



Final Financing Report - Gangs of Graffiti
Infinitive Game Studios, LLC ©
Compiled by Alex Villescascas | 4 - 25 - 19

Table of Contents

Table of Contents	2
Project Information	3
Team Introduction	3
Market Analysis	3
Overall Market Overview	3
Specific Market Overview	4
Survey Results & Customer Profiles	5
Brand Identity	7
Projected Sales	7
Cost Analysis	8
Team Cost	8
Software Costs	8
Marketing Costs	8
Pricing Analysis	8
Profit/Break Even Analysis	9
Advertising Plan / Analysis	9
Brand Identity	9
Advertising Strategy	10
Advertising Metrics	10
Advertising Solutions	10
Google Adwords	10
Reddit - Simulating "Word of Mouth"	11
Facebook Ads	11
Sample Ads	12
Financing Analysis - The Big "Ask"	13
Final Metric Spreadsheet	14

Project Information

Gangs of Graffiti is a multiplayer arena shooter being developed by Infinitive Studios through the UAT Game Studios. The premise is that of a gang war where gangs paint their turf certain colors to mark territory. Paint is also used as a weapon against other players. The game features both tank-based play and regular shooting action, all from a third-person perspective.

The game nearing the end of its first year of development, progressing at a steady pace. The stated goal for the project is to end once multiplayer is finished- while it's working now, I've assumed that to polish the game completely and have functioning multiplayer, it would take another year of development- a **total of 2 years development time** for the game.

[This video created from GoG's greenlight pitch explains the major thrust of the game's development goals and their main game mode.](#)

Team Introduction

While UAT Game Studios bring in a new crew each semester, I've decided to use the existing one from this semester as basis for the entire production. The team is composed of 19 members, many of which are currently in their final semesters at UAT- meaning they have the wealth of three years of learning and acquired skill to bring with them to the table for this production.

Some of the team is also using the game as their Student Innovation Project- specifically a mechanic known as Fumes, which allows dead players to contribute to their team even once they are out of lives. The added point of this being their innovation projects means that the team is working extremely hard on this game, as the burden of proof that their concept is innovative is on them to program into the game and have working.

Market Analysis

Overall Market Overview

The ESA's [annual report](#) gives us an interesting view of the gaming market. I believe the ESA report is one of the more comprehensive one to be released and will be referencing it for the entire overview of the market, so as not to have conflicting data sets and studies.

In the US, 64% of households own a device used for gaming. There are an average of two gamers per household. 45% of US gamers are women. 60% of Americans play video games daily.

The ESA's report claims that when playing with people, most gamers play with their friends (42%), followed by family, parents, and their spouse. A number of parents play video games with their children, and see it as a good opportunity to socialize. Children also are asking their parents to play games with them. 70% of parents believe video games have a positive influence on their child's life.

Contrary to expectations, the average age of the most frequent game purchaser is 36. The average overall gamer is 34 years old. Gamers over the age of 18 represent 70% of the gaming population.

When playing games, 41% of Americans play on the computer, followed by 36% on smartphones, and then 36% on dedicated home consoles. Curiously, 14% still play on dedicated handheld systems, despite the PS Vita releasing in the US all the way back in 2012 and the 3DS releasing in 2011.

Overall, the annual US video game spend is 36 billion, with the most influential factors on purchasing decisions being the graphics quality, price point, and an interesting premise. Over the last 7 years, games have shifted largely towards digital sales.

Specific Market Overview

Gangs of Graffiti sits in the specific market of UAT Students. With these students in mind, I created and issued a survey using Google Forms, asking specific questions about UAT students and their gaming and purchase preferences, preferred ways to purchase games, and their feelings about indie games and itch.io.

I asked eight questions:

What gaming systems do you own and actively play? (Multiple Select)

What is your preferred genre?

When do you make most of your game purchases?

If you play games on PC, where do you usually purchase them from? (Multiple Select)

What influences your game purchases? (Multiple Select)

How would you describe your indie game purchasing habits?

