Discourse at play: construction and professionalism of video-based game reviews

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ABSTRACT

As a growing but already massive entertainment medium, games are discussed in all social environments, uncovering an unexplored area of cultural criticism. YouTube in particular acts as a vast library of game reviews that are posted by both consumer and professional reviewers. The current study investigates how these reviews construct a discourse of games. A quantitative content analysis on 150 randomly sampled video-format reviews applied discourse categorizations found among film reviewers complemented with a coding frame specifically designed for the gaming YouTube format. Results show that high-art discursive styles typically found with professional critics of traditional media now apply to a continuum of YouTube creators, while the consumer-oriented popular aesthetic discourse is not mirrored as closely. Reviewers can set themselves apart by offering interpretations of the games they play, for example, or reviewing from a first-person perspective. Conclusions includes avenues for further research on specific game reviewing discourse.

Keywords

Game reviews, discourse, critics, content analysis, YouTube

INTRODUCTION

Digital games are the new frontier of entertainment media discourse. Ballooning in mere decades from sideshow curiosities to the single most prolific pillar in our media diets, it is no surprise that games are a frequent topic of discussion both on- and off-line. One frequently seen form in which game-centric discourse has crystallized is the review (Ivory 2006; Zagal, Ladd, and Johnson 2009), in which a reviewer critiques a game on a number of subjective criteria, typically ending with a recommendation to play the game or avoid it. Although this type of content is nominally identical to other entertainment media and even product reviews, very little research has been performed on how game reviews are constructed – how someone approaches discussing the *value* of a game based on personal play experience (Thomas et al. 2009) and what kind of identity reviewers use to shape their criticism (Foxman and Nieborg 2016). The current paper offers new insight in unexplored practices by presenting a content analysis of online digital game reviews that are published in

video form. Before detailing these methods, we will briefly discuss the evolution of critique from cultural and economic perspectives and how games and the video format (specifically of YouTube) introduce new complications to reviewing processes.

The origin of the review lies with choice. As a rising number of entertainment options started outpacing the demand for leisure from an emerging consumer class, reviews acted to narrow down the available books, theater shows, and musical performances (Holbrook 2006). While the ideal mechanism for this involved reviewers recounting their experience with a product or production to highlight elements readers could identify with to come to their own opinion, the evaluative nature of reviews meant critics' verdicts were and are often considered to be more influential (Eliashberg and Shugan 1997). A crucial aspect of this bygone age was that reviewers were professional critics, acting as cultural gatekeepers by designating certain forms of expression as worthy art while dismissing more low-brow productions as artless (Kersten and Verboord 2014). By virtue of their wealth of experience with numerous forms of expression, critics possessed cultural capital that gave them authority among their readers (Shrum 1991). The status thus afforded to critics was contingent upon them appearing as well-read and intellectual, as well as on being part of one of just a few outlets (e.g. newspapers). Especially this aspect of institutionalization of a critic was thought to give the critic's arguments sway among readers (Kersten and Bielby 2012).

With the proliferation of the internet, review outlets decentralized. The shift towards user-generated content meant that several new strata of critics, would-be critics, and novice opinions surfaced across online news sites, aficionado forums, and social media (Verboord 2014). These user generated reviews go through a very different process than professional reviews as they do not deal with editorial controls, media routines, and professional norms of journalistic content. Moreover, they do not rely on formal training or any experience with the product or content reviewed. User reviews are often more positive in nature while professional critical reviews are more nuanced. Despite this, there is evidence that user reviews, which are often more poorly constructed and reference own experience more explicitly, actually exert stronger influences on lay readers (Jacobs et al. 2015). The language consumer critics employ forms the popular aesthetic discourse lay readers can engage with (Verboord 2014). The primary path of influence of user-generated reviews is said to lie in volume, however (Tsang and Prendergast 2009). The power of reviews in aggregate is to signify popularity and public interest rather than quality. The emphasis on numbers is most keenly felt with the game industry's focus on Metacritic, a review evaluation aggregation site that risks obscuring nuanced critique in favor of quantified unidimensional appreciation (Greenwood-Ericksen, Poorman, and Papp 2013).

Most of the literature covered up to this point engaged with written reviews. These reviews are simple to access and analyze, and have been easily shared far and wide since before broadband internet access. Of course, focusing on written reviews threatens to ignore a vital part of game-related discourse online. While those eager to see games coverage mature were waiting for game critics to "move from fan sites and publications to mainstream newsrooms" (Foxman and Nieborg 2016, 20), an untold number of would-be critics sidelined the funnel of traditional media by starting YouTube channels, adding a new modality to game discourse. A brief search for any marquee game title with the term 'review' now yields thousands if not millions of video results. Unfortunately, the actual content of online reviews has only been examined by a scarce few studies (Schindler and Bickart 2012; Verboord 2014), and even fewer discuss games at all (Zhu and Zhang 2010; Zagal, Ladd, and Johnson

