Gamers Who Protest: Small-Group Play and Social Resources for Civic Action

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Abstract
Commercial games are rarely studied for their links to civic behavior. Yet small-group games online can affect the social networks that spill into civic life (and vice versa). This study examined players of the world's most popular personal computer game, *League of Legends*. Such games are theorized as mirrors that reflect civic tendencies and help some players to retain social resources. Using models of civic voluntarism, the attitudes and behaviors of more than 9,000 gamers were investigated. Gamers were shown to have relatively typical civic lives, except for unusually high rates of peaceful protest. Which gamers protest? As predicted, models for protest improved when considering how players approach their gaming (including recruiting and collaboration preferences). Dispelling some civic fears, there was no evidence that video games distracted from civic life when played in moderation. The findings support an emerging notion of protest as a playful and "expressive" civic mode.

Keywords
activism, protest, civic engagement, role-play, politics, small group, social capital, MOBA, game, civic voluntarism, gamers, e-sports, time

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Introduction

As a phenomenon, video games are increasingly mainstream. More than 55% of Americans play video games (Entertainment Software Association, 2014), with a broadening set of genres. Increasingly, commercial video games can support social development, including through real economies (Castronova et al., 2009) and by sustaining relationships that can be measured in terms of social capital (Molyneux, Vasudevan, & Gil de Zúñiga, 2015; Steinkuehler & Williams, 2006).

Despite stereotypes that commercial games lack altruism, 76% of American teens report helping others while gaming online (Kahne, Middaugh, & Evans, 2009). Early research has begun to link civic factors like neighborliness to particular styles of play (Dalisay, Kushin, Yamamoto, Liu, & Skalski, 2014) and has even shown how some players are politicized through their gaming (Coleman & Dyer-Witheford, 2007; Mauco, 2009). Among players, can we predict which individuals are most likely to be civically active?

The most common model for predicting political and civic behavior is civic voluntarism (Kim & Khang, 2014; Verba, Schlozman, & Brady, 1995). Voluntarism emphasizes social resources that individuals build and transfer across social contexts, including online and off-line. Games provide a social context in which players can pursue more or less social strategies, as will be described in more detail below. Drawing on the history of socialization around play, this article conceptualizes small-group games as mirrors that reflect civic tendencies and help some players to retain social resources for (and from) civic action. It is thus reasonable to investigate which players benefit (and which suffer) in civic terms. Do those players who prioritize social connection in and around video games demonstrate greater civic activity? In brief, yes—and this article will reveal several game behaviors and preferences that are associated with traditional civic action.

Game as Social Context

This study emphasizes a digital game without any particular altruistic message. Of course, there are plenty of educational video games, but popular entertainment games are often overlooked for civic ties and alignment. As analogy, consider the influential political scholarship of Putnam (2000), which used bowling leagues to explain shifts in political life. In particular, Putnam emphasized how social capital around the game is tied to civic behavior.

Like bowling leagues, online games and e-sports can be similarly understood as spaces that support socializing—bringing together networks of players and even fostering new associations through teams and leagues (Schulzke, 2011; Steinkuehler & Williams, 2006). The emerging field of game studies has added to this perspective, showing that online games can be legitimate "third places" for building community outside the workplace and home (Steinkuehler & Williams, 2006); and that games may build useful capital through play. For example, see the "gaming capital" of

Consalvo (2009) that explains how players build resources and skills that determine their achievement, or the "gaming social capital" of Molyneux, Vasudevan, and Gil de Zúñiga (2015) who describes how gameplay might mediate traditional off-line social capital.

Of course, long before games went digital, there has been research describing how play and games intertwine with human society (Huizinga, 1938), including how sport has intersected with civic life going back to the Greeks (Golden, 1998; Pope & Nauright, 2009, p. 119). Online sports have many social similarities to off-line sports, and sports video games appear to promote self-esteem as well as participation in sports among adolescents (Adachi & Willoughby, 2015).

Compared to teaching about civic issues, the right social activity is often more important for long-term civic behavior. For example, political research on youth has shown that civic activity is often better predicted by a young person's extracurricular activities than their civic knowledge (Hart, Donnelly, Youniss, & Atkins, 2007). Small groups are often at the core of these activities.

Small-group dynamics are particularly important in civic life and are offered by a growing number of games. Small groups comprise the "associational life" first described by de Tocqueville (1848) as the essence of the American democracy— what Fine and Harrison (2004, p. 344) have called the "crucible" in which civil society is enacted and fostered.

Research on socialization in commercial games has focused on multiplayer games online with active fan communities (e.g., Gee & Hayes, 2010; Squire, 2006). Almost any civic focus has been on relatively *massively* multiplayer games (Schulzke, 2011; Zhong, 2011). However, such titles are a minority of gameplay online and can hide the rising importance of small-group digital games and e-sports, which have arisen more recently (Ferrari, 2013; Witkowski, Hutchins, & Carter, 2013). Multiplayer online battle arena (MOBA) games are a prime example and are the focus of this study.

