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**GAME OVER GIRL: Gender, Video Games, and the Politics of Empathy in
California's Gaming Culture**

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POL 195: Policy Analysis in California

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With the end of 2025 comes the highly anticipated annual Game Awards. Established in 2014 by media entrepreneur Geoff Keighley, the program is widely regarded as the gaming industry's equivalent of The Oscars, recognizing outstanding creative and technical achievements in titles released that year. What remains true across almost every game being considered for an award this year is that each contains its own intricate and beautifully crafted narrative. The stories within these games explore themes such as the complexities of motherhood and legacy, grief after losing a child, loss of one's own identity, and the struggle between tradition and modernity through breathtaking interactive experiences that virtually anyone can relate to. Two highly acclaimed titles that are frontrunners for the "Best Narrative" category this year are *Silent Hill f*, published by Konami Digital Entertainment, and *Ghost of Yōtei*, published by Sony Interactive Entertainment¹. Both games feature atmospherically tense storylines with heavy combat, supernatural motifs, and horror-adjacent elements; they share aesthetic and thematic elements as well, including Japan-inspired settings and compelling themes, including but not limited to intergenerational trauma and societal pressures on women.

Most significantly, however, each game places a strong female protagonist at the center of franchises that have historically held male leads. These iconic new tales mark a departure from the classic masculine-coded heroism that video games have long been known for, subverting audience expectations by focusing their remarkable exposition around women-centered issues and reapproaching what we know as conventional horror, thrill, and tension from a psychological angle that centers on women's struggles, vulnerabilities, and autonomy. While both games accomplish this goal masterfully,

¹ The Game Awards nominees are determined by a global voting jury composed of over 100 media and influencer outlets; see The Game Awards (2025), for more information on this year's candidates.

neither release has come without significant controversy from players and critics—many people argue that the games are not as impressive and refined as most fans would be led to believe. Common sentiment expressed by opponents of the two experiences focuses on the characters and narratives from each respective game, with numerous individuals criticizing the unrelatable women-centered themes and perspectives of each title, and diminishing the weight of the struggles and pressures each female lead faces. With modern innovations like social media and live-streaming, video game criticism has only intensified; the accessibility and efficiency of online commentary have considerably amplified negative sentiment, and dismissive, hostile perspectives are being shared more widely than ever before. The harsh backlash surrounding these two releases indicates there is still much work to be done when it comes to gender inequality in this sphere.

Problem and Research Questions

The purpose behind this study is to investigate how information that is contained in an alternate medium (ie, gamification²) increases or decreases support for women, their issues, and their perspectives.

- **RQ1:** *Does the gamification of women and their issues affect the tone of commentary streamers receive, depending on their gender?* How does audience commentary tone differ for a male vs. female streamer when they play games that subvert traditional expectations by placing complex female protagonists in historically male-led franchises—especially when those games generate controversy and divided fan reactions?

² Gamification refers to the intentional application of game design mechanics to enhance engagement, motivation, and learning by leveraging principles of human psychology.

- **RQ 2:** *Does streamer gender affect the amount of inappropriate and/or threatening commentary they receive?* Is there a relationship between a streamer's gender and the amount of commentary they receive that is game-focused versus the amount of commentary that is appearance-focused?

Using a custom Python-based scraping pipeline, I extracted observational data in the form of over 58,000 real-time Twitch chat messages from streamers Catsen and Grimmmz's playthroughs of the games *Silent Hill f* (2025) and *Ghost of Yōtei* (2025). I then applied data processing, text-cleaning, API retrieval, and NLP sentiment analysis tools to automatically classify each message's tone and topic through large-scale computational text analysis. I found that female streamers receive significantly more negative commentary than male streamers when playing games that center women's stories in franchises that have historically featured male leads; I also discovered that the proportion of appearance-focused commentary female streamers receive when compared to gameplay-focused commentary is significantly higher than that which male streamers receive—however, this only applies to games without a legacy male franchise.

Background

Nowadays, video games have become one of the most popular forms of entertainment for the younger generation. For example, Steam, a digital distribution system for video games, has more than 90 million users, with around 20 million of these users being active on the platform simultaneously (Mendes, Cunha, & Mendes, 2022). With such a large playerbase, it is natural that the number of games being created and pushed out to audiences has grown exponentially over the last decades; 18 thousand games were released for distribution on Steam in 2024 alone—that translates to about 50 individual titles being released every day (Code Monkey, 2025). In fact, gaming is a

major cultural and economic force; the annual Game Awards boasts over 150 million viewers, and gaming doubles the revenue of both the music and film industries combined (Clement, 2025; Batchelor, 2024; Smirke, 2024; Hancock et. al, 2024).

With so many different games—and so many consumers for these products—competition in this industry has reached a distinct peak. The industry’s response to this situation represents a cycle that has been seen time and time again across innumerable industries—the Blue Ocean Strategy. This approach posits that companies must constantly reformulate their strategies in order to maintain a survivable Blue Ocean³ and avoid what should be preventable Red Oceans⁴ (Hollensen, 2013). The concept is one that is not exclusively applicable to companies choosing to delve into manufacturing and selling products in completely new fields, but that can also explain the evolution and diversification of preexisting products in a familiar domain. Modern creators in the digital entertainment space need to bring something unique to every single game they release to stand out to consumers in this massive sea of content. A promising new market that acts as a Blue Ocean in this field exists in the form of the female gamer demographic; modern video game audiences are almost exactly equally split between men and women, yet women are one of the most underrepresented groups in video games (Entertainment Software Association, 2025; Cassese et al., 2023).

Notably, this market competition exists not only at the level of games developed by different studios, but also at that of different games produced by the same studio, and even games within the same franchise. In the case of a well-established series, such as *Silent Hill*, each new installment must achieve a satisfactory measure of innovation, all

³ The term “Blue Ocean” refers to a wide-open market space with little or no competition, brought about by new ideas or innovations that generate fresh demand and create entirely new opportunities.

⁴ A “Red Ocean” describes a packed, highly competitive market where many companies offer similar products and must battle each other for customers and market share.

while being sure to maintain franchise “essentials.” It is important to understand that hardcore loyal fans of different sagas like these, commonly dubbed purists, often criticize deviations from established gameplay, characters, or story elements that they’ve become accustomed to throughout the existence of a franchise (Suckling & Walton, 2017). It is no surprise, then, that the choice of a female lead and trauma from a female perspective in this historically male-led franchise sparked polarized fan reactions. When trying to achieve true success—marked not only by satisfactory profit margins, but also by positive reviews from consumers—companies walk a thin line between creativity and conformity. Oftentimes, developers triumph in this regard, but when audiences feel a boundary has been crossed, they make these feelings unmistakably apparent. The wide reach of the modern internet and its various social platforms only make it easier to be exposed to these feelings, which can sometimes reach dangerous extremes.

Modern Gaming and Twitch

In 2011, the live-streaming platform Twitch was launched as a site for live video game broadcasting; since then, it has exploded in popularity and boasts an average of 31 million visitors every day (Martin, 2025). On this platform, viewers are commonly met with a window displaying video footage, a smaller view relaying face-cam footage of the streamer, and a chat box with real-time commentary from viewers (Figure 1). The live-streaming platform has a male-dominated user base, with males making up about 65% of its total users (Kavanagh, 2025). It has been used primarily to host gaming content, with the top ten games⁵ also having predominantly male player bases according to statistics or belonging to genres that are commonly associated with male-dominated audiences (Most watched games on Twitch, 2025). In more recent years, the site has

⁵ For reference, the top five titles on Twitch are currently *Counter-Strike*, *League of Legends*, *ARC Raiders*, *Grand Theft Auto V*, and *Minecraft*.

begun to see a diversification in terms of both creators and content. Of course, the combination of millions of visitors and the ability to post and interact with real-time audience commentary breeds the perfect conditions for a toxic community and harassment of streamers who host videos on the website. Twitch provides several methods for streamers to moderate their chat⁶, but videos often contain a significant amount of negative commentary that could be considered inappropriate or even threatening at times. Complete optimization of moderation is difficult when it comes to game-adjacent platforms such as Twitch; this allows these places to become echo chambers that breed radical views and toxic discourse, all the while being quite easy for extremists to exploit (Allchorn & Orofino, 2025).

