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Executive Summary

In an annual survey conducted by the Entertainment Software Association, 22% of people surveyed indicated that games possessing an interesting story or premise influenced them to purchase a video game. This factor, above all others, was the most influential amongst respondents. However, large firms in the video game industry are only interested with producing games that put gameplay first and narrative second.

Rhianna Pratchett, a writer in the games industry who was awarded the Outstanding Achievement in Video Game Writing award from the Writer's Guild of America for her work on *Rise of the Tomb Raider*, has echoed these thoughts, saying that writers are treated as narrative paramedics who arrive at the last moment to patch a story around the game. While most of the larger firms in the industry focus on making the wrong things, the democratization of game development tools has allowed more aspiring game developers to try to reach the 155 million Americans who play games.

Ward was created out of an increased frustration by myself, Dylan Ilvento, and my co-founder, Mason Brown, with the state of narratives in games. Independent developers have made great strides in creating great narratives in games, but may suffer from lack of intriguing gameplay. Additionally, many independent creators, after seeing success with their initial game, do not increase the scope and scale of their successive games, either due to a lack of business acumen or lack of personal interest. The narrative innovation seen in the independent community is rarely adopted by big-budget developers, and the independent community mostly doesn't use its success to grow their enterprises.

Ward seeks to bridge the gap between the innovative, narrative-driven independent games and the large-scale, gameplay-oriented releases in order to bring well-told stories in the video game medium to a larger audience. While most firms talk about the importance of story, they are not writers. Having been trained in storytelling by published writers, we have the capability to deliver ground-breaking stories in the video game medium.

The market for our narratively-driven games is diverse. They are both male and female, span the ages from 18 to 54, and can be a single household or a family household. They wait to purchase games a month or so after their release but are willing to spend up to \$60 a month on game purchases. Our first customers will be personal computer (PC) gamers, since they have access to digital marketplaces like Steam and itch.io, which have lower barriers to entry to get our games on those platforms. Steam is a major platform for PC developers, boasting 125 million global users, with 1.3 million of them frequent game purchasers.

To attract these players, the development of both story and gameplay must be given great attention. Both attributes work in tandem to bring them in and keep them playing, for an interesting core gameplay loop and an intriguing story are vital. The main avenues we will use to market to players will be free game demos, gameplay trailers, external coverage from YouTube personalities and games press, and content marketing with podcasts and other media. The market looks at the size and scope of a game to determine if it is priced fairly.

Most independently developed games are priced between \$5 and \$20, and most big-budget games are priced between \$40 and \$60.

For development, we will utilize the Unity game engine, a software tool that has been used by both independent creators and large firms. We have a process of experimentation and execution: creating many small game demos to refine our skills and observe what gameplay and narratives are drawing the most attention to inform us about what full-release game to develop. Production will be handled by an internal team of professionals, headed by Dylan and Mason.

Dylan Ilvento has had experience across numerous fields including fine art, creative writing, software development, and business development. He is able to combine his creative and technical expertise to create unique projects. He has worked as a graphic designer, user interface designer, web developer, and software developer across numerous firms in the Richmond, Virginia area.

Mason Brown has worked in the world of advertising as a graphic designer and web developer. He has also worked for game developer Tenderfoot Games, creator of Wild West Online: Gunfighter. Mason received degrees in creative advertising and journalism from Virginia Commonwealth University's School of Media and Culture. He is currently pursuing a master's degree from VCU's Brandcenter, one of the top ranked branding schools in the country, in their experience design track, which focuses on the development of user experience, user interface, and product development.

With the founding team accounting for most of the major skills required for development, the first games will be developed solely by Dylan and Mason, with contractors and professionals hired as the games grow in size, scope, and budget.

We will be engaging in direct sales of our games on these digital storefronts. In 2014, 41% of independent game developers in teams of two or more earned an average of \$51,000 per person. This is up 161% from 2012's average income of \$19,000 per person. \$51,000 in income per person per year totals \$102,000 for our two-person team, which equates to \$8,500 a month in profit. For the purposes of revenue projections, we imagined a hypothetical game with a 6-month development cycle sold at \$5 per unit.

For the 6-months required to develop this game, we will run a maximum possible loss of \$1,595 per month. After the game is released, we will have an average estimated profit of \$8,500 per month. At the time of release, our cumulative loss will be \$16,070, after which it will take two months to break even. In order to arrive at \$8,500 in profit per month, our game has to earn between \$13,200 and \$15,000 per month, which is 2,640 to 3,000 units sold per month.

I. Industry Analysis

Industry Snapshot

Revenue

\$19.6 billion

Average Yearly Revenue Growth (2010 – 2015)

10.3%

Profit

\$1.3 billion

Average Yearly Revenue Growth (2015 – 2020)

7.5%

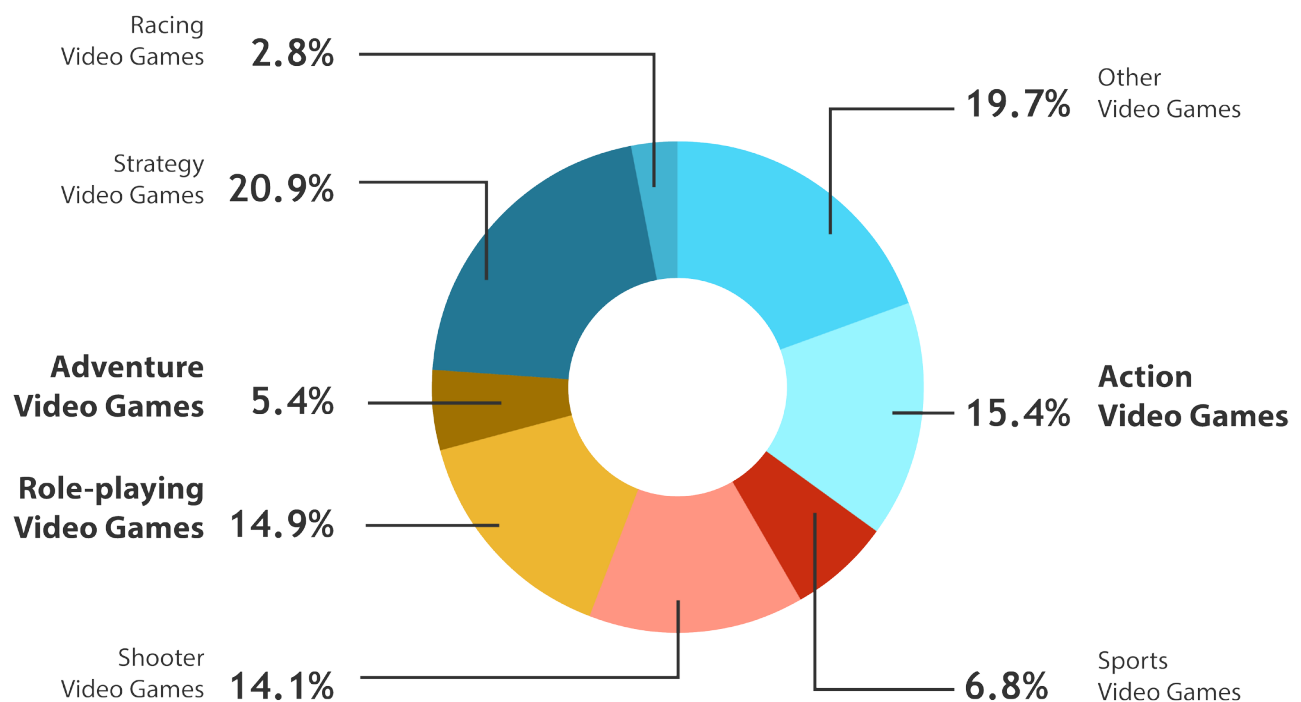
Number of Businesses

25,225

Industry Structure

The video game publishing industry (NAICS Code: 51121e) best encapsulates the goals and practices of our firm. Video game publishing is a subset of the software publishing industry, so it eschews any cash flows that come from hardware manufacturing and video game retail. Product revenue is segmented between different video game genres.

Figure 1.1: Product Revenue Segmented by Game Genre



The games we plan on producing will fall mainly in the action, adventure, and role-playing genres. The action genre defines games that require the player to use quick reflexes to complete challenges. Examples of games in this genre would be Ubisoft's Assassin's Creed series or even Nintendo's Super Mario series. Adventure games tend to be based around puzzle solving and interaction with other characters in order to progress through the game and its story. Examples of this genre would be games such as Telltales' The Walking Dead series of episodic games and Fullbright's Gone Home. Role-playing games (RPGs) are those in which the player chooses the traits and skills of their character and use them to progress through a world and story. Games in this genre tend to take place in a fantasy setting and include examples such as Lionhead's Fable series, EA and Bioware's Dragon Age and Mass Effect series, Bethesda's The Elder Scrolls series, and Blizzard's World of Warcraft.

It's important to note that games usually do not fall into just one category. An action game could include customizable character traits usually found in RPGs, or an adventure game could have a light platforming sequence. The genre with which a game is usually identified is determined by the major gameplay elements it incorporates. Outside of game genres, the industry is additionally structured via three major faucets.

Developers versus Publishers

Firms in the video game publishing industry are classified as developers, publishers, or some combination of the two. Video game developers are companies that actually make the software. These companies hire designers, engineers, artists, musicians, and other professionals to create the product that will be sold to customers. Video game publishers provide the marketing and distribution to bring the product to market. Video game publishers enter deals with independent developers to publish the games they have created or have pitched to the publisher. The publishers then take a (usually majority) share of the profits when the game is sold, and they may also require ownership of the intellectual property of the developer's game. Publishers also own subsidiary development studios that produce products for them. Activision Inc. owns several development studios including Infinity Ward, Treyarch, and Sledgehammer Games. The largest companies in the industry both publish and develop games.

Independent versus AAA Development

AAA (pronounced "Triple-A") development is the world of big-budget titles that attract massive audiences and revenues. The development of franchised AAA games help support loss-incurring, more experimental AAA games in larger companies, but as companies try to reduce their risk and place greater reliance on a few franchised titles, the volatility of their revenue increases. In 2013, THQ went through liquidation as its AAA releases of Homefront and Red Faction: Armageddon failed to save the company.

In the wake of larger companies taking fewer risks and making fewer games, independent ("indie") developers have taken up the slack. The reduced cost of game-making tools combined with the lower barrier to entry for distributing one's product has caused a proliferation of game-making individuals and small team studios. Indie games have smaller budgets, are smaller in scope, and are released in digital game marketplaces such as Valve's Steam, Microsoft's Xbox and Windows stores, Sony's Playstation Network, CDProjekt's GOG, and the Humble store. Due to the decreased risk and investment, indie developers have been

more experimental and creative with the products that they create. This has led to indie games finding previously unsatisfied niche markets and becoming extremely successful upon their release. Edmund McMillen and Tommy Refenes, Jonathan Blow, and Mike Bithel are examples of indie developers who were able to pursue independent development full-time after the financial success of their respective games *Super Meat Boy*, *Braid*, and *Thomas Was Alone*.

These reported successes have led more developers working in traditional AAA development to leave in pursuit of their own dream projects. The following chart shows the historical and projected number of employees per establishment in the video game industry.

As developers continue to pursue indie development, the competition will only get fiercer. The goal is to differentiate your game as much as possible in terms of quality and features and find an underserved niche. Eventually, the large number of firms will have saturated the industry, and they will begin to consolidate. Our goal after establishing our brand by producing our first few narratively-driven games will be to seek talent from, acquire, or merge with other small, independent firms that have amassed an audience and pursue the same type of games as we do.

Table 1.1: Employees per Establishment in Video Game Industry by Year

Year	Employees per Establishment
2005	58.4
2006	69.6
2007	93.4
2008	58.3
2009	23.9
2010	2.8
2011	2.0
2012	1.7
2013	1.5
2014	1.4
2015	1.4
2016	1.3
2017	1.3
2018	1.3
2019	1.3

Core Games versus Casual Games

Core games are defined as traditional video games played on consoles, computers, and dedicated handheld devices like the Nintendo 3DS or the Playstation Vita. These games can offer deep or simplistic gameplay, and they can vary in completion time and play session time. However, a core game session normally lasts no less than fifteen to thirty minutes. Casual games, on the other hand, can offer a full play session in just a few minutes. They are made to be easily consumable, and they have seen much popularity on mobile platforms such as iOS and Android.

The mass adoption of smartphones, tablets, and casual games has led to a massive increase in the number of mobile game developers. This popularity led many industry watchers to believe that mobile and casual games would eventually make traditional games irrelevant. However, this has not been the case. Large casual game makers have seen recent difficulties: King.com and Zynga, the respective creators of Candy Crush Saga and Farmville, have had faltering stock prices in the past few months. Rovio Entertainment, the creators of Angry Birds,

recently had to shutter one of its studios. Alternatively, sales of the Xbox One and Playstation 4 since their release in Fall 2013 have reaffirmed the popularity of traditional games and consoles, with both having sold over 10 million units.

Industry Leaders



Activision Blizzard, Inc.

9.8% of U.S. market share

Activision Blizzard is the largest U.S.-based video game publisher in the industry. Its organization consists of three major subsidiaries. The first, Activision Publishing, publishes internally and externally developed games.

The internal development efforts are chiefly focused on the creation of sequels and expansions of their popular franchises such as *Call of Duty* and *Skylanders*. The second subsidiary, Blizzard Entertainment, mainly develops and publishes games for the PC. Blizzard normally releases fewer games, but they have a track record for being critically acclaimed and high-grossing. Blizzard's noted intellectual properties include *World of Warcraft*, *StarCraft*, and *Diablo*. Lastly, Activision Blizzard Distribution is responsible for the worldwide distribution of all of Activision Blizzard's releases.

In 2014, Activision Blizzard earned a global revenue of \$4.4 billion. *Call of Duty*, *Skylanders*, and *World of Warcraft* accounted for 67% of that revenue. However, this is an year-over-year decrease in revenue, due to lower returns on the most recent *Call of Duty* and *Skylanders* games. In November 2015, Activision Blizzard acquired mobile game developer King.com for \$5.9 billion.



Electronic Arts, Inc.

