



University of Colorado
Boulder

TITLE: Gaming Alone? The Effects of Virtual Leisure Group Participation on Political Behavior of Adolescents and Young Adults

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I. OBJECTIVES

The purpose of this study is to investigate the issue of gamer political engagement in more depth. In Section III of this protocol I discuss my earlier research on this topic. In it, I find that gamers tend to be drawn to post-modern political parties, such as the pro-Internet neutrality Piratpartiet (Pirate Party) in Sweden, which directly promote gamers' interests. But this conclusion will be strengthened by directly highlighting the mechanism of this support.

Thus, the primary purpose of my study is to compare gamers and non-gamers in regard to their response to specific political issues. I hypothesize, that gamers who are presented with a story about their hobby being directly affected by a policy decision will be more likely to actively engage in politics than all other categories of respondents.

The secondary objective of this study is to start unpacking the concept of gamers as sociopolitical identity. I do so by including a battery of questions building on the research of Greene (2004), Huddy et al. (2015), and Mason (2018).

II. BACKGROUND AND SIGNIFICANCE

Over the past three decades, video gaming has evolved into a favorite pastime for a sizable and a highly diverse group of individuals. No longer a domain dominated by teenage boys, the average "gamer" (a person who regularly plays video games) is now 35 years old, and females 18 or older are more frequent gamers (31%) than boys 18 or younger (ESA 2017, 4). In 2016, the total consumer spending on video game content and hardware exceeded \$30 billion (ESA 2017, 15) and the gaming industry has already eclipsed both the film and the music industries in size (Morris 2016; Nath 2016). Importantly, gamers have embraced the Internet both as a space of play and as an avenue for social interactions with others who enjoy the same hobby.

Interaction within social networks influences peoples' sociopolitical attitudes and preferences (Huckfeldt 1986, 1; see also Huckfeldt and Sprague 1987; Huckfeldt et al. 1995). In turn, membership and engagement in social networks can be measured using social capital (Coleman 1988, 1990; Lin 2001a, 2001b), and scholars frequently use high values of social capital as a predictor for increased political engagement (Putnam 1993, 2000, 2002). Therefore, the ongoing decrease in social capital in the United States and other developed countries, caused by reduced involvement in clubs and hobby groups, is a cause of concern (Putnam 2000, 2002). Since the drop, corresponds temporally with the increased popularity of video games, the potential relationship between gaming and decreasing sociopolitical engagement must be evaluated.

Research shows that playing prosocial games may promote prosocial behavior among gamers (Gentile et al., 2009) and improve their cognitive capacities (Gee 2003, 2006, 2008; Ritterfeld, Cody, and Vorderer 2009). Nevertheless, psychologists generally agree that spending prolonged periods of time playing video games often has more negative consequences. Playing single-player video games, especially violent ones, for excessive periods of time leads to decreases in empathy, prosocial behavior, and civic engagement, and increases the likelihood of aggressive behavior and thinking among gamers (Anderson et al. 2010; Anderson 2014). This finding supports the broader observation about the role of violent media in promoting heightened levels of aggression and social disengagement (Anderson and Dill 2000; Anderson et al. 2003; Huesmann et al. 2003; Möller and Krahe 2009; Krahe, Busching, and Möller 2012).

It is for this reason that the World Health Organization now recognizes “gaming disorder” as comparable to other addictive disorders (WHO 2018).

Furthermore, data from Belgium, Canada, the United States, and the Scandinavian countries show that playing online games for extended periods of time erodes existing interpersonal relationships, increases feelings of loneliness, social alienation, and anxiety, and heightens the propensity for aggressive behavior and thinking, and decreases political participation (Williams 2006; Quntelier and Vissers 2008; Milner 2010; Ekström, Olsson, and Shehata 2014). These symptoms fall under the umbrella of the “Internet gaming disorder” (Gentile et al. 2011; Gentile et al. 2012; Müller et al. 2014). For this reason, the Japanese term hikikomori, which describes young individuals who concentrate on their leisure activities at the expense of social interactions, frequently and appropriately appears in the context of this debate (Furlong 2008; Kato et al. 2012; Li and Wong 2015; Stip et al. 2016). These young individuals are dissatisfied with their life and seek out games to fulfill their elementary psychological needs (Allen and Anderson 2018). As technology advances and games increasingly resemble reality, this dangerous form of escapism even makes young men seek gainful employment less frequently (Aguiar et al. 2017).

That said, many scholars studying the effects of the Internet and online gaming on social interactions argue that the picture may be less grim than Anderson and colleagues suggest. A sizeable body of literature argues that the use of the Internet increases civic engagement and political efficacy both online and offline (Bimber 1998; DiMaggio, Hargittai, Neuman, and Robinson, 2001; Jennings and Zeitner 2003; Tolbert and McNeal 2003; Bargh and McKenna 2004; Krueger 2006; Wang 2007; Xenos and Moy 2007; Bennett 2008; Gil de Zúñiga, Puig-i-Abril, and Rojas 2009; Bakker and Vreese 2011). These researchers consider the online gaming communities as new “third places” of social interaction. Political efficacy and social capital can develop through interactions in these third places (Steinkuehler and Williams 2006; see also Oldenburg 1999). Online gaming communities emerge as environments that are suitable for the study of both bridging and bonding social capital (Williams 2006). Researchers highlight the direct link between the “gaming social capital,” the traditional “face-to-face” social capital, and political engagement (Molyneux, Vasudevan, and Gil de Zúñiga 2015), especially among individuals in late teens to late twenties who experience increased information efficacy as a result of their interactive online experiences (Tedesco 2007).