Initially called "Dota-like" games, MOBAs have emerged as some of the most popular games in the world, hosting 30+ million players (Rose, 2011). Each MOBA session involves 30–60 min of play (not unlike a match of basketball or bowling), where two teams compete. The game structure supports cooperative team play, with each team pushing forward on a virtual territory until one team conquers the entire space and a winner is declared. Research on MOBAs is just beginning (Nuangjumnonga & Mitomo, 2012; Pobiedina, Neidhardt, Calatrava Moreno, del, & Werthner, 2013; Ratan, Kennedy, & Williams, 2012), including the extent to which MOBAs can foster and retain sociality that persists off-line. For example, do MOBA games align with specific civic behaviors?

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Protest in Particular

Traditionally measured civic behaviors include volunteering, donating, election advocacy, and peaceful protest (Kahne et al., 2009). Peaceful protest is receiving

particular attention among civic theorists—and protest may also align especially with video games. The focus on protest is partly due to a global rise in protest behavior, with some evidence that protest is the first civic act to substantially decouple from traditional politics (Earl & Kimport, 2009). Protest also aligns with what Bennett, Wells, and Rank (2009) describe as the rise of *expressive* or *self-actualizing* civics, in contrast to the more dutiful notion of many civic traditions with the usual political parties.

Video games have many similarities with peaceful protest as an expressive act. According to civic media theorist Stephen Duncombe (2007), both protest and games can function as participatory theater, creating visual spectacle that structures participation. Games with expressive role-play can echo some of the role-play demanded of protesters in groups (e.g., a street parade with costumes in support of a social issue), where the role-play provides a way to align with the group and simultaneously express one's own personal identity. Building on theories of ethical reasoning in role-play games (Simkins & Steinkuehler, 2008), preliminary research has shown a positive correlation between players who seek role-play as part of immersive gaming and heightened levels of civic engagement (Dalisay et al., 2014).

MOBA games appear to have many of the features described by Duncombe (2007) as important for the spectacle of protest, including voluntary participation in visual theatrics, the horizontal coordination of action, and collective and self-expression. For example, choosing a role in a MOBA game can be a reflection of group strategy (e.g., teams may benefit from having one player with strong healing skills), personal strategy, or personal affiliation with a narrative role (e.g., being a healer—or the visual art and implied narrative); the final choice is made by the player but often after a series of personal experiments and team conversations.

As a baseline, do MOBA gamers have ordinary levels of civic participation, including traditional acts like volunteering, as well as protest? Since MOBAs have emerged only recently, it makes sense to confirm base rates for the civic behavior of players. Differences from established and well-studied groups (like American parents) should be instructive:

> **Research Question 1:** Are the rates of civic behavior—especially protest—for MOBA players comparable to stereotypical "decent citizen" groups?

Socializing for Protest

Might gaming help to socialize some players and reduce the social barriers to their protesting? Similarly, might players with social preferences be drawn to protest and social games in similar ways? The following hypotheses investigate this possibility, using the model of civic voluntarism (Verba, Schlozman, & Brady, 1995). Of course, most people do not protest often. When they do, they need the social skills and resources to overcome three primary barriers:

(1) *demographic factors*—including age, income, and educational attainment;
(2) *political engagement*—like being registered to vote and recent volunteerism; and
(3) *interpersonal networks and skills*—like social ties and recruiting abilities.

These three dimensions have emerged over the past several decades, building on the early work of Verba, Schlozman, Brady, and Nie (1995). The model has expanded over time to include the broader set of protest factors, including demographics, political engagement/motivation, and interpersonal recruitment options (Norris, 2002; Schussman & Soule, 2005).

The voluntarism model provides an easy way to confirm that the protest of MOBA gamers follows established theory in the broad strokes, while also opening room for subsequent adaptation. Of course, the basics should still hold (e.g., political engagement factors should provide more explanatory power than demographics). Therefore, we seek to confirm:

Research Question 2: Does the behavior of MOBA gamers align with protest models from civic voluntarism?

This article assumes the same basic pathways and seeks to add nuance to how those factors cross over into game spaces, especially identifying which game-based factors align with the everyday socializing of players to reduce protest barriers (also called protest "costs").

How might games reveal and even shift the barriers of voluntarism? In terms of political engagement, if players link their passion for games to politics, then protest should increase. This effect is described in voluntarism in terms of political engagement. But is it realistic? Are there any policy issues specific to the passion of gamers, and do any real-world civic groups actually mobilize gamers as a political constituency?

The most visible policy issue for gamers may be the threat of video game censorship, and the responding calls to protect games in the name of free speech. Going back to John Dewey (1927; Marres, 2005), civic debate and engagement arise in response to concrete problems that people care about. For gamers, it makes sense to target problems that tie concretely to their gaming and protecting games-based media.