9.4% of U.S. market share

Electronic Arts (EA) is the second largest U.S.-based video game publisher. They represent a multitude of video game brands, some are wholly-owned, such as *Battlefield*, and others are licenses from other companies, such as *Star Wars* and the *Madden* football license. In recent years, EA has been reducing its yearly output of games to focus on the most promising franchises, going from 30 titles in 2011 to 11 titles in 2014.

EA has also been acquiring numerous causal, social, and mobile game developers in an attempt to take advantage of opportunities in those categories. The most well-known acquisitions include Chillingo in 2010 and PopCap in 2011. EA reported global revenue of \$3.58 billion in 2014.

SONY

Sony Corporation
7.1% of U.S. market share

Sony Corporation, which has business units in electronics, video games, motion pictures, music, and financial services, had global revenue of \$7.8 billion in 2014. Sony's video game subsidiary, Sony Interactive Entertainment (SIE, formerly Sony Computer Entertainment), focuses on research and development and production and development of video game hardware and software. For fiscal year 2014, SIE earned \$915 million in U.S. revenue.

In November 2014, Sony released the PlayStation 4 (PS4), the most recent console in the PlayStation brand. As of March 2015, the PS4 has sold 20.2 million units. The PS4's main competitor, Microsoft's Xbox One, had sold only 10 million units in that same time frame. This strong surge in hardware sales has also contributed to an increase in Sony's software sales, with software revenue jumping 29.5% in 2014.

Sony has also been dedicated to building relationships with indie developers to create a more diverse variety of games on its digital PlayStation Store.



Microsoft

Microsoft Corporation
5.8% of U.S. market share

In 2014, Microsoft reported \$86.7 billion in revenue across all of its business units. \$963 million of that came from the company's domestic video game business. Microsoft's video game efforts are divided into the Xbox brand and Microsoft Studios.

The Xbox brand represents the Xbox One, the most recent addition to the Xbox product line, as well as a suite of services and applications available for the Xbox, which includes Xbox Live, the online multiplayer subscription service for the Xbox. Xbox Live has been more successful than Sony's rival PlayStation Network (PSN), boasting more subscribers and game sales.

Microsoft Studios is responsible for internal and external development and publishing of games. Due to lagging behind the PS4 in sales, Microsoft has been hard at work acquiring exclusive publishing deals with third-party developers for Xbox and PC, such as Remedy Entertainment's *Quantum Break*. This also includes Microsoft's ID@Xbox initiative for exclusivity with indie developers and their games, such as Capybara Games' *Below*.



Nintendo

Nintendo Co. Ltd.
3.8% of U.S. market share

Nintendo, which reported global revenue of \$5.5 billion and U.S.-based revenue of \$750 million in 2014, upended the concept of video game consoles with the releases of the Wii and the Nintendo DS, which added the unique game controls of motion controls and a dual screen interface, respectively. Nintendo saw immense success with the Wii, selling over 101 million units as of December 2015. Unfortunately, the Wii's successor, the Wii U, has been seen as a failure, selling only 10

million units since its release November 2012. Comparitavely, Microsoft's Xbox One has sold roughly the same number of units since November 2014, only half the span of time. Nintendo has responded to this lack of interest by accounching the Wii U's successor, codenamed the NX, to be publicly announced sometime in 2016.

Despite the floudering sales of the Wii U, Nintendo is able to leverage its many popular intellectual properties, which are only available on Nintendo platforms. This properties include *Super Mario*, *The Legend of Zelda*, and *Super Smash Bros*.



Take-Two Interactive Software, Inc.

3.2% of U.S. market share

Take-Two is both a publisher and developer, primarily focusing on publishing games from their wholly-owned developers, which include Rockstar Games, developer of the *Grand Theft Auto* series; 2K Games, developer and publisher of 2K Sports games such as *NBA 2K*; and Firaxis, developer of the *Civilization* series. Take-Two reported \$2.4 billion in global revenue in 2014.



Ubisoft Entertainment S.A.

2.5% of U.S. market share

Ubisoft is a France-based publisher that owns studios in 17 countries, such as Ubisoft Montreal in Montreal, Canada, and subsidiaries in 28 countries, such as Red Storm Entertainment in Cary, North Carolina. Ubisoft is known as the developer of the game franchies *Prince of Persia*, *Assassin's Creed*, and *Splinter Cell*. Ubisoft's global revenue was \$1.7 billion in 2014.

Industry Trends

Rising Cost of Development

The increased quality and graphical fidelity of video games have lead to a greater demand of professionals from artists to software engineers to voice actors. This increased production also leads to increased infrastructure requirements to store all of a studios assets. The information technology infrastructure of some developers has been compared to that of a small bank. Additionally, marketing costs are often included in the cost of a game, unlike in the film industry where a movie's production and marketing budgets are kept separate. For Bungie's game *Destiny*, publisher Activision allowed for a budget of \$500 million for both development and marketing.

The use of middleware, such as Interactive Data Visualization, Inc.'s SpeedTree, which generates foliage for video games, will help reduce development cost, but overall, larger publishers and developers are reducing their risk by producing more sequels and proven game mechanics, significantly reducing the amount of new ideas of store shelves.

Pricing Models

Direct sales are still the most common revenue method for video games. The pricing of games directly sold vary depending on the size and scope of games.

Free-to-play (F2P) is a pricing model used primarily by smartphone games, but has seen increasing adoption from PC and console games. Free to play games offer the base game for free but then offer added features through microtransactions. *Crossy Road*, a free-to-play smartphone game by Hipster Whale released in November 2014, has earned over \$10 million from advertising and in-app purchases.

Downloadable content (DLC) are expansions and additional pieces of content created for existing games. The price and scope of DLC is usually a percentage of the base game.

New Technologies

Smartphones have obviously affected numerous aspects of culture and technology, and video games are no different. Smartphone interfaces and technology require developers to be thoughtful about game design, since typical interfaces that work for PC and console games normally don't translate well to smartphones. As stated previously, smartphones have not replaced all other hardware in the industry, as some claimed that they were poised to do, but they are a viable platform for games.

Virtual reality (VR) is the latest technology in the video game industry. Modern VR uses a head mounted display that fills a player's entire vision to let them occupy and interact with a virtual space using some type of controller. VR headsets include the Oculus Rift, the HTC Vive, and PlayStation VR. The Oculus Rift is responsible for starting the modern era of VR with a Kickstarter campaign in 2012 that earned \$2.4 million for the original prototype. Oculus was then acquired by Facebook, Inc. in March 2014 for \$2 billion.

The Oculus Rift and HTC Vive both saw retail releases in March 2016, with PlayStation VR expected to be released October 2016. While many hardware manufacturers, platform holders, and game developers are working to make the VR space successful, the size of the VR market is unknown. It's doubtful that VR will completely replace standard video game consoles and PCs as the preferred way to play all games; it's more likely that VR will be a sizable platform that complements consoles and PCs, similar to smartphones.

Microconsoles are smaller, less powerful consoles built to bridge the gap between smartphones and consoles, bringing games built for smartphone hardware to the living room with a console controller. PlayJam's GameStick, the Ouya, and Amazon's FireTV are all examples of microconsoles. The Ouya, the posterchild for microconsoles, saw a successful Kickstarter in July 2012, raising \$8.5 million. Unfortunately, reception of the Ouya upon its release was underwhelming due to a subpar design of the controller and slow software. The Ouya was discontinued in July 2015, with Ouya, Inc.'s software assets sold to Razer Inc. In total, microconsoles have yet to draw mass attention of core gamers.

Key Success Factors

Researchers at Rochester Institute of Technology and Microsoft analyzed 155 postmortems written by video game developers on game industry site Gamasutra to see the aspects that went right and went wrong during development.

Figure 1.2: What Went Right

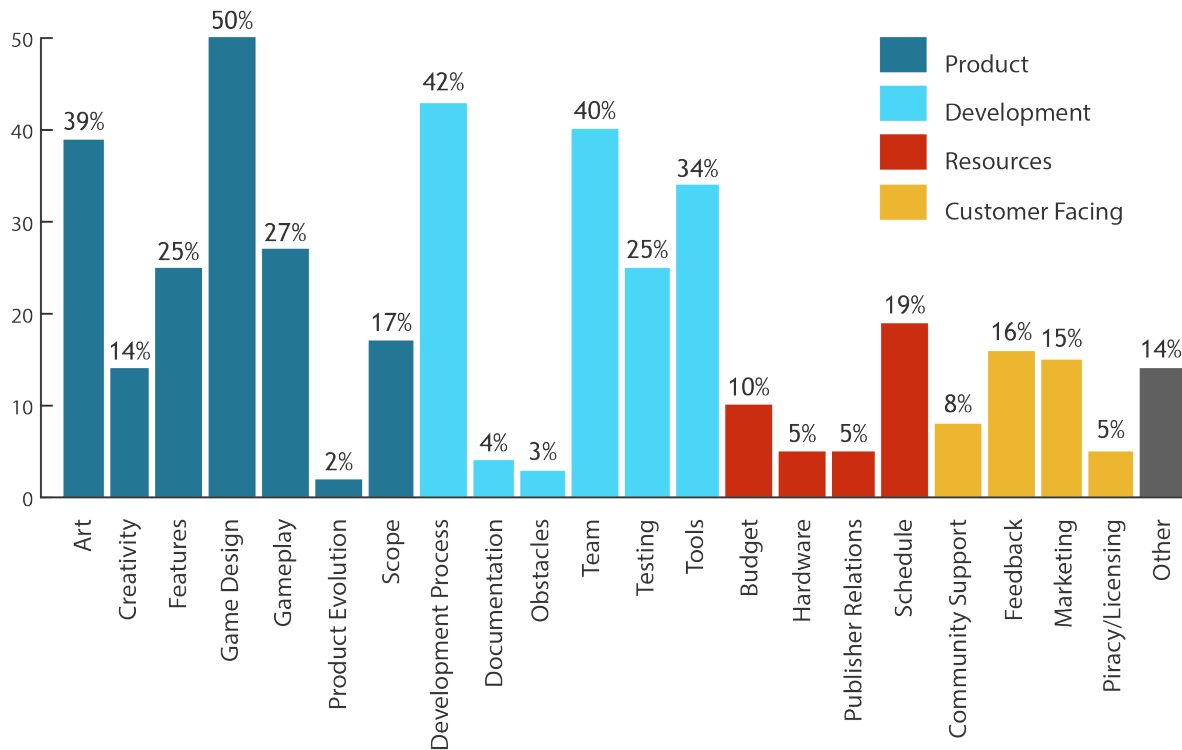
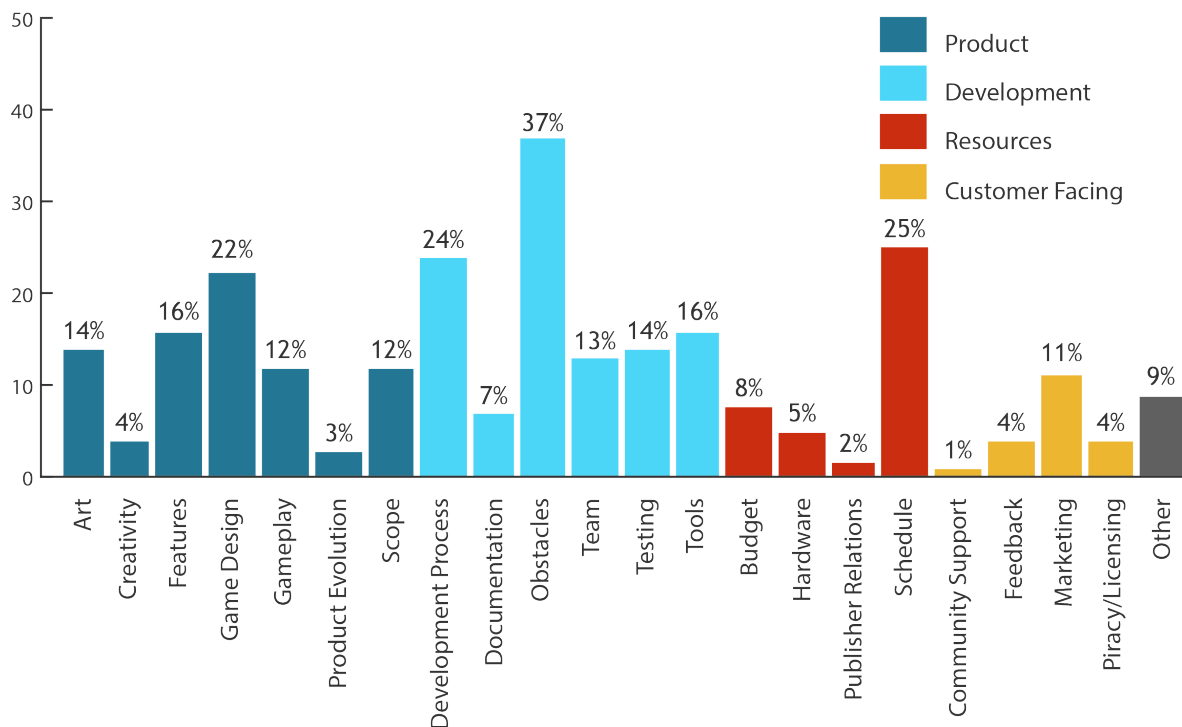


Figure 1.3: What Went Wrong



Art

The art category includes elements of development such as artist skill, the art development process, art quality, the effect of art on gameplay, and the effect on art on user experience. In essence, the study recommends to hire professional artists to improve the quality of the developer's game and to have artists working hand in hand with game designers to ensure a more cohesive product.

Creativity

The creativity of the development team is vital to the quality of the game, yet only 14% of developers cited it as something that went right. Suggestions for improving team creativity included encouraging open discussion amongst all members of the development team. Additionally, it was recommended to not make a studio's initial product be something that is similar in features to an existing game for risk of one's game falling into obscurity.

Features

It was recommended by the researchers to have features that were unique and fun or to have one feature that significantly contributed to the quality of the game. Developers that suffered from poor feature stated that it was due to poor implementation, a lack of reviewing features and ideas, or due to feature creep.

Game Design

Game design goes right when unique game mechanics are created. This, combined with giving designers and artists to work creatively within the design, allows the development team to remain interested throughout development. Game design goes poorly when developers misinterpret what players find enjoyable from their game, affecting the possible sales of the product.