However, what if we are looking at the issues of gamers’ engagement in politics too broadly? Rather than caring about politics generally, gamers may embrace a distinct and highly specific set of core values and preferences, which makes them care only about particular political issues. Recent research has illustrated that gamers lean towards libertarianism, specifically its freedom and achievement aspects (Dahlberg 2010; Evans 2011; Good 2014). As Schwartz and colleagues (2014) argued, individuals form their political positions according to their place on the motivational continuum. Given the achievement- and pleasure-based nature of the gaming hobby, gamers should embrace the self-enhancement values of hedonism, achievement, and power (Schwartz et al. 2014, 904). As a specific issue public (see Krosnick 1990), gamers should, therefore, care about maintaining the means of enjoying their hobbies, such as unrestricted Internet access or the ability to share computer files online without any limitation. This also indicates a preference for the postmodern secular-rational and self-expression values, which is more common among individuals in developed Western societies (Inglehart 1997). Furthermore, as Shehata and colleagues (2016) indicated, online media use promotes “self-actualizing [...] qualities” that center on specific “cause-oriented civic actions” (1142-1143).

Moreover, a general lack of consensus exists on how we determine and define who is and is not a gamer. Thus far, researchers have used various measures, such as time spent gaming and the amount of money dedicated to the hobby. I plan to build on these previous classifications and consciously deploy social identity theory, as described by Greene (2004), Huddy et al. (2015), and Mason (2018).

In summary, this online survey experiment focuses more directly on the mechanisms that push gamers towards heightened levels of engagement in politics. My experiment will help me indicate just how much specific policy issues decide fandoms' likelihood to engage with specific policy issues and participate in politics.

III. PRELIMINARY STUDIES

In my earlier research, I analyzed dynamic panel data from Sweden using cross-sectional time series methodology. My goal has been to uncover more details on the political behavior of the gaming subculture. I found that gamers are more likely to support a party that clearly aligns with their interests, specifically the Piratpartiet (Pirate Party). But, being based squarely on survey data, my earlier research has difficult time tackling the mechanisms that drive gamers to support one political entity over another.

IV. RESEARCH STUDY DESIGN

Name of procedure/instrument/tool	Purpose (i.e., what data is being collected?)
Pre-manipulation survey	To collect data on the research participant's identity as a gamer. Prime the research participant to think of themselves a bit in the context of being a gamer.
Answer Quality & Bot Screener	To combat the issue of bots on online survey platforms, I am including one additional question that is designed to screen out non-human participants.
Manipulated vignettes, control and treatment versions	To present respondents with one of two versions of a newspaper article at random. This constitutes the experimental treatment. I will also measure how long it took the respondents to read the manipulation.
Manipulations check survey	To ensure that the manipulation got registered by the respondents. I will also measure how long it took the respondents to complete the manipulations check
Dependent variable survey, part 1	To track the effects of the manipulation on the respondent's political preferences and behavior. One of the questions includes an attention/answer quality screener.
Dependent variable survey, part 2	To track the effects of the manipulation on the respondent's level of support for one of two hypothetical politicians.

Demographic variable survey	To collect additional information on the respondents for the purpose of getting a better idea of the demographic make-up my sample and in case I need any control variables.
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I am collecting several groupings of data from my subject population.

One, in the pre-manipulation survey I collect data on research participant's identity as a gamer. I also include a pre-manipulation measure of one of my dependent variables of interest, namely interest in the US international trade policies.

Two, I include a question designed to ensure that my survey experiments is not being exploited by bots. The question requires an answer to a simple mathematical problem.

Three, I randomly assign my research participants into one of the manipulations groups - control and treatment. This will be done by simple randomization using the Qualtrics randomizer, with a check ensuring roughly equal distribution of research participants between the two groups.

Four, I present a set of three questions which test how well the manipulations registered with the respondents.

Five, I present my respondents with a battery of questions on their political behavior patterns. I track how their patterns of interest in trade policy changed following the manipulation, their position on the policies, and their likelihood to engage in various political activities.

Six, I present the respondents with a hypothetical election race in which they must choose between one of two mock U.S. Senate candidates. One is in favor of the tariffs discussed in the manipulations, while the other is opposed. The respondents are then asked to state how likely they are to vote for, donate to, contact, and volunteer for the candidates.

Seven, I collect a standard set of demographic indicators. I do so to obtain a better understanding of the demographic make-up of my specific sample, and to run balance tests to make sure randomization procedure worked as expected. Also, collecting demographic information is helpful in case I need to run a regression analysis with controls. While this should not generally be necessary, some reviewers nevertheless request regression analysis even on data collected through survey experiments.

A control group is used in this study. I am using a baseline control group. Respondents assigned to this group will read the basic version of the newspaper text. That is, none of the phrases that I expect to prime my respondents will be present. See the attached treatment text and the experiment outline for further detail on the differences. I do so to establish a baseline against which to compare the effects of my manipulation.