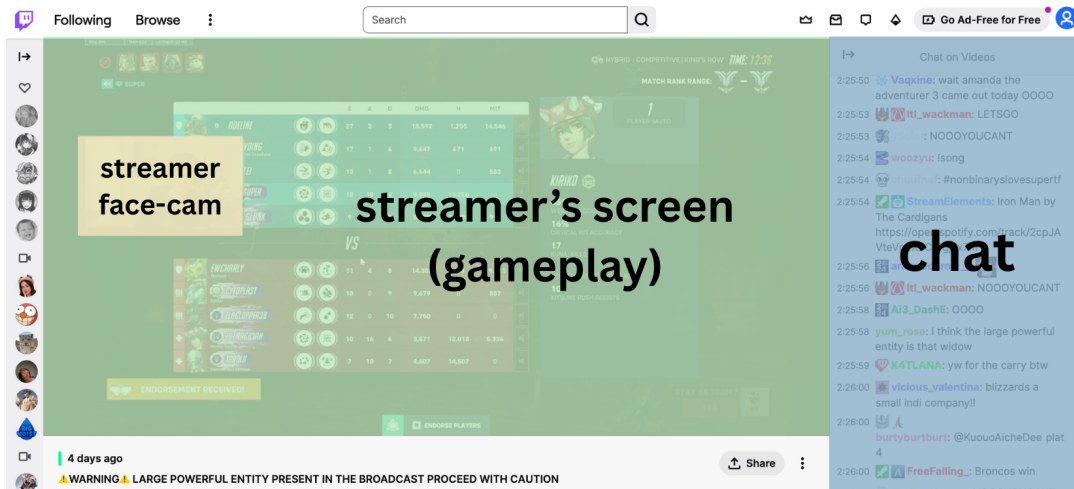


Figure 1. Example of a Twitch Stream and Its Various Components.

Source: supertf, n.d., <https://www.twitch.tv/supertf>.

Gaming Culture

⁶ Examples of some of these methods include individual moderators who regulate chat through message inspection, auto-moderation filters that censor or completely remove words flagged by the streamer and Twitch, and chat rules that viewers must agree to before being allowed to use the real-time chat feature.

This sort of toxicity is nothing new in gaming communities. The prevalence of women as video game fans is actually a relatively new occurrence—men were actually both the leading player demographic and the main targets for marketing in the sphere for over 30 years (Ivory, 2006). At a psychological level, it has been found that men require aggression and sensation in gameplay, along with an anticipated enjoyment of virtual violence; on the other hand, women have higher empathy and moral justification, along with an anticipated guilt associated with virtual violence (Hartmann, Möller, & Krause, 2015). While men commonly play games that heavily focus on competition or violence, women tend to disprefer these kinds of games and instead opt to play “cozy” games, which often lack violence and embrace mundanity (Lopez-Fernandez, Williams, & Kuss, 2019; Cook, 2018). Furthermore, common tropes such as the damsel in distress⁷ and the femme fatale⁸ dominated the industry for years before video games began to represent women in an honest way. Although stories featuring complex female protagonists are finally now being recognized in this sphere, we still see a major tension—this historically male-dominated space is uncompromising when it comes to their idea of gamer identity and continues to teach open hostility toward women (Paaßen, Morgenroth & Stratemeyer, 2017).

Gaming culture itself is built on enduring norms of male dominance, antagonism toward femininity, and resistance to women entering traditionally ‘hardcore’ spaces (Romero-Medina, 2025). It is a common experience for women to be made the target of toxic commentary and harassment when playing certain genres of games, such as

⁷ This term is used to describe the common trope where a woman is portrayed as being weak and often, in need of saving—a great example of this would be Princess Peach from the *Super Mario Bros.* Franchise.

⁸ The “femme fatale” is a hypersexualized and objectifying trope in which a woman is beautiful and seductive, but dangerous, reinforcing patriarchal tropes even when framed as empowering or subversive—an example of this would be Ada Wong from the *Resident Evil* franchise (Özdinç, 2020).

first-person shooters⁹. Sometimes, even the simple act of speaking to a team using the in-game voice chat function results in male players either engaging in verbal abuse toward women or using misogyny as a justification for simply throwing¹⁰ the game. This discrimination extends to streaming as well—it is common practice for streamers to drop a link that directs people to their stream into the game’s chat box after completing a match, but many people take this as an opportunity to join the stream and leave commentary that is deliberately offensive or provocative when the streamer is a woman. Gaming’s strong male associations have contributed to deep-seated misogyny in many branches of the space, from the gender-based mistreatment of professional players in the space¹¹ to parasocial relationships resulting in audience entitlement when it comes to female streamers.

Industry Controversies and California Policy

California employs more people in the video game industry than any other state, making up roughly 40% of the nation’s total workforce in this sector; additionally, we host the highest concentration of video game publishers in the world (Pilon & Tremblay, 2013). Moreover, the headquarters of Twitch are located in the heart of San Francisco; more often than not, the companies at the center of these controversies are closer than we think. One would think that with so much stake in this industry, California would be much more involved in the space, take action against harmful connotations and practices that both limit its success and tarnish its reputation, and implement policies

⁹ Abbreviated as FPS, first-person shooters are a genre of game that centralizes weapon-combat that the player engages in from a first person perspective.

¹⁰ The phrase “throwing” is used to describe the act of taking purposeful action that results in losing a game; common ways to throw a game include going AFK (an abbreviation for away from keyboard,

¹¹ Geguri, a female professional *Overwatch* player, faced unimaginable levels of online harassment following her commitment to play for the *Shanghai Dragons* when audiences refused to believe that it was possible for a woman to play at her caliber without cheating.

that affect the broader video game community and allow the space to flourish.

Curiously, the state is a leader when it comes to the regulation of Artificial Intelligence (AI), with over 40 pieces of legislation passed in relation to this domain (Stanford Institute for Human-Centered Artificial Intelligence, 2025). How is it then that video games, which have been around as we know them since the 1950s, have not been regulated at all by the state, while AI receives constant attention and regulation despite only having reached the popularity we see associated with it today around 4 years ago?

In 2011, California attempted to create a law restricting the sale of violent games to minors; the Supreme Court struck down this law, however, ruling that violent video games are protected free speech under the First Amendment after the state failed to show that such games caused harm or justified limiting expression (*Brown v. Entertainment Merchants Association*, 2011). The California Department of Fair Employment and Housing (DFEH) also filed a complaint against Riot Games for gender-based discrimination and harassment in the workplace in 2021 (*Department of Fair Employment and Housing v. Riot Games, Inc.*, 2022). This case was brought up in response to the company's failure to meet requirements outlined in California's Fair Employment and Housing Act (FEHA), which states that employers must maintain a workplace where their employees are free from harassment and take proactive steps to prevent discrimination (California Department of Fair Employment and Housing, 2025). During live-streaming convention TwitchCon this year, a prominent female streamer named Emiru was assaulted by a man who appeared to be a fan, after he bypassed a barricade at a meet and greet and proceeded to grab the young woman and pull her in for a kiss, showing how these protections aren't present for streamers (Yang, 2025).

