Making Money with Facebook Games

W.G. Paseman

It's not easy to make money on Facebook. People don't want to pay subscription fees for the chance to communicate with their friends. If Facebook charged something for access, people would migrate quickly to some alternative. Selling ads is the old standby for monetizing sites with high traffic, but ads have proven less effective on social networks[1] than, say, on search engines. When you're checking out your ex-girlfriend's new husband, you're probably just not paying ads that much attention.

One place, though, where money *is* being made on Facebook: games.

To better understand games on Facebook, I spoke with the founders of companies that have not only created social games, but have extended those games into the domains of pets, dating, and travel. Whether neophytes or veterans, these Game Makers use similar terms to describe their visions and the reasons for their success. In particular, they stress the importance of viewing Facebook as more than a social utility, and of using metrics[2] to understand their audiences and guide game development.

Facebook is great for Games

Mark Pincus is a Social Networking veteran. He was an angel funder of Napster, Friendster, and Facebook, and is now the CEO of Zynga, whose game "Texas Hold 'Em" is among the most popular on Facebook.

According to Mark, Social Networking is like a great cocktail party. A cocktail party is not great because you hang out with your best friends. It's great because you can connect with people in your network with whom you normally are unable to go out to dinner. And what's a fun thing to do at a cocktail party? Play games with both old friends and new acquaintances. Facebook enables this game play by providing its users easy access to applications (nothing to buy, nothing to install, one click invocation). This easy access enables Zynga to make games for people who wouldn't normally go out of their way to buy or play a game on their computer.

Zynga's games are targeted for the mass market, which is defined as a game that half of Internet users have played in the past month. By that definition, Electronic Arts and Nintendo operate in a small market. Games on Facebook, unlike those on consoles such as the Wii or Playstation, are easy for ordinary people to access, and cost nothing. Facebook is effectively frictionless, a platform blessed with countless cocktail parties and equipped with free games you can play with your friends and new acquaintances.

---

[1] This is reflected in a recent IDC study which states that only 57% of users of social networks have clicked on any online ad over the previous year, compared to 79% of the Web at large. Furthermore, ad click-throughs led to a purchase rate of 11% among social network users compared to 23% among the Web at large.

[2] Unsurprisingly, metrics are often what determine whether a web-based enterprise gets any audience with a potential financier. Financiers are usually good at math and have a lot of faith in metrics. Social networking metrics offer them the opportunity to quantify many unknown variables in the investment, and so quantify risk.

But Facebook has another characteristic that makes it well-suited for games. Unlike other social networks, Facebook was never a place where you could be anonymous. It made people connect to those they already knew via the names they knew them by. As a result, users playing games via Facebook are playing them with real people. Players put their real-life status, credibility and reputation on the line when they play them. That triggers an adrenaline rush not present when you are playing a robot or under an alias.

Metrics

Games succeed on Facebook. But, as a developer, how do you manage them and shepherd their growth? In a word: metrics. Mark blamed inexperience in metrics for the failure of Tribe, his first social networking venture. Now he says he manages his company in terms of what I call the four R's: Reach[3], Retention, Referral and Revenue[4]. A diagram relating these terms is shown below. Starting from the left, we mirror Zynga's population breakdown which is 40% on Facebook, 40% on MySpace and 20% on other Social networks. The population consists of "Players" in Blue and "Non- Players" in Orange. To the right of the population is the social context that players can play in. In practice, the context could be a physical landscape populated by wizards, warriors and monsters in a role playing game, or a "Friends For Sale" picture album, but here I model it as a casino.