In my previous research based on panel survey data, I found that the mean support of the Pirate Party among people who do not play video games at all is 2.934 (sd = 0.345), while it is 2.969 (sd = 0.250) among daily gamers. The survey measured the party support on 5-point scale, so I first convert the original values to the 10-point scale that I will be using in my survey experiment. Doing so gives the values of 5.868 (sd = 0.690) and 5.938 (sd = 0.500) respectively.

I use these estimates to get a general idea of the potential changes resulting from my experimental treatments. Using the statistical software, I estimate that for the 95% statistical significance level and power of 0.8, I will need 1,134 participants per group. This is a very high number. However, it is also based on effects that I estimated from data that cannot be directly compared with the population I will be studying. In fact, I expect much stronger effects based on the design of my experiment and the manipulation. Therefore, I expect needing no more than 250 respondents per group given the 2x2 factorial design (gamer with control prompt, gamer with gaming prompt, non-gamer with control prompt, non-gamer with gaming prompt), bringing my total number of research participant to 1,000.

I am using a 2x2 factorial design. Therefore, I plan to deploy parametric method in the form of Student's *t*-test and ANOVA and non-parametric methods in the form of the chi-squared test, Fischer's exact test, and Wilcoxon-Mann-Whitney.

I do not expect the experiment to take longer than 15 minutes.

V. FUNDING

This research is being funded by Center to Advance Research and Teaching in the Social Sciences at University of Colorado Boulder and the Department of Political Science at University of Colorado Boulder.

VI. ABOUT THE SUBJECTS

Subject Population(s)	Number to be enrolled in each group
Representative sample of U.S. adults (collected via Lucid)	500 per manipulation (1,000 total)

Description of the Subject Population

In this study, I specifically investigate how gamers differ from non-gamers in their political preferences and behavior. Therefore, I utilize the convenience sample provided by Lucid Marketplace. In contrast to other commonly used survey samples, such as Amazon Mechanical Turk, the demographic breakdown of the Lucid sample much more accurately represents the U.S. population "in terms of their demographic, political, and psychological profiles" (Coppock & McClellan, 2019, p. 12). Furthermore, the Lucid sample addresses some of the recent issues with "professionalization" of survey takers (Coppock & McClellan, 2019, p. 12) and the growing number of bots (Dennis, Goodson, & Pearson, 2019)

VII. VULNERABLE POPULATIONS

This research will not specifically target any vulnerable population.

VIII. RECRUITMENT METHODS

I am using Lucid Marketplace to advertise the survey experiment. Per Lucid Methodology, available online at <https://luc.id/wp-content/uploads/2019/10/Lucid-IRB-Methodology.pdf>:

“Lucid created an automated marketplace that connects researchers with willing online research participants that match a study’s desired target audience. Lucid partners with suppliers of sample who maintain relationships with research participants based on their unique business terms. The Lucid Marketplace prescreens participants to ensure they meet the client’s targeting criteria and verifies that unique participants are engaging in surveys by detecting duplicate cookies, IP addresses, and other unique identifiers.”

List recruitment methods/materials and attach a copy of each in eRA
1. Lucid Marketplace
2.
3.
4.

Per Lucid Methodology, available online at <https://luc.id/wp-content/uploads/2019/10/Lucid-IRB-Methodology.pdf>:

“Lucid’s partnering companies find research participants from a diverse array of sources, many of which are double opt-in panels. These companies invite participants to partake in research opportunities through emails, push notifications, in-app pop-ups, or offer walls of engagement opportunities. The participants always have the option to opt-out of research during any point in the survey. Researchers have the option to include a consent form at the beginning of their surveys to disclose certain information regarding the study.”

IX. COMPENSATION

Per Lucid Methodology, available online at <https://luc.id/wp-content/uploads/2019/10/Lucid-IRB-Methodology.pdf>:

“Lucid manages relationships with suppliers who handle incentives to participants directly. Researchers pay Lucid a cost per completed interview (CPI) and Lucid pays suppliers who then provide a portion of those earnings to participants in the form of cash, gift cards, or loyalty reward points. Lucid does not directly handle incentives to research participants and does not control the payment amount or type.”

X. INFORMED CONSENT

After clicking the survey experiment link, the research participants will be routed to page 1 of the survey, which will feature introductory information on the research goals and asks the participants to consent to being involved in the research. Please see the attached “Outline of the Experiment” document for further detail on the language of the introduction. However, also see

below for my requests for the Waiver of Informed Consent and Waiver of Documentation of Consent.

Request for the Waiver of Informed Consent

1. The proposed research presents no more than minimal risk of harm to research participants. Research participants are asked to read a vignette which closely resembles a newspaper article that they might encounter in real life. They are asked a series of questions about their habits and identity as a gamer, and a battery of questions on their thoughts and opinions.
2. The waiver or alternation will not adversely affect the rights and welfare of the subjects. I am not collecting any data that might link the research participant to their personally identifiable information. Furthermore, I inform the research participants that they can quit at any time without any repercussions. The research participants are not engaging in an activity that presents more risk than they might face over the course of their typical day.
3. The research could not practicably be carried out without the waiver or alteration.
4. The subjects will be provided with additional pertinent information after participation. At the end of the survey experiment, I restate that the purpose of the study is to investigate the effects of engagement in the gaming community on political preferences and behavior.

