

ADVERTISING BIAS IN VIDEO GAME MAGAZINES

by

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THESIS ABSTRACT

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Title: Advertising Bias In Video Game Magazines

Three video and electronic gaming magazines were examined for the existence of advertising bias within editorial content. The content examined, specifically reviews, can make or break a game and in some cases – a developer. The purpose of this content analysis of three gaming magazines is to examine whether publications in which developers purchase advertising are biased in favor of those developers' games. Video game magazines were chosen for this study due to readers' reliance on reviews to make purchase decisions. There was no overt case for bias discovered, but a subtle one was suggested when the entire sample of each magazine was looked at. Other interesting results showed that magazines had a largely varying spread in the tone of reviews and the majority of

ads were for non-games, though game ads were larger on average.

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For Janet, Chris and Carol for putting up with me for one
and a half years.

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CHAPTER I

INTRODUCTION

The focus of most video game magazines' editorial content is reviews and previews of games – a segment of editorial content ripe for advertising exploitation. Savvy video game advertisers who could influence that content in exchange for purchasing ad space may see a great return for their efforts. The extra advertising and the good press would boost their game sales. The result, however, would be a publication compromised by advertising bias.

These game magazines have a certain amount of control over the purchasing power of throngs of eager gamers waiting to play the latest games every month. This influencing power is willingly given by gamers to the magazines through their subscriptions. When purchasing a game, 61% of *Game Informer* readers say magazines are the most important source of information when purchasing a game (Game Informer Media Kit). Based on preview coverage, 49% of *Game Informer* readers pre-order (pay ahead of time to guarantee a copy on the release date) games (Game Informer Media Kit). Game reviews are a good analog to the way that

movie reviews are used by moviegoers. According to Reinstein and Snyder (2005), most moviegoers can't feasibly see every movie that comes out due to time and money constraints and rely on the editorial content of reviews to guide their decisions. Like moviegoers, many gamers simply don't have the money or time to play each game that comes out, and so they look to these magazines in the same manner as a way to weed out what would be poor leisure investments.

Continuing this analogy, in the same vein that one might expect movie studios to attempt to influence movie reviews (as will be discussed in the literature review), one might expect video game developers to attempt to influence video game reviews. It follows then that with reviews potentially having so much influence on consumers' behavior and spending habits, advertisers who are able to influence them would be able to get a large return for their efforts.

Background

The video game industry is an interesting test bed for this study because modern video games are in a constant state of flux as compared to other products. This is quite

different than the experience a movie gives – by the time its viewed, it's a finished product and, barring future extended editions and director's cuts, that is the extent of interaction. Movies may take on a life of their own in the sense that fan fiction and merchandise allow consumers to continue to enjoy the intellectual property presented in the film; however, the product is static. The only real future interaction you may have is with another in the series. On the other hand, games (by both major and indie developers) are frequently expanding and changing products. Like the film industry, fan fiction and merchandise exist and consumers interact with the product in that same fashion, but unlike film, the actual product that you own will shift even as you are enjoying it. Indeed, some online games may stop you mid-play to force an update in order for you to continue. Some are released unfinished in the hope that initial income from sales will bring in enough to finish the game (a dangerous gambit for a developer's reputation). Games tend to be more organic entities – and will shift with the market after release. Whereas a movie tends to make a lot of money on its opening weekend (assuming it's popular) and then peters out over the proceeding weeks, popular games may make money for a long period of time even if they start out poorly. They may

eventually become cash cows if their developers make the right moves based on journalistic feedback. A successful game developer will pay attention to reviews, and release updates or patches accordingly (Totilo, 2008; Shea, 2014). For instance, if all the reviews say that the multiplayer options are weak, a patch may contain new ones. If all the reviews say that the story is good, they may continue the storyline in sequels. If all the reviews focus on one part of the game that is buggy or doesn't work as intended, a correction patch may become the top priority.

Developers also pay attention to reviews when releasing DLC (Downloadable Content— the “L” is for “loadable”) and expansion packs (large content additions that frequently cost as much as the original game). They do their best to give the players what they want, because it's in their financial interest and it can save a tanking game. This is basically the business model for MMORPGs (Massively Multiplayer Online Role-Playing Games), which rely on monthly subscriptions after the initial sale of the game. Listening to feedback is the easiest way to keep gamers playing (and paying!).

Of course, reviews don't have universal popularity. Criticism will not always be taken well by developers and

sometimes they will even outright criticize reviews and reviewers (Treese, 2017). Robischon and Shattuck argue that video game magazines are mostly hype and at the time of their writing when there were 23 gaming monthlies, new gamers would have trouble figuring out which ones to trust (1998). Of course, there are far fewer gaming magazines on shelves today, but gamers may still have trouble figuring out whom to trust amid the myriad reviews and previews in each magazine.

The Industry and Its Magazines

A total of \$23.5 billion was spent on the gaming industry by consumers in 2015, and game sales accounted for \$16.5 billion of that – up from \$10.1 billion in 2009 (Game Informer Media Kit). Just over half of gamers (52%) feel that video games provide more value than DVDs, music, and movies (Game Informer Media Kit). Almost two thirds (63%) of U.S. households have someone who plays video games at least 3 hours a week (Game Informer Media Kit).

Of the three magazines analyzed in this study, *Game Informer* was founded in 1991 and is owned by Gamestop Corp., a brick and mortar chain of about 7,500 video game

stores in 14 countries (Game Informer Media Kit). A 12-month subscription to *Game Informer* is \$20 or \$15 if you are a "GameStop PowerUp Rewards Pro" member ("Subscribe to Game Informer," n.d.). *Game Informer* is the largest of the three and is the juggernaut of the video game magazine industry and, by proxy, potentially the most effective place to advertise. It has 6.3 million monthly print subscriptions – 1 in 17 U.S. households subscribe and 1 in 46 people in the U.S. subscribe (Game Informer Media Kit). It is the fourth most-subscribed to magazine in the U.S. behind *AARP The Magazine*, *AARP Bulletin*, and *Better Homes and Gardens* (Game Informer Media Kit). It claims to have 363.5 million annual impressions from daily newspapers that syndicate its reviews, previews, and Top 10 lists (Game Informer Media Kit). *GameInformer* also has an e-edition and a website. The majority of its readers (86%) read at least half an issue and on average all the readers spend about 2.7 hours reading an issue (Game Informer Media Kit). A full page color ad costs about \$238,000 (Game Informer Media Kit).

Edge was founded in 1993 and is owned by Future Plc, which bought Imagine Publishing last year. Future Plc also publishes *PC Gamer*, *Official PlayStation Magazine* and *Official Xbox Magazine*. Its circulation numbers are not

posted (Yin-Poole, 2016). A 12-month *Edge* subscription is \$117 ("Magazine Subscriptions & more | Edge - Print | My Favourite Magazines," n.d.). *Edge* describes itself as a "bookazine," a hybridization of the two media (Yin-Poole, 2016). While all three magazines have a unique art style and a quality of printing and paper superior to that of most widely available magazines, *Edge* generally features hand-drawn cover artwork and appears to be less busy inside with more stylistic elements. *Game Informer* and *GamesTM* are far more traditionally styled game magazines. *Edge* has the weakest online presence of the three, sharing gamesradar.com, a communal website with three other gaming magazines, a science fiction and fantasy magazine, and a Hollywood film magazine. A full-page color ad costs about \$4,200 (Edge Media Pack).

GamesTM, owned by UK-based Imagine Publishing, is published in German as well as English and was founded in 2002 (GamesTM). *GamesTM* is unique in that it features an "industry" section that includes job postings, higher education information, and information about the state of the industry (GamesTM). A 12-month *GamesTM* subscription is \$114 ("Magazine Subscriptions & more | Games™ - Print | My Favourite Magazines," n.d.). Imagine Publishing publishes another magazine called *Retro Gamer* (GamesTM). It has a

self-reported monthly “reach” of 77,560 (GamesTM). The reach includes online and digital publication including tablets such as iPads and Androids, PCs, its social networking channels such as Facebook and Twitter as well as its “large number of registered website users and subscribers to its regular email newsletter” (GamesTM). This may include readers who received a print copy from the originating buyer in the same manner that other magazines are passed around (“Print audience measurement,” n.d.). In most magazines, this data is collected through surveys (“Print audience measurement,” n.d.). Some of this nebulous “reach” may be more easily measurable with newer monitoring technology (Kaufman, 2014). *GamesTM*’s media kit does not provide advertising rates for print or online (GamesTM).

Who buys video games?

While the three magazines in this study vary in the way they explain their target demographics and the exact numbers, it can safely be assumed that the majority are the 18- to 35-year-old male demographic one might expect (Game Informer Media Kit; GamesTM; and Edge Media Pack).

According to the 2013 press kit, GamesTM's market is 16- to 40-year-old males ("of all incomes and lifestyles") who have grown up playing video games, including both hardcore (by their definition owning multiple gaming consoles) and casuals who are "keen to get the most from their new hobby" (GamesTM Media Kit). They adopt new technology early and "crave" it, spend 5-30 hours gaming each week, and purchase 1-5 games every month in addition to being "big spenders" on things like Blu-Ray movies and apps (GamesTM Media Kit). It also specifies that these gamers have a large worldwide online network of friends (GamesTM Media Kit). If they can't wait for a game to be released in the UK (games are usually released there later than in other countries), they will import it from the U.S. or Japan (GamesTM Media Kit). They also have a "keen interest" in getting into the video games industry professionally (GamesTM Media Kit). Additionally, GamesTM has a "retro" section aimed at older gamers. The advertising section of GamesTM's website breaks the audience into thirds: industry professionals, enthusiasts (hardcore gamers) and "sophisticated gamers." These sophisticated gamers want more "in-depth consumer advice and industry insight" and are intelligent, "more considered," and more affluent (GamesTM).

The Games™ kit goes a bit deeper than the others in describing what its readers value journalistically in a magazine by saying that its readers “demand honest and unbiased opinion, whether a game is a major or minor release” and that “Games™ refuses to bow down to PR pressure, ensuring the creation of a trustworthy and respected magazine that readers can rely on” (Games™ Media Kit).

Edge’s most recent media kit is from 2012/13 – its current advertising strategy is multi-publication and multi-platform. FuturePlc no longer offers a specific media kit for Edge, but instead encourages potential advertisers to approach the company for a consultation. Edge’s audience is divided in two. The first is “The Gamer,” who is 31, male, works full time, makes around £23,740 (approx. \$30,000 USD), spends 23 hours gaming per week and bought 28 games in the last 12 months (Edge Media Pack). The second is “The Professional,” who is 32, male, works in global games development and makes £29,714 (approx. \$38,000 USD) (Edge Media Pack). Edge had (the pack is four years old) both of them down to a science: they spent 7.1 hours watching films and 8.3 hours watching TV per week, 39% go to the cinema once per month or more, spent (conversions are from British Pounds to USD) \$17 per month on DVDs, 38%

of them attend "gigs/festivals," they spend \$57 per month on dining out and \$41 on alcohol (Edge Media Pack). Their technology habits are thus: 21% own a tablet and 18% plan to buy one in the next year, 72% own a smartphone and 11% plan to buy one in the next year and 66% are interested in "gadgets/new technology" (Edge Media Pack).