Do you use the website itch.io? If so, in what capacities?

Please watch the Gangs of Graffiti pitch video. Then, indicate what you would be more likely to do, if the completed game were released at a 5\$ price point.

UAT students are very likely to own a PC and have it be a system they actively game on. There is a roughly even split between other forms of play, and many students seem to have multiple

methods of playing games. The clear genre preference is first-person shooting games (41.7%), with RPGs (25%) coming in second.

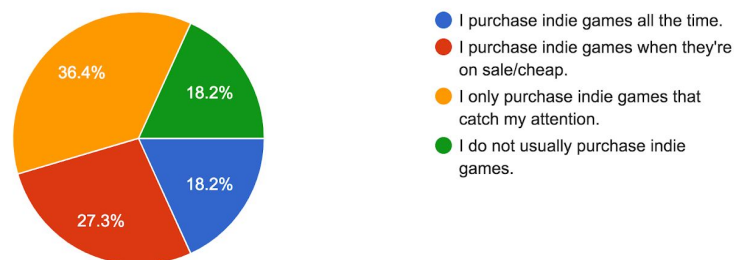
There is no clear favored time when customers make purchases- there is a fairly even split between at a game's launch, when it's on sale, and when it's recommended by a friend. There was one fill-in-the-blank answer that says "when i run into it on steam," which I think just means the customer buys games whenever they find them via browsing, rather than at a specific time.

Steam is overwhelmingly (91.7%) where these consumers purchase their games from. Following behind that is GoG at 33%. When customers look to purchase a game, 66.7% say online advertising is a major factor in their decision to purchase, as is positive word of mouth (58.3%).

Their indie game purchasing habits are very mixed, as can be seen in the chart below:

How would you describe your indie game purchasing habits?

11 responses



And, on the subject of indie games, 50% of survey respondents said that they did not know what itch.io is. 41.7% of customers said they used itch.io for uploading game jam projects- which is more than double the amount that use it for browsing and playing indie games.

The survey's last question was in regards to *Gangs of Graffiti's* [pitch video](#), which I put together from game footage. It asked what they would be more likely to do, if the game were released at a 5\$ price point. At least 33.4% of respondents said they would consider purchasing the game, with half of those saying they definitely would do so. Another 33% of those responding said they would probably not purchase this game, but were not completely certain.

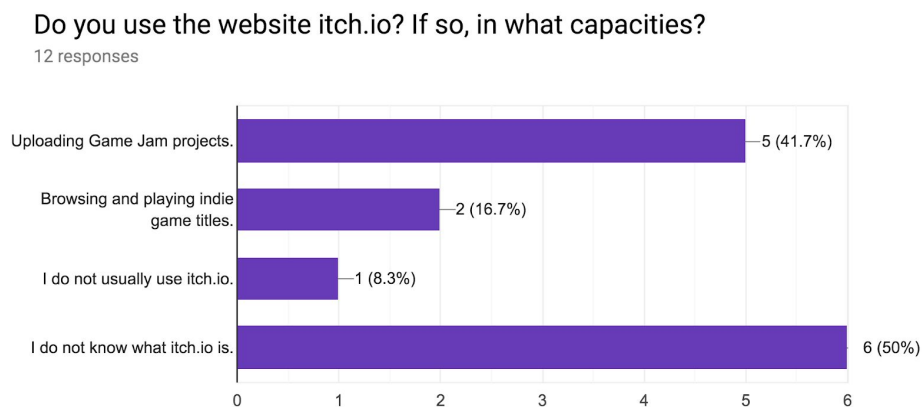
Survey Results & Customer Profiles

I believe that the primary customer for our game is somebody with **interests in both indie gaming and team-based multiplayer experiences**. A few demographics about this market are already known: UAT students are overwhelmingly male and between the ages of 18 and 25.

They are college students, and many are pursuing degrees in technology-related fields, mostly in gaming.

