

Civic Beyond Play: Ties to Public Life for Small-Group Gamers

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Abstract: Commercial games are rarely studied for their links to traditional civic engagement. This study examined thousands of players of a popular team-based game, and investigated ties to offline volunteering and protest. Contrary to stereotypes, this study reveals civic participation rates of gamers comparable to a normative stalwart: the typical American parent. Small-group gamers had unusually high rates of “peaceful protest, march, or demonstration” – more than twice the lifetime rate of American parents. Several predictive models for protest were compared, using game-based indicators to confirm these civic models across the game boundary. Protest was best predicted by theories of political engagement (such as being liberal and awareness of key advocacy groups), rather than socio-demographics (such as income and gender). Several game-related behaviors were especially useful in the model, including whether a player had recruited others to join the game; conversely, high hours spent gaming did not undermine the likelihood of protest.

Overview

Despite stereotypes that games lack altruism, 76 percent of American teens report helping others while gaming (Kahne, Middaugh, & Evans, 2008). This may have implications for civic culture more broadly, given the rise of mainstream gaming. Can the civic life of mainstream gamers be understood in terms of their voluntary play?

This study examined thousands of participants in a popular commercial game. To parallel the bowling leagues discussed by Putnam in his classic analysis of civic decline (2000), this study focused on a game *without* any particular altruistic message, but with small-group play that is competitive and social. Looking across the “magic circle” of games (Huizinga, 1938), this study investigates the social values and motivations that might persist and cultivate civic behavior.

Civic Life in Transition, as Games become “Third Places”

Civic participation contributes to a host of desirable social outcomes, including better economies, less crime, better schools, and greater trust in government (Putnam, 2000). Yet this picture is not static – society and our very definitions of civic participation continue to evolve, for better and worse. Protest has been on the rise in American society, for example, as possibly the first civic act to begin de-coupling from traditional politics (Earl & Kimport, 2009). Meanwhile, youth membership in more traditional voluntary associations has declined 18-25% since the 1970s (General Social Survey; in Levine, 2007, p. 82).

Simultaneously, videogames have emerged as a mainstream medium and social context, with more than 70 percent of American households playing (Entertainment Software Association, 2010). Commercial games are increasingly recognized as authentic and meaningful domains of human activity in their own right. For example, some games have real economies that follow macroeconomic laws (Castronova et al., 2009). Others have content and social dynamics that are complex enough to constitute separate “third places” to build social capital (Steinkuehler & Williams, 2006), and may even be meaningful spaces for direct civic action (Thomas & Brown, 2009).

Since most commercial games are not designed for civics, and there is a movement to create entirely new “games for change.” This alternative agenda for games has been growing in policy and funding circles (see, for example, <http://gamesforchange.org>), but their distribution is often relatively limited (Bers, 2010; Raphael, Bachen, Lynn, Baldwin-Philippi, & McKee, 2009). If there is civic potential in existing mainstream games, the scale of impact could be considerable.

Small Group Focus (in Popular Games and Civics)

Since commercial games are rarely civic in their content, their effect has more potential through the shaping of social networks and relationships. This parallels research into traditional civic determinants, which often de-emphasize formal contexts. For example, longitudinal studies of volunteering have found that being knowledgeable about civics does not lead to increased participation, but that being a member of extracurricular groups is predictive of subsequent voting and volunteering (Hart, Donnelly, Youniss, & Atkins, 2007). This was especially true when there is helping behavior or civic content in the background, which may parallel the helping behavior in small-group games.

Small-group games are under-studied, compared to the immersive 3D universe of virtual worlds and massively multiplayer games. Small-group is increasingly popular online, with millions of daily players (Rose, 2011). While small groups can exist within more massive games, the overall experience may be more akin to a game of pickup sport that may lead to ongoing ties, rather than the sustained bowling leagues that have received so much civic discussion (as per Putnam's *Bowling Alone*, 2000).

