standardized coefficients, + indicates $p < .10$, * indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

Notes:

1. A questionnaire in English was translated into Korean by a professional translator who is bi-lingual in English and Korean. Subsequently, one of the authors who is also bilingual in English and Korean examined the translations for inconsistencies and inaccuracies. After the translator and author negotiated the translations, a questionnaire in Korean was finalized.

2. In the case of South Korea, an online panel sample was used to recruit college students. Specifically, one survey company based in Seoul was commissioned to collect data online. The company had registered approximately 1 million online users as of the end of 2013. All participants received compensation (e.g., cash-equivalent points) from the company.