Request for the Waiver of Documentation of Consent

The participant's consent to participate in the research will be recorded as a binary (yes/no) variable in the dataset. However, this procedure does not meet the requirements for a proper documentation of consent. Thus, I am additionally requesting the Waiver of Documentation of Consent.

The research presents no more than minimal risk of harm to subjects (see above). Since the entire survey experiment will be conducted online, I will utilize a check-box item to indicate respondent's consent (see the Outline of Experimental Design, which is attached). The respondents will also have access to my contact information and may reach out to me if they have any questions before deciding to participate in the research.

Steps taken to minimize the possibility of coercion or undue influence

Research participants are informed at the beginning that their participation in the research is entirely mandatory, and that they may quit the study at any time without facing any adverse consequences. I do not collect any individually identifiable information about the respondents

Deception

The text of the articles used for the manipulations is only moderately altered version of real-life newspaper article by Brendan Sinclair, available at <https://www.gamesindustry.biz/articles/2019-05-24-us-considers-25-percent-tariff-on-game-consoles>.

Although this research study does not utilize outright deception, the research participants are not told outright that the purpose of the study is to investigate gamers' attitudes towards politics. This is to avoid biasing the research participants, which might produce flawed experiment data. Therefore, I request the Exception to account for the benign behavioral intervention that I undertake as part of this research.

To account for this fact, I have included the following text in the CONSENT FORM, as per the recommendation of the IRB: "I cannot tell you everything about what we are doing in this study or why. A full explanation of the purpose of the research will be provided after you complete the study."

The DEBRIEFING STATEMENT was similarly updated to include the following detailed description of the nature of the project: Once again, thank you for your participation in our political science research administered via Qualtrics, Lucid Marketplace, and Lucid's partners. This study investigated potential differences between gamers and non-gamers in their political preferences and behavior. After completing the pre-test questionnaire, which also served as a prime, you were randomly assigned to read one of two modified versions of an online newspaper article. This article is available in full at the following address: <https://www.gamesindustry.biz/articles/2019-05-24-us-considers-25-percent-tariff-on-game-consoles>. The survey questions tested your ability to recall the information from the article that you read and measured the effects of reading the article on your political preferences and behavior. You were also asked to choose between two mock candidates in a fictional U.S. Senate race. The final battery of questions collected a basic set of demographic indicators.

XI. PROCEDURES

The study will take place online, using the Lucid Marketplace and Qualtrics platforms. The research participants will use their computing device (desktop computer, laptop, smartphone) to participate and can do so whenever and wherever they want. The Qualtrics link will take the respondents to the consent activity page of the survey. See the separate Consent form document for exact details on the wording.

After consent is collected, the pre-manipulation survey follows. In this section, the respondents will encounter a mix of scale questions, multiple choice questions, write-in questions, and "check all that apply" questions. See pp. 2-4 of the document "Outline of Experimental Design" (Outline) for details on this section, including the wording of the questions and scaling of the responses. This section should take roughly 3 minutes.

Then, the first answer quality/bot screening is conducted. This section consists of a simple mathematical problem. It should only take the respondent a couple of seconds. See the exact wording of this activity on page 5.

Next, the research participants will be randomly assigned to one of the two newspaper vignette manipulation. Balanced random assignment will be ensured. Each respondent will only see one manipulation and not the other. See the attached document for exact wording of the treatment and control manipulations. This should take no longer than 1.5 minutes to complete.

After finishing the article, the research participants will be directed to the manipulation check survey. They will answer a handful of multiple choice and scale questions. See p. 7 of my outline for the specific wording. This section relatively short. There are only three questions in this section, and the respondents should not take more than 1.5 minutes to complete it.

The two Dependent Variable (DV) survey pages follow. I present the research participants with a collection of multiple choice and scale questions. See pp. 8-9 of my outline for detail on the specific wording of the questions and the possible answers. This section should take roughly 3 minutes to complete.

The Control/Demographic Variable Survey follows. I collect a standard set of demographic indicators on each of the respondents. These questions feature a collection of multiple choice, scale, write-in, and drop-down menu items. See pp. 9-10 of the design document for specific wording of the questions. This section should take no more than 2 minutes to complete.

The final section of the survey will include a short de-briefing text and a text-box for feedback.. See the separate “Debriefing” document for exact wording of the section. .

The research participants will not be filmed or otherwise recorded during this experiment.

Visit #	Procedures/Tools	Location	How much time the visit will take
Visit 1	<ul style="list-style-type: none"> • Pre-Manipulation Identity Survey (~3 minutes) • Answer Quality/Bot Screener (less than 30 seconds) • Newspaper Vignette Treatment (no longer than 1.5 minutes) • Manipulation Check Survey (~1.5 minutes) • Dependent Variables Survey, Part 1 (~3 minutes) • Dependent Variable Survey, Part 2 (~2 minutes) • Control Variable Survey (~ 2 minutes) 	Online via Qualtrics and Lucid	no longer than 15 minutes

XII. SPECIMEN MANAGEMENT

This research will not collect any biological specimens.