In the United States, the growing political movement to defend games as a form of free speech arises primarily in response to calls to restrict games based on violent or sexual content. Visible calls to action are crafted to appeal to a gamer identity[1] and have recruited more than half a million to lobbying efforts (Grubb, 2013). Voices from industry lobbying groups mix with those of irate players in online message boards, accompanied by mainstream media coverage of related events (e.g., Supreme Court rulings and new legislation in leading states like California).

For MOBA gamers, engagement with policy campaigns tied to games is a real resource, since that political engagement can spill over to related public policy issues and decrease the "cost" of general engagement with the political system. In other words, protest is easier for gamers who recognize policy implications tied to gaming, and thus:

Hypothesis 1: Players of MOBAs who are engaged with policy issues around games are more likely to protest, controlling for general political engagement.

Another way MOBAs could reduce the barriers to protest is by cultivating *interpersonal networks*, which may spill over beyond the game. Interpersonal networks are a core factor in voluntarism (Schussman & Soule, 2005), and having more social ties (often measured as social capital) is associated with greater civic participation (Putnam, 2000). Interpersonal networks may also draw more players with a civic background to social games like MOBAs.

Prior research in more massively multiplayer games has described how players can develop and deepen their social networks through gameplay (Steinkuehler & Williams, 2006). There is some preliminary evidence that such social capital can crossover from games into civic life (Molyneux et al., 2015; Zhong, 2011). However, the strength of such civic links has not been tested with small-group video games like MOBAs or with a specific emphasis on protest behavior.

In MOBAs, participants can play with their (off-line) romantic partners and recruit friends from outside the game. Of course, such activity is likely to be higher for those who already have accumulated social capital (e.g., those with many friends can recruit more easily). Yet for players with similar levels of social capital, game-based recruiting could be an indicator that their play will further build interpersonal networks. Therefore,

Hypothesis 2: Players of MOBAs who actively recruit others to the game are more likely to protest, controlling for baseline social capital.

Can play within the game also be linked to building civic networks? To foster interpersonal networks, certain attitudes and dispositions are important—especially cooperation. Individuals who choose cooperation are more likely to have higher rates of civic participation, in contrast to those who regularly choose independence or competition (Bekkers, 2007).

Cooperation can build a sense of confidence in the group (i.e., collective self-efficacy). Prior to video games, self-efficacy was shown to be improved through sports and recreational activities if players were presented with consistent challenges to overcome (Bandura, 1997). Single-player video games have been shown to increase the self-efficacy of individuals in the context of health care (Lieberman, 2006). For collective action, the group level is inherently important (e.g., the efficacy of the group). Video games are theorized to be excellent contexts for building this more collective sense of efficacy, as theorized by Schulzke (2011).

In MOBA games, cooperation emerges through the choices of small-group players—including their avatar selection and how players choose to care for teammates during play. Avatar choice can be more cooperative (such as being a healer) as opposed to being a more directly attacking character. Likewise, taking care of teammates is associated with being cooperative, as opposed to waiting for them to help you or just going alone.

In terms of the protest model of Schussman and Soule (2005), a preference for greater cooperation in MOBAs is thus expected to help players build the interpersonal networks and networking skills that are essential for protest.

Hypothesis 3: Players of MOBAs who prioritize *cooperation* in team play will have greater odds of real-world protest, controlling for social capital.

Finally, consider the opposite possibility: That games undermine civic behavior and increase barriers to protest. Most prominently, commercial games have been vilified for distracting from civic life. This concern is modeled in civic voluntarism as undermining the amount of time an individual can allocate to civic networking. Time is necessary for many of the protest factors to deepen, including the interpersonal ties for associational life, developing political interests, and even the time to attain higher levels of education. But how much time?

Prior studies have largely modeled time spent gaming as having a continuous, linear effect. Most notably, Kahne, Middaugh, and Evans (2009) investigated the effect of gaming hours on civic engagement—and found no significant effect; however, their linear approach may hide an underlying complexity. Specifically, time may actually have both negative *and* positive effects.

One half of the equation is obvious: Too much time might be detrimental. As a public concern, excessive gaming is a recurrent debate (National Institute on Media and the Family, 2008). Social capital scholars have critiqued games specifically (Putnam, 2000), and there have been some empirical findings that time spent on games can be correlated with lower social capital (Zhong, 2011). A parallel explanation is that too much time spent on games could undermine self-image (Roe & Muijs, 1998) and diminish the efficacy beliefs needed for civic action.

The other half of the equation has been missing. If games are played moderately, time spent gaming might actually deepen social ties by drawing established friends together around passionate activity and thus strengthen the social resources of voluntarism. Recall that in Putnam's celebration of bowling leagues, moderate time investments are required for the activity to bring people together (and excessive time could still be a negative indicator). Therefore, this study predicts two different time effects:

Hypothesis 4a: Players who spend moderate hours on video games will be associated with greater rates of protest, controlling for other factors and

Hypothesis 4b: Players who spend excessive hours on video games will be associated with lower rates of protest, controlling for other factors.