Gameplay

Development of gameplay goes poorly when developers confuse challenge with difficulty, making their game too difficult for players to enjoy. This is especially difficult since developers tend to skew a game's difficulty harder during development, since they have more experience with the game.

Product Evolution

Developers need to define what message they want players to take away from their game in order to help focus development. Otherwise, a developer may be constantly fighting feature or scope creep or repeated iterating on their ideas without producing a product.

Scope

Scope is the set of features developers choose to include in their game. Ideally, developers should use user testing in order to define by removing unwanted features.

Development Process

To improve the development process, developers should use rapid iteration to test ideas. They should then use a prototype from this rapid development cycle to use as a guide for full development. Developers also need to plan out their technical requirements. Otherwise,

it may be difficult to add features later due to technical constraints. Another common pitfall cited during the development process is mismanagement. Development teams need to have a dedicated project manager to ensure that production goes smoothly.

Documentation

Documentation during the development process should be used as a loose roadmap, being careful not to have too little or too much.

Obstacles

Obstacles include events that cause delays in development. These occurrences can be both predictable, such as a newly formed team or company or a lack of team dynamic, and unpredictable, such as personal tragedies, illnesses, and other losses of resources, equipment, and personnel. For team issues, groups need to participate in team building, and for unforeseen issues, developers must adopt a method of risk management and be adaptive to set backs.

Team

Individuals that have strong values, have personalities that fit with the culture of the firm, have respect for their coworkers, are experienced in the field with the genre of the game, are motivated, and are trained in the team's development environment are the mostly likely to create an effective development team.

Testing

Developers need a unit, alpha, beta, or usability test as well as a player test in order to receive actionable feedback to make improvements.

Tools

Developers need to use tools with which they are familiar that are supported with documentation and technical support.

Budget

Developers need to determine the minimum possible budget for a game and to not go below that figure, or else they risk affecting the quality of the product. However, developers do not need to go significantly above their proposed budget either. In fact, it's suggested that a smaller budget is easier to stick to during development.

Hardware

In this context, hardware refers to the platform for which the developer is making their game. Limited hardware platforms, such as the Ouya, can limit the size and the scope of a game. Developers were more likely to list hardware as something that went right or wrong if they were developing for a single platform, as opposed to multiple platforms at once.

Publisher Relations

Developers can decide whether or not to work with a publisher to help bring their game to market. If they choose to work with one, then they must be open and communicative with the publisher to ensure a smooth development process.

Schedule

For a developer to have an effective schedule for their game, they should prepare realistic milestones they can meet throughout development. For the 25% of developers that said scheduling went wrong during development, they cited that it was due to either uninformed estimations or underestimating the time it would take to solve certain technical challenges. When this happens, developers need to be willing to extend milestones or dedicate more resources to a project to meet their milestones.

Community Support

Community support refers to the existence of an online community surrounding a game. A game's community members can help spread word about the game and can volunteer to help with the development or testing of the game. An active community is important for games that utilize social features in order to sell those social aspects.

Feedback

Developers should actively seek feedback during development in order to prove or disprove the effectiveness of game features.

Marketing

The marketing of a game is a non-issue if a developer is working with a publisher. If not, then a lack of marketing can obviously hinder the sales of a game. Developers without a publisher can market their game by participating in promotional events or comarketing deals with platform holders.

Piracy/Licensing

Piracy refers to the unlawful theft of a game, while licensing refers to the leasing of intellectual property, such as music or a film brand, for use in a game. Piracy is a more common problem with developers, but it's a difficult issue to handle. Some games' sales suffer greatly without digital rights management (DRM) protection, which is used to combat piracy. Other games can still sell really well without DRM. Developers have to be judicious about the audience that their game will attract and whether dedicating resources to prevent piracy is necessary.

II. The Company, Concept, and Product

Company and Concept

Ward will be established as a limited liability company (LLC) in the state of Virginia. We plan on headquartering our firm in the city of Richmond due to its abundance of creative professionals in fields such as visual art, music, and software development.

Ward was created out of an increased frustration by myself, Dylan Ilvento, and my co-founder, Mason Brown, with the state of narratives in games. Many AAA games only focus on delivering explosive, action movie-esque thrill rides that suffer from a lack of narrative pacing, well-developed characters, and intriguing plot. This is due to the fact that narratives in games are still seen as second to gameplay.

Alternatively, independent developers have made great strides in creating great narratives in games, such as Fullbright's *Gone Home* and Campo Santo's *Firewatch*, yet these games have been pejoratively referred to as "walking simulators," since most of the gameplay revolves around walking through environments and interacting with objects. Additionally, many independent creators, after seeing success with their initial game, do not increase the scope and scale of their successive games, either due to a lack of resources or lack of personal interest. The narrative innovation seen in the independent community is rarely adopted by big-budget developers.

Ward seeks to bridge the gap between the innovative, narrative-driven independent games and the large-scale, gameplay-oriented AAA releases in order to bring well-told stories in the video game medium to a larger audience.

Product

Games produced by Ward will strive to avoid ludonarrative dissonance, contain high quality writing, interlink gameplay and narrative, and have an adequate pre-production time.

Ludonarrative Dissonance

Ludonarrative dissonance is when the inherent logic of the story conflicts with the logic of the gameplay. In many first-person shooters like *Call of Duty* or *Halo*, a common mechanic is to give player characters and their computer-controlled allies regenerative health, where the characters' health bar gradually restores itself after not taking damage for a short period of time. This creates the unbelievable image of a character riddled with bullets that just disappear, and those same characters may be easily killed like a normal human-being if the plot calls for it. This kind of inconsistency pulls players out of the experience and lessens the impact of the story. Any game that attempts to immerse the player in its story will fail if ludonarrative dissonance such as this exists. Our firm will strive to avoid ludonarrative dissonance at any cost.

Quality of Writing

Writing boils down to a few key elements: plot, theme, characters, and tone.

Plot is the series of events that occur to tell the story. Obviously, the plotting of a story in any medium has to have logical consistency, whether it's science fiction or realistic fiction. Our preference is to differentiate ourselves by telling stories in the realistic fiction genre. So many video game stories are about fulfilling a power fantasy, which gives the player a larger amount of power and control to effect the world, but these do not make for engaging stories.

Theme is the message that a writer wants the audience to take away after they are done. Deciding on a theme early will help plan both the narrative and gameplay.

Characters are the agents that a writer uses to tell their story. Characters are important to have so that the player has someone to which to connect within the game. Many games still struggle with creating good, original character dialogue, making effective character moments in games hard to come by.

Tone is the attitude of the piece of writing, and it must be consistent, or purposefully inconsistent as the case may be, with the setting of the game.

Interlinked Gameplay and Narrative

Brothers: A Tale of Two Sons by Starbreeze Studios AB is an example of a game that skillfully intertwines gameplay and narrative. In it, the player controls two brothers: Naia, the older, stronger brother, and Naiee, the younger, nimbler brother. The siblings are tasked with traveling a great distance to retrieve some mystical medicine for their terminally ill father. Each brother is controlled using one of the two thumbsticks on a standard game controller. When moved against objects, each brother interacts with them according to their own abilities. Naia can push, lift, and carry objects, while Naiee can fit through small openings, run along narrow passages, and climb over obstacles. Each brother can only interact with objects suited to their skills, touching on themes of familial reliance and trust.

Before completing their task and returning home, Naia dies. His strength can no longer help Naiee, and the thumbstick that would control him goes unused. Eventually, Naiee comes across an obstacle that only Naia would be able to surpass. When the player experiments on how to circumvent the obstacle, they discover, without being prompted by the game, that Naiee can now be controlled using Naia's thumbstick, allowing Naiee to use his older brother's skills. This subtly informs both the player and Naia that he has learned from his brother over the course of the game. Using the gameplay itself to inform parts of the narrative, instead of expressing it through noninteractive exposition such as dialogue or cutscenes, is a method of storytelling unique to the medium that has yet to see widespread adoption.

Pre-Production

Many issues with the lack of well-told stories in games can be tied to the lack of pre-production, which is the time before development starts where developers plan and prototype their product.

Unfortunately, the end of the preceding project requires the work of all personnel to ensure that it releases on time, making pre-production for the next project short or nonexistent. This period, commonly referred to as “crunch time” or simply “crunch,” has employees working, either voluntarily or involuntarily, beyond the average forty-hour workweek. The need to release the game to meet a specified date and expected sales numbers is so great that it becomes difficult to justify pulling staff to plan the next project. In fact, development studios tend to hire additional employees during crunch to further guarantee a punctual release, creating an oversaturation of employees who will inevitably be laid off once the game is complete.

The cycle of over hiring and laying off employees is commonplace in the video game industry, especially in relationships between the large, independent development studios, like Bungie, and the publishers that fund their projects, like Activision. Development studio Ready at Dawn Studios LLC entered a publishing deal with Sony to receive funding for their new game: *The Order: 1886*. However, the budget for pre-production was significantly less than what they would receive during full scale development of the game, causing Ready at Dawn to layoff 13 employees during pre-production, only to rehire them for production and crunch.

We need to make our employees feel safe in knowing that they are not at risk of losing their job so that they can produce the best possible game. We have to have better scheduling in place so that we can avoid crunch and have adequate pre-production time for the following game.

Entry and Growth Strategy

We have initially entered the market through the creation of playable prototypes, created during game jams, which are quick, iterative game development sessions. From these game jams, we’ve refined our ability to iterate and work at a fast pace.

Our first full release will be distributed through online digital marketplaces for the PC. The platform itch.io will act as our first entry point since it has the lowest barrier to entry. Marketplaces such as Steam and the Humble Store are the next goal, since they possess a far larger install base compared to itch.io.

Our goal is to grow Ward to a sizable over the next five years to a staff between 10 and 40. The return on each game will be used to reinvest into the company. This will allow us to make games with more production value and larger scope. We also want to be prolific. We don’t want to be a company that disappears for four to six years and reemerge with a single new game. We want to release new games every year or two. With a more frequent release schedule, we need to balance the scope of our games with what’s manageable in that time frame.

Our single greatest protection against competition is on our focus on storytelling. Since characters and setting are immediately copyrighted upon their creation, we are protected from complete duplication. Game mechanics are harder to protection, since the ability to acquire a patent on them is difficult, especially if the mechanic has existed before the creation of one of our games. A recent example is with developer Sirvo’s game *Threes!*, a number-based puzzle smartphone game originally sold for \$2.

One month later, Gabriele Cirulli released *2048*, a game very similar in gameplay to *Threes!*, for free. Sirvo blames *2048* for a loss in sales numbers, but they were unable to do anything about it, since they had no intellectual property protection against the game's mechanics. This is the biggest vulnerability for games that are only mechanics-based.

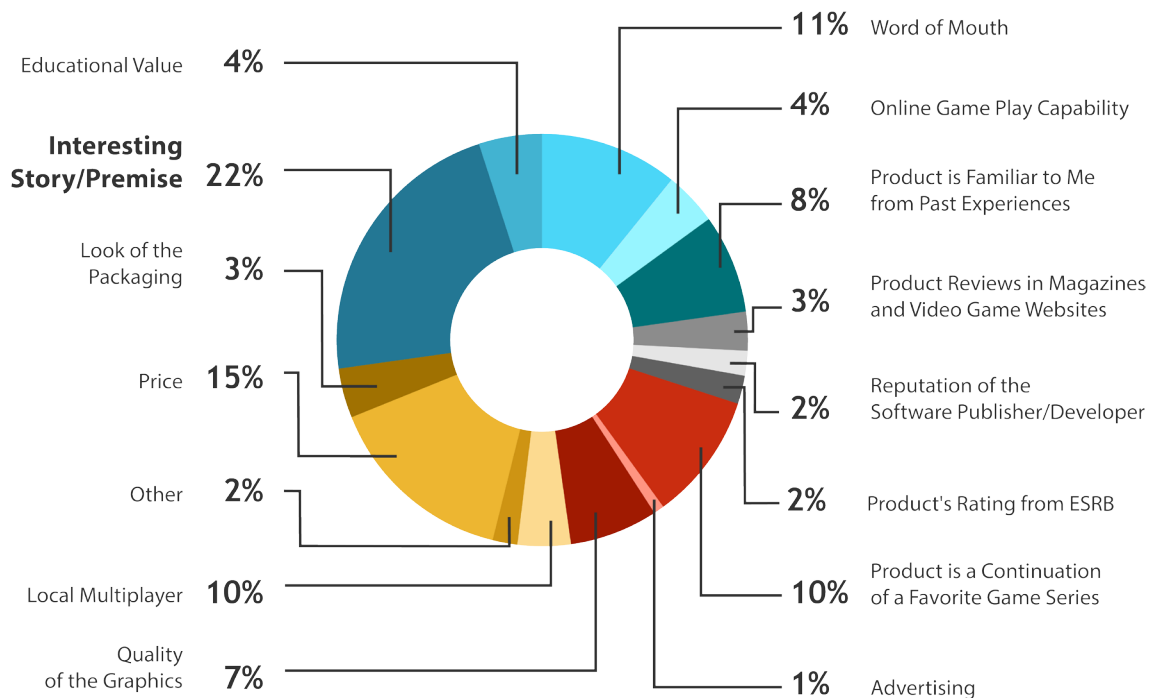
With the focus put on story, we are able to strengthen our position. Just like how it has been difficult for other animation studios to copy Pixar's success and prestige despite the availability of computer graphic animation software, it will also be difficult to emulate us.

III. Market Analysis

Market Overview

In an annual survey conducted by the Entertainment Software Association (ESA), 22% of people surveyed indicated that games possessing an interesting story or premise influenced them to purchase a video game. This factor, above all others, was the most influential amongst respondents.

Figure 3.1: Factors influencing decisions to purchase video games



Additionally, according to a 2014 Mintel survey compiled from people ages 18 and older that identified as video game players, game plot and story is the third most important feature for a video game to have, behind graphics and challenging gameplay.