GameInformer by far has the largest media kit and the most information collected about its demographic. Forty-three percent of its audience are males who are 18 to 34-years-old and 42% are over the age of 35 (Game Informer Media Kit). Sixty-nine percent have gone to college (Game Informer Media Kit). They are single, career professionals, homeowners, car owners, and have above-average incomes of around \$65,000 (Game Informer Media Kit). They are frequent consumers of electronics, sporting goods, clothes, furnishings, and insurance (Game Informer Media Kit). Additionally, they like to be entertained by dining out and going to movies and they regularly travel (Game Informer Media Kit).

In addition to age and gender, there are three key takeaways from the demographic that will come into play in later sections. These gamers have disposable incomes that they use for everything from movies to alcohol, they have a

need to be electronically entertained, and many of them are, for lack of a better word, mature, and are looking for mature (and unbiased) editorial content beyond reviews, previews, and purchasing advice.

Reviews and Previews

The majority of the reviews and previews are of games, but to a lesser extent hardware such as consoles and peripherals such as computer mice are covered. Reviews form the core of gaming magazines and are primarily why people purchase them (Robischon & Shattuck, 1998). Most of *Game Informer's* readers (92%) trust game reviews in magazines, 91% of its readers made a purchase after seeing a product in *Game Informer*, and 74% say that it influences their purchases (Game Informer Media Kit).

Reviews can be the difference between a game or a developer sinking or swimming. "One negative review in a respected magazine can tailspin a game into the bargain bin" (Robischon & Shattuck, 1998). A useful example is *Might and Magic IX* from developer New World Computing. The developer was struggling and released its final game as a

"Hail Mary" in 2002 to generally poor reviews. The game itself was imperfect (but was nowhere near as bad in the author's opinion as the reviews made it out to be) and deserved some of the criticism it received. Sales were poor, and the developer, New World Computing, which was founded on January 1, 1984 in the midst of the great video game market crash and had survived the ups and downs of the industry for almost two decades while developing 37 games, went under the following year ("New World Computing, Inc. (Company)," n.d.).

A game review functions primarily in the following manner: A reviewer receives an advance copy of a game and plays it, presumably faithfully to the magazine's standards of when enough has been learned about a game to tell others about it. Reviews can be as big as a few pages (Fig. 10) or multiple reviews may fit on a single page (Fig. 11). Ideally, a reviewer will play all aspects of the game and try to approach it holistically but examine all the pieces enough to pull out the individual components that have an effect on its quality. The reviewer will describe the game's narrative - its "story." The story is the premise the game is based on and what is used to lead players through the game and ideally is interesting enough to bring them to the conclusion. Gameplay "mechanics" will be

examined, which are the rules for how a player interacts with the game. Mechanics include aspects such as how a character jumps from one place to another, how a weapon may damage an opponent, or the required math to control an in-game economic system. The graphics and sound will be examined in the same manner that a movie reviewer would for a movie, i.e., are they realistic, do they add or detract from the experience, etc. A reviewer also usually gives a game rating based on whether or not it's fun to play and to replay. A game may have a low score in one of those categories, for instance unattractive graphics, but, overall, provide many hours of fun. A review might also explain that a game may score highly in all categories, but when taken into an aggregate state, simply not be very much fun to play. Different magazines may have different categories. For instance, GameInformer rates games on "Concept," "Graphics," "Sound," "Playability," "Entertainment," and "Replay Value." "Entertainment" and "Replay Value" fit into this overall "fun" type of category. "Concept" rates the premise for the game, and "Playability" is a rating of mechanics.

Previews on the other hand, don't provide a real measure of the game, but more coverage may signal quality or importance. Just under half (49%) of *Game Informer's*

readers pre-order games based on previews, meaning that coverage of upcoming games is very important (Game Informer Media Kit). Previews are still an important part of the monthly content as when the editor of *Game Informer* reassures players in the letter from the editor that even though they're trying a new format (an issue focusing on Sci-Fi games), previews are still included: "P.S. We integrated previews into our science-fiction feature, so don't panic that it's missing from the issue. The section will return in full next month" (McNamara, 2015).

Previews have no real set form and can be as large as a few pages (Figs. 12, 13) or as small as a paragraph – sometimes even a sentence. Very early previews tend to include everything that a publisher has given to the magazine, including a synopsis of the game's story, details of its mechanics, screenshots showing the graphics and whatever promises the game developer has made to players.

As a game's development nears release and early versions of the game become playable, magazines may be sent these early versions of the game so that they can play and give a "first impressions" type of preview in which they let gamers know what it's actually like to play. They may give caveats or make apologies for the game if it's in an unfinished state. For example, they may say that a first-

person shooter is very fun to play, but the game only includes one weapon currently, so it's hard to say if the others will be as fun. The preview may say that its graphics are very good, but you can only play in one area so it's hard to be certain what others will look like. Still, for eagerly anticipated games, gamers are interested in any knowledge, even tenuous bits about beta versions.

Play in a Subjective Space

Reviews of any product are inherently subjective, and so the way that players (and reviewers are ideally players) interact with games is important to understand. A key piece of the industry puzzle is the manner in which video games are played and how players construct narratives. This play occurs in a much larger variety of ways than other media. Individual play styles and differing player goals give players the chance to make a game "their own" and to achieve a wide array of experiences. One player may wish to get through a game as fast as possible, while another may wish to accomplish every single activity and visit every area in the game world, thereby spending two or three times longer playing. Others may wish to only play against or with other players. Players basically use the game as a

tool (within its well-defined parameters) to create their own narrative.

The game controls the play experience by setting what is "physically" possible for a player to do in the game world. For example, moving a character around an environment with definite boundaries such as in "Super Mario Bros." or stacking or moving objects with some goal in mind (not letting too many pieces pile up) like in "Tetris." A game may seem limited in this sense, but players may still make of the play experience what they will. For "Super Mario Bros.," a player may choose to collect every item on every level while another may choose to finish each level as quickly as possible. In "Tetris," simply finishing the game may be one player's motive, while another's is to complete every level within a certain time limit they give themselves. Players create the terms for their own play experience. A movie's narrative can be interpreted many ways, but it is over once the credits roll, and re-watching it won't necessarily allow you to create or experience a new narrative. In contrast, the many experiences had by such a large number of players in such a vast pool of games may lead to an almost infinite range of opinions. As such, any review may receive mixed reactions

because it's objectively hard to say what makes a game "good."

When replay comes into effect, games may get yet another round of narrative-building because gamers are returning with more skill and knowledge to be more successful the second (or third) time around. They may be returning with new goals, sometimes even learned in a social setting, as when one gamer tells other gamers how to do something they didn't realize they could do. Consider also that many games allow you to play as different characters or from other perspectives or in other regions of the game world on subsequent play-throughs. The options become great, indeed.

Ratings Systems and Influence

Game magazines offer the latest news about upcoming games and what developers are doing. They offer what many call "in-depth," reviews of the most recent games as well as offer up "Game of the Year" and "Top 10 Games" in awards and lists sections. Developers seize upon these awards and emblazon them boldly on the boxes of their games in the same fashion as movie festival awards might appear on a

movie's poster. Gaming magazines even put out Christmas issues and summer buying guides to help students "get through" their school breaks. Magazines provide an overarching standard for gamers about what a good game is and what games one should be playing. One need only to look at the highest rated games from last year en masse to get a sense for what reviewers (and presumably gamers) consider worth playing ("Game Informer's Top Scoring Game Reviews Of 2016," 2016). For instance, if a magazine's editorial content is only giving good reviews or only previewing first-person shooter games that have certain types of weapons or certain types of game maps to play on, gamers may "learn" what a good first-person shooter game includes and those games that try to break the mold may find themselves in a challenging market.

In a similar role, the magazines may influence what types of game genres are popular. If, for instance, magazines are showcasing mostly first-person shooter games, many gamers may gravitate toward playing those rather than if the magazines showcased a different type, such as real-time strategy games.

Every month a given magazine will review games released in the preceding month. Many magazines use a

numerical rating scale such as 1 to 10 (see Fig. 10). Others alternatively use a scale of 1 to 100 points, a letter-based academic-style system (A, B, C, D, etc.), or a 1-5 star system similar to movie reviews. These scales are important because it's what the magazines put forth for gamers to use to choose the games they'll buy and so presumably, these scores will have an effect on game sales among the readership.

As was pointed out earlier, many moviegoers have limited time and budgets and therefore can only afford to see a certain number of movies a month – certainly not all of them (Reinstein & Snyder, 2005). At \$50-60 for a new game, many gamers can only buy a few games per month. Available play time is also an issue – certainly gamers don't want to waste their time if they have busy lives and can only play games for a few hours per week, so these scores may very well see some utility.

As such, competition for this time and money is fierce. When a purchaser spends money on one product, it comes at the expense of another, as in competing movies in Reinstein and Snyder's study (2005).

The takeaway from all this is that these magazines become the market workhorse for the industry. Gal-Or,

Geylani, and Yildirim (2012) found that the news publications in their study received 60-80% of their total revenue from advertising. According to Xiang and Sarvary, the media are the central "infrastructure" for advertising and represent billions of dollars in business in the U.S. (2007, p. 612). While gaming magazines' content is different from the newspapers of Gal-Or, Geylani, and Yildirim's (2012) study or the publications in Xiang and Sarvary's (2007) model, it's safe to assume that advertising is a significant source of income for them (Reuter, 2009). As mentioned earlier, *Game Informer* charges \$237,577 for a full page color ad ("GameInformer Advertising - Print Ad Specifications," n.d.). In this study's sample, *Game Informer* averaged 12 color ads per issue and that comes out to be roughly \$2.8 million in advertising revenue. Using that as a per-issue average, *Game Informer* may bring in roughly \$36 million (2.8 multiplied by 13, including a special Christmas issue) per year in advertising revenue.

It's not hard to imagine, then, that developers (the ones advertising) might seek to exert some influence over the editorial content of these gaming magazines to maximize effectiveness.

Forms Bias May Take

Gentzkow and Shapiro define media bias as the "...selective omission, choice of words, and varying credibility ascribed to a primary source" (2006, p. 281). Reuter's two definitions of biased coverage will be used for this study as well: "biased product coverage" such as when a publication might review more products from their advertisers than from competitors and "biased product reviews" such as when an advertiser's products may receive positive ratings they don't necessarily deserve (2009, p. 126). Compromising editorial content in these manners or ones very similar to them to receive extra advertising revenue is the definition of bias this study will use.