2009). This leaves a gap in two ways. First, video reviews (though possibly scripted) will necessarily differ from their written counterparts. Presentational aspects, such as talking heads, animations, and voice overs, come into play. Although these elements are some cases simply overlaid on a script written in much the same way as a traditional review, there are also more off-the-cuff monological styles of review where the reviewer talks over a (pre-)recorded play session. Second, game reviews necessitate a different kind of review from linear and non-interactive media. Being skilled in playing games can be argued to be as important a criterion for reviewer quality (for certain types of games) as the cultural capital that comes from knowing many strands of media content. Criticism of games is more experientially linked to the self (Bogost 2015), although critical voices have arisen from many areas such as development, fandom, and academia (Foxman and Nieborg 2016). This stands together with the issues the games industry face in being recognized as an art form on similar standing to cinema (Adams 2006; Gee 2006; Jenkins 2005). Since much of art recognition comes from exactly those gatekeeping functions of professional reviewers, any effort to recognize games as art should take into account the popular and critical discourse surrounding the medium (Smuts 2005).

Responding to the implicit call for empirical discourse analyses put forth by William Huber and José Zagal (Thomas et al. 2009) in our view requires different methods than those used with traditional reviewing modalities. A text-based content analysis would not cover the depth of information offered in video, while a simple video content analysis fails to take the context of the review into account – a context that can yield information about the viewers' response to the video. The current study addresses these issues through a content analysis on video game reviews on YouTube. This content analysis is quantitative to (1) do justice to the broadness of the masses of reviews posted daily and (2) generalize results from the sample to the population of reviewers that are currently active. The research questions guiding this endeavor are exploratory:

RQ1: How do online video games review on YouTube fit within the (traditional) professional critic and consumer review dichotomy?

RQ2: How do the professional/consumer nature and other characteristics of reviews affect their evaluation by and engagement from the audience?

METHODS

To answer the research questions, a quantitative content analysis was used in order to be able to describe the professional nature and characteristics of video game reviews on YouTube. Through a content analysis we chart how video reviews, specifically on video games, are structured, and what kinds of discourse are typically employed. Aligning with previous efforts in reviews of other media (Verboord 2014) that the current study builds from, the data were analyzed quantitatively to examine their fit with professional and consumer reviews and the influence of the reviews' characteristics on video metadata that indicate engagement.

Sampling

The target population for this research is reviews of video games uploaded on YouTube. There were no restrictions on for example the number of views or number of channel subscribers, because the goal of this study was to include both 'professional' reviews, which might have higher numbers on both, and 'consumer' reviews, which might have lower number of views and subscribers. The time period for which the reviews have been posted on YouTube was from the start of 2016 until the 11th of April, 2018, the day on which the reviews were collected. This relatively short timeframe was chosen because due to the societal developments and

developments on the internet, the way reviews are produced and what kind of discourse is used might still be shifting, so reviews from years ago could differ from their current form. The reviews were collected from video games that were released in 2016 and 2017. We strove to gather 150 video reviews for in-depth analysis. However, since the material is of audio-visual nature, this sample size provides rich data (Riffe, Laxy, and Fico 2005) while ensuring adequate statistical power for the necessary analyses.

In the initial sampling, videos on YouTube were searched by using the term 'game review'. However, only few reviews use the word 'game' in their title. To circumvent this, a list[1] of video games released in 2016 and 2017 was compiled from which a sample of video games could be drawn. This list did not contain all video games released in 2016 and 2017 but did include games that at least got some amount of attention (an inherent prerequisite for our goal of analyzing reviews). The total amount of video games in this list was 924, with 510 video games having been released in 2016 and 414 video games in 2017. Fifty games were randomly drawn from each year to ensure all games - regardless of status of smaller indie or AAA game – stood a comparable chance of being sampled. This resulted in a total of 100 sampled video games.

For each of those 100 games, a list of *all* reviews of the video game uploaded on YouTube from a week before the game's release until the 11th of April, 2018 was generated. Uploads from a week before the game's release were included to account for possible pre-release reviews that some critics produce when they have gotten early access to a game. A digital research tool called Youtube Data Tools (Version 1.08, https://tools.digitalmethods.net/netvizz/youtube/) was used to collect those video game reviews from YouTube. Youtube Data Tools creates a list of videos based on a search query input and provides several kinds of metadata on these videos such as publishing date, length, and amount of views, likes, and comments. For generating the list of videos per video game, the 'Video List' function of the tool was used. Here, a choice can be made on what criteria the videos in the list are collected; based on a YouTube channel, based on a YouTube playlist, based on a search query, or by manual selection. For the purpose of this study, the videos were collected by using the search query. The search query used for each game was "[video game title] review". Since the tool uses YouTube's functionalities, this query should also result in videos that are not necessarily titled with the word 'review', but which are still reviews. Further options included having the language set to English, no region was selected, generating the maximum amount of iterations, limiting the search to the designated time frame, and ranking by relevance. This then resulted in a list of up to 500 videos (the tool's output cap) for each game. This method almost entirely circumvented the algorithms YouTube uses to push certain videos forward over others, meaning the final sample was not systematically influenced by the biases inherent in the platform's regular use.