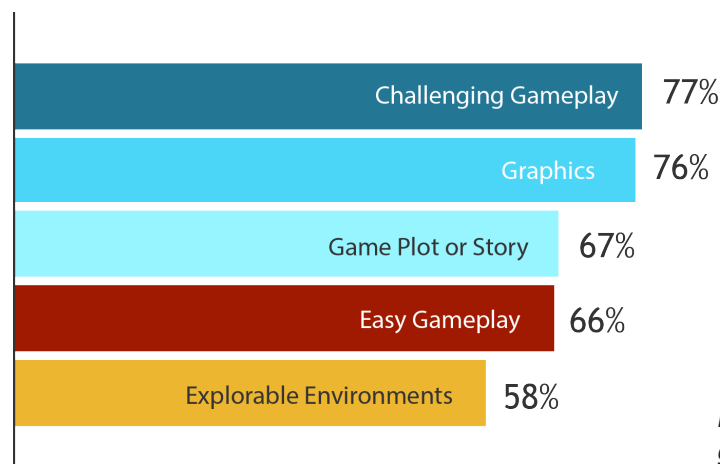


Figure 3.2: Importance of video game features

Based on the information we have gathered; we can determine that the target market for narrative-focused games will:

- Be male or female
- Be between the ages of 18 to 54 for males and 18 to 34 for females
- Play games for around 5 hours a week
- Be in a household of 1 person or 3 or more people
- Be of any income level
- Own a personal computer (PC)
- Not buy many new games or will wait at least a month after release to purchase one
- Be willing to spend up to \$60 a month on games
- Purchase games digitally on their PC through the Steam marketplace

Market Size

According to the ESA, 155 million Americans play video games, and they account for the \$19.6 billion in revenue in 2015.

Of these 155 million, 27 million are located on Steam, the dominant digital marketplace on the PC. It boasts over 125 million global users with 1.3 million of them identified as frequent game purchasers. To release a game on Steam, it must go through a validation process called Steam Greenlight. Developers pay a one-time fee of \$100 to submit their games onto Greenlight, where Steam users vote on whether they wish to purchase your game. A game's eligibility for sale on Steam is determined by the pace at which it receives votes relative to other games on Greenlight, not by a discrete number of votes. Once a game has passed this threshold, it is then eligible to be released on Steam.

Market Understanding

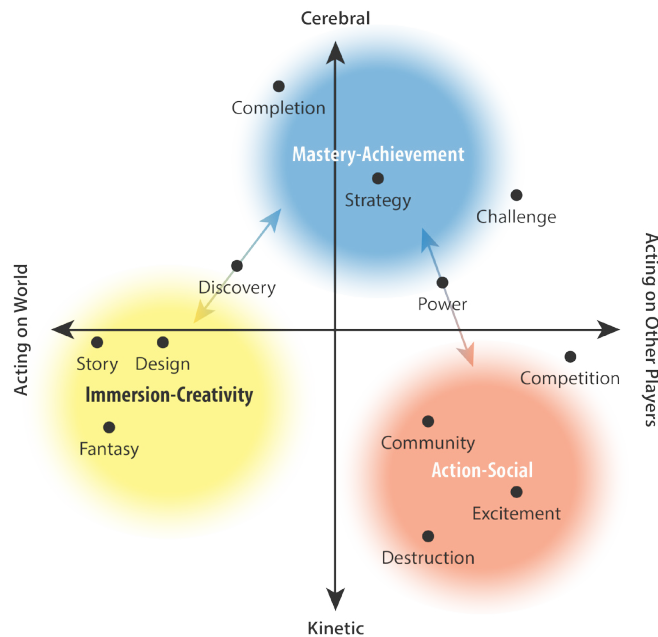
In order to properly identify players that are most interested in our games, we compiled data about players across three different categories: game features, game genres, and game platforms.

Game Features

Player's want for compelling stories and plots in their games corresponds to one of the three high-level clusters of gaming motivations devised by Quantic Foundry, a consulting firm focusing on player analysis. Players who are motivated to play games due to aspects such as story, design, and fantasy are located within the Immersion-Creativity high-level cluster.

Games that appeal to players located in this cluster possess features such as intricate plots and characters, allowing the player to take on the role of someone else, and allowing the player express themselves through character customization or player influence on the story. Since games are an interactive medium, we have to account for player choice in the narratives that we create.

Figure 3.3: Map of Gaming Motivations



Player agency also corresponds with the Immersion-Creativity cluster's close proximity to the "Acting on World" end of the horizontal axis. "Acting on World" means that players are most concerned about interacting with elements of the world and its narrative as opposed to interacting with other players through gameplay. The Immersion-Creativity cluster also lies in the relative middle of the vertical axis, with more of a leaning towards kinetic gameplay. Kinetic gameplay concerns itself with dynamic and fast-paced actions, found in games such as *Assassin's Creed* or *Call of Duty*, whereas cerebral gameplay emphasizes careful, long-term oriented gameplay,

Table 3.1: Gamer Motivation Model

Action "Boom!"	Social "Let's Play Together"	Mastery "Let Me Think"	Achievement "I Want More"	Immersion "Once Upon a Time"	Creativity "What If?"
<u>Destruction</u> Guns, Explosives, Chaos, Mayhem	<u>Competition</u> Duels, Matches, High on Ranking	<u>Challenge</u> Practice, High Difficulty, Challenges	<u>Completion</u> Get All Collectibles, Complete All Missions	<u>Fantasy</u> Being someone else, somewhere else	<u>Design</u> Expression, Customization
<u>Excitement</u> Fast-Paced, Action, Surprises, Thrills	<u>Community</u> Being on Team, Chatting, Interacting	<u>Strategy</u> Thinking Ahead, Making Decisions	<u>Power</u> Powerful Character, Powerful Equipment	<u>Story</u> Elaborate plots, Interesting characters	<u>Discovery</u> Explore, Tinker, Experiment

found in games such as *Civilization* or *XCOM*. This allows our games to have gameplay mechanics from either camp with a slightly greater focus on kinetic gameplay.

There are two motivations on the map that act as bridges between clusters. The motivation of discovery bridges Immersion-Creativity and Mastery-Achievement, and the motivation of power bridges Mastery-Achievement and Action-Social. For Ward, if we incorporate the motivation of discovery into our games alongside the motivations of story, design, and fantasy, then we could appeal to players in two high level clusters instead of just one.

Table 3.2: Importance of Game Features by Household Size

	1 person	2 people	3 people	4 people	5 people or more
Challenging Gameplay	71%	71	79	80	85
Graphics	72%	69	76	83	81
Game Plot or Story	64%	55	67	75	77
Easy Gameplay	63%	64	68	68	65
Explorable Environments	55%	47	60	66	66

When comparing the importance of game features by household size, the lowest ranking demographic among all the categories comes from 2 person households, and the ratings pick back up at 3 or more.

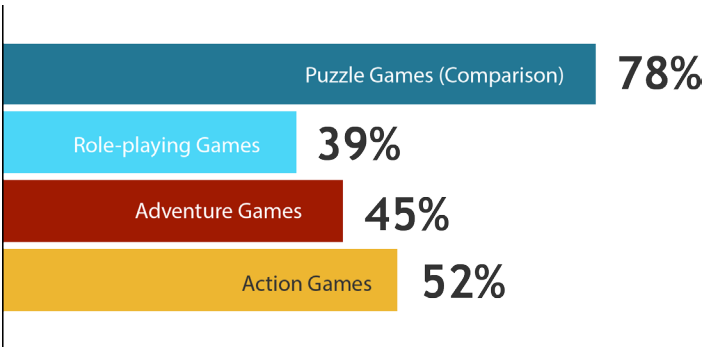
Table 3.3: Importance of Game Features by Platform

	Eighth Console Generation	Computer	Smartphone	Tablet
Challenging Gameplay	82%	74	78	73
Graphics	85%	67	76	73
Game Plot or Story	86%	57	65	55
Easy Gameplay	66%	59	67	67
Explorable Environments	75%	50	52	50

Interestingly, players on smartphones believe plot and story are more important than players on computers. This may be because a large group of computer players play strategy games that are more focused on mechanics and strategy than they are on plot, while smartphone players pursue more unique, personal experiences on their phone screen. Gamers on the current console generation (Xbox One, Playstation 4, and Wii U) see plot and story as the most important.

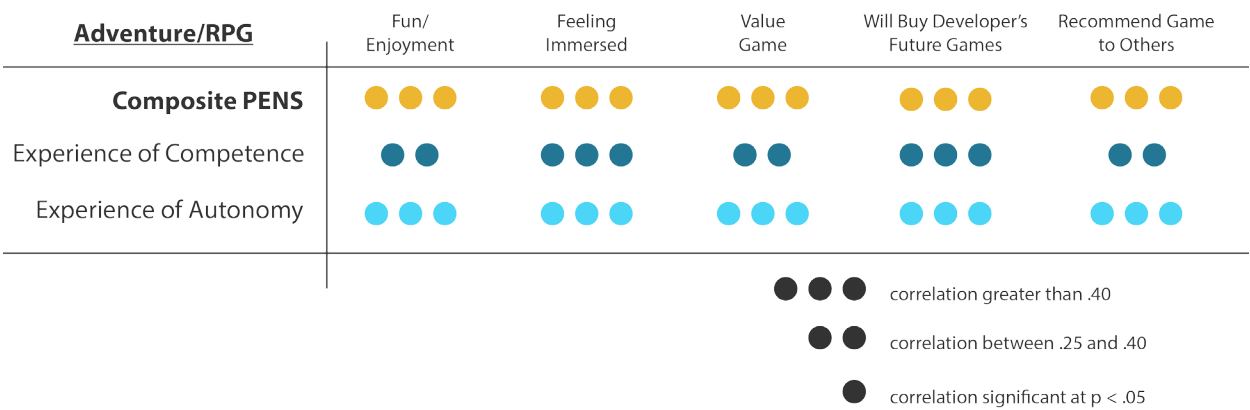
Game Genres

Figure 3.4: Video Game Genres Played



Players in the Mintel study were also asked which game genres they played. For comparison, the most played genre was puzzle games being played by 78% of players. This coincides with the popularity of casual games being made for mobile devices. The genres that our narratively-driven games would fit into – role-playing (RPG), adventure, and action games – are each played by more than 40% of players.

Figure 3.5: Relationship Between all Player Experience of Need Satisfaction (PENS) Measures and Important Outcomes for Adventure/Role-Playing (RPG) Games



The Player Experience of Need Satisfaction (PENS) model, developed by Immersyve, Inc, stresses the value of the action, adventure, and RPG genres. The PENS model states that there are three important needs that every player desires to be satisfied when they play a game: autonomy, relatedness, and competence.

Autonomy refers to player’s want for personal volition and meaningful choice in their games, similar to the “Acting on World” feature discussed before.

Relatedness refers to players wishing to have meaningful connections with other players. Games found in Figure 3.3’s Action-Social cluster appeal to this need the most. According to the 2015 Mintel study, over 50% of gamers enjoy social elements in games.

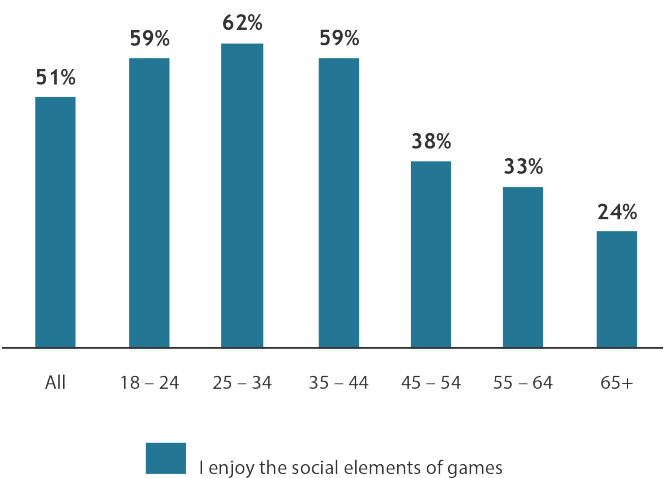


Figure 3.6: Opinions Regarding Social Elements in Games

Adventure and RPG games have traditionally been single-player affairs, so much so that Immersyve did not even compare the correlation or relatedness in the adventure and RPG genres. However, more narratively-driven games are starting to implement social features, such as Telltale Game’s Telltale Account, which allows players to save, view, and share their story-influencing decisions.

Competence refers to a players need for continuous improvement in their skills over the course of their game. This corresponds to the 77% of players in Figure 3.2 that desire challenging gameplay in their games, since challenging gameplay would drive players to improve their abilities to continue to progress through the game. The desire for challenging gameplay remains high in our desired genres, with action, adventure, and RPG games scoring 72%, 68%, and 75% respectively.

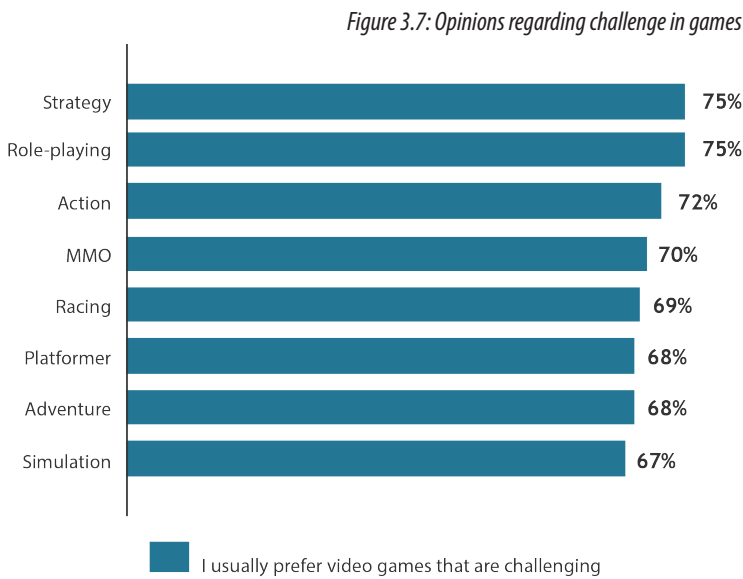
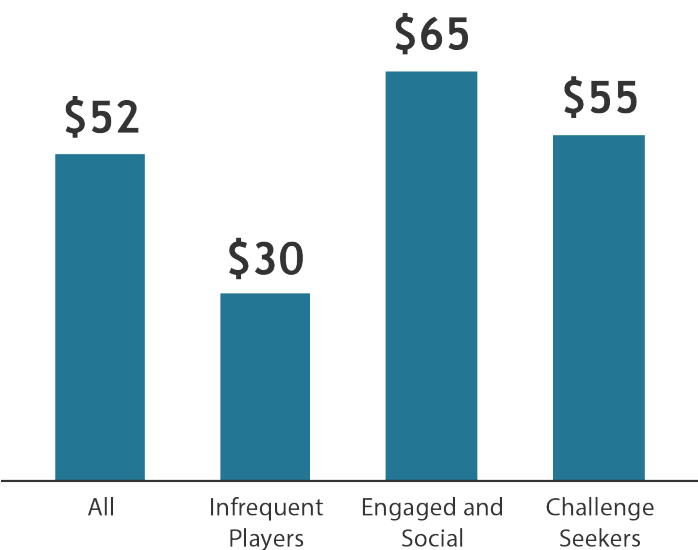


Figure 3.8 : Cluster analysis groups, by willingness to spend on video games each month (median)



Each of these needs determine important player outcomes such as if the player derived enjoyment, if they felt immersed, if they perceived value in the game, whether they will buy more of the developer’s games, and whether they would recommend the game to others. According to Figure 5, the Adventure and RPG genres have a higher correlation across all player outcomes than any other genre. Additionally, Figure 8 shows that players who value social aspects of gaming have the highest median willingness to spend per month at \$65. The next largest group is those who look for challenges in their games, who are willing to spend up to \$55 per month on games.