An example scenario: A game gets rave reviews, and the developers of that game purchase more ad space for it as well as for their other games. Incentive may follow for the next review from that developer to be positive. Another example would be if the opposite were true: a damaging review results in little or no future advertising sales from that developer. There may be incentive to give a positive review for the developer's next game, as well.

Magazines also may find more than just positive reviews to be helpful. There also are developer Q&A

sections as well as opinion columns critiquing various aspects of the industry (including the developers and their business strategies). Both can reflect positively or negatively on developers and their future business plans – plans that may include DLC and expansion packs they are making based on magazine reviews. Additionally, these magazines sometimes run large previews of games that span multiple pages, and accompanying amounts of advertising may increase along with it.

Advertiser motivations could be wanting to increase revenue on a game that required a large development investment or it could be convincing gamers to buy what the developer wants to sell (perhaps even a poor-quality game) as opposed to what sells well naturally based on quality and the current tastes and attitudes of gamers. In the past, magazine advertisers have used the usual methods of getting their games out to reviewers just as in music or film magazines. Usually this takes the form of sending out free copies of the product as well as some “swag” in the form of t-shirts and other small, what many consider to be mostly harmless, items all the way up to “elaborate fantasy junkets” (Robischon & Shattuck, 1998). Others, however have made bigger attempts: in 1997, Novalogic released “Armored Fist II,” a game about tanks, and shipped game journalists

to a "boot camp" to test drive an actual M-1A1 Abrams tank (Robischon & Shattuck, 1998). From the smallest box of swag to the biggest stunt, this behavior at the least assures some coverage and therefore some awareness in the minds of gamers (Robischon & Shattuck, 1998).

This bias might take many forms. It could take the form of reviewing and focusing only on the good or new components of a game and omitting any problems that would negatively impact players. New components could be a new play style, or an entirely new type of game, though more than likely it would be an old take on an established genre, but with a twist – similar to a lot of Hollywood's attempts at summer blockbusters. This could be a first-person shooter, but with different types of weapons, or weapons that function in different ways. It could be a platforming game (a running and jumping game, as in Super Mario Bros.) that also adds an element of wall climbing or limited flying, thereby changing how players navigate a map. Focusing on the good parts could be showcasing what a game may do better than others. Perhaps in a first-person shooter, the weapons have an accuracy and handling that is more intuitive or that players tend to like more. A platformer may have level design that is more interesting or that players can navigate more quickly and intuitively

to keep the action going. A game may even have more weapons than its competition. A game may have really good graphics, visuals, or sound. Or any number of things that make it an improvement, or at least new and interesting enough to keep gamers engaged. It would be easy for the writer of a review to focus only on the "good." Also, players are innately interested in what is new in a new game – one may even justify leaving some things out to cover new stuff to be a smart move in a medium with limited copy space.

There are other gamers (like the author), however, who want to know what's wrong with a game before they buy it. The most fascinating, visually attractive, attention-grabbing game of the season (seasons roughly follow quarters in the fiscal year like Hollywood does) can be lacking in the fun department due to some faults. A game could have major bugs, for instance. It could crash when you reach a certain place in the game world, making it unbeatable. It could have a bug that deletes your save files and makes you start over from scratch ("Might and Magic IX" did this – and reviewers made sure everyone knew to their credit). A game also could have elements that simply aren't any fun, like a poor in-game economy, or no way to do things that other games in the same genre offer, such as reloading a weapon while moving, or being able to

view the map of the game world without taking up the entire screen. Like movies and books, and any other entertainment media, games come in all shapes and sizes with good and bad points. There are brilliant and poor design decisions, sometimes in the same game.

Ultimately, it is the purpose of this study to search for bias in gaming journalism. Discovering if advertising bias exists in the sample of gaming magazines will help us to understand not only advertising bias in more depth, but the unique pressures exerted on the gaming journalism industry.

CHAPTER II

LITERATURE REVIEW

History of video game journalism

As with any new medium, journalism specific to it will follow shortly, and the video game industry is no exception. The first trade magazine, "Play Meter," which followed the coin-operated arcade industry, but soon began to include home video games as well, was available starting in 1974 and continued until 2016 ("Play Meter Magazine," n.d.). Three magazines vie for the title of being the first home gaming magazine. *Computer Games World* launched in November 1981 and ran until 2016 ("CGW Museum - Home," n.d.). UK rival *Computer and Video Games*, also released its first issue in November 1981 (Brook, 2008). Finally, *Electronic Games* also makes claims to that title launching with a "winter" issue in 1981, ("Electronic Games," n.d.). Regardless of who was first, this illustrates that an eagerly budding editorial industry matched a rapidly growing gaming industry.

Gaming magazines waxed and waned during the 1980s, fading out almost entirely during the great video market game crash of 1983-84 when all advertising dried up in which *Computer Games World* alone survived while 18 of its competitors went under (Sipe, 1987 and Rignall, 2015).

During the 1990s and early 2000s, gaming journalism continued as game consoles and computers went from 16- to 32- and finally to 64-bit processor architecture and provided ever more realistic experiences to editorialize about – experiences that required ever-increasing development budgets. Many games on Sony's PlayStation, a 32-bit disc-based console, for instance, started recording voice acting in studios and sometimes live-action video to create a more immersive experience. The costs of incorporating multimedia, such as paying actors and recording music, add up rapidly – and the pressure to get returns from sales increases. It wouldn't be until the slow, but steady, rise of the internet to provide gamers the information they normally get from magazines that many of them would begin to fold, including *Computer Games World* in 2006 ("CGW Museum - Home," n.d.). Still, the three major magazines that will be the focus of this study, *Game Informer*, *GamesTM*, and *Edge* are financially successful.

Advertising Bias

In a series of models, Ellman and Germano offer two contrasting views for advertising bias in newspapers (2009). They introduce the "liberal" view, which basically states that advertising is helpful because it allows media to be free from state and political concerns, and the "regulatory" view essentially argues that the media will "distort" their coverage for advertisers and that "excessive commercialism" will actually weaken democratic participation (2009, p. 680). Ellman and Germano's study comes to some interesting conclusions about the balance between advertising and reputation: A newspaper with too much advertising will lose reputation and lose readers; conversely a newspaper with too little advertising will lose readers due to subscription costs being sufficiently high to make up for the deficit (2009). The authors find that ultimately, for a paper to succeed, even in a crowded market, a balance will be struck between advertising and subscription costs, which will leave a sufficient margin for a good reputation (2009). They also found that advertisers will withdraw advertising from "unfriendly outlets" (p. 693). Industries with established lobbying

activities (tobacco, energy, and automotive) exert the most pressure (Ellman & Germano, 2009).

Studying media bias is nothing new, though much of it tends to be political and deals with the “left” and “right” leanings of newspapers and TV channels (Dewenter & Heimeshoff, 2014). This sometimes stems from the political views of those involved more than financial reasons (Dewenter & Heimeshoff, 2014).

An extensive review of the literature revealed no studies of advertising bias in gaming magazines, but such studies have been done in other consumer product areas.

Related Studies

Reuter (2009) explored bias in product reviews in two wine magazines, *Wine Spectator* and *Wine Advocate*, and interestingly found no case for bias. *Wine Spectator* accepts advertising while *Wine Advocate* does not, which made it an important control for Reuter’s (2009) study. Both publications claim to have objective ratings (Reuter, 2009). Reuter found little to no evidence for bias, merely that on average *Wine Spectator* rated wines a point higher from advertisers, but then explains this away saying that

may partially be due to re-tasting as well as the fact that they're regional U.S. wines.

In the same paper, Reuter introduces a useful model with three insights about why magazines might avoid bias. The first is if it becomes costly for subscribers to rely on the reviews, the decrease in subscriber base and subsequent loss of advertising may not be worth it (2009). The second is if subscriptions are based on a publication's reputation as being independent, then it will at least appear to resist advertising pressure. Third, and most interestingly, if advertising revenues can subsidize the cost of a subscription, subscribers may actually be willing to accept a limited amount of bias. Other studies found this as well, such as Dewenter and Heimeshoff (2014). When costs of biased reviews are high (a bigger monetary commitment from the consumer on a purchase), however, or when consumers might easily know something is biased, Reuter (2009) suggests that reputational considerations keep publications from too much bias.

Reuter's (2009) study provides other interesting considerations. Wine magazines may contain hundreds of reviews per issue, offering Reuter a large statistical pool to pull from, whereas the gaming magazines in this study

average between 7 and 14 per issue. Wine magazines rate wines on a quality scale of 1-100 (Reuter, 2009) and these gaming magazines rate them on 1-10. Reuter rules out any bias toward regional wines because the publications don't specialize in them. Gaming magazines, on the other hand, may only appear biased due to the availability of new games to review during lean months. They will have a larger pool to choose from during others, and bias might present itself, particularly to a certain genre of games (like a region of wine), i.e. first-person shooters over role-playing games.

There is another comparison to be made between these two types of magazines, as well. Wine magazines have blind tastings in which reviewers only know the general type and vintage of the wine (Reuter, 2009). Video game magazines, however, may have previews for months or years in advance of games coming out and it is rarely possible for a reviewer to go in without some knowledge of the product.

Another interesting finding of Reuter's (2009) is that *Wine Spectator* more frequently re-tasted an advertiser's wine, and within the study's sample, re-tastings were universally associated with lower ratings the second time.

Wine Spectator also re-tasted wine rated in *Wine Advocate* frequently.

Another interesting comparison is that *Wine Spectator* gave awards on a small number of wines such as "Best Buy," "Cellar Selection," "Highly Recommended," and "Spectator Selection" (Reuter, 2009, p. 129). Video game magazines sometimes offer end-of-year awards, usually in the form of "Top 10 games of" any given year. The one that advertisers latch onto however is the "Game of the Year" award. Having it essentially gives license for an advertiser to re-release a copy of the game in a, generally, gold-colored box with a bit of extra content, such as a new area to play in, or a soundtrack CD. The advertising developers can then charge the same or a similar amount as the original cost. Normally a game would be re-released a lower cost after a certain amount of time and sales had begun to slump, but this prolongs the period before the price drop.

Falling in step with the rest of Reuter's (2009) findings, advertisers were no more likely to receive an award than non-advertisers. Reuter's study, however, ignores certain issues, for example, the fact that some pages are more expensive to advertise in than others (2009). He ignores online reviews from *Wine Spectator*

Online. He didn't find a way to cover if a winery undertook a large advertising campaign. He found that wineries' advertising was persistent; wineries that advertised in 1999 tended to advertise throughout 2000 while few who advertised in 2000 didn't in 1999.

With only 9.8% of *Wine Spectator's* reviews coming from advertisers, the magazine clearly reviews non-advertisers to a large degree. Reuter concludes that despite *Wine Spectator's* dependence on advertising revenue, the long-term benefits of appearing credible outweigh the temptation to indulge advertisers.