A large part of the policy-based issues in this space can be attributed to the agreement streamers make with Twitch in order to become monetized. Streamers are repeatedly specified to be—at all times—independent contractors who have no employment agreement with the live-streaming platform, despite receiving financial compensation from them for their services (Twitch.tv, 2024). It seems at best neglectful—and at worst manipulative—to classify streamers as independent contractors when the very real threat of harassment and exploitation on the platform remains largely unaddressed by the Twitch. Streamers should be protected, but their status as contractors means that Twitch is under no legal obligations to conform to the guidelines maintained by FEHA, since the act only explicitly applies to employers and employees. It is clear from prior cases that California is interested in policy and legislation that acts as harm reduction within the video games sector, so why can't this be extended to the reformation of existing policy for the same purpose? It is crucial that we gain a better understanding of the treatment of women—especially as streamers—in this massive global industry, so that we can better inform the policy that governs this space and improve the lives and experiences of those within it.

Theoretical Framework

Scholarly research has investigated gendered messaging in the online sphere and the differences in how female and male streamers are both perceived and treated. Analysis of chat interactions has shown that conversations are highly gendered, with female streamers receiving disproportionately more objectifying and hostile commentary compared to their male counterparts (Nakandala et al., 2017). Further research echoes this same sentiment, with results showing a marked difference in commentary directed at male versus female streamers; they employ tools like TextBlob

and VADER, which utilize Natural Language Processing (NLP) to carry out sentiment-based coding of human language, and have proved highly successful and efficient in this domain (Čuljak & Babac, 2023). Similar studies have gone further to illustrate that “true gamer” culture on Twitch reinforces exclusionary norms and gatekeeping, disproportionately subjecting female streamers to harassment and questioning their legitimacy within the gaming community (Olsson, 2018).

Research has also shown that video games function as political texts¹², with narratives, mechanics, and player interactions conveying ideological messages and shaping players’ political interpretations and social attitudes (Akbar & Kusumasari, 2022). Sometimes, games can be unintentionally political, with newer *God of War* releases paralleling the immigrant experience of negotiating new roles and identities while still contending with the pressures of hegemonic masculinity (Racicot, 2020). The internet has also seen a meteoric rise as a source of news and opinion, especially for younger audiences who increasingly rely on social media and streaming platforms rather than traditional news outlets (Forman-Katz et al., 2025). Markedly, Twitch has become a significant platform for political communication, showing how streamers function as political communicators whose interactions with audiences shape political discussion, identity formation, and engagement in uniquely participatory ways (Kim, 2024). This transformation has not gone unnoticed, and many streamers strategically blend entertainment with political content to engage audiences in new forms of civic participation (Grub, Wurm, & Kauk, 2025).

¹² For example, the *Animal Crossing* series acts as a commentary on Capitalism, and the game *Detention* serves as an allegorical critique of the censorship and political repression citizens experienced during Taiwan’s White Terror period.

While we know a great deal about gendered dynamics in games, gendered harassment in livestreaming, and the politicization of online spaces, we lack empirical work that investigates how the intersection of these three spheres collectively shapes audience behavior toward women. Crucially, almost no research examines how politically charged, gender-centered game narratives influence real-time audience commentary toward male versus female streamers, and how these controversial stories may activate preexisting political or gendered biases within gaming communities. This study aims to fill this gap by evaluating how the intersection of politics, gender, and gaming culture manifests in the treatment of women online.

Research Design

My study analyzes the tone and topic of real-time chat messages left on two streamers' live playthroughs of the games *Silent Hill f* and *Ghost of Yōtei*. I collected over 58,000 chat messages to conduct a large-n study. Specifically, my unit of analysis is the individual chat messages left by viewers on streamers Catsen and Grimmerz' live Twitch playthroughs of these games. This unit of analysis allows for the examination of patterns in viewer sentiment and focus in relation to streamer gender and game type.

My independent variable (X) was streamer gender. In the case of this project, I treated this variable as binary and categorized my streamers as either male or female; this variable was measured by looking at each streamer's Twitch profile, their social media, and viewers' chat messages to determine the pronouns they use. This variable was chosen to assess whether harassment, negative sentiment, and stereotypes disproportionately target women in gaming and streaming environments.

My dependent variable (Y) was how positive or negative the public perception of each game is, and I also took into account the topics that audience commentary focused

on. For this measurement, the variable was a discrete quantitative value measured by counting the number of individual comments that are coded as either neutral, positive, or negative, and counting comments that fall into specific topic-based categories. The units used for variable measurement were a numerical count of each tone of comment, along with a percentage of how many comments out of the entire chat pool fall into each tone, with the same evaluation applied for message topic. Sentiment and topic for chat messages were chosen as variables to quantitatively measure the emotional tone and attitudes of viewers.

Game genre also served as a contextual moderator in this study that operated at the stream level. It was included as a higher-level predictor to test whether the effect of gender on message tone varied across genres. This was treated as a binary moderator, and games were either classified as “legacy male franchises,” to indicate controversial games that have female protagonists and subvert traditional expectations for their franchises, or as other games; this is measured by looking into the content of each game’s narrative and the history of the franchise for each specific title. This moderator was included to account for the distinct audience cultures created by different games, which can influence the frequency, tone, and topic of viewer commentary.

Several variables were included as controls to account for contextual and structural differences across streams that could influence message tone independent of gender. Data collection and modeling controlled for several streamer-related variables, including each streamer’s location, their race and ethnicity, the type of games they play, their average viewer count, their peak viewership count, and their hardware

specifications¹³. It was also crucial that both streamers were playing each game for the first time in each playthrough used, so as to protect this anticipated baseline, and ensure that the classification of each game—specifically, whether the game is surrounded by subversion-based controversy—can have a significant effect. Game-related variables such as critic reviews, perceived difficulty¹⁴, game settings, *ESRB* rating, themes, settings, franchise history, and release date were also considered when choosing the games used for comparison. At the individual stream level, the platform was controlled for all playthroughs to control for any site-specific differences.

While the geographical scope of locations from which viewers watched the streams and posted commentary was uncontrolled, all streamers used in the study were California-based. All the data collected for *Silent Hill f* comes from streamers Catsen and Grimmerz' Twitch playthroughs that were live between the dates of September 22, 2025, and October 3, 2025. All the data collected for *Ghost of Yōtei* comes from Twitch playthroughs from streamers Catsen and Grimmerz' Twitch playthroughs that were live between the dates of October 1, 2025, and October 15, 2025.

With this, I propose the following hypotheses.

- **H1:** *Female streamers will receive a higher rate of negative comments than male streamers when they play games that subvert traditional expectations by placing complex female protagonists in historically male-led franchises, especially when those games generate controversy and divided fan reactions.*

¹³ Hardware was controlled in that both streamers needed to have personal computers capable of running games at similar quality levels, without noticeable differences that could be attributed to negative viewer opinion.

¹⁴ Both games are perceived to have a similar enough difficulty, but it is interesting to note that the combat in *Silent Hill f* has been criticized for its overbearing nature that comes off as making the game more difficult.