Methodology and Measures

This study examined civic behaviors reported by thousands of participants in *League of Legends* (*LoL*), which became the world's most-played game for personal computers (PCs) in mid-2012 according to Xfire data (Gaudiosi, 2012), a trend that has only continued into 2015 when the game reported 25+ million players daily (Tassi, 2014; R. Williams, 2015). The game is played in small-group matches where each team seeks to capture their opponents' base; a winner is typically determined within 20–60 min.

A random sample of MOBA participants was recruited with a survey distributed by the game operator, Riot Games. Responses were gathered in late 2010. Participants had been active in the game over the 2 months prior. The survey response rate was 85% of those who opened the invitation e-mail (22,091 responses were collected in the 1-week window). All player data were recorded anonymously. Only American players were retained because civic life varies significantly by country. Nine thousand three hundred and ninety two cases remained—predominantly male (96%), 21.9 years old (*SD* = 5.0), and with a household income mean of US$55,000–US$60,000.

For the research question seeking a baseline of MOBA participants' civic behavior compared to established mainstream groups, American parents were selected for the comparison. Data on parents were drawn from a public dataset of the PEW Internet project (Kahne et al., 2009). Parents are convenient as normative role models for decent citizens, in part given their tendency to "build up their stake in community affairs" (Flanagan & Levine, 2010, p. 160); for example, parents tend to volunteer 5% more than the rest of the population (Corporation for National and Community Service, 2011). For just this research question on comparing with parents, a subset of the MOBA sample was selected to maximize comparability; specifically, since PEW parents were older (median age of 45), only a subset of MOBA players were used for the comparison (specifically Americans over age 30, who identify as a parent in the household [more than 90%] or head of household or spouse—but not the child, sibling, or younger relative of the head of household), resulting in 639 MOBA participants and more than 1,000 PEW parents.

The civic behaviors investigated in the MOBA player survey were chosen to mirror an established survey instrument to allow for direct comparison, specifically, the PEW survey on civic gaming. The five behaviors were volunteering; raising money for a cause; peaceful protest, march, or demonstration; staying informed on political news; and advocacy in elections. For a time frame on each behavior, respondents were asked to indicate whether the activity was "recent" (past 12 months), not recent, or had never been done by them.

For the research question on whether MOBA gamers fit an established model for protest, the voluntarism model of Schussman and Soule (2005) was used. Protest is understood as one of several civic actions, in this model and the PEW survey. The controls and determinants of civic engagement are discussed below in terms of more specific hypotheses. Items for Schussman and Soule are based on the American Citizen Participation Study (Verba, Schlozman, Brady, et al., 1995). Many were identical in our survey (like being registered to vote and identifying as politically liberal); some were similar (like watching the news on TV and being "informed on current events and politics"); several of the nonsignificant items from Schussman and Soule were dropped (like full-time employment status), with just a few missing (most notably, we did not have data on the number of ties an individual has to civic organizations or whether they have been asked by others to protest) but with good coverage in each of the three voluntarism factors.

For the first hypothesis on political engagement, the goal was to identify civic engagement of players, especially with public policy that is personally relevant. For gamers, this includes public policy on media and video game censorship. Participants were thus asked about their awareness of the most prominent lobbying group on these issues in the United States, the Video game Voters Network, and about their awareness of the central policy issue—that is, that games should be regulated similarly to movies. Controls for political engagement included being registered to vote and recent civic activities (like volunteering). Liberal ideology is also typically part of the political engagement factors and was measured with a single-item question that asked respondents whether they think of themselves as politically liberal. Engagement with political news utilized the PEW survey item for whether the individual stayed informed around political news.

For the second hypothesis on interpersonal networks, a measure for game-based recruitment was created. This measured the number of players the respondent had recruited to the game (very few recruited more than 10, so a ceiling was held at 15 to address concerns with a normal distribution). Another control was a measure for "in-game co-play with others" was created to indicate the frequency of *LoL* play with off-line friends and family. For more traditional controls, social capital (social ties, both within homogenous groups and beyond) used the Internet Social Capital Scales (D. Williams, 2006). These social capital measures are more comprehensive but less political than items used by Schussman and Soule, which emphasized only being "asked to participate" politically.

For the third hypothesis on cooperation (a component of interpersonal networking), cooperative values were modeled using social value orientation (SVO). Higher rates of civic participation have been demonstrated for individuals who favor cooperation, as measured by SVO (Bekkers, 2007). SVO explains the consistency of choices between three values—cooperation, individualism, and competition (Messick & McClintock, 1968). In the game, SVO aligns with avatar choice (such as being a healer) and team orientation. Avatar choice is made before each game and establishes the cooperative stance among the team. Support roles spend time healing

Table 1. Comparing Civic Participation Rates for Small-Group Gamers to American Parents Using an Independent Samples *t*-Test.