In a study similar to Reuter's, Dewenter and Heimeshoff (2014) look at media bias in a leading German car magazine, *Auto Motor Und Sport*, and unlike Reuter's wine magazine study, they find a strong case for bias in the form of comparative reviews (directly comparing cars statistically and performance-wise). Dewenter and Heimeshoff (2014) used the numbers that cars were ranked in in comparative reviews as well as individual test scores and ignored individual car reviews. The idea was to see if certain brands of cars were being consistently rated higher than others and if those belonged to advertisers. The authors used the number of advertising pages as a variable

to estimate advertising expenditures (Dewenter & Heimeshoff, 2014).

Dewenter and Heimeshoff (2014) discuss the same conundrum that Reuter does in the form of advertising vs. subscriptions: "recipients may not like too much advertising in their favorite newspaper or magazine, but appreciate lower prices, as a substantial share of revenues is generated in the advertising market. Advertising customers on the other hand are only willing to spend their advertising budget if newspapers and magazines have large numbers of recipients. Otherwise, advertising revenues would decrease and prices on recipients' markets would increase" (p. 78). Because readers dislike advertising, a trade-off between subscription sales and advertising sales begins: Increasing advertising space reduces demand for subscriptions, and reducing demands for subscriptions reduces demand for advertising space (Dewenter & Heimeshoff, 2014). This provides a sufficient reason to avoid a significant amount of bias. Dewenter and Heimeshoff (2014) also describe pulsing campaigns, which is when an advertiser sees lagging sales and rapidly increases advertising to compensate.

In another article, Reuter and Zitzewitz (2006) study advertising bias within financial media, specifically between four magazines and two newspapers, and use "positive mentions" in recommendations to investment funds as their unit of measurement. The authors study *Money Magazine*, *Kiplinger's Personal Finance*, and *Smart Money* and compare those to the *New York Times* and the *Wall Street Journal*. The fourth magazine used was the advertising-free *Consumer Reports*. Reuter and Zitzewitz (2006) found that in an average year, 83.8 percent of *Money's* advertisers in the preceding 12 months that spent more than \$1 million were mentioned on the *Money 100* list and only 7.2 percent of those that didn't were mentioned. The researchers discovered that the magazines tended to bias their recommendations, consciously or subconsciously, to advertisers, and they found no such recommendation bias in the national papers. The study suggests that investors use both advertising and positive mentions when choosing a mutual fund to invest in.

Reuter and Zitzewitz (2006) raise an interesting thought in their discussion about journalistic ethics when they say that the real cost of advertising bias is ethical: "Journalists (like academics) typically earn less money than they could in alternative careers, accepting lower

salaries because they receive utility from providing a public good" (p. 223). Reuter and Zitzewitz speculate that allowing advertising bias would defeat the purpose of being a journalist, but notes that journalists who don't have as much of a problem with advertiser bias tend to self-select into publications that are less concerned with appearing independent, which is why their finding that magazines are biased but national newspapers are not may make some sense.

Reuter and Zitzewitz (2006) also note that while political bias in media may be offset by media at the other end of the spectrum, there is unlikely to be any "anti-advertiser" bias to offset the pro-advertiser bias. By that they mean magazines with no advertising that use that as a selling platform.

Reuter and Zitzewitz (2006) found that a positive media mention of a fund increased its assets by 7 to 15 percent over 12 months. They also found that it was relatively meaningless to investors: They appear to respond to positive mentions, but those mentions have little relation to future returns. As a side note, they found that funds not mentioned were just as likely to have limited future returns. This reminds us that it's important to keep in mind that there are market forces, even in the video

game market, that are beyond the control of reviewers and media – and ultimately a review may be meaningless.

Political media bias studies

“The traditional view on news consumption is that people seek accurate and unbiased information,” (Xiang & Sarvary, 2007, p. 613).

Xiang and Sarvary define media bias as, “The different impressions created from an objective event by *slanting* [their emphasis] information...” (2006, p. 611).

They found two types of news consumers with regard to political bias (including both conservative and liberal consumers), those obviously “biased” and those “whose sole interest is in discovering the truth (2006, p. 611). The authors believed they’d find bias limited by the truth-seeking consumers, but found the opposite to be true: bias increased. Xiang and Sarvary’s model estimates that the truth-seeking consumers partake of multiple publications to find the truth, and so the publications would increase their bias to maintain the readership of their biased consumers, secure in knowing that the truth-seeking

consumers would continue to seek multiple sources to find the truth.

Power of Influence

Reinstein and Snyder (2005) study Gene Siskel and Roger Ebert and compare their movie ratings on opening night to a movie's performance throughout the rest of the weekend. They find that an early positive review increases movie sales over its entire run, rather than just during opening weekend. Reinstein and Snyder (2005) define experience goods as having an unknown quality until they are consumed, i.e., it's too late for a refund. The authors assume that the "influence effect" is true: if quality is constant, then reviews increase demand (2005, p. 29). Expert reviews are important because they're issued by a private party and not the advertiser. An expert's independence may increase that critic's influence on demand; however, when that expert turns out to have a lot of influence, advertisers will try to sway that expert (Reinstein & Snyder, 2005). The authors identify an important point: Expert review influence is hard to measure if the product being reviewed is a quality product – who becomes responsible for sales becomes murky. Is word of

mouth from satisfied consumers selling or is it the positive review or some combination of the two?

The authors found that reviews of widely released movies such as blockbusters had no influence effect – it was primarily on “art” movies, because consumers have already had sufficient “quality signals” through advertising and press reports for blockbusters (2005, p. 29). They also point out that a consumer may have a different concept of “quality” than the reviewer does.

The authors also find that consumers who can't see movies frequently use this information on quality to choose which movies to spend their money on; potential game purchasers might do the same. Gamers are almost identical to movie viewers in that most have neither the time nor the budget to play every game that comes out in a given release cycle and thus rely on the reviews in magazines to make satisfactory purchases. A higher quality game will trade in for more after the gamer has completed it, as well, and this fact could add another dimension to their reliance on reviews: resale value. This activity becomes a concern for advertisers because increased revenue based on a review of a competing product comes at their product's expense.

Finally, a positive review may have some extra impact. If a movie receives a positive review, an advertiser might increase its marketing efforts by using the review to advertise the film (Reinstein & Snyder, 2005). Reinstein and Snyder also assume that a positive review may influence one person, who influences others and so on.

Reuter suggests the power such media have over consumers: "In markets for experience goods, publications exist to inform consumers to the available products and publish product reviews intended to help consumers rank them," (2009, p. 125). Reuter continues, "...with notable exceptions like *Consumer Reports*, these publications receive a substantial portion of their revenue from advertisers" (2009, p. 125).

In light of what researchers have found about other products, a number of questions involving advertising and previews and reviews in gaming magazines will be addressed.

Research Questions

- RQ1:** What is the proportion of ads in game magazines that are related to games vs. other products?
- RQ2:** Is there a difference in size between ads for games vs. other products?
- RQ3:** Is there a relationship between the number of ads and reviews for a game in an issue of a magazine?
- RQ4:** Is there a relationship between the number **of** ads and previews for a game in an issue of a magazine?
- RQ5:** What is the relationship between ads and reviews across magazines?
- RQ6:** Is there a relationship between the size of advertising and game reviews?
- RQ7:** Is there a relationship between the tone of reviews and number of advertisements in any magazines?
- RQ8:** Are there differences in the percentages of the tone of reviews among the magazines?

RQ9: Is there a relationship between review tone and the size of advertising a game receives in magazines?

RQ10: Is there a relationship between whether a game is previewed and the size of advertising it receives in magazines?

CHAPTER III

METHODS

Sample

Because of physical archive availability, three gaming magazines with a combined 39 issues in the period from 2015 to 2017 were selected: *Game Informer*, *GamesTM* and *Edge*. The sample utilized back issues available in hard copy at the Allan Price Science Commons and Research Library at the University of Oregon. Magazine 1, *Edge*, provided 11 issues, which ranged from May 2016 to April 2017. Magazine 2, *Game Informer*, provided 16 issues, which ranged from August 2015 to December 2016. Magazine 3, *GamesTM*, provided 12 issues, which ranged from January 2016 until January 2017. The back issues of the magazines roughly coincided with one another, and many of the same games were covered or advertised in various fashions among the three.

Coding

For each advertisement, which issue the ad appeared in, the size of the ad, whether it was for a game, if so

which game, and whether a review or preview for that game appeared in the same issue were recorded.

Reviews were coded for the issue in which they appeared. They were coded by tone – positive, neutral, or negative based on the numerical rating assigned by the magazine. These ratings serve as a proxy for the content of the reviews, which coders were not asked to read. The ratings scale was broken down into three categories. On a scale of 1 to 10, 8 and higher was considered a positive review. Five to seven points was considered a neutral review. Four and below was considered a negative review. Dividing the numbers of the rating system into three categories evenly was not possible, and considering that a 4 is already such a low score (the author assumes that any type of product with a lower than 50% quality rating will turn off many consumers straight away), it made sense to lump the last four into the negative category.

Additionally, the majority of the reviews fall into the positive or neutral range, and creating a clear division for those two was more important to the accuracy of this study.

Reviews that coincide with an advertisement for a game in the same issue were indicated. This coding scheme also

enables a comparison between the tone of reviews and accompanying advertisements. In addition, having a record of the month an ad appeared as well as when a review appeared makes it possible to determine if there is a relationship between reviews and advertisements that do not appear in the same issue.

Game previews also were coded by the magazine and the issue in which they appeared. The preview stage is where reviewers play early versions (known as "beta versions") and give players their initial thoughts. This preview stage may occur as soon as the preceding month, but in some cases years before a game is released.

Three matrices for the coders to fill out were built on advertising, previews, and reviews and cross-comparisons allowed for the quantitative analysis.

Intercoder reliability

Three female graduate students within the magazines' self-claimed age demographics (18-35) were the coders. It should be noted that female coders fall out of the magazines' self-claimed male demographic. None had any particular interest in video games. This outsider

perspective may have allowed for extra vigilance due to unfamiliarity; however, it may have been a hindrance in identifying some of the less explicit ads for games.

All three coders were given a copy of the August 2016 issue of *Edge* because it had multiple copies that coders could work on simultaneously. There was 100% agreement among the three coders on the reviews and previews coding. On advertising codes, Coders 1 and 2 agreed 95%, Coders 1 and 3 agreed 91% and Coders 2 and 3 agreed 86%.

CHAPTER IV

RESULTS

To answer **RQ1**, the coders recorded 550 total ads, 451 reviews, and 645 previews across the 39 issues of all three magazines. Of those 550 ads, 82 were related to a video game. Unrelated ads were targeted at the magazines' demographic, 18- to 30-year-old males. They included anti-smoking ads (Fig. 1), car insurance ads (Fig. 2), and ads for technology-focused educational institutions (Fig. 3). Combined, the three magazines averaged 14 ads per issue, 12 being unrelated to a game and 2 being related to a game.