- **H2:** *Female streamers will receive a lower proportion of game-focused comments than male streamers when they play these same games.*

Operationally, I hypothesize that female streamers will receive a higher rate of negative comments per hour relative to their subscriber count than male streamers when they play the games *Silent Hill f* and *Ghost of Yōtei*, due to a combination of the historically male-centered nature of the space and common player aversion to subversion of franchise expectations and established norms in the industry relating to gender. I expect that female streamers will also receive fewer game-focused comments in proportion to appearance-related comments than male streamers across both *Silent Hill f* and *Ghost of Yōtei*.

Data Collection

In order to assess the effects of streamer gender on the sentiment and focus of real-time audience commentary, a content analysis of impromptu chat messages posted to live-streams was conducted, alongside an analysis and categorization of video game titles and franchises, grounded in theory which views genre classification as a continuous evolutionary process shaped through the reciprocal interaction of institutionalized practices and individual human actions (Yates & Orlikowski, 1992). Explicitly, this analysis focuses on discovering differences in audience reactions to male and female streamers when they play games that center women's stories in franchises that historically feature male leads, as opposed to those that do not.

The data collected for this study consists of chat messages collected from 23 total Twitch streams across two different streamers. The games used in the study were selected on the basis of their subversive nature in relation to franchise expectations, along with their popularity in terms of viewership, to protect the face validity of the

experiment and ensure that the messages would accurately represent the broader viewer population on Twitch. For each of the two specific games selected for comparison in this study, chat data was collected for one male and one female streamer. Using a private Twitch chat scraper coded adapted from lay295's GitHub TwitchDownloader repository, I was able to obtain chat logs containing timestamps, usernames, and message content for every individual chat in CSV format. I aimed to analyze their respective messages based on sentiment and subject matter to find patterns in audience communication.

Coding Process

Messages collected include every single chat that was sent during these playthroughs to guarantee a random sample, though messages that were removed as a result of moderation could not be included in the sample due to inaccessibility. A Python 3.11.9 script was coded in a Windows 64-bit environment using the editor Visual Studio Code and importing the necessary libraries for the function of Natural Language Processing (NLP)¹⁵; namely, pandas, pysentimiento, requests, string, and re were used to manage the data, perform sentiment analysis, handle text-based operations, and support data retrieval.

Each message was first grouped into a category from a predetermined comment category index, and then received a sentiment classification (Table 1). The messages chosen for analysis were those most likely to be related to the the streamer or the game, and those removed were determined to either be unimportant in this respect, or too difficult to accurately classify.

¹⁵ Natural Language Processing (NLP) is a branch of artificial intelligence that deals with the interaction between human language through

code	message category	tone	example
1A	Positive commentary related to the game or gameplay	+	juxtaposition101: "e33 has good story, yotel looks amazing imo"
1B	General (neutral) commentary related to the game or gameplay	o	messyeffy: "You got armor after this fight beat him for the fresh drip"
1C	Negative commentary related to the game or gameplay	-	juliouscarnivorous: "stealth is for wimps"
2A	Positive commentary related to appearance (ex. streamer or character in the game)	+	Lily_White1405: "that's a cute top"
2B	General (neutral) commentary related to appearance (ex. streamer or character in the game)	o	blindwOw: "What happened to your pinky?"
2C	Negative commentary related to appearance (ex. streamer or character in the game)	-	DatDoodBogo: "your nose hairs are to long too many bats in the bat cave making you sneeze"
2A	Positive commentary that isn't game, gameplay, or appearance focused	+	Plushyon: "Costco always have great deals"
2B	General (neutral) commentary that isn't game,	o	Dash Render Lives: "If I stream doing my taxes

erstand and analyze

Table 1. Comment Category Index.

Source: Adapted from Olsson, 2018.

Methods

In order to assess the relationship between streamer gender, franchise culture, and real-time audience reactions, raw and integrated counts were determined for comments of each subject-category and sentiment, “real” messages, other chats, and chats where coding was applied, and words commonly used in game or gameplay-focused across games for both streamers.. In the case of comment tone, normalized rates were calculated for the purpose of creating a more level comparison between the two streamers. Normalized rates could not be calculated for the proportion of game or gameplay-related commentary relative to appearance-related commentary, since the usage of rates would violate the statistical assumptions of the tests used in my analysis and undermine the validity of each comparison.

To assess whether the distribution of raw sentiment counts was significantly different between genders, I utilized chi-square testing. Two-sample t-testing was used to compare groups at a significance level of 0.05. I also calculated standard errors and 95% confidence intervals for each measurement to determine an estimated range for true population values. Additionally, two-tailed z-tests and p-values were used to compare the proportions observed between groups and determine whether differences were statistically significant, while accounting for the large size of the dataset, the use of proportions, and possible differences in either direction.

Results

Figure 2 illustrates the difference in chat counts and compositions (normalized as number of messages per hour per 1,000 subscribers) left on playthroughs of *Silent Hill f* and *Ghost of Yōtei* for each streamer, broken down into “real” messages versus other chats. Simple comparison between normalized chat counts reveals that Catsen receives 14-24x more “real” chat messages than Grimmelz. When comparing each of these message types, it was found that there was a statistically significant difference between “real” ($t(df): 3.093, p: 0.009$), coded ($t(df): 3.928, p: 0.002$), and other ($t(df): -4.614, p: 0.008$) message counts for the two streamers' playthroughs of *Ghost of Yōtei*. This test could not be conducted to compare real and coded counts observed in *Silent Hill f* gameplay, due to Grimmelz playing through this game in one video.

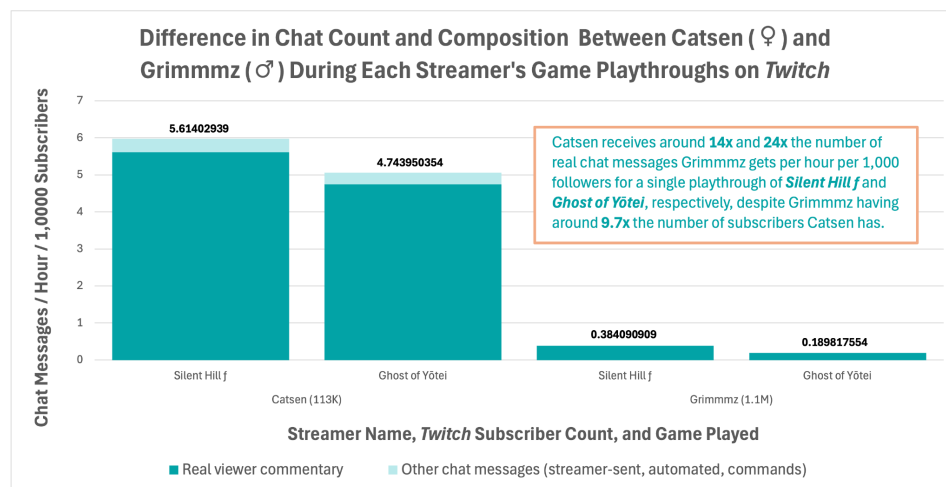


Figure 2. Chat Count and Composition Between Streamers and Across Games.

Source: Catsen and Grimmelz on Twitch.

Figure 3 illustrates the difference in the proportion of game or gameplay-focused commentary relative to appearance-focused commentary (with no normalization, since the data is proportional) across games for both streamers. Regarding the distribution of comments when sorted by subject matter, raw proportion calculations revealed that

appearance-focused commentary was higher than that of game or gameplay-focused commentary for streamers of both genders across all games. Two-tailed z-tests showed a significant difference in the proportion of appearance-focused commentary relative to game or gameplay-focused commentary between streamers of different genders when playing *Ghost of Yōtei* (z : -146.558, p : 0), but no difference was found for *Silent Hill f* (z : 0.782, p : 0.434). No significant difference was found in these proportions between games for Catsen (z : 1.149, p : 0.250) or Grimmelz (z : -1.907, p : 0.057).