The listing did not only contain reviews for each game, but also gameplay videos and Let's Plays where creators simply record themselves and the screen as they play a game. As the current study is predicated on the use of critical discursive styles, this meant that the lists had to be manually screened and cleaned based on channel and video titles as well as descriptions, so that only reviews were left. In cases where this strategy did not allow categorization, the video was watched to determine its nature. After the lists were cleaned, they were combined to form a single sample frame which resulted in a total of 3,362 videos. A final sample of 150 reviews was randomly selected from this frame. A total of 31 reviews had to be resampled for: not being reviews despite their title; not including any commentary; or for not being presented in English. The final sample consisted of 25 hours of video reviews of 54 different

games, with the most frequently reviewed games being *Prey*, found 10 times, and *Nioh* and *Titanfall 2*, both found 9 times. This fits with the goal of obtaining a random sample of reviews for games with some amount of prominence; the goal was not to get a review for each single game, as this would have led to a less random sample. The average length of the videos was 627.57 seconds (SD = 520.57), which is about 10.5 minutes. The average amount of views for the reviews was 25,295.33 (SD = 118,302.72).

Operationalization

The dearth of prior research on game review culture meant that a coding frame needed to be constructed that was based on traditional forms of discourse on other media (Verboord 2014) before being tweaked to the current topic. The professional – consumer dichotomy is especially important for answering both research questions. Verboord (Verboord 2014) argued that five dimensions can contribute to a more critical or consumer-oriented discursive style: (1) the perspective of a critic, (2) the discussion of the most important contributors to film – here video games – (3) the aesthetic disposition, (4) meta-arguments, and (5) the words and phrasings. Verboord (Verboord 2014) divided these dimensions into fifteen items for both high art discourse and popular aesthetic discourse. For the current study, these codes were adapted to the context of video games, where (among others) gameplay mechanics are an important element of the medium. Most of the codes translated well to video games, though a few needed to be revised. The items that included the word 'director' were changed into having the word 'developer', as video games generally do not have one single person exerting unilateral creative power on par with film directors – although there are some exceptions, of course. Furthermore, the item 'Discussion of form aspects' was coded as being present in a review when there was a deep and quality discussion on the art style and the gameplay mechanics of the video game. Lastly, items where the word 'actor' was used were changed to include the word 'voice actor' since games don't generally have live-action portrayals of actors. While voice actors in games are not typically asked to convey their presence in the same way as on-screen actors do, they are arguably the closest analogue to film actors because of their agency as real persons (as opposed to the games' characters that are not accountable and do not exist outside of the game space) and their evaluability in terms of giving better or worse performances. All of the discourse items were coded as dichotomous variables depending on whether the review video did or did not include a certain element across its playing time.

Another explanatory variable that was adapted from Verboord (Verboord 2014) was the institutionalization of the critic. Previously, this variable was measured through three separate variables, namely the medium on which the review was published, the experience of the critic, and the renown of the media title for which the critic worked. For this study, only the second variable was used to represent institutionalization. Since the sampling was locked to YouTube and there is currently no agreed upon hierarchy when it comes to YouTube content creators comparable to traditional newspapers, the remaining variables were not included for the current study. Instead, the institutionalization of the critic was measured by counting the total amount of reviews on the YouTube channel used to post the review, so that a reviewer with a larger number of prior videos with 'review' in the title posted under their account is seen as more institutionalized as a reviewer than a new account with just a handful of other game reviews.

Other variables were adapted from Hu, Liu, and Zhang (2008). These variables served as a proxy for the quality reputation of a reviewer by averaging the usefulness indicator from every review created by a reviewer. The like/dislike buttons on YouTube are quite similar to this usefulness indicator often used in online text-based

reviews. Therefore, the like to dislike ratio was measured for the review itself as an indicator of the quality reputation. Additionally, the number of channel subscriptions for the YouTube channel on which the review was posted was measured, as this could also be an indication for the reviewer quality. In the same study, Hu et al. (2008) measured the exposure of a reviewer by counting the total number of reviews produced by a reviewer. However, since the number of reviews of a reviewer was used to indicate the institutionalization of a reviewer, a different measure was used for this study, namely the amount of views for the review. Since the reviewer exposure revolved around the popularity of the reviewer on a platform, the view count was considered to be a viable alternative.