In small groups, participants come into repeated contact with a small number of people, building the critical connections necessary for future action, including political recruitment, conversations on political news, and dissemination of new online tools for civic action. Fine and Harrington describe small groups as "the crucible in which civil society is created and enacted" (2004, p. 344). Yet little work has compared the players of small-group games to stereotypical upstanding groups, such as parents.

Parents are a useful positive comparison group for a number of reasons. Parents are at an age when political activity like voting is higher than for youth or for the elderly; and when their life patterns have settled into adult roles as they "build up their stake in community affairs" (Flanagan & Levine, 2010, p. 160). Furthermore, parents can be particularly pulled into civic life by their family; for example, parents may become active through their child's school and become more attuned to policies that affect their child (Rotolo, 2000). As a group, parents tend to volunteer at least 5% more than the overall U.S. population (for example, 33.6% in 2010 compared to 26.3% in the population (Corporation for National and Community Service, 2011)). Especially when *lifetime* participation rates are considered, parents can be a proxy for good citizens.

RQ: For small-group gamers, are lifetime civic participation rates comparable to those of American parents, a stereotypical "good citizen" group?

Protest and Civic Recruitment

If gamers are civically active, which game behaviors are tied to their civic participation? Protest is a civic behavior deserving particular attention. Protest is at the foreground of shifts in national civic trends away from traditional political engagement, partly because protest has grown so fast (Earl & Kimport, 2009). Games may have particular importance to the civic act of protest by helping players to develop tolerance for confrontation and what Stephen Duncombe calls "ethical spectacle" (2007).

The causes of protest are theorized in terms of three competing models of recruitment (Schussman & Soule, 2005). They include: (a) biographical availability, (b) political engagement, and (c) structural availability. These have not been investigated for commercial gamers. Biographical availability is defined as the "absence of personal constraints that may increase the costs and risks of movement participation" (McAdam 1986, in Schussman & Soule, 2005). Perhaps the most basic indicators are socio-economic: income, education, age, gender, and race. Such socio-economic controls are historically important for equity issues in social justice.

As part of biographical availability, this study will also consider the raw number of hours spent playing games. The controversy over whether play reduces civic activity is a matter of public contention (e.g., National Institute on Media and the Family, 2008). One prior study found no strong relationship between gaming time and civic engagement (Kahne et al., 2008). Yet that study was forced to lump together small-group and single-player games, and to collapse various civic acts into one measure, whereas civic scholars have long understood that different acts have relatively distinct causal chains. Moreover, time

might only be a factor beyond a threshold tipping point -- an argument prominently articulated by McGonigal who has claimed that "moderate gaming" of 21 hours a week is healthy (2011).

Biographical availability can also be extended to personality traits, which can constrain an individual's odds of protesting. Mild trait effects on civic behavior have been demonstrated (Mondak, Hibbing, Canache, Seligson, & Anderson, 2010; Opp & Brandstätter, 2010). For example, volunteers disproportionately express cooperation over individualist or competitive values (Bekkers, 2007). In games, role-playing has the potential to manifest traits, especially where the choosing of avatars forces a choice between competing social values. Some avatars emphasize helping behaviors; others are attacking characters or stealthy messengers.

H1: players who prioritize cooperative values around their gameplay will also manifest in higher rates of traditional offline protest.

The second model for protest--political engagement--can be approached in terms of both political interest and political information (Verba, Schlozman, & Brady, 1995). For gamers, this might particularly manifest in games-based policy engagement, such as "gamer rights" campaigns to limit the censorship of games. Political engagement is also affected by being political liberal, since protest is often seen as a particular tool for progressives to make their voices heard (Dalton, 2002 in Schussman & Soule, 2005).

H2: The odds of protesting will be higher for gamers who show political engagement (such as staying informed about gamer rights), and who are politically liberal.

Finally, the third model for protest concerns interpersonal networks. The availability of such networks to any individual is often called structural availability. These networks can be described in terms of the social capital of the individual; greater social capital is associated with greater civic participation overall, and for Putnam its decline is one of the best explanations for diminished political participation (2000). For games, theoretical and empirical work has increasingly established that social networks also make sense and can connect offline (e.g., Steinkuehler & Williams, 2006). Teaming up with offline friends is one way to bridge the magic circle of games, including with romantic relationships. Overall, combining this model with the political engagement model is expected to perform better in predicting rates of protest than the engagement model on its own.