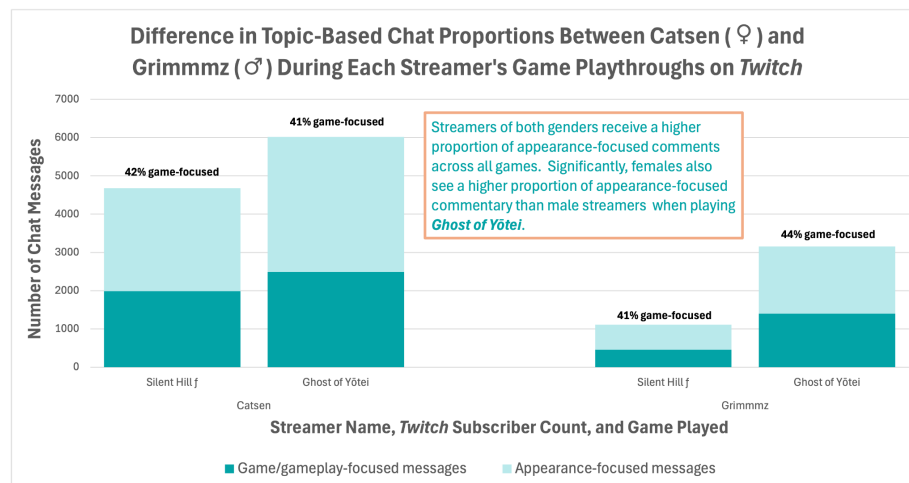


Figure 3. Game or Gameplay and Appearance-focused Chat Compositions Between Streamers and Across Games.

Source: Catsen and Grimmelz on Twitch.

Figure 4 illustrates the difference in chat sentiment counts (normalized as number of messages per hour per 1,000 subscribers) left on playthroughs of *Silent Hill f* and *Ghost of Yōtei* for each streamer, broken down into separate columns for positive, neutral, and negative commentary. When looking at the distribution of raw sentiment counts, a significant difference was found across the four conditions, with a very strong effect (X^2 : ~22,000, p : 7.118×10^{-34}). Comparisons between streamers for *Silent Hill f* showed significant differences in positive (z : 2.407, p : 0.016) and neutral (z : -3.261, p :

0.001) chat counts, but no significant differences could be observed for negative commentary (z : 1.741, p : 0.081). For *Ghost of Yōtei*, streamers showed significant differences in positive (z : -3.931, p : 8.443×10^{-5}) and neutral (z : 4.010, p : 6.083×10^{-5}) chat counts, but there was no differences for negative commentary (z : -0.951, p : 0.341).

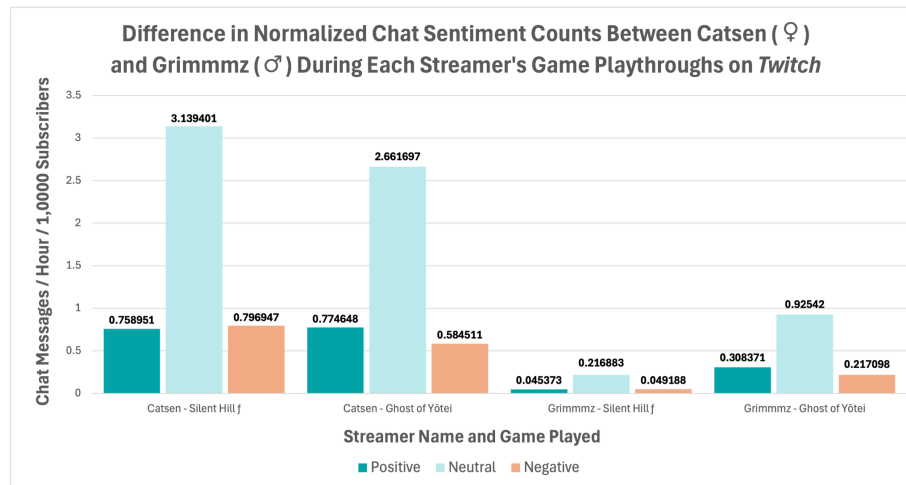


Figure 4. Game or Gameplay and Appearance-focused Chat Compositions Between Streamers and Across Games.

Source: Catsen and Grimmelz on Twitch.

When comparing the sentiment-based proportions of commentary specifically focused on the game or gameplay between streamers, results indicated that there was a significant difference in both positive (z : -4.669, p : 3.026×10^{-6}) and negative (z : 4.174, p : 2.996×10^{-5}) proportions between streamers for *Silent Hill f*, but no significant difference in neutral proportions (z : 0.785, p : 0.432). For *Ghost of Yōtei*, streamers showed significant differences in positive (z : -3.259, p -value: 0.001), neutral (z : -2.918, p : 0.004), and negative (z : 3.068, p : 0.002) proportions. Comparing these proportions between games for Catsen resulted in significant differences in positive (z : -5.499, p : 3.825×10^{-8}) and negative (z : 4.779, p : 1.764×10^{-6}) proportions between the two games, but no difference for neutral (z : 0.482, p : 0.630) proportions. Doing the same for

Grimmmz resulted in significant differences in positive ($z: -4.543$, $p: 5.545 \times 10^{-6}$) and negative ($z: 4.335$, $p: 1.459 \times 10^{-5}$) proportions, but none for neutral ($z: 0.039$, $p: 0.969$) proportions as well.

Comparisons of the sentiment-based proportions of commentary specifically focused on the appearance between streamers showed no significant difference in positive ($z: 1.702$, $p: 0.089$), negative ($z: -1.593$, $p: 0.111$), or neutral proportions ($z: 0.210$, $p: 0.834$) for *Silent Hill f*. On the other hand, streamers showed significant differences in positive ($z: -3.984$, $p: 6.772 \times 10^{-5}$) and neutral ($z: 4.289$, $p: 1.794 \times 10^{-5}$) proportions for *Ghost of Yōtei*, but no significant difference in negative ($z: -0.930$, $p: 0.353$) proportions. Comparing these same proportions between games for Catsen resulted in significant differences in positive ($z: -3.093$, $p: 0.002$) and negative ($z: 2.921$, $p: 0.003$) proportions between the two games, but no difference for neutral ($z: 0.375$, $p: 0.708$) proportions. For Grimmmz, there were differences in positive ($z: -5.672$, $p: 1.407 \times 10^{-8}$) and neutral ($z: 4.435$, $p: 9.216 \times 10^{-6}$) proportions, but no difference for negative ($z: 0.839$, $p: 0.401$) proportions.

Error bars were also calculated using Standard Error (SE) and 95% confidence intervals for both raw sentiment count and the normalized version of this data to visualize what range the true mean count for each tone would fall within 95% of the time when experimenting under the same conditions. I opted to remove these bars from the final figure due to their minuscule size. The results suggest that some variability is present, but overall, it remains minimal and does not affect the statistical significance of differences between comparison groups.

Figure 5 illustrates the difference in the words most frequently used in game or gameplay-related comments on each streamer's playthroughs, combining data from

both games. The most prevalent words in Catsen’s cloud include “LUL,” “armor,” “ghost,” “boss,” “fox,” “get,” and “go”. On the other hand, words featured in Grimmmz’s cloud include “samurai,” “good,” “LUL,” “sword,” “boss,” “ghost,” “story,” and “katana.”