To answer **RQ2**, the ads for games were larger than ads for non-games. An independent samples t-test (Table 1) indicated that ad size was significantly higher for games ($M=1.22$ pages, $SD=.470$) than for non-games ($M=1.07$, $SD=.539$), $t(548)=2.375$, $p=.018$.

Table 1: Descriptive Statistics for Ad Sizes

	Ad in mag	N	Mean	Std. Deviation	Std. Error Mean
adsize	Yes	83	1.22	.470	.052
	No	467	1.07	.539	.025

To address **RQ3**, of the 82 game-related ads, only five were related to a review within the same issue of the magazine, too few to indicate any relationship between ads for games and reviews in the same magazine. Ads typically appeared a month or two after the review.

For a breakdown of advertisements coded, see Table 2.

Magazine 1, *Edge*, had only three ads coinciding with a review in the same issue and averaged 16 ads per issue (12 unrelated, 4 related).

Magazine 2, *Game Informer*, had no ads coinciding with a review and averaged 12 ads per issue (11 unrelated, 1 related).

Magazine 3, *GamesTM*, had only two ads coinciding with a review. It averaged about 14 ads per issue, (12 unrelated 2 related).

For reviews, *Edge* averaged about 10 reviews per issue, *Game Informer* averaged about 12 per issue, and *GamesTM* averaged about 13 per issue. Combined, they averaged about 12 reviews per issue.

Table 2: Magazines, Games, and Ads

Magazine		Ads - Total	Ads - Game Related	Ads - Unrelated	Reviews	Previews
1 <i>Edge</i>		181	46	135	109	158
2 <i>Game Informer</i>		202	19	183	185	191
3 <i>GamesTM</i>		167	27	140	158	296
Total		550	82	458	452	645

To address **RQ4**, a negligible number of ads coincided with a preview in the same issue. Two ads coincided with a preview in the same issue in *Edge*, and none coincided with a preview in the other two magazines. Of the 645 previews, 158 were in *Edge*, 191 were in *Game Informer*, and 296 were in *GamesTM*. *Edge* averaged about 14 per issue, *Game Informer* averaged about 12, and *GamesTM* averaged about 25. Combined, they averaged about 17 previews per issue (it should be noted that some issues contained lists of short descriptions of 50 to 100 games coming out within the next

one- to-two years and some had release dates that were TBA).

Because of the almost negligible instances of advertising and previews and reviews occurring in the same issue (Table 3), the rest of the tests look at the entire sample of magazines, whether it is throughout the run of one magazine or all three.

Table 3: Ads and reviews for games in the same issue.

Magazine	Ads coinciding with a review in the same issue	Ads coinciding with a preview in the same issue
1 <i>Edge</i>	3	2
2 <i>Game Informer</i>	0	0
3 <i>GamesTM</i>	2	0
Total	5	2

Where ads appear

If an ad for a game appeared in any magazine, 49.4% of the time that game had been reviewed in at least one of the three magazines and 50.6% of the time it had not (Table 4).

Table 4: Was game reviewed in any magazine?

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	40	49.4	49.4	49.4
	No	41	50.6	50.6	100.0
	Total	81	100.0	100.0	

Breaking it down by magazine (**RQ5**), 43.2% of the ads were for games that had been reviewed in the same magazine whereas 19.8% of the ads were for games that weren't reviewed in that magazine (Table 5).

Table 5: Was game reviewed in same magazine as ad appeared?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	35	43.2	68.6	68.6
	No	16	19.8	31.4	100.0
	Total	51	63.0	100.0	
Missing	System	30	37.0		
Total		81	100.0		

Ad sizes with reviews

To answer **RQ6**, a one-way ANOVA test using three categories (Table 6) was used to examine whether a review appeared in the same magazine that had an advertisement for that game in any issue and whether a review only appeared in other issues of the other two magazines or whether it was not reviewed at all in any magazine. The dependent variable was ad size in terms of pages. Averaging across the entire sample showed that if a game was reviewed in the same magazine as an ad for it, but in another issue, it tended to receive an average of a page and a half of advertising. Averaging across the entire sample showed that if a game was reviewed only in other magazines, it averaged only a page of advertising in the non-reviewing magazine. Finally, if a game wasn't reviewed at all in any magazine, it still averaged a page of advertising across all the magazines.

Table 6: Descriptive Statistics for Ads if Product Was Reviewed

Ad Size				
	N	Mean	Std. Deviation	St. Error
Same	34	1.56	.613	.105
Only other	9	1.00	.000	.000
Not at all	38	1.00	.000	.000
Total	81	1.23	.481	.053

The overall ANOVA results (Table 7) are significant: $F=19.405$ and $p=.000$. Post-hoc comparisons (Table 8) in the form of a Scheffe test show significant p values between pairs of categories on the ad size variable. Ads for games that were reviewed in the same magazine vs. a different magazine had a p value of .002. Ads for games that were reviewed in the same magazine vs. ads for games that were not reviewed in any of the three magazines had a p value of .000.

Table 7: ANOVA Results For Reviews and Ad Size

Ad Size					
	Sum of all Squares	df	Mean Square	f	Sig.
Between Groups	6.161	2	3.080	19.405	.000
Within Groups	12.382	78	.159		
Total	18.543	80			

Table 8: Post-Hoc Tests: Multiple Comparisons

Dependent Variable: adsize Scheffer				
(I) Was game in ad reviewed in same, only other, or not at all?	(J) Was game in ad reviewed in same, only in other, not at all?	Mean Difference (I-J)	Std. Error	Sig.
Same	Only other	.559	.149	.002
	Not at all	.559	.094	.000
Only other	Same	-.559	.149	.002
	Not at all	.000	.148	1.000
Not at all	Same	-.559	.094	.000
	Only other	.000	.148	1.000

If a game featured in an ad in any of the three magazines was reviewed, 61.5% of the reviews for those games were positive and 38.5% were neutral (Table 9).

Table 9: Review tone crosstabulation: Was game reviewed in same magazine as ad appeared?

			Was game reviewed in same magazine as ad appeared?	Was game reviewed in same magazine as ad appeared?	
			Yes	No	Total
What was the tone of the review?	Positive	Count	20	4	24
		Expected Count	20.9	3.1	24.0
		% within was game reviewed in same magazine as ad appeared?	58.8%	80.0%	61.5%
	Neutral	Count	14	1	15
		Expected Count	13.1	1.9	15.0
		% within was game reviewed in same magazine as ad appeared?	41.2%	20.0%	38.5%
	Total	Count	34	5	39
		Expected Count	34.0	5.0	39.0
		% within was game reviewed in same magazine as the ad appeared?	100.0%	100.0%	100.0%

Chi square analysis was not done because one of the cells had too little data. When a game was reviewed in the same magazine as an ad appeared, 58.8% of the time that review was positive and 41.2% of the time it was neutral. None of the relatively few games that had negative reviews corresponded with an ad. When adding the variable of review tone (**RQ7**), an intriguing trend presented itself. In the review database, 50% of the reviews were positive, 44.9% were neutral, and 5.1% were negative (Table 10).

Table 10: Differences in Tone of Reviews by Magazine

				Magazine Titles		
			1	2	3	Total
Tone	Positive	Count	37	128	60	225
		%within magtitle	33.9%	69.2%	38.5%	50.0%
	Neutral	Count	64	52	86	202
		%within magtitle	58.7%	28.1%	55.1%	44.9%
	Negative	Count	8	5	10	23
		%within magtitle	7.3%	2.7%	6.4%	5.1%
	Total	Count	109	185	156	450
		%within magtitle	100.0%	100.0%	100.0%	100.0%

To answer **RQ8**, the proportion of positive and neutral reviews among the three magazines was markedly different

(Table 10). Magazine 1, *Edge*, and magazine 3, *GamesTM*, had a majority of neutral reviews and led in the relatively small percentages of negative reviews. Magazine 2, *Game Informer*, however, had a majority of positive reviews and the smallest number of negative reviews. A chi square analysis resulted in $X^2=46.962$, $p = .000$, showing the difference among magazines to be significant.

Review tone and size

For RQ9, in magazines that reviewed a specific game and had an ad for that game in any issue of that magazine, the average size of ads was different depending on the tone. Ads were 1.74 pages on average if there was a positive review and 1.36 pages on average if there was a neutral review. A t-test demonstrated that the difference did not reach significance $t[31] = 1.818$, $p=.079$). The number of ads in this analysis was small (33); a larger number of ads may have demonstrated a significant result.

For RQ10, a game previewed in that same magazine had on average almost 1.5 pages of advertising versus only one page of advertising if it was not previewed (Table 11).

**Table 11: Descriptive statistics: Ad sizes and
Previews**

Adsize	Was the game previewed in the same magazine?	N	Mean	Std. Deviation	Std. Error Mean
	Yes	21	1.48	.512	.112
	No	8	1.00	.000	.000

A t-test (Table 12) showed that an ad for a game previewed in that same magazine was significantly larger than an ad in a different magazine ($t(20)=4.264$, $p=.000$).

Table 12 T-test: Ad Size and Previews

		Levene's Test for Equality of Variances	" "	" "		
		F	Sig.	t	df	Sig. (2-tailed)
adsize	Equal variances assumed	3277.241	.000	2.602	27	.015
	Equal variances not assumed			4.264	20.000	.000

CHAPTER V

DISCUSSION

This study asked whether gaming magazines operated in an unabashed fashion in regard to advertising – pulling in revenues from advertisers by giving them extra or positive product coverage. The assumption is that these magazines are operating under the belief that readers would prefer at least some bias if it kept subscription costs low (Dewenter & Heimeshoff, 2014 and Ellman & Germano, 2009). The results of this study were surprising to say the least.

The three magazines in this study were not obviously biased in a way that other magazines may be (Dewenter & Heimeshoff, 2014 and Reuter & Zitzewitz, 2006); however, with a deeper look into the data collected, more subtle hints of bias may be found.

The lack of relationship between ads and reviews or ads and previews in the same issue of a magazine precludes an analysis of the type of bias this study initially attempted to examine. The results were similar to Reuter's study of wine magazines (2009) in which no proof of bias was found. Surprisingly, the study revealed that the

majority of advertising was completely unrelated to video games. Finding that gaming magazines *probably aren't* biased can be a comforting discovery; it would seem to be the preferable result – the sort of result that restores some faith in arts and entertainment journalism.

The other products advertised were aimed at the magazines' self-claimed demographic of 18- to 30-year-old males. There are many ads for Full Sail University (Fig. 3), which specializes in modern multimedia degrees such as video game design or computer animation, and many of the ads call to gamers to quit playing other people's games and make their own. There are many anti-smoking ads as well (Fig 1). The majority of anti-smoking ads were found in the U.S. magazine *Game Informer*. Other ads were for products such as chewing gum (Fig. 5) (I added figure numbers that seemed to match the ads), insurance (Fig. 2), or razors (Fig 4).