---

[3] Dave McClure's has a similar methodology which subdivides Reach. http://500hats.typepad.com/
[4] Andrew Chen's methodology subdivides Revenue. http://andrewchenblog.com/

FaceBook – 40%
MySpace – 40%
Others – 20%
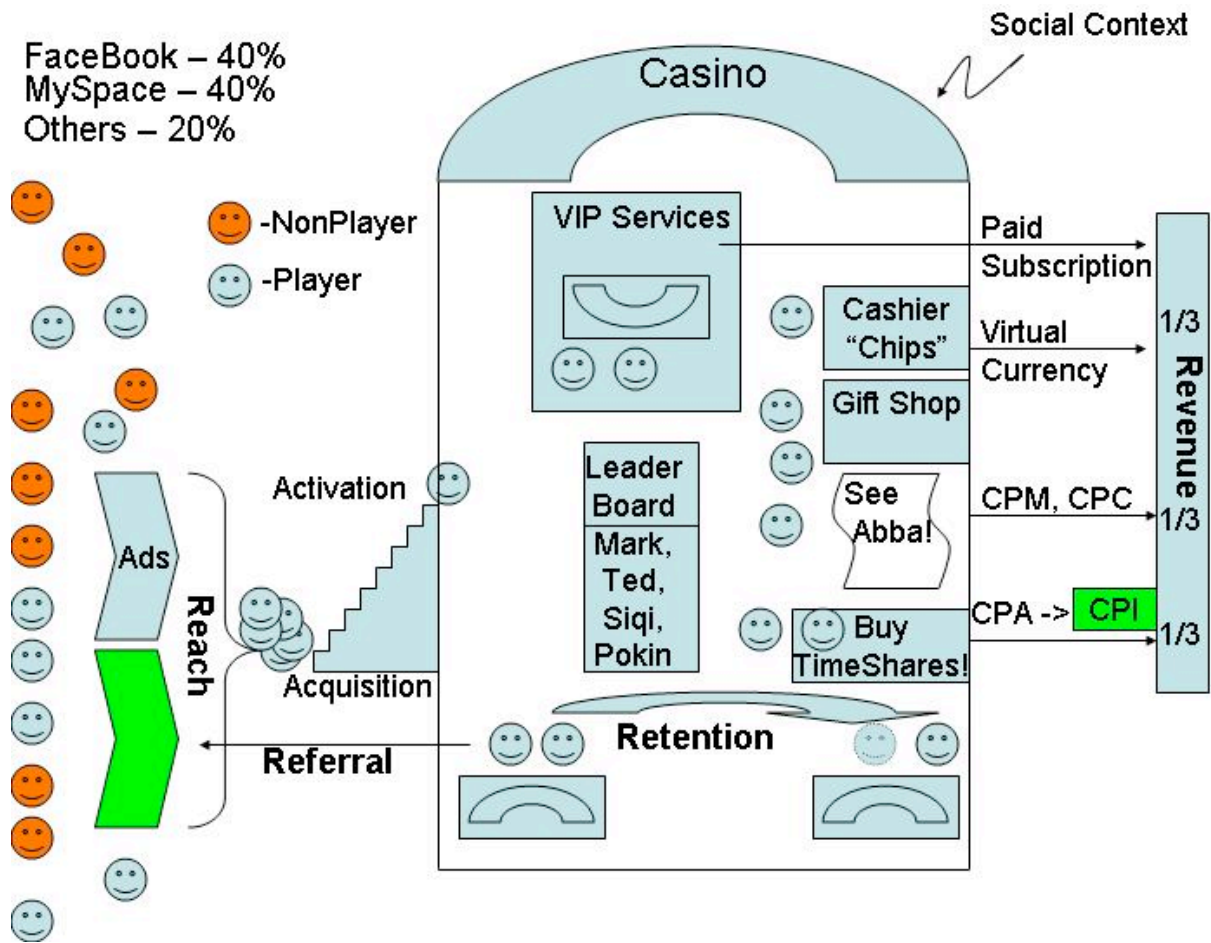
Reach

"Reach" is how many players Game Makers can attract, initially using Ads or direct email as an enticement. It is a function of:

- Market Size - the total number of people in the network.

- Target % - percentage of those potentially interested in the Game Maker's game

- Reach % - percentage of those reachable with an ad or an invitation

- Click Thru Rate - percentage of those responding to the ad or invitation by clicking it

- Sign Up Rate - percentage of those who sign up and play the first game

How this succession of metrics whittles away the total market is shown below.