H3: Greater rates of protest are expected for gamers with more social capital, including co-play, and for those who have experience with recruiting others to play the game.

Method

In this study, data were collected anonymously on players of League of Legends (LoL), a game featuring small teams of 3-5 players that was released in October of 2009. LoL had at least ten thousand players daily at the time of the survey (e.g., as based on the gaming tool Xfire, 2010); more recent estimates suggest it is one of the most popular online games, with more than 1.4 million daily active players (Rose, 2011). The game is played in live action matches, where each team seeks to capture their opponents' base, and a winner is typically determined within 20-60 minutes.

The game operator, Riot Games, facilitated the distribution of a survey to a large sample of players and also provided server-side data from the game's back-end databases. The former offered psychological and demographic information, while the latter offered behavioral logs of the player's actions, interactions, and successes or failures.

Participants were randomly selected players of LoL who had been active in the game over the two months prior to the survey. During the one-week window, we collected 22,091 complete responses with a response rate of 85.0%. In order to exclude those players who clicked through the survey to simply get the incentive of an in-game boost, we removed all cases which finished the survey less than 12 minutes. Additionally, we excluded cases in which participants gave inconsistent responses to similar positively and negatively worded items. Only American players were retained to improve coherence, since civic life

varies significantly by country. After these cases were removed, 9,392 cases were included in the final analysis. The participants were predominantly male (96%), with an average age of 21.9 years ($sd=5.0$), had a somewhat larger household income ($mean=\$55,000-\$60,000/year$) and more education than the general American population (for a detailed description of player demographics across games in comparison with the general U.S. population, see Williams, Yee, & Caplan, 2008). All player data were recorded anonymously.

For the research question seeking comparison with American parents, the number of cases was reduced to improve comparability. Specifically, the LoL dataset was restricted to age 30 or older, since the vast majority of PEW parents were over 30; to further improve the comparison with parents, LoL respondents were only selected who were either co/head of household, parent of head of household, resulting in 639 valid LoL survey respondents and more than 1000 PEW parents. Similarly, since parents with children have less time available (for a brief discussion see Schussman & Soule, 2005), the civic questions only compared *lifetime* aggregates of civic participation rates for gamers and parents.

Civic participation is typically measured using indicators for very diverse activities, from volunteering, to voting, to staying informed about current events (Levine, 2007). For this study, five behaviors were selected -- the same set used in the first nationally representative survey to examine civic behavior in teen game play (Kahne et al., 2008). Mimicking this prior study, each civic behavior was measured by asking whether the respondent had engaged in that activity (yes; yes, but not in the past 12 months; never); activities included: having volunteered; raised money for a charitable cause; taken part in a peaceful protest, march or demonstration; stay informed on current events and politics; and convincing people to vote in some manner in an election.

For the social value orientation (as part of predicting protest), a scale was developed for the "orientation to help." This scale identifies whether players made helping choices in two contexts. First, in the pre-match portion of the game, players are encouraged to choose roles by selecting an avatar, each of which has different strengths and weaknesses. Second, during the game, players can choose to be more or less helping (e.g., a preference for healing spells), and paying particular attention to teammates' health. The combined scale of four items had a Cronbach's alpha was 0.755, indicating reasonable consistency.

Social capital was considered in game terms as co-play with relatives or significant others, and for more traditional bonding capital using the Internet Social Capital Scales (Williams, 2006). The co-play measure was a binary variable calculated using three survey items (one for romantic partners, one for offline friends, and one for relatives); if the player "often" or "always" played with any such offline connection, then co-play capital was coded as true.

Results

In comparing the rates of civic participation for small-group gamers with American parents, no statistical difference between participation rates was found for two behaviors: charitable donation and volunteerism (see *Table 1* for t-tests of independent samples). Gamers actually had higher rates of participation for peaceful protest, and for staying informed on civic and political events ($p<.001$, and $p<.01$, respectively).