It can be argued that the discourse of a video review is not the only factor that can determine whether it is professional or consumer based, as there are also visual factors that could indicate this. However, because of the paucity of literature on video reviews, the rest of the coding frame was constructed specifically for the purpose of this study. A list of codes on production quality was composed, consisting of several factors that indicate the resources the reviewer has used to create the video review. These factors include the use of a green screen, studio, visible microphone, a static camera, the lighting, sound, and video quality, whether the video had been edited, music was used, gameplay was shown, and whether the reviewer was shown on screen, and lastly the amount of people presenting the review. All except four of these factors were measured using a dichotomous variable. The lighting, sound, and video quality were coded as low, middling, or high quality, whereas the number of people on screen was simply counted. The valence of a review was split into two variables, namely the general attitude of the reviewer towards the game, and the grade given in the review. Attitude was logged as being negative, neutral, or positive. When a grade was given in a review, the grade was also recorded. Grades were standardized to a scale from 1 to 10 (e.g. '4 stars' was coded as 8). Other variables that were logged were: the length of a video; the amount of comments; the amount of likes and dislikes; the amount of views; the channel's subscribers; and the number of other reviews posted within the channel were logged. Lastly, a dichotomous exploratory variable was recorded that measures whether a review was structured based on elements discussed around the video game. Video game reviews often employ a structure of discussing each element of the game, such as the graphics, story, and gameplay separately.

Data processing and analysis
After both investigators discussed and determined the final coding frame, a single investigator with comprehensive personal experience with the reviews under study performed the coding for the full sample. The first research question was answered by performing factor and reliability analyses to determine a fit of the variables with the high-art and popular aesthetic dichotomy. The second research question was mostly answered through linear regressions and ANOVAs. All analyses were performed with IBM SPSS (v24).

RESULTS
The current study had two objectives. The first objective was to describe the current state of game review discourse on YouTube, while the second was to attempt to explain the way video-based game reviews are structured when compared with discursive styles employed by critics of more traditional media. This section starts with an overview of the prevalence of discursive elements. Next, the reviews are matched on their reliance on high-art and popular aesthetic styles through factor analyses. The discursive indices flowing from these analyses are then used to attempt to categorize different review types. Lastly, the audience response to the use of these styles is investigated.

Table 1: Prevalence and factor loadings of high-art and popular aesthetic discourse items across online video game reviews in this sample.

Item	Prevalence	High-Art factor loading	Popular Aesthetic factor loading
High-Art discourse items			
HA1: Mix Positive / Negative Statements*	59%	.54	
HA2: Game is interpreted*	25%	.62	
HA3: Discussion of game in terms of intelligence*	57%	.61	
HA4: Mentioning of developer	35%		
HA5: Discussion of performance of developer*	34%	.52	
HA6: Comparison of other games*	67%	.54	
HA7: Discussion of form aspects*	78%	.54	
HA8: Positive discussion of game in terms of innovation*	28%	.53	
HA9: Expression of anti-entertainment sentiment	*N.A.*	*N.A.*	*N.A.*
HA10: Positive reference to institutional expertise	3%		
HA11: Usage of high-art terms[†]	7%	.34	-.37
HA12: Usage of critical terms*	34%	.53	
HA13: Usage of words signaling knowledge of institutional hierarchy*	4%	.38	
HA14: Usage of words referring to author theory	*N.A.*	*N.A.*	*N.A.*
HA15: Usage of words signaling subtlety*	10%	.34	
Popular Aesthetic discourse items			
PA1: User orientation	69%		
PA2: Reference to own playing experience[†]	93%		.64
PA3: Reference to own expectations*	35%	.35	.32
PA4: Practical advice/remarks[†]	42%		.40
PA5: Mentioning of voice actors[†]	4%	.32	.34
PA6: Discussion of performance of voice actors[†]	12%		.32
PA7: Discussion of game in terms of authenticity/ credibility/consistency*	77%	.65	
PA8: Negative stance towards art / innovation	1%		
PA9: Expression pro-entertainment	36%		
PA10: Negative reference to institutional expertise	1%		
PA11: Directly addressing the reader[†]	59%		.55
PA12: Directly addressing the developer	3%		
PA13: Breaching language norms[†]	30%		.40
PA14: Usage of first person perspective[†]	93%		.72
PA15: Usage of words signaling lack of subtlety	56%		

*Note: Rotated factor loadings above .30 are shown. *: Item included in high-art discourse index. [†]: Item included in popular aesthetic discourse index.*

Discursive elements employed in YouTube game reviews

The variables recognized by Verboord (Verboord 2014) as indicating high-art and popular aesthetics discursive elements are listed in table 1. Among the high-art discourse items there are two that stand out in how often they appeared across the reviews; the comparisons to other games and the discussion of form aspects. Although part of the references to other games in fact only refer to earlier iterations of a game, for example in how *Titanfall 2* diverges from the earlier *Titanfall*, there are also videogames that are regarded as staples of (specific genres within) the medium. Similarly, the discussion of form aspects can be explained by how art direction and gameplay mechanics can be a significant factor that influences the evaluation of a video game. Table 1 also indicates a complete lack of expressions of anti-entertainment sentiments and usage of words referring to author theory across all

reviews. Expressions of anti-entertainment sentiments were likely low because hedonic entertainment is often seen as an inherent, ubiquitous quality of video games, and so they are likely to be judged on how fun they are to play. Author theory might not be highlighted in this sample because games are (with a few exceptions) generally not perceived to be the creative product of one specific person but a team of developers.