One suggestion for the existence of the non-game advertising is that members of this market may have a high level of disposable income. *Game Informer's* readers fall squarely in the American "middle class" with a median household income of \$65,800). A quarter (24%) of *Game Informer's* readers go shopping for a game at least once a

week, while another (21%) go shopping for a game at least once every two weeks (Game Informer Media Kit). Most games cost \$50, and titles from well-established brands can cost up to \$60. There are various budget bins in brick and mortar stores as well as online distribution networks, such as "Steam" or "Good Old Games" offering less popular or older games for sometimes less than a dollar. Gamers may purchase multiple games per month, and so there's a considerable amount of consumer spending involved. Gamers may regularly budget for upcoming games.

It's curious to think about whether non-gaming companies are willing to pay more for that space than gaming companies to the point that they take the majority of it. It's also curious to think that gaming advertisers may not see purchasing ad space there as being worth it. Regardless, the current state of affairs offers an opportunity for these gaming magazines. They are able to get the advertising revenue they desire and limit the amount of obvious bias. Certainly, a connection between razors (Fig. 4 (changed)) and the action-adventure platforming game "Uncharted 4" would seem ridiculous – the main character of the game would have to be keeping his five o'clock shadow at bay to impress female characters while scaling cliffs. That sort of juxtaposition isn't

completely unheard of, however. In the 1990s 7-Up financed a platforming game where the main character is the red spot on the can, and Skittles financed an action-adventure game in the 2000s where players played a heroine whose mission was to collect every color Skittle to create a powerful rainbow to destroy evil. The author played both, and while the former wasn't much fun, the latter held its own in a bizarre way. In any event, the bulk of gaming magazines' advertising is unrelated to games, and if these advertisers pay the same or more as gaming advertisers, it may be that the majority of their advertising revenue is unrelated to games. However, a more subtle case for advertising bias may be gleaned from the rest of the results.

To sum up: on average, there were more ads for games reviewed in magazines than those that weren't and ads for those games were larger. When a game was reviewed in a magazine that also had an ad for that game in it, it tended to have a positive or neutral review. If a magazine had an ad and a positive review, the average ad size was bigger. A game that was previewed also had more advertising on average than one left out. However, it was noted that a magazine was far more likely to have an advertisement somewhere in the sample for a game that it gave any type of

press coverage to – and that that advertisement would be larger than if a game had received no coverage.

This all could be a symptom of bias in that significant ad purchases get (good) reviews, but it also could be that the games with the biggest production budgets have the biggest advertising budgets. Because these games may come from the biggest developers, many gamers may be eagerly anticipating them and to please their audience, they are covered. It could also be that because these games have such big budgets that they have a standard of quality in line with most gamers. With enough spent, at the very least they may have attractive graphics even if other parts are lacking. Another point is that many gamers may be eagerly anticipating these games, and to please the audience, magazines cover them, with or without advertising, and any coincidental advertising? may be a function of the developer's advertising budget, not a bias.

Let's say that a major studio releases a game many players have been waiting for. The studio is banking on large returns on this game, and in the same way that Hollywood studios do on major titles, despite decent brand awareness, it still spends a great deal on advertising across media. Magazines would be careless not to review a

game that so many players are aware of. That being the case, advertising from other media would actually drive readers to the magazine to learn about the game, and advertisements within the magazine would help firm up buying choices. One may even argue that when enough of these developers make similar products, they create that collective gamer taste for their products recursively, in the same way one may imagine the movie or music industries doing. But simply because a game has a big development budget doesn't mean that it will be good. Games that are very expensive to make may end up being just as unenjoyable to play as some Hollywood films with big budgets are to watch. Another reason may be that the magazines don't want a flood of ads for the same game, but will offer fewer, but bigger opportunities, such as full-page ads vs. a series of one-third and quarter-page ads. This way any bias may be averted as one large ad raises far fewer red bias flags than the same ad repeatedly. Another explanation may be that ads for games are simply more interesting and that because the subject matter is more complex than, say, deodorant, a bigger ad is required to get the point across. Yet another explanation could be that advertisers themselves may see a few large ads as being more effective than a series of smaller ones. Certainly when you run

across a 2-3 page ad in a magazine, it gives you pause and makes you take notice, at least in the sense that it breaks up the flow of content as you have to skip over it.

In the case of ads that don't have reviews, it could be the case that some games reviewed, while highly anticipated in certain gamer circles, may be from smaller developers that simply don't have a large advertising budget or are relying on other forms of advertising.

Yet another explanation may be that publishers of these magazines might have an upper limit on the amount of advertising they'll accept per issue in order to keep their readers happy.

Yet another reason may be the physical limitations of the print medium. It could be that a magazine has too much content in a given month and so must lessen advertising. They could also have too little and do their best to fill the space. The capacity of the printing press may require pages to be arranged in a certain way or may only be able to print pages in certain quantities. Still yet, the mailing weight of a magazine may affect size.

There may be other reasons. It could be that a developer blanket advertises regardless of editorial content relating to its games. Yet another could be that a

developer received unfavorable editorial content and is using blanket advertising to counteract it. By that reasoning, if advertising is in different issues than the one where the unfavorable content appeared, gamers may have either forgotten it or perhaps didn't read that issue, and so the advertising is what gamers will ultimately base their purchasing decision on. Of course, they will undoubtedly be supplementing this information with that found on these magazines' respective websites as well as other internet sources.

Considering that 85% of the ads in the sample are not game related, it may be that developers have a set marketing budget and will advertise wherever they can regardless of editorial content.

In order to examine what bias would look like in these instances, let's assume that a developer's game is objectively "bad," i.e., the only metric being that it simply is not very much fun to play to the average gamer. If we assume the developer has a large advertising budget and purchases an ad in a given magazine and receives a decent (or better review) than the game truly deserves, some bias may exist on the part of the magazine. Of course, this is assuming many incommensurable factors, such as you

can truly measure a game's level of "fun." Whichever journalist is assigned to cover that game may simply like it and have tastes not in line with the majority of gamers. This also is assuming that a journalist's editor is somehow swayed, at least in part, by advertising income. This also assumes the advertising developer has the goal of achieving a biased result for the game coverage in mind. In order to establish a more definitive case for this sort of bias would take multiple instances of proof of industry insiders engaging in biased activities, which may be difficult to find.

Additionally, the study yielded other results that help to understand the magazines themselves.

The three magazines had a largely varying spread in the review tone. *Edge* and *GamesTM* had a majority of neutral reviews (58.7% and 55.1%) while *Game Informer* had overwhelmingly positive reviews (69.2%).

This may be interpreted in a variety of ways. The first and most probable possibility is that *GamesTM* and *Edge* judge games more harshly in their reviews, while *Game Informer* doesn't. These magazines claim to be independent and because of that, many readers might very well expect them to give more middling reviews and to have higher standards for what a max score is. Thus, it makes sense

that the self-claimed independent magazines give consistently lower scores.

Game Informer's reviews are reflected in the stock on GameStop's shelves. It could be that Game Informer rates games more highly to encourage sales, or it could be that it only rates games it considers to be of good quality, and then GameStop gives the majority of its shelf space to those games. *Game Informer's* advertising model is Trust, Influence, Sale (Game Informer Media Kit). GameStop frequently offers discounts if gamers subscribe to *Game Informer* during a purchase – not surprisingly, then, their readers purchase the majority of their content from GameStop (Game Informer Media Kit). Gamestop thereby creates a loop where the people who shop at its stores, read its discounted magazine, and return to shop at its stores based on its recommendations (that they overwhelmingly trust) and receive discounts when renewing their magazine subscription. It should be noted, though, that even the least enjoyable game will still enjoy some shelf space for a limited time.

Overall, 50% of the reviews in all three magazines were positive. This score was brought up by *Game Informer* which may be trying to influence sales in its own stores;

however, it may also reflect a few things in the magazines' choices of games to review. As mentioned earlier, magazines feel obligated to review the biggest games, which may all be of high quality. But it also could be that these magazines feel a need to show gamers what to play. And because space is limited and many games come out per month, they may choose to review many games, but only print the reviews of the ones they really feel their audiences *should* play and print neutral or negative reviews of games their audiences feel excited about that they *should not* play. In this sense they may feel that they're doing a service to their readership. By picking and choosing, too, they could balance out months with a lot of quality games by tossing in some reviews of lower quality ones to maintain the image of independence. And, vice versa, they could focus on the few quality games in months where there are many low-quality games coming onto the market.

Thus, by trying to manage their positive coverage outputs per month, they may increase the likelihood that positive coverage coincides with a positive ad. If a magazine was avoiding too many negative reviews, then the number of ads that coincided with no review would weight the entire result toward positive ads. Of course, there

were relatively few game ads in the sample, and nothing conclusive can truly be said about it.

It could be argued that any coverage is good coverage. In the instance of *Game Informer*, the people reading it are going into the stores of its parent company and even with a middling review, they may still purchase games based on exposure. Gamers who have been eagerly awaiting a game and have seen many ads and read many previews, even after reading a review in which it received a low score, may simply go for it and assume that the reviewer is being overly harsh. This may especially be true when considering that almost half of *Game Informer's* readers pre-purchase games, meaning all they have to base their purchase decisions on are previews. Preview bias would come in terms of the size of coverage or whether it's covered at all. A game that receives no coverage certainly is held back at the pre-order stage of sales. Of course it should be noted that previews are guilt-free and sort-of let the publication off the hook if the game turns out to be bad. It's certainly easy to say that a game *looks* good and if it turns out to be bad simply point out that looks can be deceiving.

The other magazines' purchasing influence are not so easily measurable because they are independent. *Game Informer's* proven results may make it more attractive to advertisers, which is why it costs so much more to advertise there (\$4,200 in *Edge* vs. \$238,000 in *Game Informer*). This leads into the differences in subscription prices. (*****it's mostly based on circulation)

Because *Game Informer* makes so much on advertising and driving business to GameStop's stores (remember: house ads), it can offer low subscription rates. Gamers may not see a trade off in honesty for subscription rates like in Dewenter and Heimeshoff's (2014) and Ellman and Germano's (2009) studies. *GamesTM* with its claim of "definitive reviews" and its statement of independence mentioned earlier ("*GamesTM* refuses to bow down to PR pressure, ensuring the creation of a trustworthy and respected magazine that readers can rely on") is offering a different product to gamers (*GamesTM* Media Pack). *GameInformer's* original motto was initially "The Final Word On Computer and Video Games" but is no simply "The World's #1 Computer and Video Games Magazine" - a claim that makes no promises of independence (Game Informer Media Kit).