By developing games in the action, adventure, and RPG genres, we have a higher likelihood of meeting the needs specified in the PENS model and seeing beneficial player outcomes. When we meet these player needs, we also attract players who are willing to spend more on video games.

Table 3.4: Game Genres Currently Played by Age and Gender

	Male			Female		
	18 – 34	35 – 54	55+	18 – 34	35 – 54	55+
Action Games	91%	67	28	53	25	5
Adventure Games	78%	41	20	49	29	15
Role-Playing Games	75%	41	13	41	19	8

The action, adventure, and role-playing game genres are played mostly by males between the ages of 18 to 54 and females between the ages of 18 to 34. The average video game player is now 37 years old. Gamers who started playing games as children during the creation of the home video game console have not given up their pastime as they have aged. Without customers leaving the market, the consumer base only continues to expand. As these gamers age, they want more mature and intellectually provoking ideas in the medium that they consume. The games from our firm will have unique and thoughtful narratives that will appeal to a matured consumer's sensibilities.

Contemporary game developers must pay attention to the female demographic for they account for 48% of players. In a medium that has been traditionally seen as male-dominated, it is important to cast aside the overtly sexist decisions previously made in games. Game narratives that hyper-sexualized women or placed them in positions of ineptitude that required a male character to save them will only to continue alienate female gamers. The narratives in our games will strive for equal female representation and empowerment. Having a game that provides commentary on the current state a female representation in culture could also help attract female players.

Game Platforms

Table 3.5: Game Genres Currently Played by Age and Gender

	Male			Female		
	18 – 34	35 – 54	55+	18 – 34	35 – 54	55+
Eighth Console Generation	45%	20	4	18	8	v3
Personal Computer	9%	12	10	8	10	13
Mac	1%	1	0	1	1	1
Mobile	26%	22	12	40	35	14

Many players' primary game platform is either mobile or a home console. While it may seem obvious to develop for mobile, the length of a game players expect on a mobile device does not coincide with the types of products we wish to create. Longer, more involved games suit home consoles and personal computers. Narrative games have seen some success on mobile platforms, such as Simogo's Year Walk and Device 6 or Superbrothers' Sword and Sworcery EP, but the best experiences must be made with the device's technology and user interface in mind.

As an independent game development company, Ward's primary platform upon which it will develop games is the PC. The PC, unlike other platforms, has a much lower barrier to entry. Other platforms like the Xbox One, Playstation 4, Wii U, and iOS devices require certification and licensing fees from the platform holders.

Buyer Behavior

Table 3.6: "When do you usually buy a new game?" by Age and Gender

	Male			Female		
	18 – 34	35 – 54	55+	18 – 34	35 – 54	55+
Don't buy many new games	45%	56	75	56	66	80
More than a month after game's release	20%	21	15	26	18	3
Less than a week after game's release	11%	8	3	8	7	3
Less than a month after game's release	12%	10	6	6	6	2
Day of game's release	12%	6	1	4	2	1

Table 3.7: Highlighted Opinions on Games by Household Size

	All	1 person	2 people	3 people	4 people	5 people or more
I wait to buy games until they are cheaper	42%	38	30	48	46	47
Video games are my main source of entertainment	19%	12	14	22	17	24

According to Table 3.6, Most gamers do not buy many new games, and they usually wait until a month after release if they do. While marketing the game before its release is important, many sales may come well after the game is released. Players also wait until the game comes down in price before they purchase it. A recent trend is for big-budget games to be sixty dollars in their first few months of release and then drop ten to thirty dollars in price soon afterwards. Steam is known for having frequent sales on its store, with major ones occurring during the summer, fall, and winter.

While temporary price cuts will help us sell more copies of a game, this trend may teach players to always wait for a sale or to expect the same quality of product for a lower price. A balance must be met between price, customer expectations, and development cost.

According to Figure 3.9, one third of players are only willing to play free games. These games, traditionally termed free to play games, make their revenue through either in-game advertising or in-game purchases. In-game purchases can include cosmetic changes for a player's character, temporary stats boosts for the player, or in-game currency. Games that succeed at this model have gameplay mechanics that offer short-term enjoyment with long-term goals. Games include the match-three puzzle smartphone game Candy Crush Saga, where in-app purchases give the player more lives, which are depleted whenever the player loses at a level, and the multiplayer online battle arena PC game Dota 2, where the in-game purchases unlock different costumes for the player's character.

Figure 3.9: Willingness by gamers to spend on video games

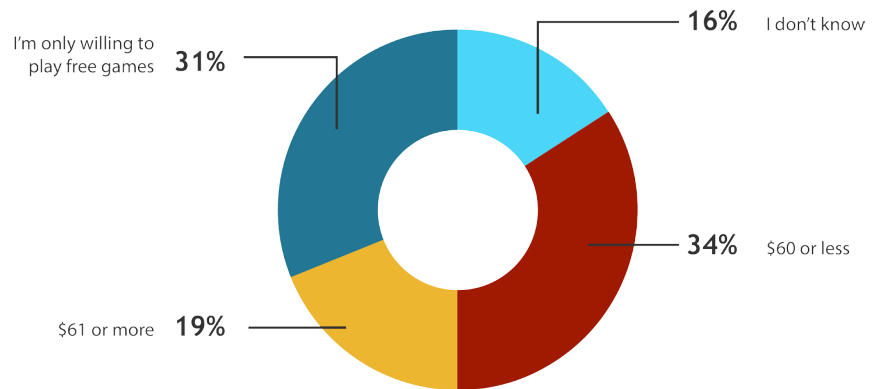
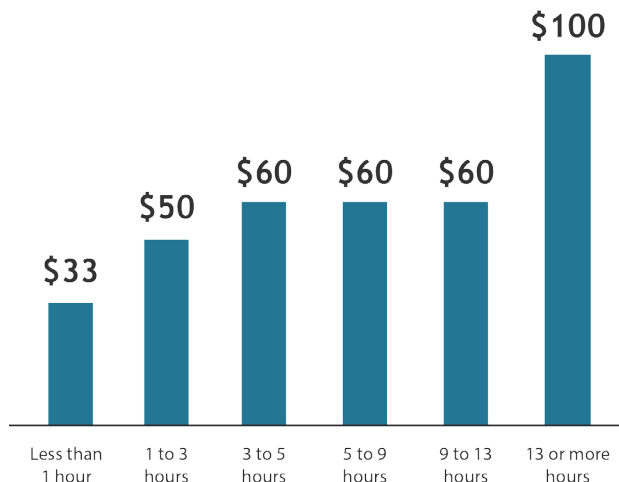


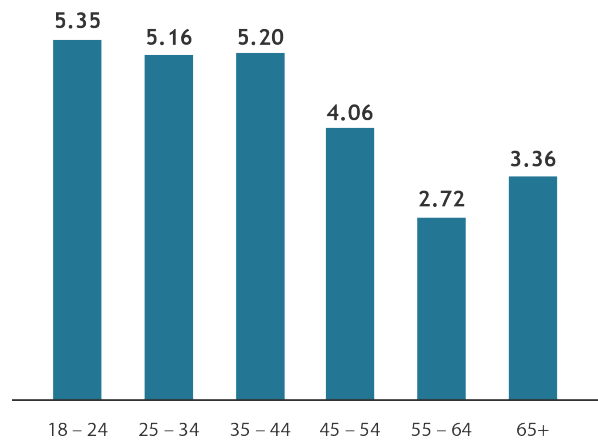
Figure 3.10 : Willingness to spend (median) by hours played per week



A narratively-driven game would not benefit from the free-to-play model, since narrative games lack that continuous loop of puzzle or online action mechanics that offer seemingly endless playability. However, 34% of players are willing to spend up to \$60 on video game purchases per month, with another 19% willing to spend more than \$60 a month, showing that more traditional revenue models of one-time purchases are still viable.

Additionally, Figure 3.10 shows that the amount that players spend on games each month increases with the amount of time spent playing games each week. Figure 3.11 shows us that, for players between the ages of 18 and 44, the mean time spent playing games each week is more than 5, which puts them squarely in the segment of players that are willing to spend up to \$60 per month on games.

Figure 3.11: Willingness by gamers to spend on video games



Another important consideration is whether they purchase games digitally or physically. As a newly formed independent studio, Ward doesn't possess the resources or the publisher relationships to manufacture discs to be sold in stores, so we are restricted to digital storefronts like Steam, GOG, and the Humble Store. Across all segments, the majority of players purchase physical games over digital games. However, this trend is changing. As shown in Figure 3.13, digital purchases have increased in popularity year over year, with 2015 being the first year where digital is the most common method by

which games are sold, so while buyers may claim that they mostly purchase physical media, sales show that digital has become the most common way to make sales.

Figure 3.12: Opinions regarding video game purchasing, by time spent playing video games

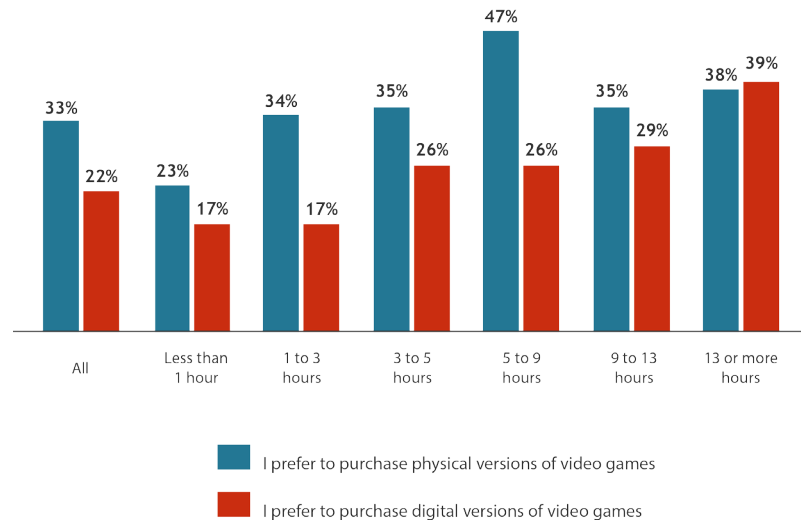
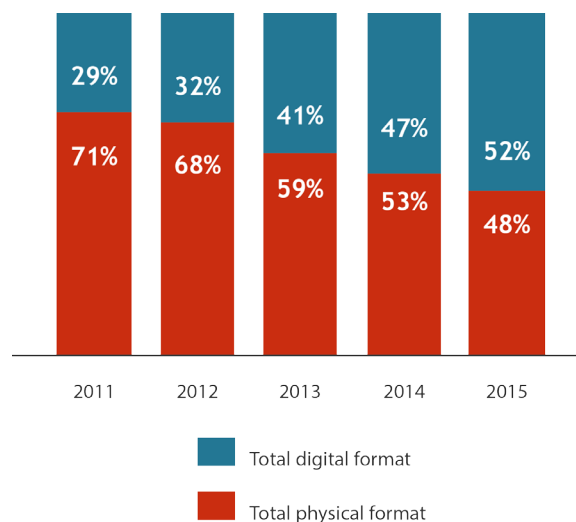


Figure 3.13: Digital and Physical Sales Information for 2011 – 2015



IV. Economics

Revenue Drivers and Profit Margins

Game Sales

In 2014, 41% of independent game developers in teams of two or more earned an average of \$51,000 per person. This is up 161% from 2012's average income of \$19,000 per person. However, 57% of independent developers reported making only \$500 or less on their game in a given year, showing a large divide between successful and unsuccessful products at this level of production, but once developers are able to break through this incredibly low threshold, their ability to produce larger profits goes up significantly.

Since we know the average income per person for an independent development team, we can work backwards to figure out Ward's expected revenue. \$51,000 in income per person per year totals \$102,000 for our two-person team, which equates to \$8,500 a month in profit. Our total costs per month are calculated to be between \$4,700 and \$6,500 after the release of our theoretical first game, which we plan to be a 2D game – a game that uses two dimensional images as opposed to three dimensional objects – with a 6-month development time sold at \$5 per unit. In order to arrive at \$8,500 in profit per month, our game has to earn between \$13,200 and \$15,000 per month, which is 2,640 to 3,000 units sold per month.

Table 4.1: Revenue, Costs, and Profit

Figure		Monthly Amount
Revenue	Example Game: 2D Game with 6 month development time, sold for \$5 per unit	\$13,202 – \$14,995
Total Costs		\$4,702 – \$6,495
Profit		\$8,500

To determine the size and scope of our example game, we used a comparison of two other independently developed games that had publicly reported development times: *Tower of Guns* and *AaAaAA!!! – For the Awesome*. Each of these games required longer development times than our proposed game, but they also had more features, 3D graphics, and *AaAaAA!!!* required 1 to 3 more developers at any given time. Our projected revenue is also much more modest. Starting with a relatively small product as our initial stepping stone helps reduce our cost and, in turn, reduces the amount for us to break even.