XIII. DATA MANAGEMENT

The data collected in this study will be stored on a password-protected online drive and will be inaccessible without the appropriate login credentials. All computer devices used to access and manipulate the data are also password-protected, have the official version of the operating system with the latest security updates, and feature updated security and antivirus system.

Moreover, in the event of any publication or presentation resulting from the research, no personally identifiable information will be shared because neither I nor the Lucid platform collect any personally identifiable information. There is no way for the respondents’ names and accounts to be linked to their responses.

XIV. PROVISIONS TO PROTECT THE PRIVACY INTERESTS OF PARTICIPANTS

There are no applicable impacts that the study or its procedures may have on participants' privacy interests. The study is a simple survey experiment, which features a manipulation in the form of a newspaper vignette. There is no stigma associated with any of those activities. If at any time the participant no longer feels comfortable with the research situation, they can quit without any repercussion.

XV. WITHDRAWAL OF PARTICIPANTS

I do not anticipate withdrawing participants without their consent. However, some participants' data might be dropped from subsequent statistical analysis (regression) based on missing data points, and I might remove participants who – based on careful review of the collected data – clearly did not follow the study procedure accurately. I will not strive to replace any subjects, and I will not follow-up with them as I do not collect any information that would allow me to do so.

XVI. RISKS TO PARTICIPANTS

The risks associated with this study are no more than minimal. Research participants are asked to read a vignette which closely resembles a newspaper article that they might encounter in real life. They are asked a series of questions about their habits and identity as a gamer, and a battery of questions on their thoughts and opinions.

XVII. MANAGEMENT OF RISKS

Not applicable, the risks associated with this study are no more than minimal.

XVIII. POTENTIAL BENEFITS

There is no direct benefit of this study to the research participant.

The society will benefit from enhanced understanding of how the gaming subculture interfaces with politics. Given the wide appeal of gaming as a pastime and the increasing number of people who see their hobby as an integral part of their identity, the society will benefit from my unpacking of what stimulates gamers' engagement with political issues, as well as from specifying how much do gamers see themselves as a distinct social identity.

XIX. PROVISIONS TO MONITOR THE DATA FOR THE SAFETY OF PARTICIPANTS

Not applicable, the experimental manipulation or the nature of collecting data does not present either short- or long-term risks to the participants that would require re-evaluation of the data.

XX. MEDICAL CARE AND COMPENSATION FOR INJURY

The research does not present any risk of injury to the participant.

XXI. COST TO PARTICIPANTS

The participants will not incur any costs beyond the need to dedicate time to complete the research experiment.

XXII. DRUG ADMINISTRATION

This research does not involve administration of any drugs.

XXIII. INVESTIGATIONAL DEVICES

This research does not involve testing or deployment of any investigational devices.

XXIV. COLLABORATIVE STUDIES

This research is not a collaborative study, and all recruitment will be handled

XXV. SHARING OF RESULTS WITH PARTICIPANTS

The results of the research will not be directly shared with the participants. However, one could reasonably expect that the research participants might at some point encounter a publication based on the results of the research.

REFERENCES

- Aguiar, Mark, Mark Bills, Kerwin Kofi Charles, and Erik Hurst. 2017. "Leisure Luxuries and the Labor Supply of Young Men." Working Paper, National Bureau of Economic Research. doi:10.3386/w23552. Accessed January 23, 2019. <https://www.nber.org/papers/w23552>
- Allen, Johnie J., and Craig A. Anderson. 2018. "Satisfaction and Frustration of Basic Psychological Needs in the Real World and in Video Games Predict Internet Gaming Disorder Scores and Well-Being." *Computers in Human Behavior* 84: 220-229.
- Amnå, Erik, Mats Ekström, Margaret Kerr, and Håkan Sattin. 2009. "Political socialization and human agency: The development of civic engagement from adolescence to adulthood." *Statsvetenskaplig Tidskrift* 111 (1): 27-40.
- Anderson, Craig A. 2014. "Violent, Nonviolent, and Prosocial Gaming Effects on Teens' Civic Engagement." *Oxford Handbooks Online*. Accessed March 10, 2017. <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199935291.001.0001/oxfordhb-9780199935291-e-002>.