The protest difference is especially noteworthy: more than twice as many gamers reported having ever protested, compared to American parents (25.7% versus 10.4%). The size of this gap was a surprise, and redoubles the importance of more closely modeling protest behavior for gamers below.

	Gamers (ever done this)	Parents (ever done this)	Mean Difference	T	df	Sig. (2- tailed)	Std. Error Diff
<i>Stayed Informed</i>	88.7%	83.9%	4.8%	2.884	1538	.004	.01662
<i>Donated</i>	74.3%	76.0%	-1.7%	-.788	1357	.431	.02137
<i>Volunteered</i>	68.0%	71.1%	-3.1%	-1.354	1360	.176	.02272
<i>Advocated</i>	53.6%	N/A	N/A	N/A	N/A	N/A	N/A

<i>Protested</i>	25.7%	10.4%	15.3%	7.885	1044	.000	.01938
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Table 1: Comparing civic participation rates for small-group gamers to American parents using an independent samples t-test

Three models for protest were then compared using a binary logistic regression (see *Table 2* for estimates of the parameters). As hypothesized, the model for biographic availability had a relatively minor role in the overall regression. Most socio-demographic factors were non-significant or barely significant in light of the large sample size ($n=4337$); these included gender and log-income. Against expectations, age was barely significant, though its negative sign is in the expected direction. While educational attainment and being a student were initially significant, their role diminished when political engagement variables were included. This implies that the effect of educational attainment is better explained in terms of overall political activity.

When the model is expanded to include game-related elements of biographical availability, it improved. Most importantly, the presence of a helping social value orientation within the game was highly significant ($p<.001$), controlling for other factors across all models. In other words, a player's approach to avatar choice and team play correlated with their rate of protest. The size of this effect, according to the model, is a 4.9% greater likelihood of protest for those who also made more helping choices in the game, compared to those who made fewer (specifically, this is the predicted difference in protest rates between those whose "orientation to help" is one sigma above the mean, and those one sigma below). This supports the hypothesis on the role of game-based social value orientation. The amount of hours spent playing games was not significant.

Independent Variables	Model 2		Model 3		Model 4	
	β	exp(β)	β	exp(β)	β	exp(β)
Biographical Availability (non-game)						
Gender (female)	.189	1.208	.171	1.187	.191	1.211
Education	.104 ***	1.110	.070 *	1.072	.074 *	1.077
Student	.205 *	1.228	.128	1.137	.121	1.129
Income	-.002	.998	-.005	.995	-.004	.996
Age (log)	-.490	.613	-.568 *	.567	-.595 *	.551
<i>Biographical Availability (game)</i>						
Altruistic values within LoL	.216 ***	1.241	.150 ***	1.162	.138 **	1.147
Time moderation for play	-.128	.879	-.089	.915	-.122	.885
Political Engagement						
Recent Civic Activity (volunteered)			.475 ***	1.607	.469 ***	1.599
Recent Civic Activity (donated)			.336 ***	1.400	.333 ***	1.395
Recent Civic Activity (advocated)			.762 ***	2.143	.751 ***	2.120
Stays informed recently			.074	1.077	.084	1.087
Registered to Vote			.426 ***	1.532	.431 ***	1.539
Liberal Ideology			.229 ***	1.257	.229 ***	1.257
Aware of the Game Voters Network			.467 ***	1.595	.453 ***	1.573
Wants games regulated separately			.094 **	1.098	.091 **	1.095
Structural Availability						
Social capital via co-play					-.032	.969
Bonding social capital					-.005	.995
Recruitment of other Players (skill)					.051 ***	1.052
<i>Constant</i>	.138	1.148	-.543	.581	-.356	.700
Chi-square	62		499		515	
df	7		15		18	
BIC	-2		-372		-363	

Table 2: Estimates (log-odds and odds) from selected logistic regression models of players' protest incidence (=1, 0 otherwise); (N = 4337; *= $p < .05$; **= $p < .01$; *= $p < .001$)**

The next model in the regression considered the theory of political engagement; it was the BIC-best model (an indicator of parsimony). The hypothesis that political information is needed had mixed support. Awareness of advocacy organizations for gamer rights had a large effect: the model predicts a 9% increase in protest rates when an individual is aware of the gamer advocacy organization, controlling for other factors. Yet general political news about gamer issues was not significant factor.