Table 4.2: Development Comparison of Tower of Guns and AaAaAA!!! – For the Awesome

Game	<i>Tower of Guns</i>	<i>AaAaAA!!! – For the Awesome</i>
Developer	Terrible Posture Games	Dejobaan Games and Owlchemy Labs
Team Size	1 full-time developer	2 full-time developers 1 – 3 part-time developpers
Game Engine Used	Unreal Engine 4	Unity
Development Time	20 months	8 ½ months
Game Traits	3D First person shooter Rouge-like Single player	3D Simulation game Single player
Average Player Completion Time	3 hours	5 hours
Units Sold on Steam as of March 2016	90,000	135,000
Estimated Revenue	\$1.35 million	\$1.35 million

Additional Sources of Revenue

Another potential revenue stream are advertisements on our podcast, Ward Podcast. The standard pricing for a pre-roll and mid-roll podcast advertisement is \$43 per every 1,000 downloads . However, in the past 30 days, our podcast has received a cumulative 57 downloads, which would only produce \$2.45 in revenue. As the download rates increase, this may be a revenue stream to consider.

Fixed and Variable Costs

Table 4.3: Fixed and Variable Costs

Continued on next page.

	Figure	Monthly Cost	Percentage of Total Costs
Fixed Costs			
Unity License	\$75 per user per month	\$150	2.3% – 15%
LLC Registration Fee	\$50 per year	\$5	0.1% – 0.5%
Co-working Space	\$250 per user per month	\$500	7.8% – 50%
Total Fixed Costs		\$655	10.2% – 65.5%

Table 4.3 (cont.): Fixed and Variable Costs

	Figure	Monthly Cost	Percentage of Total Costs
Variable Costs			
Marketing	Events \$4,000 – \$10,000 per event		
	MagFest (National Harbor, MD): \$4,000		
	Indie Megabooth – PAX East (Boston, MA): \$6,000		
	Indie Megabooth – PAX Prime (Seattle, WA): \$8,000		
	Indie Megabooth – Game Developer's Conference (San Francisco, CA): \$10,000		
Digital Marketplace Revenue Share Steam, Gog, Humble		\$3,700 – \$4,900	75.4% – 78.4%
Website Hosting		\$7 – \$100	0.6% – 1.5%
Wages	Revenue Sharing	--	--
Taxes	Structured as LLC, Pass-through taxation	--	--
Total Variable Costs		\$347 – \$5,840	34.5% – 89.8%
Total Costs	Before game release	\$1,002 – \$1,595	
	After game release	\$4,702 – \$6,495	

Monthly fixed costs include:

- A monthly license for Unity, our game development software of choice, which is \$150 per month for two people.
- A LLC registration fee, which is \$50 paid once a year, so we divide the monthly cost evenly throughout the year.
- Working space, which is available at multiple co-working places in Richmond, such as 804RVA and Gather. We used 804RVA as our benchmark, and they offer unlimited use space for two people at \$500 per month.

Monthly variable costs include:

- Marketing, while not truly a monthly cost, is calculated by dividing the cost of attending an event across all twelve months. Numerous events are available for independent developers, such as MagFest and the Penny Arcade Expo (PAX). To exhibit, our game has to be chosen amongst other applicants. Once selected, we have to pay for the cost of travel, room and board, and equipment and marketing collateral for the exhibition.

- A digital marketplace's revenue share, which has an industry standard of 30% of revenue. The Humble Store reserves the right to withhold an additional 10% to refund purchases of our game. Other digital marketplaces, such as itch.io, allow us to determine the revenue split ourselves. This cost won't occur until we begin selling our game.
- Website hosting, which can range to up to \$100 depending on the traffic on our site.
- Wages and taxes, which, since Ward is structured as an LLC, has none. Initially, profits will be split equally amongst employees, and taxes will pass through to the employee to become income tax.

The variation in total cost comes from the variation in marketing cost and the amount of revenue share that's predicated upon how much revenue we earn from sales.

Operating Leverage

If we are able to meet the following goals:

- Average expected revenue of \$8,500 per months and sales of 2,640 to 3,000 units per month of a product priced at \$5
- Development time of 6 months with no delays

Then we can expect to reach profitability by the ninth month of operation. For our initial game, the returns aren't drastically high, but it allows us to build brand recognition and build a foundation for games with a larger scope and a higher price point in the future.

Startup Costs

Startup costs include:

- LLC filing fees, which are \$100 in the state of Virginia.
- LLC CPA filing assistance fees, which can range from \$650 to \$1000.
- Equipment, which includes hardware, such as a new high-end laptop or components to build a high-end personal computer, and software, which includes the Unity game engine as well as other software such as Spine, a 2D modeling program, or other software packages, such as plugins and assets for Unity available on their asset store.
- Co-working space for the first month of work.
- Steam Greenlight registration fee, which is required in order to submit a game to Steam.

Table 4.4: Startup Costs

Figure		Monthly Cost
Startup Costs		
LLC Filing Fees		\$100
LLC CPA Filing Assistance		\$650 - \$1,000
Equipment		\$500
Hardware		\$3,000
Software		
Spine	\$300 per user, must be earning revenues of \$500,000 or less	\$600
Unity	\$75 per user	\$150
Other		\$550
<i>Total Software</i>		<i>\$1,300</i>
<i>Total Equipment</i>		<i>\$4,300</i>
Co-working Space	\$250 per user	\$500
Steam Greenlight Registration Fee	\$100 per game entry	\$100
Total Startup Costs		\$4,650 – \$5,000

Overall Economic Model

If we are able to meet the following goals:

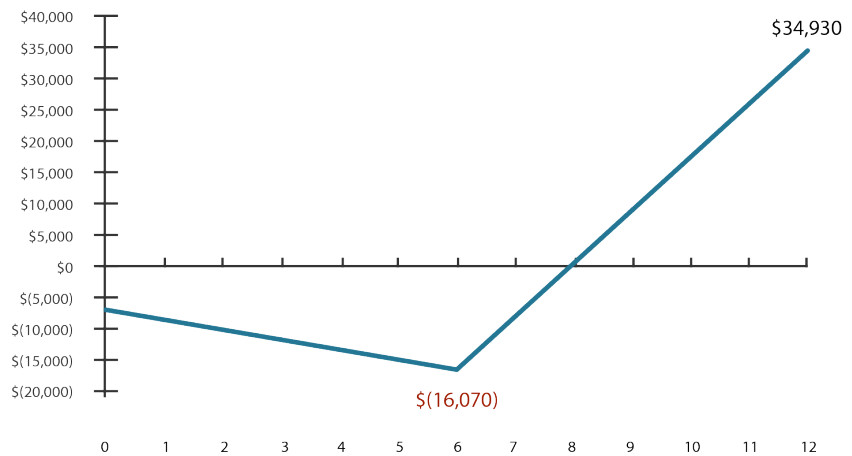
- Average expected revenue of \$8,500 per months and sales of 2,640 to 3,000 units per month of a product priced at \$5
- Development time of 6 months with no delays

Then we can expect to reach profitability by the ninth month of operation. For our initial game, the returns aren't drastically high, but it allows us to build brand recognition and build a foundation for games with a larger scope and a higher price point in the future.

Breakeven Analysis

For the 6-months required to develop our hypothetical game, we will run a maximum possible loss of \$1,595 per month. After the game is released, we will have an average estimated profit of \$8,500 per month. At the time of release, our cumulative loss will be \$16,070, after which it will take two months to break even.

Figure 5.1: Cumulative Monthly Profit (Loss) for First Year of Operation



Profit Durability

Our profitability is susceptible to the following:

- High competition amongst competing games available on Steam and other digital storefronts
- Low barrier to entry to even more developers due to readily-available development tools

As stated previously, 57% percent of independent developers earned less than \$500 from their game, but our focus on narrative combined with gameplay protects us from imitation and provides us with a unique selling proposition that puts us above other games.

V. Marketing Plan

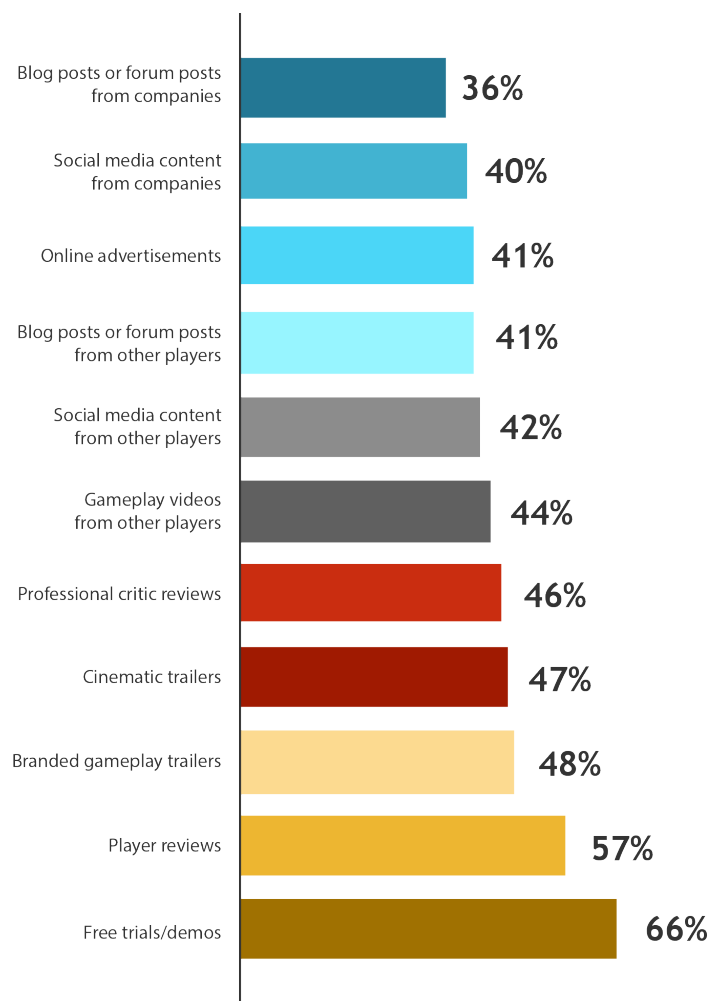
Overall Marketing Strategy

With the PC as our primary platform and Steam as our marketplace of choice, we must garner attention to receive the requisite votes on Steam Greenlight and further receive attention once our games are available for purchase. Figure 5.1 shows what methods players use to discover new games.

From these, we've devised several avenues to marketing to our target customer:

- Free game demos
- Gameplay trailers
- External coverage from YouTube personalities and games press
- Internal content marketing

Table 5.1: Video Game Discovery Habits



Free Game Demos

66% of players say they use free trials and demos to discovery new games, but paradoxically, game demos have become less ubiquitous in recent years, possibly due to the concern that a player may get their fill from playing the demo and not purchase the full game. However, a narrative-focused game wouldn't have this same issue, since a player would wish to see the rest of the story after they finish the demo. For instance, Telltale Games' gave away the first episode of their episodic game series The Walking Dead for free, which helped the whole of the series to become on of the most successful games that year. This success lead to Telltale's staff to double in size to take on increased demand. We plan on offering a free demo for every game we release, building trust with customers in the quality of our games.

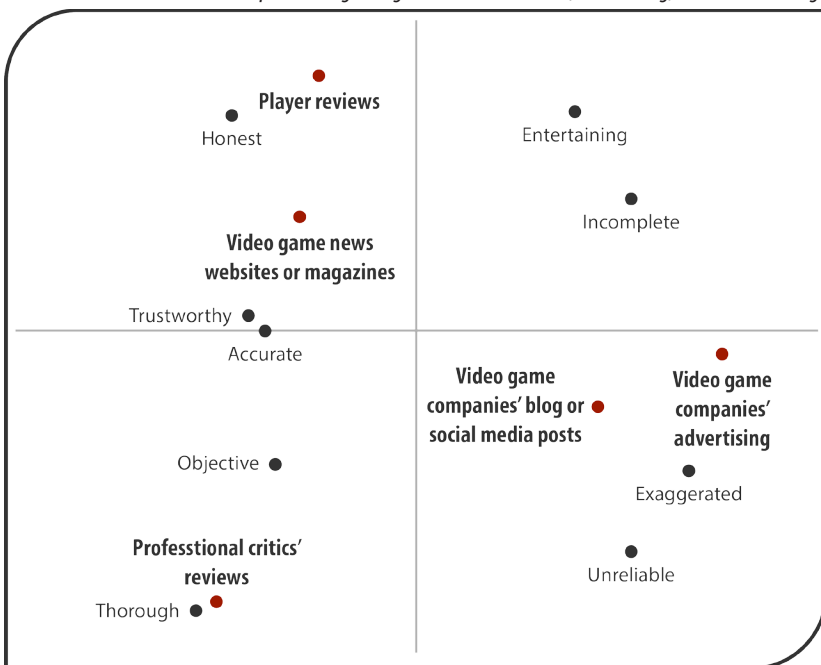
Free demos offer another benefit: analytics. Unity, our game creation

software of choice, allows for analytic tracking in a game. A developer can track data such as player choice, play session length, and computer hardware information. We can use this data to iterate and improve upon the game before its release.

Game Trailers

According to Figure 5.2's correspondence analysis, video game companies' advertising has been seen as being exaggerated and unreliable. This is due to the fact that some video game trailers choose to rely upon pre-rendered computer graphics and cutscenes that are not indicative of the final product. Since games are an interactive medium, trailers should be communicating the interactivity of the game.

Table 5.2: Opinions Regarding Video Game Reviews, Advertising, and Branded Blogs



Additionally, Immersyve, developer of the previously mentioned PENS model, has determined that other features must be communicated in a trailer as well. While a game must have engaging, repeatable moment-to-moment gameplay, otherwise known as the “loop”, players ultimately seek more out of a game. Immersyve states that players look for lots of hours of gameplay, compelling long-term goals supported by many short to mid-term goals, and features that promise meaningful growth and choice in the game.