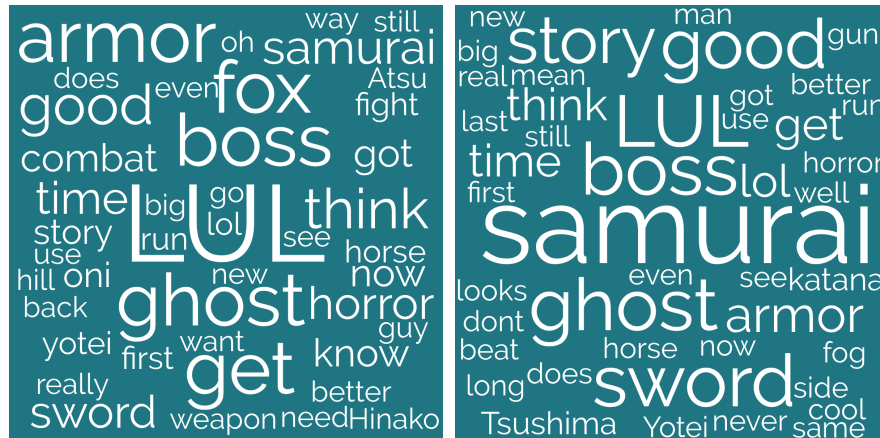


Figure 5. Most Common Words in Game/Gameplay Related Twitch Chats Across Games for Catsen (left) and Grimmmz (right)

Source: Catsen and Grimmmz on Twitch.

Discussion and Research Implications

The results gathered from this experiment support my hypothesis that female streamers will receive a higher rate of negative comments than male streamers when they play games that subvert traditional expectations by placing complex female protagonists in historically male-led franchises, especially when those games generate controversy and divided fan reactions. The findings of this study are inconclusive, however, when it comes to my second hypothesis that female streamers will receive fewer game-focused comments in proportion to appearance-related comments than male streamers when they play these same games.

My analyses revealed that there was no significant difference in the proportion of negative audience commentary between streamers for either game. Interestingly, however, was the discovery that female streamers receive significantly more negative

chats playing *Silent Hill f* (a legacy male franchise) than *Ghost of Yōtei*, while there is no significant difference between the two for male streamers. This supports my hypothesis, since I expected more negative commentary directed at female streamers specifically when playing controversial games that subvert traditional expectations by placing complex female protagonists in historically male-led franchises. This idea is further substantiated by the consideration that streamers of both genders receive a higher proportion of negative game or gameplay and appearance-focused comments on *Silent Hill f*. It is to be expected that this iconic franchise—which boasts almost ten earlier games with male leads and narratives far-removed from women’s issues, as compared to *Ghost of Yōtei*, which has only one earlier game with a male lead—would have fans who exhibit more negative sentiment on account of deviations from what are considered to be crucial aspects of the game.

Looking at the proportions of game or gameplay and appearance-related chats, it was found that the proportion of appearance-focused comments streamers receive relative to all commentary is higher than the same proportion of game or gameplay-focused comments they receive across games. Further, there was only a significant difference in the proportion of appearance-focused commentary relative to game or gameplay-focused commentary between male and female streamers for *Ghost of Yōtei*. These findings do not support my hypothesis, which assumed that the proportion of appearance-focused commentary would be higher for female streamers across all games. Female streamers did, however, receive a significantly higher proportion of appearance-focused commentary relative to game or gameplay-focused commentary when compared to male streamers when playing *Ghost of Yōtei*. Resulting proportions for the two games suggest that game context may even be a higher predictor

than gender, since I expected female gender to drive higher appearance proportions, but this was seen only in the less subversive and controversial title.

It is interesting as well to note the differences seen in Figure 6, which visualizes the most frequently used words in game or gameplay-related chats across all games looked at in the study for each streamer. The most prevalent words in Catsen's cloud are more focused on characters and are less specific. On the other hand, words featured in Grimmmz's cloud are more focused on combat and tend to be more specific. Leading words used to give advice, such as "should," "can," and "why," were high on Catsen's frequency list, but were markedly scarce in the frequency list used to create Grimmmz's world cloud. Overall, the patterns of less-specific language and more leading words seen in game or gameplay-related commentary posted to Catsen's chat suggest that viewers see her as both uninformed (or inexperienced) and needing help to make it through the game. The opposite is illustrated in common chat seen in Grimmmz's streams.

While not directly related to my research questions, the resulting t-statistics and p-values—which are far smaller than a significance level of 0.01—obtained from running Welch's t-test also indicate that Catsen receives significantly more "real," coded, and other messages than Grimmmz when playing *Ghost of Yōtei*. From this, it is suggested that the distribution of these categories of messages is not independent of streamer gender and game context. Chi-square testing of sentiment distributions results in a similarly small p-value, indicating that chat sentiment counts are also related to streamer gender and game context.

These findings suggest that deviations from gender-based norms in both streamer identity and game content—such as character and narrative design—work together to significantly influence the way audiences react during real-time

playthroughs of games. With female streamers receiving significantly more engagement in the form of “real” chat messages, irrespective of game context, the highly gender-responsive nature of audience reactions that persist in gaming poses a real threat to women within the space. To combat this, platforms should optimize their moderation methods and be held accountable when they fail to protect streamers; in fact, California should enforce strengthened platform regulations, including quarterly audits and transparency reports, with fines or operational consequences if moderation and safety standards are not met on these sites. Most importantly, streamers should be provided with mental health support, legal guidance, and formal complaint processes, with live-streaming platforms treating them as protected contributors rather than unprotected contractors. This idea highlights an important concern: contractors often lack key protections, and this classification is often utilized by employers to avoid responsibility for harmful or discriminatory practices. Recognizing this, it is important to consider the possibility of revisiting or expanding the guidelines detailed under FEHA so that more workers are protected.

Limitations

The nine-week timeframe of this research project establishes a number of data-collection-related confounds that impact my findings. With so little time, I was unable to collect and analyze enough data for the findings to be truly representative of the population. In future studies, it would be beneficial to not only look at a larger number of streamers identifying with either gender, but also to collect data from a wider selection of games that range from extremely deviant from gender-based norms in the sphere to not deviant at all in this context. This would allow for both a better understanding of whether observed patterns represent the broader population of male

versus female streamers (rather than possibly being the result of individual streamer differences) and the ability to see if gendered reactions directly correlate with the level of gender-based subversion a game displays. The data collected also comprised the entirety of each stream's chat logs; further research should take more time to ensure that chats used as observations include only those which were sent during gameplay—or at least after gameplay has started—to account for skews in sentiment proportion that could be attributed to non-game-related content.

The highly contextual nature and constant evolution of language and concepts in the gaming sphere, its associated social spaces, and the broader internet further diminish the expected performance of my analysis model; while these tools are usually estimated to have an F1 score of around 0.70-0.80 for sentiment grading, this range drops to 0.65-0.70 in this context. In practice, this leaves a noticeable amount of inaccuracies in my dataset. The primary categorization of messages into classes, such as bot messages and commands, aids in improving model accuracy, but there are a plethora of improvements that can be made to improve the likelihood of accurate analysis. Notably, the script used to carry out this study was not what I considered to be its best iteration. The best model I was able to make attempted to provide as much context as possible. I utilized OpenAI's *Whisper* model to transcribe the audio from each livestream video, creating an additional column in the dataset CSV that included this for the script to take into account when categorizing topic and tone. Machine learning was also implemented into the script so that manually coded datasets could be fed into the analyzer in order to train it. Additional investigations into this sphere should apply these methods—and additional considerations of context provision—to make the model as accurate as possible.