Results from the survey show that UAT students are more likely to make a purchase when a game is on sale for cheaper, or if they have it recommended to them. A large amount of the UAT student population do purchase indie games, but 36.4% only purchase them when indie games catch their attention, and 27.3% only purchase when they're on sale or cheap. Additionally, 90% of those surveyed purchased games on PC from Steam when they did- a massive lead over any other storefront. With these in mind, we can begin to build potential customers.

The below graph shows how concerned we should be if we're putting a game out *only* on itch.io:



With these results in mind, we have two sample customers we should be looking at.

Our first sample UAT student is named Joe. Joe is a third-semester Game Design student at UAT, and enjoys smaller indie experiences over 60-hour AAA epic games. Recently, Joe was exposed to itch.io through a game jam, and now he browses it looking for interesting indie games to play- and sometimes have his friends play with him. He wants a multiplayer game that runs well and is enjoyable, but isn't a huge time commitment to get into. He came across our game by browsing itch.io and reading a few good reviews on it.

Our second sample UAT student customer is Jack. Jack is the friend of Joe, our first customer. He spends most of his time playing competitive online games like League of Legends or Counter Strike: Global Offensive, but sometimes plays games with Joe because they're roommates, and that's what roommates do. Jack isn't huge on indie games, but he buys our game because Joe found it to play with him and the price point was attractive enough to persuade him to purchase it.

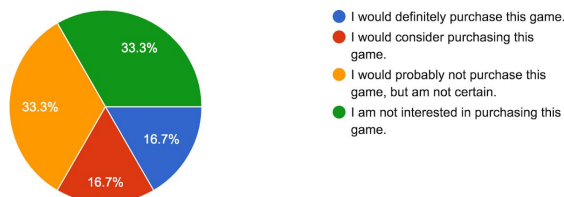
Brand Identity

Our Brand Identity, what we want to be seen as, is a talented, small group of developers. We want to be indie famous, more or less. *Gangs of Graffiti* should be seen as a small game that functions and provides a complete experience, but doesn't overload itself with features. It does a few things really well and that's all it needs to do- namely, the art style, the combat (tank and human versions). We want people to think of this game as a simple one that you can use to socialize with your friends- a good analogy would be the game *Golf With Your Friends*.

We want to be able to be noticed by our first customer Joe- and good enough that he's willing to recommend us to Jack. It's important to highlight that our second sample customer cannot exist without the first one. The survey responses (58.3%) say that word of mouth is a major factor in their game purchases- if our first customer isn't having a good experience with the game and trying to get their friend to play it with them, then that's at least one lost sale.

Our persona's visions of an ideal brand are far less than indie famous. While we may never fit Jack's version of an ideal brand (he likes far bigger games), Joe's ideal brand is that of a talented indie company making a game that's compelling to him in some way. If our game is good enough, we can fit that vision of a brand.

Please watch the Gangs of Graffiti pitch video. Then, indicate what you would be more likely to do, if the comp...me were released at a 5\$ price point.
12 responses



Projected Sales

Based on how our pitch was received, I believe we can capture at least 16.7% of our sales market- those are members of the UAT student sales group that said they would definitely purchase our game, if released in a complete form at the 5\$ price point. *It is possible these projected sales would get smaller as*

more responses come in. There were twelve at this point in time. This is our sales % of market based on pitch.

If our brand has perfect success of brand identity, we could capture as much as 50% of the market with our game, even if it doesn't convince anybody who said they weren't interested. UAT students are susceptible to online advertising and word of mouth getting out about games to get them interested, and there's a lot we could potentially capture the interest of.