Metric	Value	Aggregate	Aggregate Name
Market Size	100,000	100,000	Market Size (all orange and blue)
Target %	50%	50,000	Total Addressable Market (all blue)

Reach %	2%	1,000	Impressions (in brackets)
CTR(Click Thru Rate)	0.5%	5	Acquisition (bottom of the escalator)
Sign Up Rate	20%	1	Activation (inside the casino)

Retention

"Retention" is how many people stay to play. This is critical, since in most social games, people are the "content". Just as one goes back to a news page to see fresh news, one often goes back to a social game to get to know new people. The game maker gets this for "free" only if he can retain those who have joined.

Like a casino, Games use common techniques to keep players "indoors" as long as possible[5]. These techniques include "Encouraging Collecting" (e.g. pictures or trophies), "Giving Feedback" (e.g. notifications), "Facilitating Exchanges" (e.g. Gifts or comments), "Allowing Customization" (e.g. creating your own displayed image), and "Earning Points" (e.g. Currency or Game Levels)[6] Texas Hold 'Em for example has a competition every week or so with prizes for the winner. Imagine not only being able to watch Bravo's "Celebrity Poker Showdown" or ESPN's Poker tournaments, but being able to participate. From your bedroom. For Free. "Earning Points" is also supported by Leaderboards which show who has the highest scores across all games.

Referral

Retention enables Game Makers to use relationship referrals to extend Reach. The percentage of players who invite other people, times the average number of people they invite, times the percent who accept is called the game's "Viral factor". If the resulting number is greater than one, the game never stops growing! The "Viral factor" is a critical reason why Game Makers like Social Networks better than standalone gaming sites, and why Game Makers meticulously measure virality and all its components. If Game Makers can't advertise their game via referrals, then they usually buy Google ads[7], which are much more expensive. A travel app I reviewed recently had a 12/1 difference between its viral factor inside of Facebook and its website. This is "multi-level marketing" (think "Amway") on steroids. The 12/1 virality ratio means it costs Game Makers much less to run their operations on Facebook than on a standalone site. Virality also explains why, across all their games, Zynga has grown to 55 million registered users and 18 million monthly users between its founding in March 2007 and December 2008.

Facebook offers many different communication channels to send referrals information about the game. For example, Newsfeeds do not convert viewers into players very well for many games and sending invites via email is viewed as too "spammy", so games often send invitations using

---

[5] As Casino Marketeers phrase it. "Those who lose leave. Those who keep winning never go. That way, the money never leaves the casino."

[6] Amy Jo Kim , CEO of social games company Shufflebrain (http://shufflebrain.com), discusses these in more detail here: http://www.slideshare.net/amyjokim/fun-in-functional-2009-presentation?type=powerpoint

[7] After staff, Ads are often the biggest expense on the income statement in the early stages of the business. Operating costs (running the computers and paying for the bandwidth) take over Ad cost as player population and referrals grow.

Facebook "notifications"[8]. These different channels and rules for using them form a "Social Grammar" and are what make Facebook so powerful. For example, note that the diagram has real world analogs to all the concepts shown: Ads, Leaderboards, Tournaments, etc. But in the real world, even one with Twitter, a continuing IM stream of poker status updates ("Bill has just gone 'all in' on a pot of $10,000, and won!.") would be unforgivably intrusive. Yet this social behavior is acceptable in Facebook, results in increased conversion and engagement, and demonstrates Facebook's power as a communication tool.. Consumer Marketing tools are also used during the invitation stage of the process. A/B testing can be used to see if more people respond to game invitations if they are offered, for instance, a free Coke rather than a free Pepsi[9].

Revenue

Like placards on a casino wall (e.g. "See Abba!"), players are exposed to Banner (CPM) and Click (CPC) Ads within the Game, but not in such a way as to disturb play. And as Casinos have Vacation Timeshare Vendors (e.g. "Buy TimeShares!") in the Lobby, Social Games have special Vendors as well who will pay commissions (CPA) to the Game if they can help sell the product. The ratio between Chip sales, CPM/CPC and CPA revenue is 1:1:1 in Zynga. In some games, players may choose to pay extra (subscribe) to become a "VIP" and play in a special section of the casino with special players and other perks. Interestingly, Zynga has no subscription revenue. Perks are based on Chip sales. This "virtual currency" is also used for the purchase of gifts and is central to another Facebook game: "Friends for Sale".