Conclusion

This study investigated how information that is contained in an alternate medium, such as gamification, increases or decreases support for women, their issues, and their perspectives. Specifically, I presented a case study comparing the topic and tone of real-time viewer commentary on one male and one female streamer during playthroughs of two different games: *Silent Hill f* and *Ghost of Yōtei*. My analyses indicate that gender has consequential effects on experience and treatment in gaming spaces, including live-streaming, and expose critical issues in current moderation and protection practices held by both the industry and its adjacent social spaces. The most significant finding comes in the form of game and franchise contexts being stronger predictors of negative outcomes than gender itself. This idea insinuates that long-standing beliefs regarding identity in gaming won't be broken so easily, regardless of the seemingly marked transformation seen in practices, characters, and narratives portrayed in the industry.

My proposed hypotheses were supported by my research findings, and although many confounding factors posed limitations and affected the validity of my study, the promising results that were gathered under such a limited timeframe suggest that more time should be invested in researching this topic. Gendered differences in audience reactions persist in gaming communities, and gaming-adjacent platforms serve as amplifiers for attitudes and sentiments that pose a real threat to women in our modern world. With this in mind, it is imperative that we continue to conduct research in this space, examining gendered patterns that inform our ability to create better platform policies, encourage healthier online communities, and address a longstanding gap in research on gender inequality in digital entertainment spaces.

References

- Akbar, F. & Kusumasari, B. (2022). *"Making public policy fun: How political aspects and policy issues are found in video games."* Policy Futures in Education, 20.5, 2022. 646-660.
- Allchorn, W., & Orofino, E. (2025). *Policing Extremism on Gaming Adjacent Platforms: Awful but Lawful?* Frontiers in Psychology, 16, 1537460.
- Batchelor, J. (2024). *GamesIndustry.biz presents... The Year In Numbers 2024.* GamesIndustry.biz.
<https://www.gamesindustry.biz/gamesindustrybiz-presents-the-year-in-numbers-2024>
- Blizzard Entertainment. (2016). *Overwatch* [Video game]. Blizzard Entertainment.
- Brockmyer, J. F. (2022). *Desensitization and violent video games: mechanisms and evidence.* Child and Adolescent Psychiatric Clinics, 31(1), 121-132.
- Brown v. Entertainment Merchants Association*, 564 U.S. 786 (2011).
- Buyukozturk, B., Gaulden, S., & Dowd-Arrow, B. (2018). *Contestation on Reddit, Gamergate, and movement barriers.* Social Movement Studies, 17(5), 592-609.
- California Department of Fair Employment and Housing. (2025). *Fair Employment and Housing Act (FEHA).*
<https://www.dfeh.ca.gov/resources/fair-employment-and-housing-act/>
- Capcom. (1998). *Resident Evil 2* [Video game]. Capcom.
- Cassese, E., Conroy, M., Duckert, L., Espinoza, C., Meyer, M., Reay, E., Shackleford, K., & Urban, D. (2023). *Changing the Narrative: Why Representation in Video*

- Games Matters*. Marina del Rey: The Geena Davis Institute on Gender in Media.
- Cash, J. (2019). *We must be better: Hegemonic masculinity and dadification in God of War (2018)*. First Person Scholar.
<https://www.firstpersonscholar.com/guiding-the-immigrant-god/>
- Catsen. (n.d.). *Catsen* [Twitch channel]. Twitch. <https://www.twitch.tv/catsen>
- Clement, J. (2025). *The game awards live stream viewers worldwide 2024*. Statista.
<https://www.statista.com/statistics/1228090/the-game-awards-annual-livestream-viewership/>
- Code Monkey. (2025). *Analyzing EVERY Steam game in 1 day, and another indie sells 100,000 copies!* Game Dev Report.
<https://gamedevreport.beehiiv.com/p/analyzing-every-steam-game-in-1-day-and-another-indie-sells-100-000-copies>
- Conway, S. (2019). *Poisonous pantheons: God of War and toxic masculinity*. *Games and Culture*, 15(8), 943–961.
- Cook, D. (2018). *Cozy Games*. LOSTGARDEN.
<https://lostgarden.home.blog/2018/01/24/cozy-games/>
- CRD v. Activision Blizzard, Inc.*, No. 21STCV26571 (Cal. Super. Ct. Los Angeles Cty. Jan. 17, 2024).
- CRD v. Riot Games, Inc.*, No. 21STCV39854 (Cal. Super. Ct. Los Angeles Cty. Dec. 27, 2021).
- Čuljak, L., & BABAC, M. B. (2023). *SENTIMENT ANALYSIS OF HOW DIFFERENTLY MALE AND FEMALE STREAMERS CHAT ON TWITCH. TV*. *South Eastern European Journal of Communication*, 5(1), 29-39.
- Davies, B. (2020). *Exploring the Relationship between Gender and Character*

Representation within Multiplayer Online Battle Arena (MOBA) Games.

Doctoral dissertation. University of Lincoln.

De La Cruz, A., & Ryan, J. (2015). *Tennis for Two*. Massachusetts Institute of Technology.

Department of Fair Employment and Housing v. Riot Games, Inc., No. 18STCV03957 (Cal. Super. Ct. July 22, 2022).

Eastwood, R. (2023). *The Scandalization of Activision Blizzard*. *Atelier: Journal of Undergraduate Research*, 3(1), 20-33.

Elliott, J. (2025). *Private Twitch Chat Scraping Bot* (1.0).

Ember Lab. (2023). *ARC Raiders* [Video game]. Ember Lab.

Entertainment Software Association. (2025). *Power of Play: 2025 global video games report*. ESA.

<https://www.theesa.com/resources/the-global-power-of-play-report/>

Forman-Katz, N., Lipka, M., Eva Matsa, K., Radde, K., Baronavski, C., & Coleman, J.

(2025). *Young Adults and the Future of News*. Pew Research Center.

<https://www.pewresearch.org/journalism/2025/12/03/young-adults-and-the-future-of-news>

FromSoftware. (2022). *Elden Ring* [Video game]. Bandai Namco Entertainment.

The Game Awards. (2025). *About*. The Game Awards.

<https://thegameawards.com/about>

The Game Awards. (2025). *Best Narrative*. The Game Awards.

<https://thegameawards.com/nominees/best-narrative>

Greene, V. S. (2019). “*Deplorable*” satire: *Alt-right memes, white genocide tweets, and redpilling normies*. *Studies in American Humor*, 5(1), 31-69.

Grimmmz. (n.d.). *Grimmmz* [Twitch channel]. Twitch.

<https://www.twitch.tv/grimmmz>

Grub, M., Wurm, A., & Kauk, J. (2025). *Gaming the Political Arena: An Analysis of Political Messaging on Twitch in Germany*. Proceedings of DiGRA.

Habib, H., Srinivasan, P., & Nithyanand, R. (2022). *Making a radical misogynist: How online social engagement with the manosphere influences traits of radicalization*. Proceedings of the ACM on human-computer interaction, 6(CSCW2), 1-28.

Hancock, D., Rousseau, C., Slee, J., & Wunsch-Vincent, S. (2025). *Global Film Production Hits Historic High, Surpassing Pre-Pandemic Levels*. Global-Innovation-Index.

<https://www.wipo.int/en/web/global-innovation-index/w/blogs/2025/global-film-production>

Hartmann, T., Möller, I., & Krause, C. (2015). *Factors underlying male and female use of violent video games*. New Media & Society, 17(11), 1777-1794.

Heritage, F. (2022). *Magical women: Representations of female characters in the Witcher video game series*. Discourse, context & media, 49, 100627.