Two popular aesthetic discursive elements appear in almost all reviews: references to own watching experience, and the usage of first-person perspectives. The reason for this is likely that video games are virtually the ultimate example of an experience product, which could mean that it is essential for a reviewer to reference his or her own playing experience. The fact that these two items both appear the most shows how reviewers relating their own experience with a game will often resort to a first-person perspective. At the same time, two items in the popular aesthetic discourse, negative stance towards art and innovation and a negative reference to institutional expertise, appear in almost none of the reviews. The lack of a negative stance towards art and innovation could be explained by how video games are a product of technology and this technology is ever evolving. Therefore, it might be the case that even reviewers who employ popular aesthetic discourse expect a game to exhibit a certain degree of innovation. Although the lack of negative references to institutional expertise is harder to explain, it is possible that reviewers want to be seen as (institutionalized) experts themselves to promote their work and elevate the medium of games.

Mapping high-art and popular aesthetics on game reviews

The first research question guiding this study asked to what degree video-based game reviews adhere to traditional critical categories of employing high-art or popular aesthetic discursive styles. We sought to answer this question through statistical analyses aimed at determining the cohesion of the 30 dichotomous discourse items used by Verboord (Verboord 2014). As two items were not found within our sample, only the remaining 28 items were subjected to confirmatory factor analysis with oblique rotation. The data were found suitable for factor analysis (*Kaiser-Meyer-Olkin measure of sampling adequacy = .63, Bartlett's X^2(378) = 906.68, p<.001*). Two factors were extracted, corresponding to high-art and popular aesthetic discursive styles, respectively. The loadings of all analyzed items on these factors are displayed in table 1. The first factor (Eigenvalue: 3.71) was – for the most part – composed of high-art items. Only HA4 (mentioning the game's developer) and HA10 (referencing institutional expertise in a positive way) showed negligible loadings on this factor. Three items categorized as popular aesthetic discourse items also loaded on this factor: PA3 (referencing own expectations), PA5 (mentioning voice actors by name), and PA7 (discussing the game in terms of authenticity, credibility, or consistency). Especially this last item fits well with a medium that is not as institutionalized as film or literature in terms of its artfulness. In all, reviewers could be categorized as striving for art-focused discourse when they: mixed positive and negative statements of the game; offered an interpretation of the game; discussed it in terms of being intellectually challenging; discussed the performance of the developer; compared the game to previously released games; discussed a game's form aspects; discussed a game in terms of its innovation; used high-art and critical terms, as well as terms that refer to institutional hierarchy and subtlety. This shows that, while not universal, certain types of game reviewers are more likely to mimic discursive styles found in critiques of traditional entertainment media.

A more popular discursive style composed the second factor (Eigenvalue 2.49). However, fewer popular aesthetic discourse items loaded on this factor. Table 1 shows that the popular aesthetic factor was comprised of items that indicated the

reviewer: referred to their own playing experience; referred to their own expectations; gave readers practical advice regarding the game's purchase or gameplay; mentioned the game's voice actors; discussed the performance of these voice actors; addressed the reader directly; breached language norms; and discussed their experience from a first-person perspective. Saliently, these behaviors coincided with an *absence* of high-art terms, indicating that reviewers who were more likely to use popular aesthetic discourse elements avoided terms that described the game's artfulness. Several other popular discursive styles did not cluster in this same way. While negative stances towards art, innovation, and institutional expertise as well as directly addressing the developers simply did not occur enough to determine if they were part of a broader style, reviewers using a more popular discursive style were not more or less likely to describe the game from a user orientation, to discuss the game's authenticity, to express pro-entertainment sentiments, or to use terms lacking in subtlety. This shows that consumer-oriented reviewers of games do not show the same patterns of discourse as their counterparts critiquing traditional entertainment media.

The two factors were used to derive indices of high-art and popular aesthetic discourse styles, summing up a set of items highlighted in table 1. The high-art discourse index consisted of ten high-art items and two popular aesthetic items, ultimately showing good interreliability (*Cronbach's α* = .76). The popular aesthetic discourse index was constructed from an inversely coded high-art item (now denoting the absence of high-art terms) and seven popular aesthetic items. Although the index did not show appropriate interreliability (*Cronbach's α* = .50), it was still used in subsequent analyses as a broad-level indicator of a popular discursive style. Note that the two styles are not necessarily mutually exclusive, as the two indices were uncorrelated (*Pearson's r*=-.02, *p*=.777). A two-sample t-test determined that reviews that were structured (i.e. discussing elements of the game in discrete sections of the review) employed significantly more high-art elements (*M*=6.33, *SD*=2.54) than unstructured reviews (*M*=3.93, *SD*=2.47, *t*(142)=5.75, *two-tailed p*<.001). The same was not true for popular aesthetic items (structured: *M*=4.26, *SD*=1.32, unstructured: *M*=4.40, *SD*=1.32, *t*(142)=-0.63, *two-tailed p*=.528).