Game Economics

Siqi Chen and Alex Le based "Friends For Sale" (FFS) on HotOrNot. HotOrNot is a site specific social network which allows people to upload their pictures and have others rate them as being "Hot or Not". Unlike traditional dating sites like Match or eHarmony, the site is edgier and the audience is younger. It became one of the first "Dating sites that was not a Dating site." The basic flow of HotOrNot is addictive (primarily to straight men) because interaction involves looking at a continuing stream of women and judging their attractiveness.

FFS improved on HotOrNot's concept by using the pictures already uploaded to Facebook, adding a Leaderboard, providing page customization (like MySpace) and replacing the ratings system with a "market economy"[10]. In particular, players rate pictures by bidding for them with FFS "money", with the highest bidder "owning" the picture within the game. Like single edition baseball cards, no two people can own the same picture, so "scarcity" is introduced. Relative value is determined by supply and demand. Also, since any amount can be bid, the "rating" is limited only by the money you have. In short, FFS introduced a virtual market economy.

---

[8] Both Facebook's Dave Morin and Friends For Sale's Siqi Chen mentioned they were surprised how notifications increased engagement.

[9] Note however that Facebook has discovered that incentivized invites discourage request acceptance. (Josh Elman)

[10] Intuition is at least as important as metrics in creating a successful company. However, intuition can be helped along with a little knowledge of history as well. Friends for Sale has used a "Tried and true" method of making money in Software by taking an idea that worked well in one environment, and transplanting it to another. Other examples include DB2, a successful PC database program, which was a port of a mainframe DB program to the PC and Lotus 1-2-3's primary component: a spreadsheet, was a reimplementation of VisiCalc's spreadsheet, available originally only on the Apple II.

When FFS first instituted their economy, a player offered the company $10,000 for 1,000,000 points. FFS at the time was concerned about "game purity" and said "no". The player then bribed the top FFS players with cameras, iPods, and iPhones, and shortly became the #1 ranked player in the game. This was good in that it showed FFS how to make money. It was bad in that it illustrated the lack of control FFS had over its own game.

This issue of controlling a virtual economy is not new. Massive Multiplayer Role Playing Games such as "World of Warcraft" (WOW) first dealt with such concerns, including:

- How does the player get game currency? In FFS, one gets a daily allowance. One can also invite friends or take a survey (wretched things, which ultimately require that the player gets currency only if they give up their email address in order to get spammed later). One can also pay cash, which leads to:

- What can the player use the currency to buy? In Texas Hold 'em, one uses it to bet. In FFS, one uses it to buy pictures. In both, it can be used to buy "virtual goods" such as pictures of flowers for women in FFS and "virtual beers" for other players in Texas Hold 'Em.

- How are items priced? FFS uses scarcity and ever increasing prices to drive both revenue and behavior.

- What is the exchange rate between "real" currency, game currency and game ranking (which requires time mastering the game)? FFS combines game ranking and currency. Zynga splits them. In WOW, the ratios were such that Chinese labor was once famously recruited to create game assets, such as furniture, suits of armor and entire characters which were sold on Ebay. As of December 2008, the Texas Hold Em's "chip" exchange rate varied from $20 for 100,000 chips to $100 for 750,000 chips.

- How does the game deal with inflation? FFS levies a sales tax. However, item prices tend to get priced higher and higher and then no longer trade at all. As such, there needs to be ways to put money in circulation, to take it out of circulation, and to adjust prices.

- How does the game deal with fraud. Wherever a lot of money changes hands, criminals pop up. There are "counterfeit" chip sales sites, phishers who scam credit card numbers, etc. Zynga has somewhere between 5 and 15% of its staff time dedicated to dealing with this issue.

The Game Maker's Game[11]

Game Makers view all these as pieces as part of a big game that requires continual tending and constant tuning. Key elements of this Game are shown below. Metrics drive both Costs and Revenue. For Example, "Paying Users" drive "Total Revenue" and "Total Users" drive "Total Costs".