	Gamers (Ever Done This), %	Parents (Ever Done This), %	Mean Difference, %	t	df	Sig. (Two tailed)	SE Difference
Stayed informed	88.7	83.9	4.8	2.884	1,538	.004	.01662
Donated	74.3	76.0	−1.7	−0.788	1,357	.431	.02137
Volunteered	68.0	71.1	−3.1	−1.354	1,360	.176	.02272
Advocated	53.6	N/A	N/A	N/A	N/A	N/A	N/A
Protested	25.7	10.4	15.3	7.885	1,044	.000	.01938

teammates, while more aggressive avatars on the frontlines rely on healing. Although players sometimes "try out" contrasting identity roles, values are expected to be largely consistent. The 4-item scale measuring SVO had reasonable consistency (Cronbach's $\alpha = .755$); for the high and low comparisons, values were selected at 1 *SD* from the mean in each direction. Note that this measure for cooperation does not detect all forms (e.g., it does not detect cooperative attacks); this may limit the ability to detect an effect.

For the hypothesis on gameplay hours, "moderate" hours was defined as under 21 hr weekly across all game types to match the threshold proposed by McGonigal for healthy gaming (2011). Specifically, "high" hours were defined as 21–40 hr per week, and "extreme" was defined as above 41 hr or above. Most common in the sample were moderate gamers (56.3%), followed by those with high gaming hours (29.3%) and then those with extreme hours (14.4%). Both moderate and high hours were modeled as continuous variables, whereas extreme was hypothesized around a threshold and so modeled as a dichotomous variable in the logistic regression.

Results

The civic behavior of MOBA players was not less than that of American parents (see Table 1, based on Pew Internet data). Gamers had substantially higher rates of protest participation and for staying informed on civic and political events; gamers were not statistically different for volunteering and donating. The higher rate of protest is noteworthy in size: More than twice as many MOBA gamers reported having ever protested (25.7% vs. 10.4% for American parents).

The high rate of protest underscores the value of investigating protest behavior explicitly. For the next several hypotheses, the protest of MOBA gamers was investigated using civic voluntarism. Specifically, the adapted model of Schussman and Soule (2005) was used to predict the MOBA gamers' protest odds. See Table 2 for the results of the binary logistic regression, including estimates of the parameters. In particular, the first column applies the model *before* any game-specific factors are

Table 2. Estimates (Log-Odds and Odds) From Selected Logistic Regression Models of Players' Protest Incidence (= 1; 0 Otherwise).

Independent Variables	Model 1 (No Game Factors)		Model 2 (With Game Factors)	
	β	Exp (β)	β	Exp (β)
Demographic factors				
Gender (female)	.145	1.156	0.165	1.179
Education	.068*	1.070	0.067*	1.070
Student	.130	1.139	0.127	1.135
Income	−.005	0.995	−0.005	0.995
Age (log)	−.608*	0.544	−0.566	0.568
Interpersonal networks				
Bonding social capital	−.021***	0.979	−0.021**	0.979
Bridging social capital	.036***	1.037	0.035***	1.035
In-game recruitment of other players			0.049***	1.051
In-game co-play with others			−0.031	0.969
In-game cooperative values			0.107*	1.113
Gaming hours per week			−0.005	0.995
Political engagement				
Recent civic activity (volunteered)	.422***	1.524	0.400***	1.492
Recent civic activity (donated)	.364***	1.439	0.326***	1.385
Recent civic activity (advocated)	.750***	2.118	0.708***	2.030
Recent civic activity (followed news)	.088	1.092	0.091	1.096
Registered to vote	.440***	1.553	0.438***	1.549
Liberal ideology	.222***	1.248	0.220***	1.246
Aware of the game voters network			0.457***	1.579
Believes regulate games like movies			0.098***	1.103
Constant	−.968	0.380	−1.058	0.347
χ^2	461.3		523.9	
df	15		19	
BIC	−336		−366	

Note. $n = 4,239$. The second model adds the game-specific factors to predict protest odds. BIC = Bayesian information criterion.
*$p < .05$. **$p < .01$. ***$p < .001$.

included (the overall model was highly significant, $p < .001$; $df = 13$; $n = 4,239$ cases).

Some demographic factors were significant, consistent with voluntarism overall. Educational attainment and age (log) were significantly tied to off-line protest ($p < .05$ or better; $n = 4,239$), controlling for interpersonal networks and political engagement. Like Schussman and Soule (2005), being older diminished protest odds, and there was no significant finding for income, gender, or student status. In magnitude, the demographic factors had less influence on the model than political engagement factors.

Turning to political engagement, voluntarism factors were again supported. Being politically liberal was a significant factor in predicting protest ($p < .001$ or better; $n = 4,239$), and being registered to vote was a positive predictor (both are in the same direction as Schussman and Soule). Recent civic activity was significantly tied to lifetime protest odds, with the greatest contribution from recent political advocacy, with lesser contributions from recent volunteering and recent donating ($p < .001$ or better for each factor; $n = 4,239$). Despite some interfactor correlations (most notably volunteering with donating), multicollinearity was not a strong concern, most likely due to the large sample size, and confirmed by informal validation of the model by removing different factors in turn.