- Anderson, Craig A., Akiko Shibuya, Nobuko Ichori, Edward L. Swing, Brad J. Bushman, Akira Sakamoto, Hannah R. Rothstein, and Muniba Saleem. 2010. "Violent Video Game Effects on Aggression, Empathy, and Prosocial Behavior in Eastern and Western Countries: A Meta-Analytic Review." *Psychological Bulletin* 136 (2): 151-173.
- Anderson, Craig A., and Karen E. Dill. 2000. "Video Games and Aggressive Thoughts, Feelings, and Behavior in the Laboratory and in Life." *Journal of Personality and Social Psychology* 78 (4): 772-790.
- Anderson, Craig A., Leonard Berkowitz, Edward Donnerstein, L. Rowell Huesmann, James D. Johnson, Daniel Linz, Neil M. Malamuth, and Ellen Wartella. 2003. "The Influence of Media Violence on Youth." *Psychological Science in the Public Interest* 4 (3): 81-110.
- Bakker, Tom P., and Claes H. de Vreese. 2011. "Good News for the Future? Young People, Internet Use, and Political Participation." *Communication Research* 38 (4): 451-470.
- Bargh, John A., and Katelyn Y. A. McKenna. 2004. "The Internet and Social Life." *Annual Review of Psychology* 55: 573-590.
- Bennett, W. Lance, ed. 2008. *Civic Life Online: Learning How Digital Media Can Engage You*. Cambridge, Massachusetts: The MIT Press.
- Bimber, Bruce. 1998. "The Internet and Political Transformation: Populism, Community, and Accelerated Pluralism." *Polity* 31 (1): 133-160.
- Brown, John Seely, and Douglas Thomas. 2006. "You play World of Warcraft? You're hired!" *Wired Magazine* 14 (4): 1-3.
- Clifford, Scott, and Jennifer Jerit. 2014. "Is There a Cost to Convenience? An Experimental Comparison of Data Quality in Laboratory and Online Studies." *Journal of Experimental Political Science* 1: 120-131.
- Coleman, James S. 1990. *Foundations of Social Theory*. Cambridge, MA: Belknap.
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94 (Supplement): S95-S120.
- Dahlberg, Lincoln. 2010. "Cyber-Libertarianism 2.0: A Discourse Theory/Critical Political Economy Examination." *Cultural Politics* 6 (3): 331-356.
- Dennis, S. A., Goodson, B. M., & Pearson, C. A. (2019). Online Worker Fraud and Evolving Threats to the Integrity of MTurk Data: A Discussion of Virtual Private Servers and the Limitations of IP-Based Screening Procedures. *Behavioral Research in Accounting*.
- DiMaggio, Paul, Eszter Hargittai, W. Russell Neuman, and John P. Robinson. 2001. "Social Implications of the Internet." *Annual Review of Sociology* 27: 307-336.
- Döring, Holger, and Philip Manow. 2010. "Election 2010, Sweden." *ParlGov database*. September 19. Accessed September 25, 2018. <http://www.parlgov.org/explore/swe/election/2010-09-19/>.

- Döring, Holger, and Philip Manow. 2009. "EP Election 2009, Sweden." *ParlGov database*. June 07. Accessed September 25, 2018. <http://www.parlgov.org/explore/swe/election/2009-06-07-ep/>.
- Döring, Holger, and Philip Manow. 2014. "EP Election 2014, Sweden." *ParlGov database*. May 25. Accessed September 25, 2018. <http://www.parlgov.org/explore/swe/election/2014-05-25-ep/>.
- Ekström, Mats, Tobias Olsson, and Adam Shehata. 2014. "Spaces for public orientation? Longitudinal effects of Internet use in adolescence." *Information, Communication and Society* 17 (2): 168-183.
- Entertainment Software Association. 2017. *Essential Facts about the Computer and Video Game Industry*. Washington, DC: Entertainment Software Association. Accessed April 13, 2018. http://www.theesa.com/wp-content/uploads/2017/09/EF2017_Design_FinalDigital.pdf.
- Evans, Woody. 2011. *Information Dynamics in Virtual Worlds: Gaming and Beyond*. Oxford: Chandos Publishing.
- Furlong, Andy. 2008. "The Japanese hikikomori phenomenon: acute social withdrawal among young people." *The Sociological Review* 56 (2): 309-325.
- Gee, James Paul. 2006. "Are video games good for learning?" *Nordic Journal of Digital Literacy* 3: 172-183.
- Gee, James Paul. 2008. "Video Games and Embodiment." *Games and Culture* 3 (3-4): 253-267.
- . 2003. *What Video Games Have to Teach Us About Learning and Literacy*. New York, New York: Palgrave Macmillan.
- Gentile, Douglas A., Craig A. Anderson, Shintaro Yukawa, Nobuko Ithori, Muniba Saleem, Lim Kam Ming, Akiko Shibuya, et al. 2009. "The Effects of Prosocial Video Games on Prosocial Behaviors: International Evidence from Correlational, Longitudinal, and Experimental Studies." *Personality and Social Psychology Bulletin* 35 (6): 752-763.
- Gentile, Douglas A., Edward L. Swing, Choon Guan Lim, and Angeline Khoo. 2012. "Video Game Playing, Attention Problems, and Impulsiveness: Evidence of Bidirectional Causality." *Psychology of Popular Media Culture* 1 (1): 62-70.
- Gentile, Douglas A., Hyekyung Choo, Albert Liau, Timothy Sim, Dongdong Li, Daniel Fung, and Angeline Khoo. 2011. "Pathological Video Game Use Among Youths: A Two-Year Longitudinal Study." *Pediatrics* 127 (2): e319-e329.
- George, Alexander L., and Andrew Bennett. 2004. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA: MIT Press.
- Gil de Zúñiga, Homero, Eulalia Puig-i-Abril, and Hernando Rojas. 2009. "Weblogs, traditional sources online and political participation: an assessment of how the internet is changing the political environment." *New Media and Society* 11 (4): 553-574.