Higinbotham, W. (1958). *Tennis for Two* [Video game].

Hollensen, S. (2013). *The Blue Ocean that disappeared—the case of Nintendo Wii*. Journal of business strategy, 34(5), 25-35.

Ivory, J. D. (2006). *Still a man's game: Gender representation in online reviews of video games*. Mass communication & society, 9(1), 103-114.

Kato, H., & Hori, M. (1986). *Characteristics of theories of Japanese culture*. Review of Japanese Culture and Society, 1(1), 62-71.

Kavanagh, D. (2025). *Watch and learn: The meteoric rise of twitch*. GWI.

<https://www.gwi.com/blog/the-rise-of-twitch>

Kent, S. L. (2010). *The ultimate history of video games, volume 1: From Pong to Pokémon and beyond... the story behind the craze that touched our lives and changed the world (Vol. 1)*. Crown.

Kim, S. (2024). *Understanding political communication and political communicators on Twitch*. Plos one, 19(11), e0314429.

Kojima Productions. (2025). *Death Stranding 2: On the Beach* [Video game]. Sony Interactive Entertainment.

lay925. (n.d.). *Twitch-stream-chat-downloader* [Computer software]. GitHub.

<https://github.com/lay925/Twitch-stream-chat-downloader>

Lopez-Fernandez, O., Williams, A. J., & Kuss, D. J. (2019). *Measuring female gaming: Gamer profile, predictors, prevalence, and characteristics from psychological and gender perspectives*. Frontiers in psychology, 10, 898.

Martin, R. (2025). *Twitch*. Encyclopedia Britannica.

<https://www.britannica.com/topic/Twitch-service>

Mayka, K. (2022). *Red Ocean vs. Blue Ocean Strategy: Characteristics, Challenges, and Opportunities*. eleken.

<https://www.eleken.co/blog-posts/red-ocean-vs-blue-ocean-strategy-characteristics-challenges-and-opportunities>

Mendes, L. O., Cunha, L. R., & Mendes, R. S. (2022). *Popularity of video games and collective memory*. Entropy, 24(7), 860.

Microsoft. (n.d.). *Visual Studio Code*. <https://code.visualstudio.com/>

Mojang Studios. (2011). *Minecraft* [Video game]. Mojang Studios.

- Nakandala, S., Ciampaglia, G., Su, N., & Ahn, Y. Y. (2017). *Gendered conversation in a social game-streaming platform*. In Proceedings of the international AAAI conference on web and social media (Vol. 11, No. 1, pp. 162-171).
- NeoBards Entertainment. (2025). *Silent Hill f* [Video game]. Konami Digital Entertainment.
- Nintendo. (1985). *Super Mario Bros.* [Video game]. Nintendo.
- Nintendo. (2017). *The Legend of Zelda: Breath of the Wild* [Video game]. Nintendo.
- Nintendo. (2020). *Animal Crossing: New Horizons* [Video game]. Nintendo.
- Özdinç, T. (2020). "FEMME FATALE 101: THE BASIC CHARACTERISTICS OF THE FEMME FATALE ARCHETYPE." *Journal of International Social Research* 13.73.
- Olsson, M. (2018). *'True gamer' culture on Twitch and its effect on female streamers*. Dissertation. Malmö universitet/Kultur och samhälle.
- Paaßen, B., Morgenroth, T., & Stratemeyer, M. (2017). *What is a true gamer? The male gamer stereotype and the marginalization of women in video game culture*. *Sex Roles*, 76(7), 421-435.
- The pandas development team. (n.d.). *pandas* (2.1.2) [Computer software].
<https://pandas.pydata.org/about/team.html>
- Perez, J. M., Rajngewerc, M., Giudici, J. C., Furman, D. A., Luque, F., Alemany, L. A., Martínez, M. V. (n.d.). *pysentimiento* (0.0.13) [Computer software].
<https://github.com/pysentimiento/pysentimiento>
- Pilon, S., & Tremblay, D. G. (2013). *The geography of clusters: The case of the video games clusters in Montreal and in Los Angeles*. *Urban studies research*, 2013(1), 957630.
- Pollard, G. (2025). *The History & Art of Hanafuda*. Ways to Play.

<https://games.porg.es/articles/cards/japan/hanafuda/art/>

Python Software Foundation. (2023). *re* (Version 3.11) [Computer software]. Python.

<https://docs.python.org/3/library/re.html>

Python Software Foundation. (2023). *string* (Version 3.11) [Computer software].

Python. <https://docs.python.org/3/library/string.html>

Racicot, T. (2020). *Guiding the immigrant god: Helper characters in God of War. First Person Scholar*.

<https://www.firstpersonscholar.com/guiding-the-immigrant-god/>

Red Candle Games. (2017). *Detention* [Video game]. Red Candle Games.

Reitz, K., & Contributors. (2023). *requests* (Version 2.31.0) [Computer software].

Python. <https://docs.python-requests.org/>

Riot Games. (2009). *League of Legends* [Video game]. Riot Games.

Rockstar North. (2013). *Grand Theft Auto V* [Video game]. Rockstar Games.

Rodriguez, M. (2024). *Blue Ocean vs. Red Ocean: What Are Their Differences?* Scaling.

<https://scaling.llc/en/2024/12/04/scaling-up-blue-ocean-vs-red-ocean-what-are-their-differences/>

Romero-Medina, P. (2025). *Videogames are for boys: male gaming as an anti-gender identity*. *Historia y comunicación social*, 30(1).

Santa Monica Studio. (2018). *God of War* [Video game]. Sony Interactive Entertainment.

Smirke, R. (2024). *IFPI Global Report 2024: Music Revenues Climb 10% to \$28.6 Billion*. Billboard.

<https://www.billboard.com/business/business-news/ifpi-global-report-2024-music-business-revenue-market-share-1235637873/>

- Soranaka, I. (1978). *The Kansei Reforms-Success or Failure?*. Monumenta Nipponica, 33(2), 151-164.
- Stanford Institute for Human-Centered Artificial Intelligence. (2025). *2025 AI Index Report*. Stanford University.
- Steinberg, S. M. (2007). *Videogame marketing and PR*. iUniverse.
- Sucker Punch Productions. (2025). *Ghost of Yōtei* [Video game]. Sony Interactive Entertainment.
- Suckling, M., & Walton, M. (2017). *Video game writing: from macro to micro*. Walter de Gruyter GmbH & Co KG.
- supertf. (n.d.). *supertf* [Twitch channel]. Twitch. <https://www.twitch.tv/supertf>
- Team Cherry. (2025). *Hollow Knight: Silksong* [Video game]. Team Cherry.
- Twitch.tv. *Welcome to Twitch Legal*. (2024). Twitch.tv. <https://legal.twitch.com/legal/monetized-streamer-agreement/>
- TwitchTracker. (2025). *Most watched games on Twitch*. TwitchTracker. <https://twitchtracker.com/games>
- Valve Corporation. (2000). *Counter-Strike* [Video game]. Valve Corporation.
- Wagner, E. (2019). *A Strategic Audit of Nintendo Co., Ltd.* Undergraduate Honors Thesis. University of Nebraska-Lincoln.
- Yang, A. (2025). Nbcnews.com. <https://www.nbcnews.com/news/us-news/twitch-faces-backlash-popular-streamer-emiru-says-was-assaulted-twitch-rcna238496>
- Yates, J., & Orlikowski, W. J. (1992). *Genres of organizational communication: A structurational approach to studying communication and media*. Academy of management review, 17(2), 299-326.