Since discursive elements have not been studied in video-based reviews prior to this study, we also coded elements of the videos that signaled their production values (discussed in the methods section). After exploratory factor and reliability analyses we arrived at two broad-level indicators. The first scale (*Cronbach's α* = .64) measured the quality of editing in the video, consisting of segment selection, inclusion of background scores, whether gameplay video was shown alongside other types of material, as well as the quality of the audio and video recordings themselves. The second scale (*Cronbach's α* = .78) was meant to highlight reviews that included proprietary video recordings of the reviewers, including codes for the use of a green screen, having a studio visible (as opposed to a living space background), showing a microphone on-screen, the use of a fixed camera perspective, whether a presenter's body was visible, and the quality of lighting of any proprietary video. Both scales summed up the items that comprised them, with higher values indicating higher quality or more advanced video editing and production.

Game review discourse, reviewers, and viewer engagement
To provide a more complete answer to the two research questions, the indices and scales created in the previous section were used to probe the relationship of discursive styles with the institutionalization of the reviewer and video engagement metadata.

Institutionalization was constructed from the medium of publication, the experience of the reviewer, and the renown of the publication title by Verboord (Verboord 2014). Investigating the culture of YouTube reviews meant the first and last of these

components were not usable in the current study. The number of reviews posted by a channel ($M = 155.27$, $SD = 312.64$) was instead taken as a measure of institutionalization. Preliminary analyses indicated this variable showed six extreme outliers (values more than four times the interquartile range above the third quartile). Five of these outliers belonged to IGN and Giant Bomb, two highly prolific gaming channels with more than a thousand reviews each. The sixth review was posted by a channel (with the title GamezInvaders) with 2,251 other reviews to its name at the time of coding. The six cases[2] were excluded from further analyses.

Linear regressions were performed on the remaining dataset where the high-art and popular aesthetic discourse indices were predicted by the number of reviews posted. High-art discursive styles were positively predicted by number of prior reviews ($F(1,142)=9.12$, $p=.003$, $R^2=.06$, $\beta=.25$); the more reviews posted by a channel, the more likely they were to employ a more critical style while discussing games. The same was not found for popular aesthetic discourse ($F(1,142)=0.09$, $p=.760$); reviewers' prior work had no bearing on their use of consumer-oriented discursive styles. Next, multiple linear regressions were performed with other variables that could indicate institutionalization alongside number of reviews posted: the total channel subscriber count, proprietary video quality, and video editing quality. While popular aesthetic discourse was not predicted by any of these variables either ($F(4,139)=0.44$, $p=.781$), high-art discourse was ($F(4,139)=7.19$, $p<.001$, $R^2=.17$). This index was not predicted by number of reviews posted ($t(139)=1.35$, $p=.179$), number of channel subscribers ($t(139)=1.59$, $p=.115$), or proprietary video production ($t(139)=-0.05$, $p=.957$). The use of high-art discourse was instead positively and moderately predicted by the quality of the video's editing ($t(139)=3.90$, $p<.001$, $\beta=.32$). Since both number of reviews posted and quality of editing are likely a direct corollary of experience, these results show greater game reviewing experience (on YouTube) is related to applying more art-related ways of discussing games, while no such patterns exist for discussing games in terms of popular aesthetics.

The two discourse indices were also used to predict viewer engagement variables (views, likes, dislikes, and comments) to answer the second research question. Four multiple linear regressions were performed, the results of which are displayed in table 2. Use of high-art discourse coincided with higher views, likes, but also dislikes. While the model used to predict the amount of comments was only significant at .10 level, popular aesthetic discourse was a significant weak and positive predictor of the number of comments. When used in a simple linear regression, the relationship was significant at .05 level ($F(1,142)=4.88$, $p=.029$, $R^2=.03$, $\beta=.18$). Reviewers discussing a game on a consumer level can expect slightly more comments in response to their videos. When including the number of channel subscribers and video quality scales as control variables, all but one of the effects reported in table 1 lose significance: the number of dislikes is positively predicted by high-art discourse even when taking a channel's subscribers into account ($F(5,138)=41.62$, $p<.001$, $R^2=.60$, $\beta_{HAIndex}=.15$, $p=.013$). Since channel subscriber numbers are also often higher for more experienced reviewers, these outcomes do not invalidate the relationship of high-art discourse with viewer engagement.

Table 2: Multiple regression results of discourse indices on video review engagement

	Views	Likes	Dislikes	Comments
Model fit	$F(2,141)=4.05$ $R^2=.05*$	$F(2,141)=5.27$ $R^2=.07**$	$F(2,141)=7.14$ $R^2=.09***$	$F(2,141)=2.82$ $R^2=.04\sim$
High-art discourse index	.19*	.22**	.29***	n.s.
Popular aesthetic discourse index	n.s.	.14~	n.s.	.18*

Note: standardized regression coefficients (β) are shown for each predictor. ***: p<.001, **: p<.01, *: p<.05, ~: p<.10.