- Good, Owen S. 2014. "Hands off my games: Survey says video gamers share libertarian ideologies." *Polygon*, May 11. Accessed May 4, 2017. <https://www.polygon.com/2014/5/11/5707296/hands-off-my-games-survey-says-video-gamers-share-libertarian>.
- Huckfeldt, Robert. 1986. *Politics In Context: Assimilation and Conflict in Urban Neighborhoods*. New York, NY: Agathon Press, Inc.
- Huckfeldt, Robert, and John Sprague. 1992. *Citizens, Politics, and Social Communication: Information and influence in an election campaign*. New York, NY: Cambridge University Press.
- Huckfeldt, Robert, Paul Allen Beck, Russell J. Dalton, and Jeffrey Levine. 1995. "Political Environments, Cohesive Social Groups, and the Communication of Public Opinion." *American Journal of Political Science* 39 (4): 1025-1054.
- Huesmann, L. Rowell, Jessica Moise-Titus, Cheryl-Lynn Podolski, and Leonard D. Eron. 2003. "Longitudinal Relations Between Children's Exposure to TV Violence and Their Aggressive and Violent Behavior in Young Adulthood: 1977–1992." *Developmental Psychology* 39 (2): 201-221.
- Inglehart, Ronald. 1997. *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton, NJ: Princeton University Press.
- Jennings, M. Kent, and Vicki Zeitner. 2003. "Internet Use and Civic Engagement." *Public Opinion Quarterly* 67: 311-334.
- Kato, Takahiro, Masaru Tateno, Naotaka Shinfuku, Daisuke Fujisawa, Alan Teo, Norman Sartorius, Tsuyoshi Akiyama, et al. 2012. "Does the "hikikomori" syndrome of social withdrawal exist outside Japan?: A preliminary international investigation." *Social Psychiatry and Psychiatric Epidemiology* 47 (7): 1061–1075.
- Krahé, Barbara, Robert Busching, and Ingrid Möller. 2012. "Media violence use and aggression among German adolescents: Associations and trajectories of change in a three-wave longitudinal study." *Psychology of Popular Media Culture* 1 (3): 152-166.
- Kraut, Robert, Michael Patterson, Vicki Lundmark, Sara Kiesler, Tridas Mukopadhyay, and William Scherlis. 1998. "Internet Paradox: A Social Technology That Reduces Social Involvement and Psychological Well-Being?" *American Psychologist* 53 (9): 1017-1031.
- Krosnick, Jon A. 1990. "Government policy and citizen passion: A study of issue publics in contemporary America." *Political Behavior* 12 (1): 59-92.
- Krueger, Brian S. 2006. "A Comparison of Conventional and Internet Political Mobilization." *American Politics Research* 34 (6): 759-776.
- Levy, Jack S. 2008. "Case Studies: Types, Designs, and Logics of Inference." *Conflict Management and Peace Science* 28: 1-18.
- Li, Tim M., and Paul W. Wong. 2015. "Youth social withdrawal behavior (hikikomori): A systematic review of qualitative and quantitative studies." *Australian and New Zealand Journal of Psychiatry* 49 (7): 595-609.

- Lin, Nan. 2001. "Building a network theory of social capital." In *Social capital : theory and research*, edited by Nan Lin, Karen S Cook and Ronald S Burt. New Jersey, NJ: Transaction Publisher.
- . 2001. *Social Capital: A Theory of Social Structure and Action*. Cambridge: Cambridge University Press.
- Milner, Henry. 2010. *The Internet Generation: Engaged Citizens or Political Dropouts*. Lebanon, New Hampshire: University Press of New England.
- Möller, Ingrid, and Barbara Krahe. 2009. "Exposure to violent video games and aggression in German adolescents: A longitudinal analysis." *Aggressive behavior* 35 (1): 75-89.
- Molyneux, Logan, Krishnan Vasudevan, and Homero Gil de Zúñiga. 2015. "Gaming Social Capital: Exploring Civic Value in Multiplayer Video Games." *Journal of Computer-Mediated Communication* 20: 381–399.
- Morris, Chris. 2016. "Level up! Video Game Industry Revenues SOar in 2015." *Fortune/Tech*, February 16. Accessed May 3, 2017. <http://fortune.com/2016/02/16/video-game-industry-revenues-2015/>.
- Müller, Kai W., Mari Janikian, Michael Dreier, Klaus Wölfling, Manfred Beutel, Chara K. Tzavara, Clive Richardson, and Artemis Tsitsika. 2014. "Regular gaming behavior and internet gaming disorder in European adolescents: results from a cross-national representative survey of prevalence, predictors, and psychopathological correlates." *European Child and Adolescent Psychiatry* 24: 565–574.
- Mullinix, Kevin J., Thomas J. Leeper, James N. Druckman, and Jeremy Freese. 2015. "The Generalizability of Survey Experiments." *Journal of Experimental Political Science* 2: 109-138.
- Mutz, Diana C. 2011. *Population-Based Survey Experiments*. Princeton, NJ: Princeton University Press.
- Nardi, Bonnie, and Justin Harris. 2006. "Strangers and friends: Collaborative play in World of Warcraft." *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work* 149-158.
- Nath, Trevir. 2016. "Investing in Video Games: This Industry Pulls In More Revenue Than Movies, Music." *NASDAQ*, June 13. Accessed May 2, 2017. <https://www.nasdaq.com/article/investing-in-video-games-this-industry-pulls-in-more-revenue-than-movies-music-cm634585>.
- Oldenburg, Ray. 1999. *The Great Good Place: Cafe's, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You Through The Day*. New York, NY: Marlowe and Company.
- Pirate Party of Sweden (Piratpartiet). 2017. "Principal Program." *Official Website of the Pirate Party of Sweden*. Accessed May 5, 2017. <http://www.piratpartiet.se/principprogram/>.
- Prot, Sara, Craig A. Anderson, Douglas A. Gentile, Wayne Warburton, Muniba Saleem, Christopher L. Groves, and Stephanie C. Brown. 2015. "Media as Agents of Socialization." In *Handbook of Socialization: Theory and Research*, edited by J. E. Grusec and P. D. Hastings, 276-300. New York, NY: Guilford Press.

- Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York, New: Simon and Schuster.
- . 2002. *Democracies in Flux: The Evolution of Social Capital in Contemporary Society*. Oxford: Oxford University Press.
- . 1993. *Making Democracy Work*. Princeton, NJ: Princeton University Press.
- Quintelier, Ellen, and Sara Vissers. 2008. "The Effect of Internet Use on Political Participation: An Analysis of Survey Results for 16-Year-Olds in Belgium." *Social Science Computer Review* 26 (4): 411-427.
- Rettberg, Scott. 2008. "Corporate ideology in World of Warcraft." In *Digital Culture, Play, and Identity: A World of Warcraft Reader*, edited by Hilde G. Corneliussen and Jill Walker Rettberg, 19-38. Cambridge, MA: The MIT Press.
- Ritterfeld, Ute, Michael Cody, and Peter Vorderer, . 2009. *Serious Games: Mechanisms and Effects*. New York, New York: Routledge.
- Saleem, Muniba, and Craig A. Anderson. 2013. "Arabs as Terrorists: Effects of Stereotypes Within Violent Contexts on Attitudes, Perceptions, and Affect." *Psychology of Violence* 4 (1): 84-99.
- Saleem, Muniba, Sara Prot, Craig A. Anderson, and Anthony F. Lemieux. 2015. "Exposure to Muslims in Media and Support for Public Policies Harming Muslims." *Communications Research* 44 (6): 841-869.
- Schwartz, Shalom H., Gian Vittorio Capara, Michele Vecchione, Paul Bain, Gabriel Bianchi, Maria Giovanna Caprara, Jan Cieciuch, et al. 2014. "Basic Personal Values Underlie and Give Coherence to Political Values: A Cross National Study in 15 Countries." *Political Behavior* 36 (4): 899-930.
- Shehata, Adam, Mats Ekström, and Tobias Olsson. 2016. "Developing Self-Actualizing and Dutiful Citizens: Testing the AC-DC Model Using Panel Data Among Adolescents." *Communications Research* 43 (8): 1141-1169.
- Steinkuehler, Constance A., and Dmitri Williams. 2006. "Where Everybody Knows Your (Screen) Name: Online Games as "Third Places"." *Journal of Computer-Mediated Communication* 11: 885–909.
- Stip, Emmanuel, Alexis Thibault, Alexis Beauchamp-Chatel, and Steve Kisely. 2016. "Internet Addiction, Hikikomori Syndrome, and the Prodromal Phase of Psychosis." *Frontiers in Psychiatry* 7: 6-8.
- Tedesco, John C. 2007. "Examining Internet Interactivity Effects on Young Adult Political Information Efficacy." *American Behavioral Scientist* (50) 9: 1183-1194.
- Tolbert, Caroline J., and Ramona S. McNeal. 2003. "Unraveling the Effects of the Internet on Political Participation?" *Political Research Quarterly* 56 (2): 175-185.
- Valmyndigheten (Swedish Election Authority). 2010. *Val till riksdagen – Röster (Elections to the Riksdag – Voting)*. September 23. Accessed September 25, 2018. <https://data.val.se/val/val2010/slutresultat/R/rike/index.html>.

- Valmyndigheten (Swedish Election Authority). 2014. *Val till riksdagen – Röster (Elections to the Riksdag – Voting)*. September 19. Accessed September 25, 2018. <https://data.val.se/val/val2014/slutresultat/R/riks/index.html>.
- Wang, Song-In. 2007. "Political Use of the Internet, Political Attitudes and Political Participation." *Asian Journal of Communication* 17 (4): 381-395.
- Williams, Dmitri. 2006. "On and Off the 'Net: Scales for Social Capital in an Online Era." *Journal of Computer-Mediated Communication* 11: 593-628.
- World Health Organization. 2018. "6C51 Gaming disorder." *International Classification of Diseases, 11th Revision ICD-11*. Accessed June 26, 2018. <https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1448597234>.
- Xenos, Michael, and Patricia Moy. 2007. "Direct and Differential Effects of the Internet on Political and Civic Engagement." *Journal of Communication* 57: 704-718.
- Yee, Nicholas. 2006. "The Demographics, Motivations and Derived Experiences of Users of Massively Multi-User Online Graphical Environments." *PRESENCE: Teleoperators and Virtual Environments* 15: 309-329.
- Young, Kimberly S., and Robert C. Rogers. 1998. "The Relationship Between Depression and Internet Addiction." *CyberPsychology and Behavior* 1 (1): 25-28.