Cost Analysis

Team Cost

The team is composed of 19 members. We have 3 leads, 4 programmers, 6 designers, 5 artists, and 1 marketing person. I used the average salary statistics from Gamasutra's salary survey to pull the yearly salaries for each role. For leads, I gave them the same salary as a producer would earn, and for marketing, I used the average from Business/management roles. **The total cost for a 2-year employment period for this 19-person team is \$3,084,726.**

Software Costs

Gangs of Graffiti is being developed with Unity. Unity Pro has a monthly cost, but Unity itself also does not take royalties from games made using the engine. Every artist, as well as the lead artist, will have access to Autodesk software, including 3DS Max and Maya. While are using Google Drive (which is free) for managing the game and documents associated with it, I've factored in costs for Microsoft Office 365 as well. We're using Bitbucket for code management. In total, **our software costs are \$120,889.44 for a 2-year term.**

Marketing Costs

Our marketing budget is \$50,000. This figure is a rough one, but is taken from a [Gamasutra article](#) that breaks down the estimates for how much the time of developers is worth, as well as how much it might cost to outsource said work. I did not add this specific data to the metrics spreadsheet, only the overall price point. It covers branding, a trailer, a website, social media, a development blog, and PR. Some of this has already been started by the team (such as the website or the branding, but hasn't been given its own full attention.

Pricing Analysis

The game will see a **digital release on the platform itch.io**. The platform allows the seller to determine the price point for the game, as well as what percentage actually goes to itch.io. While we could in theory set this to nothing, I'm going to instead use the default number of 10% to give itch.io a fair cut. *Gangs of Graffiti* will be sold for **\$5 per unit**, and we're using a unit to mean one download. The platform handles payments via PayPal and Stripe, directing the buyer to handle it on the outside platform. For both of these payment platforms, there is a fee of \$0.30+2.9% per transaction. After those costs are factored in, **we make \$4.055 per game sold**. This number is our Unit Margin. Our cost per unit sold is relatively low, being only the vendor cut and payment processing fees, and have no royalties to pay to the game engine's creator. Our Unit Margin % is 1.233, which is quite close to our game's actual price- we give up less than 20% of our game's original price to outside groups.

Profit/Break Even Analysis

Our **total fixed cost for the game's production is \$3,255,615**, including tools and staff necessary to create and market the game. Since we do not have to pay to print or distribute games physically, we have low variable costs, which are costs that scale with each copy sold. **Our variable cost is \$0.945 per game sold.** With all of this known, we **need to sell 802,865 copies of *Gangs of Graffiti* to break even** on the amount of money sunk into staff, marketing, and tools. This equates to earning **\$4,014,325 in total revenue.**

While I do not have an explicit target profit as defined by team leads, I have created one that's a simple goal- to make enough to fund studio development for one more year, that way they could begin work on another game. It would require **to sell 1,385,237.00 copies to fund a third year of game development.** This equates to earning **\$5,617,133 in total revenue.**

Advertising Plan / Analysis

Our advertisements for *Gangs of Graffiti* are key to getting the word out about our game. It's important to note that we're starting from a disadvantage in two areas: one, we're an indie developer, and so we have to worry about getting the name of both Infinitive Studios and *Gangs of Graffiti* out there. Secondly, we're using the platform itch.io for distribution of our game- and since it's a platform meant for indie developers, we need to be able to stand out from the crowd. As learned in the Market report, most of our target audience (UAT students) don't browse the storefront on a regular basis.

Brand Identity

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As a precursor to all of this, we're going to begin a developer blog on Infinitive Games' website- and post blog posts to our social media as development progresses, sharing our major achievements and future developments. This isn't part of our advertising, but simply a part of

marketing our game. We should be posting at least twice a week- once on Monday, and once on Thursday. This helps us with our brand identity of being seen as a talented and small development group, and allowing fans and potential customers insight into the group's work.

Advertising Strategy

Because of the aforementioned factors, we need a very strong advertising strategy to get the word out about our game. UAT students were surveyed to be very susceptible to two ways to get them to buy games- the first one is online advertising, the second is positive word of mouth. We need to employ both of these together to craft a strong strategy.

Since our target market is UAT students, we need to use advertising to reach them in ways they're more likely to use. Since we're a PC game, we should be looking at ad platforms that are more likely to be related to where UAT students are spending their time. A mobile ad campaign, for example, wouldn't be very effective. We're going to employ a few different advertising styles. The first are basic banner ads- which will be targeted towards specific sorts of potential customers based on targeting. Secondly, we'll have a few "ads" on Reddit that are in fact posing as regular posts on the site.