Beyond validating the various protest factors as significant, the overall fit of the model is also important. The model was stronger for predicting those who do not protest (correctly predicting 93.9% of those who had never protested) than for protest (correctly predicting 24.6% of those who had protested). The overall variance explained by the logistic regression was somewhat low ($R^2 = .103$, using Cox and Snell), which is not unreasonable given that the behavior is relatively infrequent—that is, most people do not protest.

The first hypothesis predicted higher rates of protest for MOBA players if they are politically engaged in connection to video games. A logistic regression was used to predict protest (see the right-hand column of Table 2). Protest was indeed significantly higher for gamers who were aware of the Gamer Rights Network and for those who believe in regulating games policy separately from movies ($p < .001$ for each; $n = 4,239$, controlling for broader political engagement, again from Table 2).

The effect size was considerable: An increase in protest odds of 18%; specifically, 42.0% of the group is predicted to protest when policy engagement is high versus only 23.7% of the group if they have low levels of policy engagement. (Recall that the high engagement means they are both aware of the organization doing video game advocacy and that they expressed game-centric policy beliefs a *SD* above average.) Crucially, this predicted shift in protest odds is controlling for the other factors—including political engagement in traditional modes like recent volunteerism and being registered to vote as well as demographic and network factors.

The second hypothesis predicted that players would protest more if they approached gaming in a way that retained their interpersonal ties. The focus is on game-based recruiting, which is expected to contribute to protest even when controlling for the player's basic level of social capital. According to the logistic regression, recruiting was indeed associated with greater odds of protest, controlling for other factors ($p < .001$); thus, the hypothesis was supported.

The size of the effect was considerable: The model predicted that a player was nearly 5% more likely to have protested if they had recruited five peers versus the same player who had recruited no one to the game (specifically, a 30% protest likelihood vs. 25%). Comparing these two levels of recruiting is reasonable, since both are common: 29% of players had recruited no one, the mean was 2.5 recruits, and more than 18% of players had recruited five or more peers.

At the same time, there was no clear evidence for the second possible indicator for interpersonal ties, that is, players who prioritize gaming with their existing online friends.

For cultivating interpersonal networks, the third hypothesis investigates playing style within the game. Specifically, the hypothesis investigates players who prioritize cooperative choices within the game, since they might better develop the social resources for protest. (Recall that cooperation in the game was measured by how they approach avatar choice and how much attention players pay to healing each other.) According to the logistic regression values from Table 2, there was a significant connection between cooperative approaches and protest ($p < .015$ or better).

In size, the effect represents a 3.7% greater likelihood of protest for those choosing to be more cooperative within the game versus those who are less so. (Note that these levels of "more/less cooperative" are chosen to be 1 *SD* from the mean.) Again, the effect size is controlling for traditional social capital as well as recruiting behavior.

Finally, the amount of time spent on video games was investigated in the fourth hypothesis. Specifically, moderate time (<21 hr per month on video games of any type) was hypothesized to play a positive role for these social gamers, while extreme time on games is still expected to undermine civic networks. In contrast to the prior hypotheses, time was not modeled as a linear variable in the traditional way (e.g., in Table 2, where the number of hours spent gaming is not significant). Here, for Hypotheses 4a and 4b, the factor for gaming time was replaced with three more categorical factors: (a) moderate number of gaming hours, (b) high gaming hours (between 21 and 40 hr per week), and (c) extreme hours (more than 40 hr per week).

The overall model for this third logistic regression was significant ($p < .001$; $df = 13$; $n = 4,239$ cases). However, only the "extreme hours" factor was significant ($p < .015$), with the direction negative as hypothesized. In other words, playing video games above the extreme hours threshold was associated with significantly lower odds of protest. There was insufficient evidence for Hypothesis 4a, and thus no evidence of whether moderate hours has a positive effect.

Post Hoc

Did the game-specific factors improve the voluntarism model overall? In terms of predicting protest (see Table 2), the model improved a small amount to correctly predict protest 3.2% more often. (Specifically, using the game-based indicators, 27.8% of the sample was correctly predicted to have protested vs. 24.6% without.) Yet the second model risks overfitting, that is, if the additional parameters only contribute a marginal value and mostly make it more complex.

To investigate overfit, the models can be compared in terms of their Bayesian information criterion (BIC), which represents the improvement in χ^2 performance with a penalty for the number of parameters in the model. The result is that the BIC improves slightly by considering the game-specific factors (it drops from −336 to

−366), indicating that the protest model is indeed improved by considering game-based factors.

Discussion

This study investigates which gamers are more civically active, based in part on their behavior in and around online games. While we found a correlation between civic action and gameplay, we cannot definitively say that gameplay causes it. It is also possible that those players who engage in civic life are more likely to choose play that is cooperative and builds social ties. Either alternative suggests a connection that defies the common stereotype.