LIMITATIONS AND FURTHER RESEARCH

Many major gaming magazines have folded in the last few years. For instance, *Electronic Gaming Monthly* went defunct in 2009 and *GamePro* in 2011. As such, current comparisons cannot be made from a wider sample even with better availability than the author possesses. Acquiring a wider sample of the three magazines in this study might help to compensate for the relatively low numbers of game ads and may modify the results.

Absent from this sample is *PC Gamer*, one of the more successful and long-lived magazines, as well as the *Official PlayStation Magazine* and *Official Xbox Magazine*. As these three magazines are all owned by Future Plc, future research into advertising bias within a company may prove fruitful from a political economic perspective. In regard to the Imagine Publishing/Future Plc merger, it has been only about a year, and full changes in content and advertising might not have taken effect. The ability to measure all of these magazines before and after the merger would perhaps add the most interesting dimension to a study of gaming magazines.

Considering that the two UK-based magazines, *Edge* and *GamesTM*, had fewer anti-smoking ads than the U.S.-based

Game Informer, there may be a cultural component at work here that would lend itself to a health or anthropology study on the habits of the gaming demographic.

Something this study was unable to compensate for is bias over time. After a game is released and reviews of the finished product pour in, advertising may shift in subsequent issues. Based on the actual review scores, advertising may drop off from the preview stage level following a negative review. A positive review may engender further ad spending in proceeding issues, continuing or increasing the level of advertising at the preview stage. The way to examine this would be to examine individual games throughout their release cycle from the preview to the review stage and compare the amounts of advertising. This would require devising a way to track each game individually and create a profile of the amount of advertising it receives at the preview stage, the review stage, and in the issues following the review. The amounts would have to be compared individually and then relative to the other games for any significant data to be useful.

And finally depending upon how you look at it, the coders this study used could be a positive or negative. On the one hand, they were not always sure what constituted a

game ad and which games were put out by which publishers and developers, and a great deal of coaching was required. However, they exhibited a high level of vigilance in trying to discern the meaning of each advertisement. The coding sessions went for about 9 hours over the first day and two of the coders had to follow up on a second and a third day because they weren't able to finish. While there is some element for extra error, the time and care they put in may have actually given the study better accuracy. Industry-familiar coders may have been able to work more quickly, but may have been less sensitive to each advertisement. They may, however, have allowed for the collection of data on each developer – something not always apparent in their advertising. Knowing which companies own or are partnered with which other companies is a result of industry exposure. Without an insider's knowledge, tracking which developers make which games would have been extremely time consuming.

If this were possible, however, a way to track developers and advertisements within the sample would come within grasp. A way would need to be devised to track that number as well as the averages of scores each developer received in those time frames. Finally, if there were a way to look at the parent companies, a profile of who purchases

advertising and in what numbers that relates to the reviews of their games would provide valuable political economic insight into the industry.

CHAPTER VI

CONCLUSION

A quick flip through any gaming magazine might lead one to suspect an amount of bias. Looking deeper into the literature however, one, finds that the results are mixed. Reuter's (2009) wine magazine study found no indicators of bias, but Reuter and Zitzewitz (2006) found some suggestive data in financial magazines and Dewenter and Heimeshoff (2014) likewise in an automobile magazine.

The fact that there was no obvious bias in this study is not definitive. Advertisers may still see favorable content and increase advertising in hopes that readers have read that content and will see the ad and make their way to the store.

The magazines cannot, however, escape their need for advertising income, and the games and their advertisers both must find places within the magazine. This is true for any specialty magazine. While taking a break from writing, the researcher picked up an issue of *TIME* whose center story was about why diets don't work, and mere pages from

this article was an advertisement for diet pills. As a reader, the subjective subtext was, "Now that you know what doesn't work, try something that does!" Perhaps the study picked the wrong type magazine to examine. It may be that there are differences in types and subject matter of genres of magazines. It could be that some audiences are less sensitive to advertising bias. Gamers in this study and wine connoisseurs reading the magazines in Reuter's (2009) study may brook no hint of bias, but the other literature suggests that other groups of readers such as investors reading the financial publications in Reuter and Zitzewitz's study (2006) and car enthusiasts reading the magazine in Dewenter and Heimeshoff's study (2014) may be less concerned.

Nevertheless, by spreading advertisements out through other issues of the magazine, on the surface, the problem is solved. The casual and non-subscribing reader may not even be aware that there is any potential conflict of interest. The real question becomes, "*Is there now an indirect link between game coverage and their advertisers?*"

Without the admissions of the people in charge of the magazines themselves or the advertisers, nothing definitive can be said. *That* being said, taking into account the other

studies from the literature review that found bias (Dewenter & Heimeshoff, 2014, and Reuter & Zitzewitz, 2006), a form of bias is likely. The findings of this study, predicated upon that likelihood provide an understanding for this bias. The results teach lessons about the way advertisers function in magazines. Advertisements may be purposefully kept away from matching games in the same issues, but are sprinkled throughout the run of magazines anyway. It cannot be denied that games that receive coverage correlate with increased advertising and thus increased revenue. It also cannot be denied that there is a correlation between positive coverage and advertising revenue as well. Thus, whether intentional or not, advertising and coverage have a suggestive relationship, and in order for that relation not to ruin a magazine's reputation, a clever amount of distancing between content and advertisements is necessary.

APPENDIX

ADVERTISING AND CONTENT EXAMPLES

Fig. 1 Anti-Smoking advertisement in *Game Informer*.

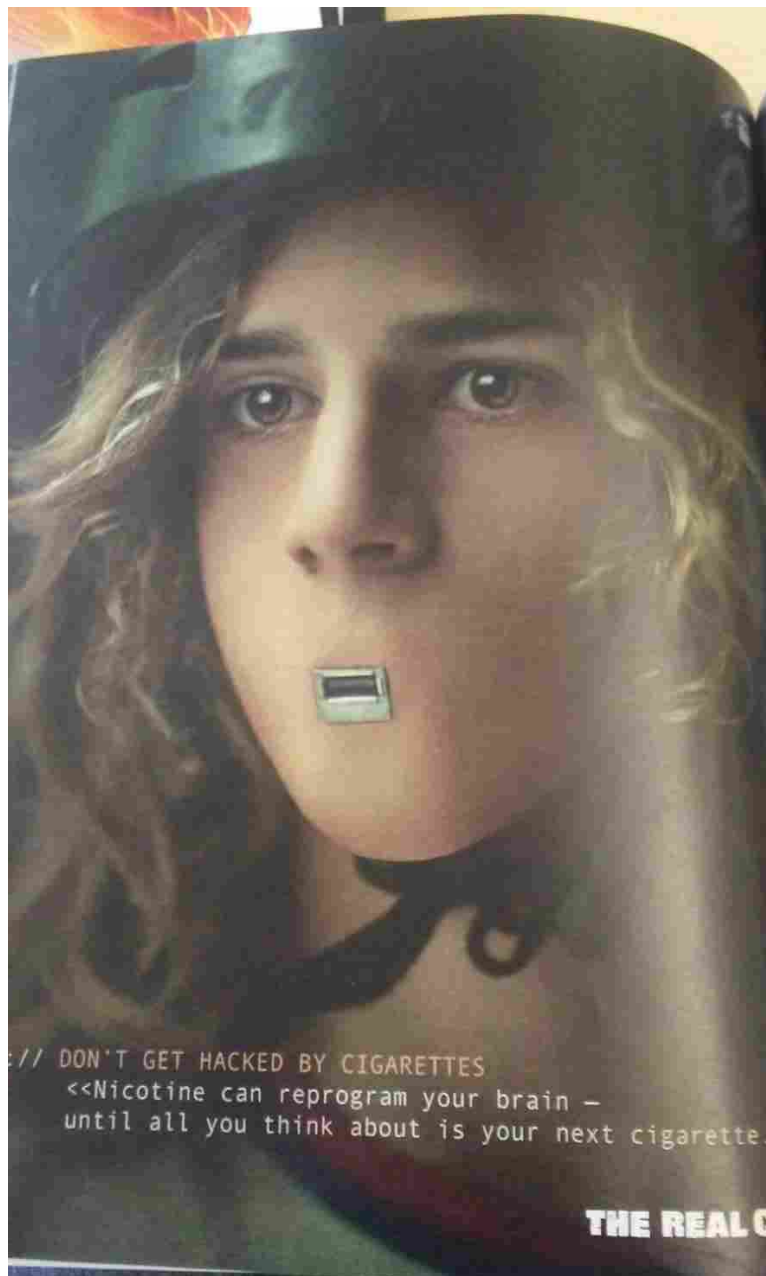


Fig. 2. Geico Auto Insurance Advertisement in *Game Informer*.

Great coverage, by land or sea

At GEICO, great rates and outstanding coverage doesn't stop with your car. Whether you drive a motorcycle, boat or RV, GEICO could help you save money on more than just car insurance.

Contact us for a free quote and see just how much you could save.

GEICO[®]

geico.com | 1-800-947-AUTO | Local Office

Some coverages are not available in all states or all GEICO companies. Motorcycle and ATV coverages are underwritten by GEICO Marine Insurance Company. GEICO Auto policyholders could be eligible for a discount on their GEICO Marine Insurance Company. Motorcycles only available in certain states.

Fig. 3 Full Sail University Ad in *Game Informer*.

FULL SAIL UNIVERSITY. FullSailGames.com

Build an Empire

be creative.

and every game is a unique creation and a passion for the gaming experience.

You're drawn to the creative process behind video games - designing levels, animating characters, or crafting code - Full Sail's degree programs can help you find a path doing what you love. Working with the software tools found in professional studios, you'll learn from industry veterans to develop your specialization in gaming.

Degrees in Games

Game Art - Bachelor's
Students focus on 3D art and content creation, with an emphasis on character development, shading and texturing, and modeling.

Game Development - Bachelor's
Students are taught the skills necessary to develop a program single and multiplayer video games for gaming consoles, personal computers, and networks.

Game Design - Bachelor's & Master's
Learning the production processes and design, students are able to produce content for multiple gaming platforms.

Program	Campus Only	Online
Bachelor's Degrees		
Computer Animation	<input type="checkbox"/>	<input type="checkbox"/>
Creative Writing for Entertainment	<input type="checkbox"/>	<input type="checkbox"/>
Digital Arts & Design	<input type="checkbox"/>	<input type="checkbox"/>
Game Art	<input type="checkbox"/>	<input type="checkbox"/>
Game Design	<input type="checkbox"/>	<input type="checkbox"/>
Game Development	<input type="checkbox"/>	<input type="checkbox"/>
Mobile Development	<input type="checkbox"/>	<input type="checkbox"/>
Simulation & Visualization	<input type="checkbox"/>	<input type="checkbox"/>
Master's Degrees		
Game Design	<input type="checkbox"/>	<input type="checkbox"/>
Mobile Gaming	<input type="checkbox"/>	<input type="checkbox"/>

800.226.7625 | FullSailGames.com
3300 University Boulevard, Winter Park, FL 32782

Request this card for more info →

Fig. 4 Schick razors ad in *Game Informer*.