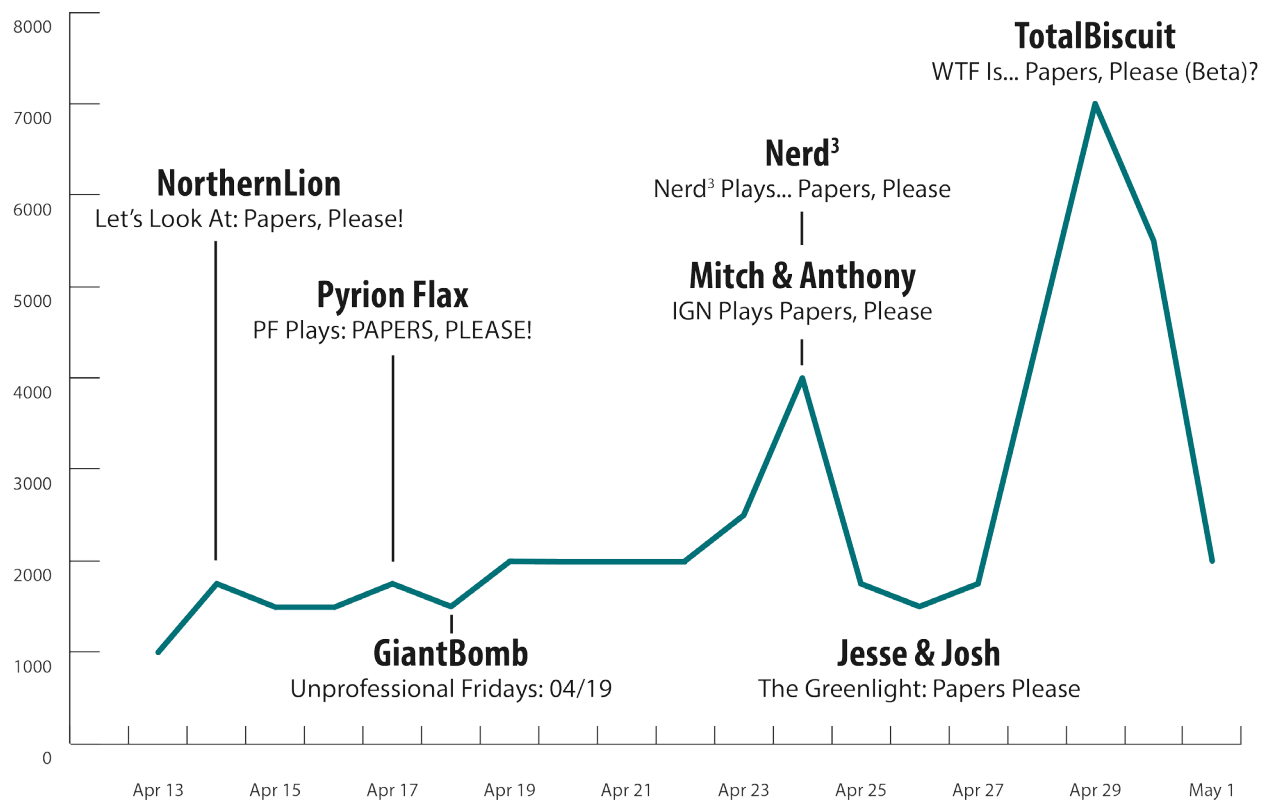
As a company that focuses on narrative, seeing a story's conclusion offers a compelling long-term goal for a player. If this story is also influenced by the player's choices, then the player's need for meaningful growth is also met. If the features of many hours of gameplay with compelling long-term goals influenced by player choice are communicated in a game's trailer and other promotional material, then it higher likelihood of driving a customer towards a purchase.

External Coverage

In the past few years, the presence of enthusiasts who play and recommend games on YouTube has emerged. These “YouTubers” and their “Let's Play” videos are a huge boon to a game's marketing, driving interest and sales of a game. Felix Kjellberg, who goes by his online persona of PewDiePie, is one of the dominant YouTube personalities and has 42 million subscribers to his single YouTube channel.

Figure 16 shows the votes received on Steam Greenlight for Papers, Please, a puzzle game developed by Lucas Pope, as they correspond to coverage by YouTube channels. NorthernLion, the first YouTuber to cover Papers, Please, has a subscriber count of 600,000

Table 5.3: YouTube Coverage versus Steam Greenlight Votes for Papers, Please



viewers, and his video lead to an almost 800 vote jump from the previous day. TotalBiscuit, whose subscribers total 2.2 million, boosted the daily votes for Papers, Please by 5,000.

Ryan Letourneau, the alter ego for NorthernLion, advised that the best way to have a YouTube cover your game is to contact them with a free copy of your game and a brief description of your game's value proposition. Additionally, he recommends that developers contact YouTubers with smaller subscriber numbers as a way to build traction, as YouTubers such as Pewdiepie are inundated with hundreds of requests from developers every day.

For video game press outlets, the advice is similar. Targeting smaller, niche websites has a higher likelihood of getting your game noticed than sending press releases to the larger news outlets. For both YouTube and the press, developers are advised to start locally. The YouTube channel Instant Replay Live and the video game news site Gameskinny.com are both local to the Richmond, Virginia area. Connecting to these outlets allows Ward to maintain connections with the local video game industry.

Content Marketing

Numerous game developers have started to create additional content as a value-added for their company. Two of the founding members of developer Campo Santo, Jake Rodkin and Sean Vanaman, have hosted the video game podcast Idle Thumbs for more than four and a half years. The podcast allows listeners and potential customers to learn about the people that run Campo Santo and develop a connection with the hosts, making the members of the company as essential to the brand as the products.

Our podcast, the Ward Podcast, began in July 2015, where we discuss games we're been playing, games we're currently developing, and any other number of miscellaneous topics. We also bring friends and other members of the Richmond video game development community on to discuss games they've been playing and projects they're working on. This allows us to further network within the Richmond community as well as develop a following who are interested in the people as much as the product.

Pricing

The pricing of our games depend upon the size and scope of each product. Here is a list of common price ranges and what type of product the market comes to expect at that range.

\$60

A AAA release offering numerous hours of gameplay, with multiple, deep gameplay mechanics. This is the maximum price the market will accept for a standard, non-special edition game release. Special edition games are usually higher in price due to the inclusion of additional items such as physical merchandise.

**\$50
to
\$40**

Formerly, this price range included B-tier games, handheld games, and some Nintendo games.

B-tier games are known for having lower budgets as well as the potential for lower quality. Handheld games are games developed for handheld consoles, such as the Nintendo 3DS and the PlayStation Vita. In the Gameboy Advance era, most games for that system were priced at \$30.

In fact, most games sold on current Nintendo platforms are less expensive than those on competitor platforms. Examples include the Nintendo-developed *Donkey Kong Country Tropical Freeze*, which retails for \$40.

Recently, larger independent games have started to be sold at this price tier, including Thekla, Inc.'s *The Witness*. These games have been colloquially referred to as triple-I, a fusion between indie and AAA.

**\$40
to
\$30**

This tier is comprised of medium-sized, digitally-sold PC games in classic PC genres such as strategy, computer role-playing (CRPG), and simulation, and more B-tier games. Outside of Nintendo, very few developers release games for physical retail at this price range due to the fact that physical manufacturing usually requires the assistance of a publisher, and most publishers are interested in publishing games that will be priced at \$60.

\$30
to
\$20

This price range starts to show the standard form of indie games: modest scope and one main gameplay mechanic with few additional supporting mechanics. Any independent game higher in price starts to bleed into the triple-I category.

Other types of games in this price include Nintendo's Nintendo Selects, which are popular games that have been permanently discounted, which is rare for Nintendo-developed games. *Super Mario 3D World* for the Wii U has recently been included in the Nintendo Selects label, going from \$40 to \$20.

\$20
to
\$15

This price range is the standard bearer for typical medium-sized indie games with one core mechanic that can offer variable hours of gameplay.

Examples of games in this category include Supergiant Games' *Transistor*, a \$20 isometric turn-based, real-time hybrid combat game that offers an average of 6 hours of gameplay for the main story, and ConcernedApe's *Stardew Valley*, a \$15 farming simulation game with an average gameplay time of 55 hours.

\$15
to
\$10

Small to medium-sized indie games, such as Vlambeer's *Luftrausers*, a \$10 sidescrolling, 2D arcade plane dogfighting game, which offers the player a lot of depth in gameplay to customize weapon loadouts, but it contains only one main gameplay mechanic.

\$10
to
\$5

Small-scale indie games, such as Terry Cavanagh's *VVVVVV*, a \$5 2D game where the player solves puzzles via simple jumping and platforming controls.

\$5
to
\$1

Additional small-scale indie games as well as a large amount of smartphone games.

Free to Play

A majority of smartphone games as well as a few PC and console games. Subsidized by microtransactions and in-game advertising.

Sales Promotion

Discount Periods

Outside of Nintendo games, many games are discounted in price several weeks to several months after their release, depending on the results of initial sales.

Additionally, digital marketplaces such as Steam and the Humble Store are well known for heavily discounting games several times a year, primarily during the winter holidays and summer months. Developers may choose to forgo discounting their games during these sales, but they risk losing out on potential purchases, especially when so much traffic is being driven to these marketplaces during a sale.

Early Access

Early access, a term popularized by the eponymous section on Steam, is a period where a game is for sale but still in active development. The game is usually offered at a discounted price for the benefit of players who choose to buy the game early, receiving additional features with patches and an eventual full release at no extra cost, while those who chose to wait until the game was completed have to pay a higher price. The developer benefits by receiving early revenue as well as player feedback during development.

Minecraft is arguably the most successful early access game, with the alpha version going on sale June 2010 for \$13 and the beta releasing in December 2010 for \$17. *Minecraft* did not see a full release until November 2011. By then, *Minecraft* had sold over 4 million copies.

Early Access is a difficult situation for narrative-driven games, since a player only has one chance experience a story completely new.

VI. Design and Development

Development Status and Tasks

Currently, we have been participating in game jams to develop our skills and receive feedback. Our first game jam game, Peak, received 11th place in the innovation category for the 30th Ludum Dare game jam. We plan to begin pre-production on a full-release game in late May. For the game, the following tasks are required:

- Writing
- Game design
- Art development
- Software development
- Music and sound effect creation
- Marketing, press releases
- Submit to marketplaces for approval
- Release

If we plan on using the previous 6-month development cycle for this game, we would allow 2 months for pre-production followed by the 6-month development. Looking at our previous costs of \$1,600 per month, this would be a cumulative cost of \$13,000 for the 8 months of pre-production and development.

Difficulties and Risks

The greatest difficulty in producing a game is the team's expertise with software development. While we have intermediate experience with the Unity game engine, there are still many game programming topics with which we are unfamiliar, such as game artificial intelligence and shader programming. These problems are compounded with the expansion into 3D game development, which requires knowledge of 3D modeling and other related subjects. That is why we chose to start with 2D, reducing the amount of risk of development delay due to technical issues.

Intellectual Property

Trademarks

We plan on filling trademarks for the Ward shield and any other important branding images associated with our games.

Copyright

Creative output associated with our game stories, such as names and appearance of characters, are copyrighted upon their creation.

As for software copyright, we are protected by legal precedent for certain practices if we ever want to engage with them. In the 1992 federal case *Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.*, companies were given the right to create products that altered the code of another firm's software for personal use. This alteration does not infringe on creator's exclusive right to create derivative work. Another case in 1992, *Sega Enterprises Ltd. v. Accolade, Inc.*, stated that a company is allowed to reverse engineer a piece of software as long as it has been legally obtained.

Patents

Gameplay patents do exist, but they are frequently rare. One of the most infamous patents was filed by Namco Ltd in 1995, which specified minigames, referred as "auxiliary games" in the patent, that could be played during loading screens. With all other developers prevented from adding short games during a loading time without a license from Namco, most resorted to adding a loading bar or spinning cursor to fill the time. The patent expired in November 2015.

The requirement to file a patent is that the technology has to be useful, novel, and non-obvious. Proving the novelty of gameplay becomes difficult since most gameplay innovation is iterative in nature. However, if we were to acquire a gameplay patent, we would be able to receive additional revenues on the licensing of that patent.

VII. Operations

Operating Cycle

For our operations, the key inputs are mostly based on human capital. Professionals that create the art, writing, code, music, and other systems of a game provide the majority of the effort to bring a game to market. There are also the support roles provided by management and the production staff. Before we have the resources to hire professionals full time, we can relay on contractors to product assets like sound and art. There are well regarded freelance artists and musicians in games. There are numerous well-regarded freelance professionals in the games industry whose services are available. There are also external firms that can do parts of production, such as ReBoot Audio, a music production firm that specializes in games, located in Richmond.

The key steps of the operation cycle are:

Pre-production, which is concerned with designing and planning the development of the game. Any major changes to the game's features are normally made here. The story is also written at this stage.

Production, where actual development takes place. This is where the engineers, artists, and producers collaborate to bring early prototypes and the completed story to a full product. The marketing of the game also begins in this stage

Post-Release, which deals with after-sale support, such as patches to the software.

The major bottlenecks include the completion of the pre-production stage, since that is where most design and decisions for the rest of the project will be made. After that, production of the game software will implement an agile methodology.

Additionally, knowing when to stage the rollout of marketing in the production stage is critical. If publicity starts too early, then marketing footage may show mechanics that could ultimately get cut, setting false expectations. If marketing starts too late, then a lack of built attention may be reflected in the sales.

Quality Assurance

For a video game, the biggest threats to quality are design flaws and software bugs. Design flaws we only prevent by hiring the best possible staff, who can create and implement a well thought-out game design.

Software bugs are just as important a threat, and they can be harder to find. The developer operations field has created numerous types of automated software testing, but automating gameplay is still a difficult task because the possibility space for inputs in given virtual

locations is immensely larger than the possibility space for a software application.

The home console platforms require certification before the game can be sold digitally or physically. After the developer completes their internal testing, they send it to the platform holder, Microsoft, Sony, or Nintendo, where they do an independent quality of the software. The game must meet certain requirements, such as not crashing during play, otherwise it will be sent back to the developer to be fixed. However, there are exceptions for non-game-breaking but known bugs, but the developer is required to deliver a day-one patch for their game upon its release.