Lastly, analyses were performed on the evaluations and grades the reviewers expressed. Overall, most reviews were positive: only 8 videos expressed uniformly negative sentiments and 30 were coded neutral, while 106 videos were positively inclined towards the games under review. Although the negative reviews (HA: *M*=6.50, *SD*=2.83, PA: *M*=5.13, *SD*=1.36) had higher high-art and popular aesthetic discourse index scores than neutral (HA: *M*=5.83, *SD*=2.64, PA: *M*=4.60, *SD*=1.16) and positive reviews (HA: *M*=4.76, *SD*=2.75, PA: *M*=4.20, *SD*=1.33), the scarcity of negative reviews meant that statistical comparisons would not have sufficient power to determine the relationship between valence and discursive styles (*ANOVA*: *F*(2,141)=2.93, *p*=.057). A two-sample t-test on the difference between positive reviews and neutral/negative reviews taken together did show positive reviews to have both lower high-art and popular aesthetic discourse index scores (HA: *t*(142)=-2.35, *two-tailed p*=.020, PA: *t*(142)=-2.08, *two-tailed p*=.039). Similarly, only 58 of the 144 videos (40.3%) included in the analysis gave a grade in their review, complicating efforts to analyze their distribution. Instead, the sample was divided based on whether a grade was given, and two-sample t-tests were performed on the index scores. Neither high-art (graded: *M*=5.16, *SD*=2.40, gradeless: *M*=5.03, *SD*=3.00, *t*(137.77)=0.27, *two-tailed p*=.791) nor popular aesthetic discourse (graded: *M*=4.14, *SD*=1.34, gradeless: *M*=4.47, *SD*=1.29, *t*(142)=1.47, *two-tailed p*=.144) differed between graded and gradeless reviews. Graded reviews were more often posted by channels that had more reviews than gradeless reviews (graded: *M*=144.48, *SD*=189.79, gradeless: *M*=72.88, *SD*=118.72, *t*(86.99)=2.56, *two-tailed p*=.012).

DISCUSSION

In an effort to learn about how games are discussed in online video reviews, we performed a content analysis on 150 randomly sampled videos posted on YouTube in 2016 or 2017 and (apart from logging metadata) coded their contents on discursive elements and production quality. Results showed that, even when publishing in video form, reviewers could be distinguished based on a pattern of ways of discussing games that closely echo how professional reviewers of traditional media write. Certain reviewers were more likely to, for example, interpret the meanings behind the game's story and gameplay than others. These critical reviewers were also more likely to have posted more reviews, and their videos more often evinced better editing (e.g. better quality audio and video, cutting between shots from different sources, including additional background music for the review). This means that different classes of reviewers have emerged from YouTube's deceptively hierarchical content strategies (Rieder, Matamoros-Fernández, and Coromina 2018), relying on a more ephemeral type of institutionalization based on individual (or rather, channel-bound) experience. Whether consciously or subconsciously, game reviewers (at least those who are active on YouTube) seem to be basing their nascent identity as game reviewers (Foxman and Nieborg 2016) on roughly the same kind of cultural capital as their predecessors in other media (Shrum 1991).

Perhaps surprisingly, there is only a weak indication of a concurrent rise in the consumer counterpart to critical discourse that has popular aesthetics at its focus. Despite the origins of many reviewers as 'regular' players discussing games on a video-format social medium (Khan 2017), attempting to map the way consumer reviewers discuss movies (Verboord 2014) onto our data only yielded limited success. Regardless of their experience or editing skills, these reviewers do share a more experiential, first-person narrative and are more likely to directly address the viewer, but do not appear to set themselves apart as anti-art or pro-entertainment. One possible explanation for this could be that games might still more often be seen as offering hedonic enjoyment first and foremost (Oliver and Bartsch 2011) with their artfulness and ability to invite reflection perceived as secondary, and so there is no patterned movement among reviewers in favor of or against entertainment values. The anti-intellectual leanings of gamergate (Mortensen 2018) a few years prior to our data collection window had seemingly not yet sparked a discernible movement of tribalist pro-consumer reviewers on YouTube (with the exception of certain individual high-profile cases).

The finding that number of reviews posted only affected high-art discursive style when production quality was not taken into account highlights the importance of experience in gravitating to a critical reviewing style. That this was dependent on video editing quality rather than video production quality further shows that proprietary recordings of reviewers do not relate to acting like a traditional critic. Many reviews using this style only included gameplay footage or cuts from trailers, with the review itself relayed through the voiceover. Although reviewer appearance (e.g. gender, attractiveness, screen presence) was not included in the coding frame, first indications are that there is no relationship between reviewers appearing in their reviews and their discursive styles – or even viewer engagement, though this result was not reported in this paper.

We also found a positive relationship between use of high-art discourse and viewer engagement (views, likes, and dislikes). Though the effect was small and mostly overpowered by the number of channel subscribers, reviewers employing high-art discourse were more likely to obtain higher views and both approving and disapproving reactions. This raises the concept of a new form of institutionalization. Rather than acting as part of a broader publication that deigns to let a reviewer critique media on their behalf, game reviewers on YouTube build up their own credibility, amassing more viewers with more experience. The findings discussed previously indicate that such reviewers at the same time slowly start to resemble traditional media critics in how they discuss games. This trend was not seen for popular aesthetics, meaning YouTube reviewers do not behave in patterns similar to consumer critics (Gao, Gu, and Lin 2006). Caution is necessary when drawing conclusions about reviewers developing over time, as the current study did not follow the same critics over time and so only offers a cohort perspective.