Those who participate more in civic life, according to models of voluntarism, are those who have greater personal "resources"—including social skills, political motivations, and the interpersonal ties needed for recruitment. However, models of voluntarism (e.g., Schussman & Soule, 2005) have not been validated or nuanced for small-group video games, despite their exponential rise as a social context.

This study specifically investigates MOBA games and seeks to predict which gamers are most likely to engage in peaceful protest, based in part on how they play. Empirically, this study investigated the most popular game for PCs, a game that supports teams of three or five players in 20–60 min rounds.

The findings of this study help to refute claims that gamers are civically isolated. Stereotypes persist that online games are full of players who are disengaged from civic life (e.g., National Institute on Media and the Family, 2008). Therefore, the first research question sought to establish baseline levels of civic engagement for MOBA gamers. Using prior research from Pew Internet, MOBA players were compared with American parents (a group that is reasonably well integrated in society).

The results showed that MOBA gamers ($N = 8,234$) were unusual for two civic acts, and in both cases, the gamers had *higher* rates of civic activity (i.e., for staying informed and for protest). There were no significant differences for rates of volunteerism or charitable giving. The finding that MOBA gamers do not lag in civic engagement may help to reorient scholars in political science who have categorically dismissed games (e.g., Putnam, 2000); of course, this is just one game—so this study also considered whether MOBA games might be distinct.

Preliminary theory is emerging for which mainstream games might support civic life without explicit civic content (Schulzke, 2011). In games, socializing is often separate from the formal point system (recall that for Putnam's off-line bowling leagues, the socializing was not in the act of rolling the ball but in the conversations around the game). Yet prior work has rarely considered which player behavior matters. This study contributes to game studies by going beyond the early work on games and social capital (Steinkuehler & Williams, 2006; Zhong, 2011) to focus on the distinctly *civic* model of voluntarism.

Voluntarism helps identify the specific behaviors that matter in and around the game. The effects tied to games are likely to be subtle, for example, players can

cultivate an awareness of the political implications for their gaming, such as engagement with anticensorship campaigns for video games. While causation cannot be established by the design of this study, the correlations can still contribute to the field by addressing the core model. To begin: Do game-specific factors improve voluntarism, beyond the traditional factors of demographics, off-line networks, and so on?

The basic voluntarism model improved when including game-based indicators. Specifically, the model better predicts which players protest after expanding to consider how they play games. (Again, this expanded model is better than simply considering demographics, traditional political engagement levels, and interpersonal networks.) The gains were modest in size, yet make clear that the gamers who protest are also making different choices within the game. The study also points to specific behaviors that matter, including pursuing cooperation, recruiting more people to play, and staying aware of policy issues tied to video games. And the post hoc analysis revealed that the model improvement had more explanatory power than basic voluntarism, even with a penalty for more independent variables.

Why focus on peaceful protest? As a phenomenon for MOBA gamers, lifetime protest rates were remarkably high—approximately twice more common than American parents. This study contributes to civic research on gamers by underscoring the particular importance of protest, especially for small-group gamers. Of course, protest behavior is amid a societal transition already, and protest has been further singled out as the first civic act to "decouple" from formal politics (Earl & Kimport, 2009). According to some political scientists, the shift comes atop a broader generational transition toward more "expressive" approaches in civic activity (Bennett, Wells, & Rank, 2009), as opposed to "dutiful" motivations for civic life. Games can be expressive spaces for social identity, especially games that mirror the spectacle and group activity of protest (drawing on Duncombe, 2007; Schulzke, 2011). Role-play is a core feature of MOBA games that support personal expression alongside group role, and this article calls particular attention to the importance of MOBAs as a genre. Without focusing on social issues, MOBAs support social relations, including around the edges of the game—like the player community and the gamer identity.

The strongest game-specific indicator in this study was policy awareness around gamer rights. In terms of the voluntarism model, such awareness lowers the barriers to political engagement. Protest odds were shown to increase by 18% for players who were more aware of game-centric policy beliefs and rights. In other words, players who engage with game-related policy are more likely to protest, even controlling for general political engagement (like being registered to vote) and attention to the news.

Recruiting behavior is vital for civic life, and voluntarism approaches recruiting as a social skill or resource. As seen with the second hypothesis, players who recruited friends to the game were shown to have greater odds of protest off-line. Again, the effect is considerable, even controlling for baseline levels of social

capital: Protest odds increased by nearly 5% for players who recruited five peers, as compared to those who had recruited none. Replicating the findings of Zhong (2011) and bringing nuance by focusing on small-group games, this study finds that networking behavior has some important crossover to off-line protest.