Protest was best explained in the engagement model by participation in other civic acts, especially recent advocacy (odds of protest go up 13% if there was recent advocacy). Voter registration was also significant and roughly comparable in effect size. Expressing more liberal political views had the predicted effect of increasing the odds of protest. The effect size was considerable: according to the model, there is a 13% greater likelihood of protest for those one sigma above/below the mean.

However, when the model was expanded to include factors of structural availability, it was not BIC-better. Social capital via co-play (where players frequently play with a romantic partner or family member) was not significant, nor was bonding social capital. Importantly, those who expressed the civic skill of recruitment in the game (in terms of the number of people they had recruited to play) were significantly more likely to also participate in protest, controlling for other factors. In this way, game-specific social capital indicators seem to have explanatory power separate from traditional social capital measures.

Discussion

This study sought to understand how civic life for small-group gamers is tied to their behavior inside the game. Protest rates were of particular interest, given the rise in protest globally, and the possibility that the role-play of games might cultivate or require a kind of tolerance that is also needed to protest. A large sample of participants ($n=8,234$ Americans adults; from a total of 18,629 valid cases) was drawn from League of Legends (LoL), a popular commercial videogame that features small group play in differentiated roles, including helping roles.

One goal of this study was to explore the stereotype of the civically-disengaged gamer. Comparisons were made between a subset of older LoL players and American parents. Similar rates of participation were found compared to typical American parents for volunteering, charitable giving, and staying informed about political issues. The rate of protest was significantly higher for game players – approximately double the lifetime rate of parents who had ever protested. This unusually high protest rate might be explained by the possibility that LoL players find protest less intimidating than typical Americans – a promising area for future research. Protest is often filled with spectacle and can be confrontational (Duncombe, 2007), but if gamers have a special disposition to protest, it is still unclear whether that is a shared bias across both activities, or if one somehow causes the other.

Three models for protest were investigated, including several indicators drawn from game-specific behaviors. The BIC-best model included the theories of biographical availability and political engagement, but not structural availability. The lack of additional contribution from structural availability may itself be noteworthy, since it implies that social capital adds little explanatory power once we control for individuals' ongoing political engagement. For the political engagement model, particular attention is due to the performance of game-related measures, specifically to awareness of gamer policy groups, in contrast to the lack of contribution from more general political news. This contrast underscores the importance of understanding the civic lives of gamers using indicators that are proximal to their passion for games.

The orientation to help inside the game was significant in predicting the odds of protest, accounting for a 13% likelihood increase, controlling for other factors. This further supports the search for measures that permeate the game and civic worlds, and suggests some value in future use of our scale for the "orientation to help" inside role-playing games. Future work on role-play and civics should deepen the relation to social value orientation theory, and investigate how it varies depending on the civic act.

Research is only beginning to investigate how gaming behaviors connect to everyday civic life. This study was cross-sectional, and so cannot make causal claims. It does argue for the particular importance of small-group games, distinguished both by their social dynamics and by the frequent role-play that supports helping behavior. Additional research is needed to explore how sustained participation in games might have causal effects. For example, does sustained play deepen the orientation to help in the game, or undermine it – and do such shifts also lead to greater civic inclinations outside the game? Given the dozens of hours per week that many players dedicate to LoL, a more systematic investigation is warranted.

Future work may also inform the more deliberate design of role-play for civic goals, especially since role-based training is already widely used for behavior change (Taylor, Russ-Eft, & Chan, 2005). Games like LoL may parallel bowling leagues, which have strong civic implications despite the lack of explicit civic framing. As videogames become increasingly capable of supporting human social activity, it seems only natural that civic dispositions will develop inside of game-based environments, and spread well beyond.

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