"Turn"		Week1	Week2
Metrics	New Paying Users	100	100
	Old Paying Users	0	80
	New Non-Paying Users	900	900
	Old Non-Paying Users	0	800
	Total Users	1,000	1,880
Revenue	Subscription	$10	$18
	Virtual Currency	$200	$360
	CPM/CPC	$200	$360
	CPA	$200	$360
	CPI	$0	$0
	Total Revenue	$610	$1,098
Cost of Acquisition	Mkting-Ads	($1,000)	($700)
	Mkting-Referrals	$0	$300
Cost of Service	R&D	($100)	($100)
	Operations	($100)	($200)
	Total Costs	($1,200)	($1000)
Revenue - Costs		($590)	$98

Looking at the "Week1" column, we see the Game Maker has lost $590.. In Week2, he tweaked the system based on player feedback. Note that he has lost 20 paying users and 100 non-paying users in the time period. Operations Cost has gone up. However, he was able to reduce "Cost of Acquisition" since referrals did the same work as $300 worth of Ads.

The Game Maker views the beginning of each week as a new turn at the game, and checks the spreadsheet at the end of the week to see his Score ("Revenue – Costs", Number of Users, Number of Paying Users). Each week the Game Maker has to make tradeoffs. Non-paying users slow down the system, but they provide content and the Micro-Marketing notifications they produce are used to offset marketing costs. Spending more on Ads and adding "sign on" incentives increases Reach but decreases cash flow. Adding more features increases development (R&D) cost, but Retention and Revenue will suffer if the game is not continually compelling. Ultimately, the Game Maker performs a balancing act, making sure that his costs do not exceed the Lifetime Revenue he gets from all his players.

Cautionary Tails

Given the amazing viral growth, some application developers have tried adding game elements to Facebook applications in order to draw users to non-gaming brands and non-gaming sites.

---

[11] Alternately "The Persuasion Machine"

One of these was the Ted Rheingold's Dogster, a very successful Social Networking Pets site which had middling Facebook success at best. In Ted's words, "The biggest mistake was not having team members addicted to Facebook well in advance of deciding what to build."

Immersion in the culture seems a prerequisite for most successful decisions with this media[12]. A recent Burger King "Whopper Sacrifice" campaign, in which Facebook users earned free Whoppers if they deleted 10 friends, was a perfect example of a persuasive technology—but even more interesting for its lack of penetration into the Facebook user base. Social pressures might have stopped it in its tracks; perhaps a free Whopper for adding 10 friends would have had much greater success.

I believe a different miscalculation led to the demise of one of the most popular games on Facebook: Scrabulous, a "Scrabble" clone. In May of 2008, Scrabulous had 600,000 daily active users. The owner of the Scrabble trademark subsequently sued the developers, drove them to shut down United States access to their application, and introduced their own official game. The replacement has yet to achieve 1/30 of the original traffic. Almost certainly, a better strategy would have been for the trademark holder to approach Scrabulous and cut a deal. Scrabulous was reportedly only netting the developers about $20,000/month anyway. The trademark holder had an opportunity to speak to a whole new generation of players 600,000 times a day—an opportunity now lost.

In closing, it is worthwhile to note that "frictionless" entry has a downside. In the "early adopter" internet a user had to overcome a lot of friction to join a community and so *really* wanted to be a part of it. As such, the amount of money the Game Maker can make from the "early adopter" is probably greater than the money Game Maker can make from a "mainstream" FaceBook player[13]. In the words of Dogster's Ted Rheingold "a user isn't worth what it used to be". That is also why more businesses are being pitched by consumer products marketers, not programmers. As Facebook enters the mainstream, it is people who can already persuade people to buy liquor, cigarettes and perfume who best understand this "Game Maker's Game" and how to make money from it.

---

[12] In "Genome", the author describes how language forms in conquered societies. First, the conquered adults form a "pidgin" mixing their own language and the language of the conquerors. Though this allows communication, the first real language is a "creole" formed by the children of the conquered, who are not only able to assimilate both languages but form a grammar around it while their early language development skills are still intact. One can see similar technical languages forming when young children use cell phones, and more relevantly here, attempt to extend the social conversation.

[13] "The virality of Web 2.0 has had one very negative side effect: the devaluation of unique users as a metric for selling advertising," says Roger McNamee, managing director and co-founder of private equity firm Elevation Partners.