Within the game, a cooperative approach to play was also linked to higher protest odds. Specifically, a "cooperative" orientation (operationalized using the theory of SVO) was associated with a 3.7% greater likelihood of protest. Again, this finding controls for social capital levels and general political engagement (and is likely understated, since the measure for cooperation does not detect aggressive modes like cooperative attacks). It is worth noting that in a less balanced game, cooperation can manifest very differently (e.g., if no one wants to play the cooperative avatars, then the most cooperative players might agree to play the more aggressive roles in the game); such inversion seems unlikely here, in part because this MOBA is known as a well-balanced game and because there was no evidence in the results for this factor to be inverted. Future research is particularly needed to identify a broader range of cooperative actions and to determine whether cooperative play can also build the *collective self-efficacy* theorized by Schulzke (2011) as possible for games and vital for civic life.

To be balanced, this study also investigated the leading critique of games as distractors from civic life, that is, that games take *time* away from the networking of associational life. This study brings nuance to prior research that considered time as a linear factor, specifically by separately considering moderate and extreme time (more than 40 hr per week) spent on video games. Results show that extreme time on games was associated with diminished protest odds (controlling for other factors), but this study did not find a significant effect for more moderate hours spent on games. Taken together, these findings lend mild support for McGonigal's claim that there is a threshold of "healthy" hours for gaming (she points to 21 or fewer). Since this study samples only players of small-group games, these findings deserve additional investigation in future research across a broader range of games. Detecting the positive effects of moderate gaming is difficult and may require comparing games and tracking longitudinally.

Implicitly, the basic voluntarism model for protest was validated for gamers. By adapting the synthesis model of Schussman and Soule (2005), this study found similar patterns of determinants, using the same three factors in predicting protest likelihood: demographic resources, political motivation/engagement, and social networks. Like Schussman and Soule, few demographic factors had much influence, although educational attainment did matter. Political engagement factors were most influential—especially recent advocacy, volunteerism, and being registered to vote.

The ability to predict lifetime protest remains quite low—under a 30% success rate, even when the model is expanded to include game-specific factors. Improving models for protest is difficult yet worthwhile and is especially timely as protest evolves toward more expressive modes.

Do these results point to how civic organizers might better reach and retain gamers as active citizens? in a few ways. One implication is that organizers should respect "gamer rights" campaigns as potential catalysts—not just for those concerned with freedom of expression but for anyone who wants to bring civic reflection into the social context of video games. Voluntarism explains how political engagement is a gateway to broader civic participation, and so raising awareness about the already-present political implications tied to games can help other social campaigns as well.

Another implication is that male-dominated spaces can still attract civically engaged people. Since this MOBA was disproportionately male, the study helps disprove stereotypes of games as refuse spaces for civically disengaged men. In fact, the men who play this MOBA are quite engaged civically. More research is needed, including on small-group games with more gender equity; yet we expect the results to be similar, since gender is not considered a major determinant of protest (e.g., it was not a significant factor in the models of Schussman and Soule, 2005).

More broadly, improving the voluntarism model can be pragmatically useful for civic campaigners who seek to improve recruiting behavior. By understanding the play style of a player, an organizer can increasingly gain insight into how that citizen might be recruited into civic life. Moreover, civic organizers may benefit simply from recognizing games as social contexts and considering *LoL* alongside traditional bowling leagues. Small-group and social gaming can allow players to retain their social networks and cross-pollinate: bringing friends into games, and increasingly it is possible to recruit other players into civic life.

However, giving games such legitimacy also brings responsibility. For example, Putnam's (2000) fear about bowling alone versus in leagues must be applied here too, and we must ask whether MOBAs actually help citizens meet people unlike them, across lines of class, race, and interest. Data were discouraging for *LoL*, which compared to the U.S. population as a whole is disproportionately male, upper income, White and Asian. Similarly, e-sports must be compared to traditional sports, which have relatively mild civic effects compared to activities like high school debate that more explicitly feature discussion of the bridge to formal politics (Hart et al., 2007).

That gamers have a civic life is increasingly certain, but as games evolve, there are growing opportunities to learn which kinds of gaming help retain or even strengthen civic proclivities. This study supports a view of protest as an extension of the social relations that include video games, beyond narrow demographics and formal politics. Of course, learning *about* civics is still valuable—and there is promising work on games for civic learning (e.g., Raphael, Bachen, Lynn, Baldwin-Philippi, & McKee, 2009; Ruiz, Stokes, & Watson, 2012).

Yet this study points to MOBAs and similar e-sports as categories of gaming that may be particularly important for public life, as understood by civic voluntarism. Future research is needed to extend this study by comparing MOBA gamers to more persistent virtual worlds as well as social games with varying levels of role-play.

Even as protest shifts in society at large, small-group games and e-sports seem poised to expand further and deserve focused attention by civic scholars.

Note

1. The "gamer" identity is broad, with ties to many game genres. MOBA games tend to draw a fairly committed group of players, and align well with the gamer identity. As a social identity, the category of gamer can help players see how they have a collective interest in certain policy issues—especially those tied to games. Social identification, according to research on collective action, is often a central factor in mobilizing people to political action (Van Zomeren, Postmes, & Spears, 2008).

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