Equipment and Facilities

Equipment

As we start out, personal laptops and PCs provide enough processing power to develop our beginning 2D games. However, should we decide to produce games with more graphical fidelity, more capable PCs will be needed. The components for a starting high-end PC would cost approximately \$1,000 to \$1,500 per developer. If we moved to developing for consoles as well, we would need development kits, versions of the console with special developer features, provided by the platform holders. In March 2016, Microsoft announced that they will be adding a feature so that any commercial Xbox One can also be switched into developer mode. This feature is expected to be launched in Summer 2016.

Facilities

Initially, we plan to use one of the available co-working spaces in Richmond as our base of operations. As our team grows, we will look at renting office space in the greater Richmond area.

In 2011, the firm Greater Richmond Partnership, Inc. estimated the cost of office space was \$18 per square foot per year. In the technology industry, every employee has a dedicated 200 square feet. This equates to \$3,600 per employee per year in rental space.

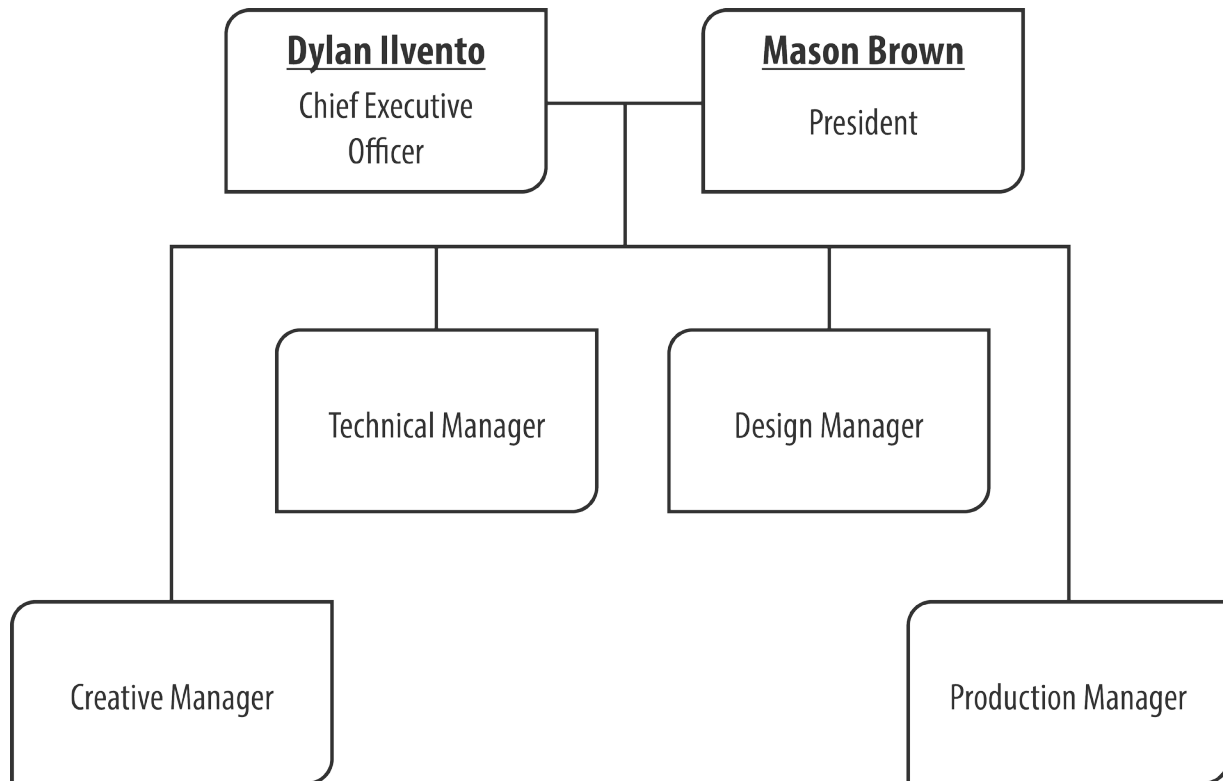
Legal Issues Affecting Operations

In the video game industry, it's not uncommon for employees to work more than 40 hours a week, similar to the consumer technology industry. While these employees are salaried, and therefore exempt from overtime pay by federal labor law, the practice shows a disturbing trend of employee under-compensation and burnout. Even though we are not legally barred having exempt workers work overtime, we will not engage in the practice without adequate compensation.

VIII. Management

Organization

Figure 8.1: Proposed Ward Organizational Structure



Required Management Personnel

There are four key management personnel that are the first to be filled at Ward: creative manager, technical manager, design manager, and production manager. We will cover these positions from most urgent to least urgent to fill.

Creative Manager

The creative manager's main responsibility will be organizing the creation of art assets, including concept art, 2D art assets, 3D models, and animation. The other important creative processes, such as writing and music, will possibly be added under umbrella of the creative manager, but their immediate skillset will be visual art, with writing and music professionals hired later on to manage those skillsets. Writing professionals will possibly be separated into their own units under an editor or writing manager.

The creative manager has hiring priority because the creation of art assets is a very time-intensive task. The sooner we are able to hire an art professional, the sooner we can divide work by specialization between the founders and the creative manager. Until a creative

manager can be hired, art asset creation be handled partially by the founders and partially by contracted professionals.

Technical Manager

The technical manager will oversee all aspects of software development, which includes gameplay programming and tool programming – the development and maintenance of game-making tools. They will also act as senior developer, overseeing other software developer hires.

The technical manager is the second most important hire to allow us to build more advanced game systems as the scope of our games grow.

Design Manager

The design manager will be responsible for creating and working with software engineers to implement gameplay designs, which can span gameplay mechanics to environment design. The design manager will also be responsible for collecting and catalyzing gameplay ideas brought forth by other developers, whether they be on the creative, technical, design, or production team.

Production Manager

The production manager organizes and orchestrates the production of the project, making sure that milestones are met during development. They are also responsible for making sure the development staff has the necessary resources they need during production.

This manager is the last to be integrated into the team since the founders can act as defacto producers until a permanent member is found.

Key Management Personnel

Dylan Ilvento

Dylan Ilvento has had experience across numerous fields including fine art, creative writing, software development, and business development. He is able to combine his creative and technical expertise to create unique projects. He has worked as a graphic designer, user interface designer, web developer, and software developer across numerous firms in the Richmond, Virginia area.

Dylan is currently completing his studies at Virginia Commonwealth University, pursuing a degree in business administration and management, with a concentration in entrepreneurship, as well as a degree in computer science. He is also pursuing a minor in writing, focusing mainly on creative writing. Previously, Dylan studied fine art at Tidewater Community College.

Dylan's responsibilities at Ward include:

- Business development, management, and strategy
- Art direction
- Software development and technical expertise
- Creative writing, including plot, story, and character development
- Game design

Mason Brown

Mason Brown has worked in the world of advertising as a graphic designer and web developer. He has also worked for game developer Tenderfoot Games, creator of *Wild West Online: Gunfighter*.

Mason received degrees in creative advertising and journalism from Virginia Commonwealth University's School of Media and Culture. He is currently pursuing a master's degree from VCU's Brandcenter, one of the top ranked branding schools in the country, in their experience design track, which focuses on the development of user experience, user interface, and creative technology.

Mason's responsibilities at Ward include:

- Marketing
- User interface and user experience design
- Production management
- Game design
- Business strategy

Compensation

Table 8.1: Average Salary by Position and Level of Experience

Position	Average Salary across all levels of experience	Average Salary with 6 or more years of experience
Programmer	\$93,000	\$120,000
Art and Animation	\$74,000	\$93,000
Game Design	\$74,000	\$90,000
Production	\$82,000	\$94,000
Audio	\$96,000	\$110,000
Quality Assurance	\$55,000	\$66,000
Business Management	\$102,000	\$150,000
Writing*	\$64,000 [†]	\$120,000 [‡]

* Figures derived from film industry

[†] Minimum salary for a low-budget screenplay

[‡] Minimum salary for a high-budget screenplay

IX. Overall Schedule

Table 9.1: Overall Schedule for
Example 6-Month
Development Game

Month 1

Incorporation of the venture
Rent co-working space
Purchase software licenses
Start of pre-production, prototyping, writing

Month 2

Month 3

End of pre-production
Start of production
Submit game concept to Greenlight and other
platforms for review
Public announcement of game
Contract artists, musicians
Completion of writing

Month 4

Month 5

Month 6

Begin marketing

Month 7

Month 8

Month 9

Release game

Month 10

Payment of first month of sales

X. Assumptions and Risks

Assumptions

Revenue Forecasts

While 47% of indie developers reported making an average of \$51,000 per person in 2013, it's important to consider the other half of the pie. 2% of indies reported making over \$200,000 in 2013, and 51% made less than \$500. This shows the amount of independent developers coming to the market with products without considering a market. Having conducted market research, we're confident that the narratively-driven games that we produce will appeal to a large portion of the market.

Ability to Obtain Distribution Channels

Selling on Steam requires acceptance through Steam Greenlight. It is possible for games to not receive the requisite amount of votes to be allowed on Steam, staying stagnant on Greenlight for months. If this were to occur, we would leverage other platforms like Humble Store, itch.io, or even our own website to sell the majority of our product. We would also advertise on these store pages and through our own marketing to encourage people to vote for us on Steam Greenlight. Even if a customer has already purchased a game, it is common for them to vote for it on Greenlight.

For the home consoles, it's a similar procedure. A platform holder's interest in selling your game is partially dependent on the popularity your game and firm has garnered on other platforms.

Hiring of Experienced Staff Members

The US video game industry is predominately West Coast-based, located primarily in Silicon Valley. Attracting skilled professionals and managers from their current positions requires extensive capital and the promise of something new. Additionally, seasoned professionals would also have their families to consider, and they would require additional compensation for relocation expenses.

Obstacles in Product Design

Integrating stories with gameplay is mostly a design challenge, reaffirming the importance of skilled professionals. It also stressed the importance of pre-production time and the ability to be adaptive to obstacles during production.

Risks

Cash Depletion Before Orders Are Secured

Share of revenue from game sales are not received from platform holders until the end of each month, so a continuous assessment of costs is required to ensure that the firm can survive to that pay period.

Competitor Risks

There are currently several developers engaging in narrative games as well, such as Campo Santo, Fullbright, and The Chinese Room. However, while they produce critically-acclaimed narratives, they are not leveraging the medium to the best of their ability, which loses their appeal to a larger number of customers.

Additionally, the games industry has over 25,000 competitors. However, this number includes the numerous one and two-person hobbyist firms that do not possess the knowledge of market needs to compete with us. Our true competitive number is actually quite smaller.

Technological Risks

We have moderate experience with our development tools, which provide extensive support and documentation of numerous topics should development become difficult. However, there could be gameplay features that we may wish to implement that are beyond our expertise. To circumvent this, we may have to rely on hired consultants, which brings added costs, or take time to learn how to implement this new feature ourselves, which brings added development time and the risk that our novice implementation may cause the final software to be buggy or not optimized.

Table 11.1: Pro Forma Income Statement for Year 1

Continued on next page

	7/1/16	8/1/16	9/1/16	10/1/16	11/1/16	12/1/16
Revenue						
Game Sales	\$-	\$-	\$-	\$-	\$-	\$-
Cost of Goods Sold						
Capital Costs	\$5,000	\$755	\$755	\$755	\$755	\$755
Distribution Costs	\$-	\$-	\$-	\$-	\$-	\$-
Total Costs of Goods Sold	\$5,000	\$755	\$755	\$755	\$755	\$755
Gross Margin	\$(5,000)	\$(755)	\$(755)	\$(755)	\$(755)	\$(755)
Selling, General, and Administrative	\$840	\$840	\$840	\$840	\$840	\$840
Earnings Before Interest, Taxes, Depreciation, Amortization	\$(5,840)	\$(1,595)	\$(1,595)	\$(1,595)	\$(1,595)	\$(1,595)
Income Tax Expense	\$-	\$-	\$-	\$-	\$-	\$-
Net Income	\$(5,840)	\$(1,595)	\$(1,595)	\$(1,595)	\$(1,595)	\$(1,595)

Table 11.1 (cont.): Pro Forma Income Statement for Year 1

	1/1/17	2/1/17	3/1/17	4/1/17	5/1/17	6/1/17	Year 1
Revenue							
Game Sales	\$-	\$-	\$8,500	\$8,500	\$8,500	\$8,500	\$34,000
Cost of Goods Sold							
Capital Costs	\$755	\$755	\$755	\$755	\$755	\$755	\$13,305
Distribution Costs	\$-	\$-	\$2,550	\$2,550	\$2,550	\$2,550	\$10,200
Total Costs of Goods Sold	\$755	\$755	\$3,305	\$3,305	\$3,305	\$3,305	\$23,505
Gross Margin	\$(755)	\$(755)	\$5,195	\$5,195	\$5,195	\$5,195	\$10,495
Selling, General, and Administrative	\$840	\$840	\$840	\$840	\$840	\$840	\$10,080
Earnings Before Interest, Taxes, Depreciation, Amortization	\$(1,595)	\$(1,595)	\$4,355	\$4,355	\$4,355	\$4,355	\$415
Income Tax Expense	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Net Income	\$(1,595)	\$(1,595)	\$4,355	\$4,355	\$4,355	\$4,355	\$415

Table 11.1 (cont.): Pro Forma Statement of Cash Flows for Year 1

Operating Activities	
Cash receipts from customers	\$10,495
Cash paid for	
General operating and administrative expenses	\$10,080
Net Cash Flow from Operations	\$415
Investing Activities	
Cash paid for	
Purchase of property and equipment	\$5,950
Net Cash Flow from Investing	\$(5,950)
Net Loss in Cash	\$(5,535)

Table 11.1 (cont.): Pro Forma Balance Sheet for Year 1

Assets		Liabilities	
Current Assets		Current Liabilities	
Cash	\$415	Accounts Payable	\$150
Accounts Payable	\$5,195		
		Total Liabilities	\$150
Total Current Assets		Equity	
	\$5,610		
Property, Plant, and Equipment		Total Stockholder's Equity	
Equipment	\$4,300		\$2,009,760
Total Property, Plant, and Equipment		Total Liabilities and Equity	
	\$4,300		\$2,009,910
Intangible Assets			
Trade names	\$2,000,000		
Total Intangible Assets			
	\$2,000,000		
Total Assets			
	\$2,009,910		