Limitations and future research

Six videos were excluded during analysis. These reviews were posted by highly active reviewing channels (Giant Bomb, IGN, and GamezInvaders). Although this meant that the dataset did not include two of the most well-known reviewers, the cases were removed to enable the planned statistical analysis of reviewers, rather than channels. Channels like IGN have multiple reviewers active at the same time, meaning the institutionalization variable used in this study (i.e. the number of reviews posted in this channel) would not be indicative of any one reviewer's experience and so could just as easily have no bearing on the reviewer's discursive style. Of course, any future investigations on the audiences of these reviews would do well to

acknowledge IGN's image as being strongly institutionalized regardless of individual contributors' credentials or experience.

The attitudes reviewers displayed towards each reviewed game were mostly quite positive. It is unlikely that this was due to sampling bias, but it did prevent the result that review evaluations posted with high-art discourse were less positive from being generalizable. Uniform positivity is not found with critics in other media (e.g. Boor 1992) or within game reviewer aggregation sites (Greenwood-Ericksen, Poorman, and Papp 2013). Further research on this topic should investigate the opinions espoused in video-based game reviews regardless of included grades with more granularity in categorizations than we were able to do for this study.

Not every item found in traditional media reviews by Verboord (2013) was present in our sample. Since the reviews were sampled randomly in a way that circumvented YouTube's visibility algorithms, this discrepancy cannot be linked to any systematic bias. It is more likely that video-based game reviews on YouTube during the selection window described in the methods section simply do not refer to author theory or express anti-entertainment sentiments, and only rarely refer to institutional expertise and innovation in a negative way. However, as data were hand-coded by a single investigator, coding bias due to specific interpretations of the codes cannot be ruled out. The coding frame was composed and reviewed by both authors prior to data collection, though we also advise further research efforts to include multiple reviewers. Moreover, the effect sizes reported previously indicated weak to moderate relationships in the data. Therefore, collecting a larger set of reviews would enable more conclusive reporting on the relationships between reviewer experience, evaluations, engagement, and discursive styles. Of course, striving for both multiple reviewers and a larger sample size would further increase the already prodigious time investment required to manually code hours of video content.

This study focused on quantitative analyses of coded content. Although qualitative lenses make intuitive sense for investigating data as rich as video reviews, we strove for generalizable outcomes to shed light on a field that is still under-researched. Moreover, we attempted to map categorizations by Verboord (2014) – who also applied quantitative analyses – onto game reviews. At the same time, qualitative methods would help to determine how discourse is different for games, enabling more specific analyses of the relationship of experience with discursive styles. For example, this could be done by analyzing a small set of reviewers' output over several years, and noting how their discursive style evolves (if it does so at all). The discourse indices found in our study could serve as a launching point for such an investigation and help to determine whether game discourse is evolving as predicted by game scholars and critics (Thomas et al. 2009) or if it merely echoes the discourse on other media. Evidence with regard to this final question can also be gathered by comparing video-format game reviews with video-format movie reviews. This could help to determine whether experiential styles are inherent to games as a medium or whether these are natural products of the more self-referential narrative delivery method found in talking head videos.

Conclusion

This study determined that some, though not all, of the ways that critical and consumer reviewers are categorized in other media can be used to describe high-art- and popular aesthetic-focused reviewers of games on YouTube. While old ways of determining the institutionalization of a critic can no longer be applied, reviewers with more experience and a longer history with the medium are discussing games in roughly the same ways as traditional media critics. This relationship also extends to viewer engagement, with game reviewers who are more like their traditional

counterparts generating more views, likes, and dislikes. Games are a rich medium in terms of the experiences they can offer consumers, and their discussion on popular social media channels is showing signs of growing into a new type of discourse that builds up from prior cultural hierarchies without being dependent on them.

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ENDNOTES

[1] The lists were obtained from Wikipedia:
https://en.wikipedia.org/wiki/Category:2016_video_games
https://en.wikipedia.org/wiki/Category:2017_video_games

[2] Despite the extreme values on the number of reviews posted, the six cases that were excluded were not necessarily anomalous on any of the other variables under investigation. With the exception of one highly popular review of *Nioh* by IGN, the videos excluded attracted less than 2100 likes, 200 dislikes, and 700 comments. All videos displayed positive stances towards their subjects, with four videos grading their games an 8 or higher. Their values on the high-art and popular aesthetic indices were similarly scattered, ranging from 3 to 8 on the (12 point) high-art index, and 0 to 6 on the (8 point) popular aesthetic index. All six excluded videos were coded as being higher in editing quality – an unsurprising result considering the volume of prior videos published on these channels. With these data points in mind, it is not likely that removing these cases introduced a systematic bias to the sample.