Advertising Metrics

The Dorfman-Steiner Theorem holds that the contribution margin multiplied by the AED (advertising elasticity of demand) is the optimal level of advertising spending. Taking our existing Contribution Margin of .811 from the metrics report, and our AED of .364 and multiplying them together tells us that **we should be spending 0.295% of our sales on advertising**. This means we're going to need to sell a lot more games to meet our break-even point and target volume.

Our acquisition cost per customer is \$1.1958. This is calculated by taking our acquisition spending (\$1,656,544) and dividing it by number of customers acquired (1,385,237 is the target number of sales).

Advertising Solutions

Google Adwords

Google ads have a very easy strategy for us- we're doing banner ads like the one before- nothing terribly obtrusive, so no ads with sound or actions required. It gives us several options, but we'll be going with CPC for this- after all, we want a lot of impressions, but only want to pay for those that are willing to click onto our ad.

It is very hard to find a price quote for AdWords, as there is an auction-based system for advertisers that gets competitive in certain markets. The best data I could find for it says that AdWords were \$2.76 CPC in Q1 2018- but this price may have been a fluke, as it was had nearly spiked up 117% in a short time.

Reddit - Simulating “Word of Mouth”

As mentioned before, we plan to have “ads” on Reddit in the form of posts made to certain subreddits. Our social media manager or marketing people will start the accounts as development on the game starts- and then use them to submit comments and posts to Reddit as a normal account might, on a wide variety of subreddits. Said accounts can also be used to occasionally post to indie gaming subreddits for the appearance of authenticity.

While we cannot quite achieve the same effect word-of-mouth has in-person, we can do it through a medium such as Reddit. On Reddit, content can quickly become viral, and draw attention towards a product that normal advertising simply cannot. This is often called the “Reddit hug of death,” and sometimes websites or products will crash because of the high traffic Reddit drives towards it. Most traditionally advertised or promoted posts on Reddit won’t succeed to this level, but if it looks like it originated from a genuine user, it has a higher chance of success.

We want to have our team capture interesting gameplay moments or plays in multiplayer matches that can be turned into animated gifs or webm files for posting on the site to generate traction for the game. This would happen either post-release, or during the beta/development portion of our game when it is open for purchase. The only cost to this is time sunk into making the accounts look genuine, and making the videos for posting, themselves. Otherwise, this method of advertising is free.

Facebook Ads

Our Facebook ad strategy is fairly straight forwards. We want to have promotional material of gameplay that’s exciting to watch. People don’t care about our mechanics, they care about how the game plays- so we want them to think it’s something exciting to play with friends as our game identity suggests.

Facebook lets you do per-click, mille, like, and action as options for their ads. Because we’re not looking for the latter two, it was basically a choice between CPC and CPM. While either one could be an option, since our ads are a video, we mostly want to go for CPC- a customer who catches some of the video and decides to click through it. Those are more important to us than sheer numbers.

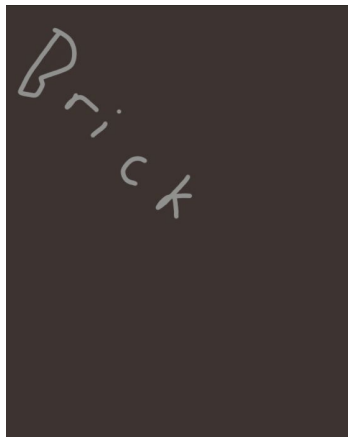
Facebook seems to offer some terribly specific ways of targeting ads at a specific demographic. For us, we're going to want to target males in Tempe/Phoenix under 30 with any two of the following interests:

- Game Development
- Indie games
- Shooters
- Video games
- Street art
- Graffiti

Unfortunately, Facebook can't outright tell me what our ad's CPC would be, as each one is different- higher-traffic keywords are more likely to cost more. The average CPC is 45 cents. Given that our specific focus is very specific, it may be even less than that.