Fig. 5 Wintermint chewing gum ad in *Game Informer*.

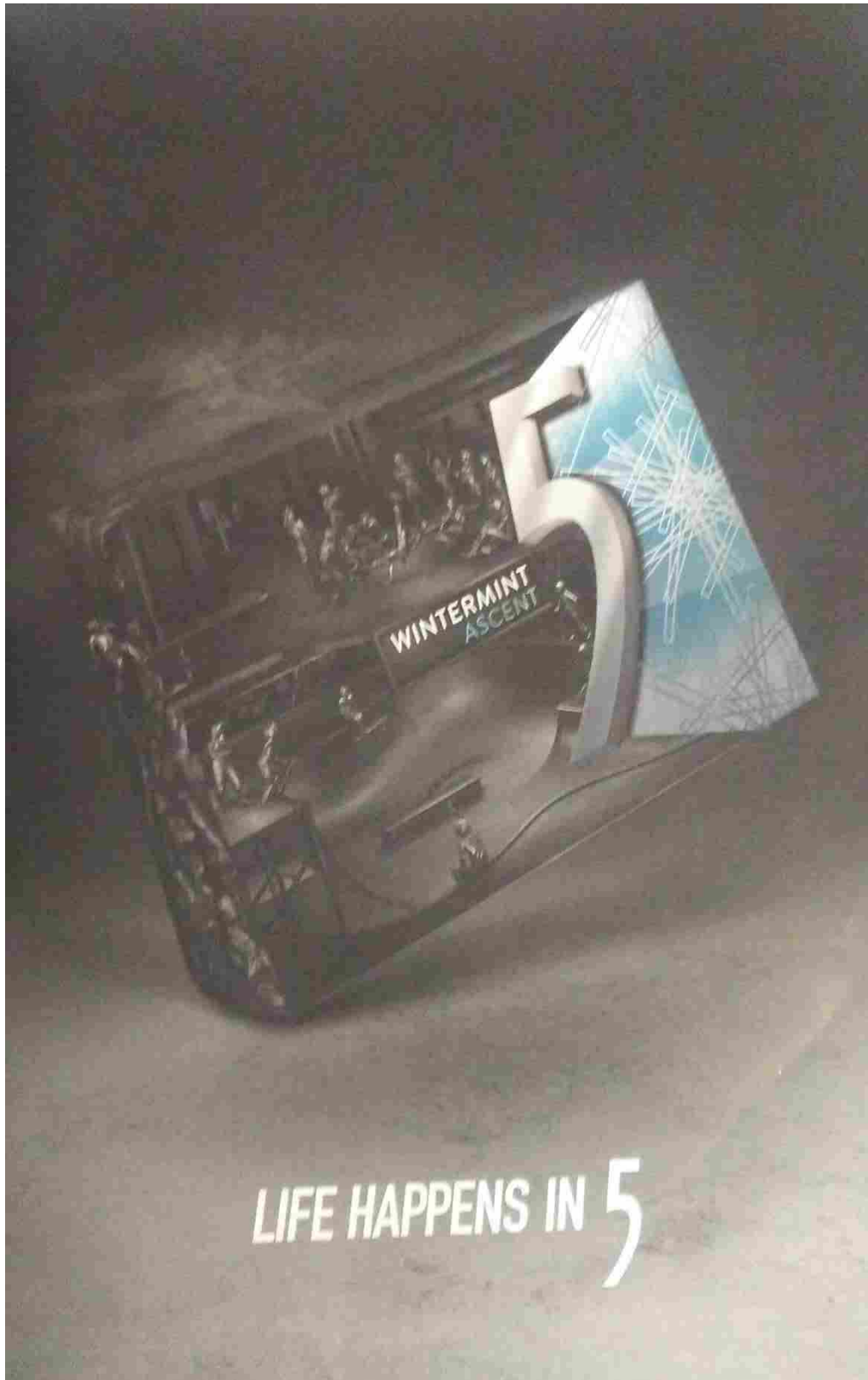


Fig. 6 Nintendo Switch Advertisement in *Game Informer*.



Fig. 7 Nintendo Switch/"The Legend of Zelda" dual ad in GameInformer.

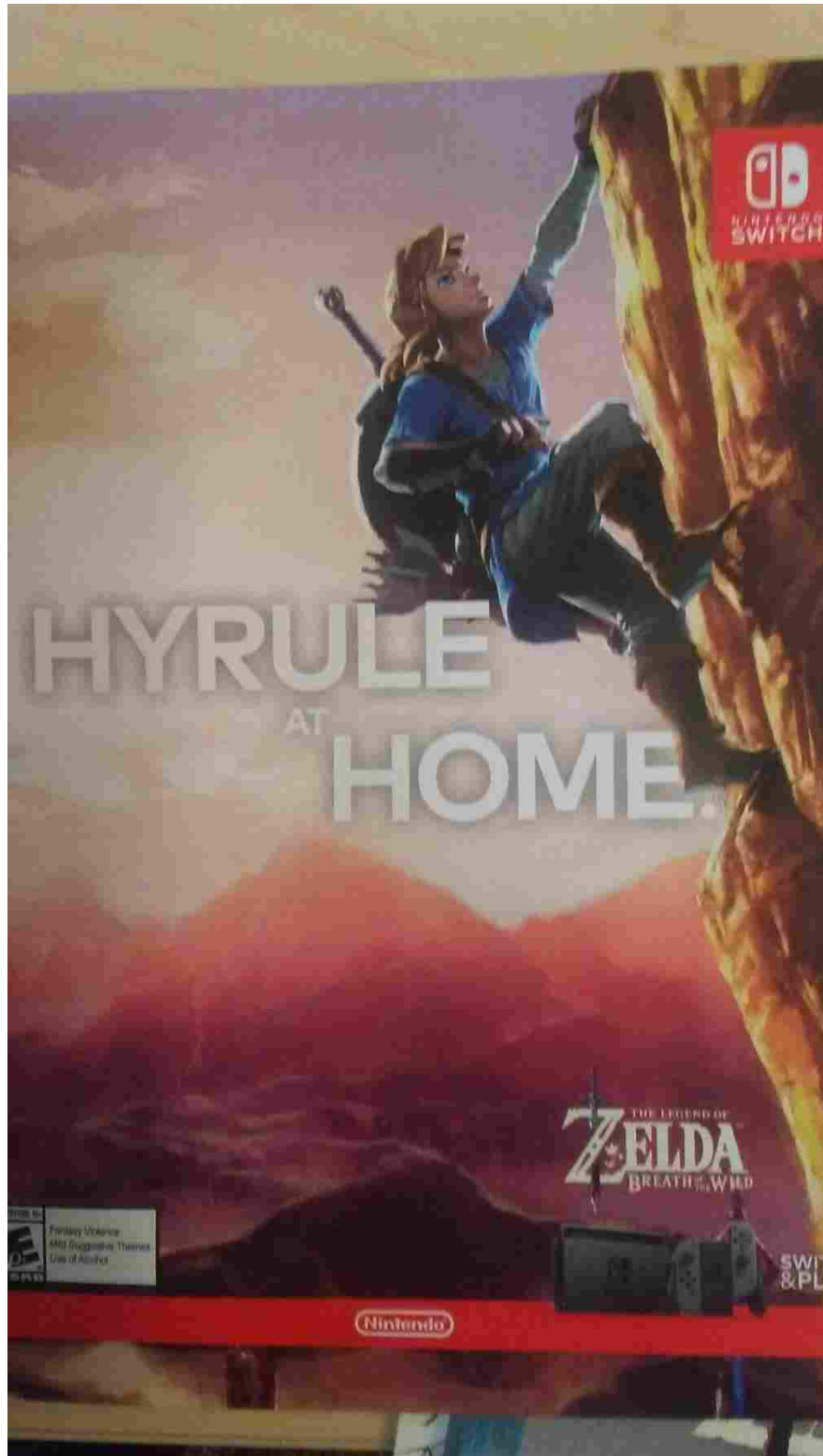


Fig. 8 GameStop "house ad" in GameInformer.

POWERUP REWARDS

A PRO, NOBODY SCORES MORE THAN YOU

Members who sign up now, get rewards worth up to \$50. Here are some of the ways you score!

- \$50** IN EXCLUSIVE OFFERS EVERY MONTH
- 10%** PRE-ORDERED GAMES AND ACCESSORIES
- BUY 2 GET 1 FREE** PRE-ORDERED GAMES (LIMITED TO \$100)
- 10% EXTRA CREDIT** WHEN YOU TRADE IN YOUR GAMES AND ACCESSORIES

GameStop POWERUP REWARDS

PRO MEMBER EXCLUSIVES

SAVE \$25 Buy Pre-ordered Xbox One or PS4 Pro/PS4 Slim/PS4 Pro/PS4 Slim

SAVE \$30 Console Street View Viewers

PRO GET MORE

Fig. 9 GameStop "house ad" in GameInformer.

KINGDOM HEARTS
SWEEPSTAKES
SWEEPSTAKES OPEN 08/01/17 - 09/30/17

YOU COULD WIN A KINGDOM HEARTS FANTASY TRIP FOR 2 TO DISNEYLAND

2-DAY PARK-HOPPER Passes To visit Disneyland Park & Disney California Adventure Park

3-DAY PASSES to the **D23 EXPO**

VIP TOUR of Disneyland Resort

THREE WAYS TO ENTER*

- Pre-Order** Kingdom Hearts 1.5 + 2.5 Set for 2 entries
- Purchase** Kingdom Hearts 1.5 + 2.5 Set or Kingdom Hearts HD 2.8 Final Chapter Reunion for 2 entries
- Use Rewards Points** Enter at www.PowerUpRewards.com 200 pts for 1 entry

Visit www.POWERUPREWARDS.com for more details and how to enter.

*NO PURCHASE NECESSARY. SWEEPSTAKES OPEN 08/01/17 - 09/30/17. Sweepstakes ends 09/30/17. Open to legal residents of the US (18+). Void where prohibited. Sweepstakes ends 09/30/17. See www.poweruprewards.com for details. Sweepstakes ends 09/30/17. Void where prohibited. Sweepstakes ends 09/30/17. See www.poweruprewards.com for details.

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PS4 Disney SQUARE ENIX

Fig. 10 Nintendo Switch review in GameInformer.



Fig. 11 Sample reviews in *Game Informer*.



Fig. 12 Preview for the game "Mass Effect: Andromeda" in Game Informer.



Fig. 13 Full page preview for "Crash Bandicoot N. Sane Trilogy" in GameInformer.



Fig. 14 Opinion coverage of the Nintendo Switch in the same issue of *Game Informer*.



Fig. 15 Two-page spread of "real life" merchandise available from the game "Mass Effect: Andromeda."



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