Sample Ads

A sample advertisement will be an online ad that's a simple banner ad. The ad will be based on GoG and its painted style- paint is actually a key theme in the game. This helps express our game's art style- which is somewhat unique and a part of our brand identity. The below images help give an idea of what the ad progression should be like in animation- simply going from basic brick, to being spray painted over, and then having the game's logo revealed. Underneath the logo, a box can open and show a short video showcasing facets of gameplay- brief clips of shooting, tank play, and a panning shot of a level are important to have.



Advertisement 2

In the early days of mobile games, before microtransactions became prevalent, it was very common for games to release “lite” versions, which were essentially free demos, and then have full versions that could be purchased for a price from the app store. This was a fantastic way of getting a game out there- because any number of people could try out a game, decide they liked the core concept of it or the demo that they played, and then decide it was worth spending money on the full version. Since our game is priced at essentially the same price as a mobile game might be, it’s important we learn from that- and consider creating a “lite” or demo version of GoG as well. If we did that, we could have our advertisement clickthroughs lead to a site where the lite version of the game can be downloaded from. While some people may be put off by the fact that it’s not free, giving them the chance to try before they buy with a special demo version that has a small map made with pre-existing assets is an idea worthy of consideration. I do not have a mock-up for this advertisement, but the Neo Lotus City map has a number of back alleyways we could use to give players a taste of the full experience.

Financing Analysis - The Big “Ask”

After mulling over all this data- as well as the insane amount of money and copies we’ll have to sell, I decided to look at just one more bit of information to see about making our “ask” for how much money we’d need. Mike Rose is the founder of an indie publishing label called No More Robots and gave a GDC talk last year regarding game sales on Steam. While we’re not releasing on Steam, it paints a sobering look at the reality of indie game sales on the platform. This [PCgamer article](#) goes through the entire speech. Going through the slides reveals a few horrifying details about releasing on Steam- such as the fact that the average game on steam sells 1000 copies and makes \$10000 dollars in revenue, with an average price of 10\$.

In the speech, he even mentioned he got emails from developers saying their break even point was 200,000 units, and used it as a point of being a problem. For point of reference, *Gangs of Graffiti* would need to sell 802,865 units sold to break even... and we’re releasing on a platform not half as well known as Steam. In fact, only **16%** of our target audience even regularly buys games on that platform, and 50% either don’t use it or don’t know what it is. To put that number in better perspective, **we’d have to sell more copies of our game than Age of Wonders 3, Baldur’s Gate, Company of Heroes 2, and Final Fantasy XIII sold.**

I cannot put out an ask for millions of dollars that we’d need to make the game, knowing large our sales goal is and how much of our target audience even expressed interest in the game and its concept. Simply put: there is no way we could sell enough copies at our price point to break even, given the available data. An AAA game would be glad to sell 802,000 copies. According to Rose’ data (gathered from actual indie devs), **the average “good” game on steam will sell 2000 copies in its first month.** The average game makes \$30,000 in its first year on Steam.

Using that data point of 2000 and multiplying it by the amount of money we make per game (price minus variable cost of \$0.945) leaves us with making **\$8110 in our first month of release**. Even if we managed to sell enough copies to earn us the average, it just isn't enough. **Selling equity in our company would leave us all in debt to whatever investor made the choice to invest**. It's important to bear in mind we may have even fewer sales due to being on itch.io rather than Steam, which is where the base data came from originally.

This grim financing data is a reflection on a lot of factors- the size of the team, the production time, the price point, the storefront it's releasing on, the market for the game, the advertising cost. Most of all, though, it's also a reflection of the reality of indie development's current state- we can't pay a team like this a fair wage and release a game that will sell well at a price point like this.

Final Metric Spreadsheet

[The final chart with metrics and formulas on it can be viewed by clicking here.](#)

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